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Subj: MARINE AIR COMMAND AND CONTROL SYSTEMS MAINTENANCE TRAINING AND
READINESS MANUAL

Ref: (a) NAVMC 3500.14E

Encl: (1) MACCS Maintenance T&R Manual

1. Purpose. Per the reference, Enclosure (1) provides revised training and readiness (T&R) standards, regulations, and policy regarding the training of Marine Air Command and Control Systems personnel.

2. Cancellation. NAVMC 3500.128.

3. Scope. Highlights of major T&R planning considerations included in this Manual are as follows:

a. Chapter 1. Crew size requirements for the Marine Air Traffic Control 5950 military occupational specialties (MOS) have been reduced. This revision allows for a more attainable readiness reporting metric.

b. Chapter 5. All 5948 MOS Long Range Radar events have been removed from the Manual to coincide with the sun-down of the AN/TPS-59 Radar system.

c. Chapters 8 and 9

(1) The MarineNet course addressing Equipment Grounding Systems has been added as a prerequisite to the culminating event leading to the designation of Collateral Duty Inspector (CDI).

(2) The event DESG-6105 Collateral Duty Quality Assurance Representative (CDQAR) has been added as a prerequisite for the Radar Chief designation.

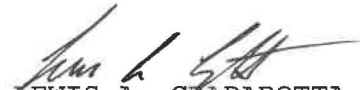
d. Chapter 10. The event DESG-6105 CDQAR has been added as a prerequisite for Communications Chief designation.

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4. Information. Commanding General (CG), Training and Education Command (TECOM) will update this T&R Manual as necessary to provide current and relevant training standards to commanders. All questions pertaining to this Manual should be directed to: CG, TECOM, Policy and Standards Division (C 466), 1019 Elliot Road, Quantico, Virginia 22134.

5. Command. This Manual is applicable to the Marine Corps Total Force.

6. Certification. Reviewed and approved this date.



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By direction
Commanding General,
Training and Education Command

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CHAPTER 1
MARINE AIR COMMAND AND CONTROL SYSTEM MAINTENANCE
TRAINING AND READINESS UNIT REQUIREMENTS

	<u>PARAGRAPH</u>	<u>PAGE</u>
TRAINING AND READINESS REQUIREMENTS	1.0	1-3
MISSION	1.1	1-3
TABLE OF ORGANIZATION (T/O)	1.2	1-3
MISSION ESSENTIAL TASK LIST (METL)	1.3	1-5
MISSION ESSENTIAL TASK (MET) TO SIX FUNCTIONS OF MARINE AVIATION	1.4	1-6
MET TO CORE/MISSION/CORE PLUS/MISSION PLUS SKILL MATRIX.	1.5	1-8
MISSION ESSENTIAL TASK (MET) OUTPUT STANDARD	1.6	1-12
CORE MODEL MINIMUM REQUIREMENT (CMMR) TRAINING STANDARDS FOR READINESS REPORTING (DRRS-MC)	1.7	1-23
INSTRUCTOR DESIGNATIONS	1.8	1-31
CERTIFICATIONS, QUALIFICATIONS, AND DESIGNATIONS (CQD)	1.9	1-33

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CHAPTER 1
MARINE AVIATION COMMAND AND CONTROL SYSTEMS MAINTENANCE
TRAINING AND READINESS UNIT REQUIREMENTS

1.0 TRAINING AND READINESS REQUIREMENTS. The goal of Marine Aviation is to attain and maintain combat readiness to support expeditionary maneuver warfare while conserving resources. The standards established in this program are validated by subject matter experts to maximize combat capabilities for assigned mission essential tasks (MET). These standards describe and define unit capabilities and requirements necessary to maintain proficiency in mission skills and combat leadership. Training events are based on specific requirements and performance standards to ensure a common base of training and depth of combat capability.

1.1 MISSION.

1.1.1 Marine Tactical Air Command Squadron (MTACS). Provide equipment, maintenance, and operations for the Tactical Air Command Center (TACC) of the Aviation Combat Element (ACE), as a component of the Marine air ground task force (MAGTF). Equip, man, operate, and maintain the current operations section of the TACC. Provide and maintain a facility for the TACC, and install and maintain associated command and control tactical systems.

1.1.2 Marine Air Support Squadron (MASS). Provide direct air support center (DASC) capabilities for control and coordination of aircraft operating in direct support of the MAGTF.

1.1.3 Marine Air Control Squadron (MACS). Provide air surveillance and control of friendly aircraft and surface-to-air weapons in support of offensive air support and anti-air warfare, continuous all-weather radar, non-radar, tower air traffic control services, airspace management, and meteorological and oceanographic (METOC) services in support of the MAGTF and Joint Force Commander.

1.2 TABLE OF ORGANIZATION (T/O). Refer to TO/E reports managed by Total Force Structure for current authorized organizational structure and personnel strength. Information below depicts the Marine Air Command and Control Systems (MACCS) Maintenance T/O information for the units as of the date of this directive. This Core Model Minimum Requirement (CMMR) reflects one maintenance crews capable of sustaining 24-hour operations.

UNIT	AGENCY	5902	5910	5970	5939	5948	5950	5951	5952	5953	5954	5959	5974	5979	5993
MTACS 18	TACC	1	0	1	9	0	0	0	0	0	0	0	11	9	1
MTACS 28	TACC	1	0	1	9	0	0	0	0	0	0	0	11	9	1
MTACS 38	TACC	1	0	1	9	0	0	0	0	0	0	0	11	9	1
MTACS 48	TACC	0	0	1	2	0	0	0	0	0	0	0	3	2	1
MASS 1	DASC	1	0	1	24	0	0	0	0	0	0	0	8	8	1
MASS 2	DASC	1	0	1	24	0	0	0	0	0	0	0	8	8	1
MASS 3	DASC	1	0	1	24	0	0	0	0	0	0	0	8	8	1
MASS 6 REAR	DASC	1	0	1	7	0	0	0	0	0	0	0	3	3	0
MASS 6 FWD	DASC	0	0	0	2	0	0	0	0	0	0	0	1	2	0
MACS 1	HQ	1	0	0	0	0	0	0	1	2	0	1	0	0	1
	TAOC	0	1	1	6	22	0	0	0	0	0	0	7	6	2
	EWC	0	1	0	5	15	0	0	0	0	0	0	7	7	0
MACS 1 Det A	ATC	0	0	0	0	0	1	3	9	10	10	1	0	0	0
MACS 1 Det B	ATC	0	0	0	0	0	1	3	9	10	10	1	0	0	0
MACS 1 Det C	ATC	0	0	0	0	0	1	3	9	10	10	1	0	0	0
MACS 2	HQ	1	0	0	0	0	0	0	1	2	0	1	0	0	1
	TAOC	0	1	1	6	22	0	0	0	0	0	0	7	6	2
	EWC	0	1	0	5	15	0	0	0	0	0	0	7	7	0
MACS 2 Det A	ATC	0	0	0	4	6	1	3	9	10	10	1	6	6	0
MACS 2 Det B	ATC	0	0	0	0	0	1	3	9	10	10	1	0	0	0
MACS 2 Det C	ATC	0	0	0	0	0	1	3	9	10	10	1	0	0	0
MACS 24	HQ	1	0	0	0	0	0	0	2	2	0	0	0	0	0
	TAOC	0	1	0	1	8	0	0	0	0	0	0	2	3	0
	EWC	0	0	0	2	2	0	0	0	0	0	0	1	1	0
MACS 24 Det A	ATC	0	0	0	0	0	0	1	5	6	3	1	0	0	0
MACS 4	HQ	1	0	0	0	0	0	0	1	2	0	1	0	0	1
	TAOC	0	1	1	6	22	0	0	0	0	0	0	7	6	2
MACS 4 Det A	ATC	0	0	0	0	0	1	3	9	10	10	1	0	0	0
MACS 4 Det B	ATC	0	0	0	0	0	1	3	9	10	10	1	0	0	0

1.3 **MISSION ESSENTIAL TASK LIST (METL).** The METL is comprised of specified capabilities-based METs which a unit is designed to execute. METs are drawn from the Marine Corps Task List (MCTL), are standardized by type unit, and defined as core or core plus METs. Core METs are those tasks that a unit is expected to execute at all times, and are the only METs used in reporting the Training Level (T-Level) for the core mission (C-Level) in the Defense Readiness Reporting System – Marine Corps (DRRS-MC). Core plus METs identify additional capabilities to support missions or plans which are limited in scope, theater specific, or have a lower probability of execution. Core plus METs may be included in readiness reporting when contained within an assigned mission METL. An assigned mission METL consists of only selected METs (drawn from core and core plus METs) necessary to conduct the assigned mission. MCO 3000.13 provides additional information on readiness reporting.

MARINE AVIATION COMMAND AND CONTROL SYSTEMS MAINTENANCE		
MISSION ESSENTIAL TASK LIST (METL)		
MARINE TACTICAL AIR COMMAND SQUADRON (MTACS)		
CORE		
MET	ABBREVIATION	MCT DESCRIPTION
5.3.5.1.1	AIRDIR	CONDUCT AIR DIRECTION IN CURRENT OPERATIONS
5.3.2.7.5	TINF	PROVIDE TACC INFRASTRUCTURE
5.3.5.3.5	AIRMAN	CONDUCT AIRSPACE MANAGEMENT IN CURRENT OPERATIONS
5.1.2.2.1	DCTP	DISPLAY AND DISSEMINATE THE COMMON TACTICAL PICTURE
5.5.7	JCOP	CONDUCT JOINT AND/OR COMBINED OPERATIONS
CORE PLUS		
5.5.8	ACAO	CONDUCT AVIATION C2 IN AMPHIBIOUS OPERATIONS
5.5.9	C2TOA	ENABLE C2 OPERATIONS FOR TASK ORGANIZED ACE
MARINE AIR SUPPORT SQUADRON (MASS)		
CORE		
MET	ABBREVIATION	MCT DESCRIPTION
5.3.5.3.1	CAM	CONDUCT AIRSPACE MANAGEMENT
5.3.5.3.3	IAS	PROCESS REQUESTS FOR IMMEDIATE AIR SUPPORT
5.3.5.3.4	DASO	CONDUCT CONTINUOUS DIRECT AIR SUPPORT OPERATIONS WHILE ECHELONING
5.3.5.4.3	PCON	CONDUCT PROCEDURAL CONTROL
5.3.5.6	DACO	COORDINATE AVIATION OPERATIONS WITH AREA OF OPERATIONS FIRESUPPORT COORDINATION MEASURES
CORE PLUS		
5.3.2.7.2.2	BDAS	CONDUCT BEYOND LINE OF SIGHT (BLOS) DIRECT AIR SUPPORT OPERATIONS
5.3.2.7.2.3	DASAMO	CONDUCT DIRECT AIR SUPPORT FUNCTIONS DURING AMPHIBIOUS OPERATIONS
MARINE AIR CONTROL SQUADRON (MACS TAOC)		
CORE		
MET	ABBREVIATION	MCT DESCRIPTION
5.3.5.3.2	SURV	CONDUCT AIRSPACE SURVEILLANCE
5.3.5.4.1	CTRL	CONDUCT POSITIVE CONTROL
6.1.1.7.2	ADACT	COORDINATE AIR DEFENSE ACTIONS
6.1.1.7.3	DSOPS	CONDUCT DUAL SITE AIR DEFENSE CAPABILITIES
CORE PLUS		
6.1.1.7.1	ADCAPS	INTEGRATE OPERATIONAL AIR DEFENSE CAPABILITIES
MACS (ATC)		
CORE		

MET	ABBREVIATION	MCT DESCRIPTION
5.3.5.4.1.2	TWR	PROVIDE AIR TRAFFIC CONTROL (ATC) TOWER SERVICES
5.3.5.4.1.4	MMT	PROVIDE MARINE ATC MOBILE TEAM (MMT) SERVICES
5.3.5.4.1.5	APC	PROVIDE AIR TRAFFIC CONTROL (ATC) APPROACH SERVICES
5.3.5.4.1.6	ADC	PROVIDE AIR TRAFFIC CONTROL (ATC) ARRIVAL/DEPARTURE SERVICES
5.3.5.8	C2	CONDUCT METEOROLOGICAL AND OCEANOGRAPHIC (METOC) OPERATIONS
5.3.5.8.1	MST	CONDUCT METOC SUPPORT TEAM OPERATIONS

1.4 MISSION ESSENTIAL TASK (MET) TO SIX FUNCTIONS OF MARINE AVIATION.

MARINE AVIATION COMMAND AND CONTROL SYSTEMS MAINTENANCE							
MISSION ESSENTIAL TASK LIST (METL)							
MET	ABBREVIATION	SIX FUNCTIONS OF MARINE AVIATION					
		OAS	ASPT	AAW	EW	CoA&M	AerRec
MTACS							
CORE							
5.3.5.1.1	AIRDIR	X	X	X	X	X	X
5.3.2.7.5	TINF					X	
5.3.5.3.5	AIRMAN	X	X	X	X	X	X
5.1.2.2.1	C2SYS					X	
5.1.3.1.1	DCTP	X	X	X	X	X	X
5.5.7	JCOP					X	
CORE PLUS							
5.5.8	ACAO					X	
5.5.9	C2TOA					X	
MASS							
CORE							
5.3.5.3.1	CAM	X	X			X	X
5.3.5.3.3	IAS	X	X		X	X	X
5.3.5.3.4	DASO	X	X			X	X
5.3.5.4.3	PCON	X	X			X	X
5.3.5.6	DACO	X	X		X	X	X
CORE PLUS							
5.3.2.7.2.2	BDAS		X			X	
5.3.2.7.2.3	DASAMO		X			X	
MACS (TAOC)							
CORE							
5.3.5.3.2	SURV	X	X	X		X	
5.3.5.4.1	CTRL	X	X	X		X	
6.1.1.7.2	ADACT	X	X	X		X	
6.1.1.7.3	DSOPS	X	X	X		X	

CORE PLUS							
6.1.1.7.1	ADCAPS	X	X	X		X	
MACS (ATC)							
CORE							
5.3.5.4.1.2	TWR					X	
5.3.5.4.1.4	MMT					X	
5.3.5.4.1.5	APC					X	
5.3.5.4.1.6	ADC					X	
5.3.5.8	C2	X	X	X	X	X	X
5.3.5.8.1	MST	X	X	X	X	X	X

1.5 MET TO CORE/MISSION/CORE PLUS/MISSION PLUS SKILL MATRIX. Depicts the relationship between a MET and each core/mission/core plus/mission plus skill associated with the MET for readiness reporting and resource allocation purposes.

MARINE AVIATION COMMAND AND CONTROL SYSTEMS MAINTENANCE CORE/MISSION/COREPLUS SKILL TO MISSION ESSENTIAL TASK (MET) MATRIX													
TACC 2000 CORE SKILL													
MET	EM	SCC											
5.3.5.1.1	X	X											
5.3.2.7.5	X	X											
5.3.5.3.5	X	X											
5.1.2.2.1	X	X											
5.1.3.1.1	X	X											
5.5.7	X	X											
TACC 3000 MISSION SKILL													
MET	RNA	VDA	ACCC	SM	TDSM	C2SA	SA	TBMCS A	NETAD	DLA	C2N M	SIM	
5.3.5.1.1	X	X	X	X	X	X	X	X	X	X	X	X	
5.3.2.7.5	X	X	X	X	X	X	X	X	X	X	X	X	
5.3.5.3.5	X	X	X	X	X	X	X	X	X	X	X	X	
5.1.2.2.1	X	X	X	X	X	X	X	X	X	X	X	X	
5.1.3.1.1	X	X	X	X	X	X	X	X	X	X	X	X	
5.5.7	X	X	X	X	X	X	X	X	X	X	X	X	
TACC 4000 CORE PLUS SKILL													

MET	AVC OMM	MMG T											
5.5.8	X	X											
5.5.9	X	X											
DASC 2000 CORE SKILL													
MET	EM	SCC											
5.3.5. 3.1	X	X											
5.3.5. 3.3	X	X											
5.3.5. 3.4	X	X											
5.3.5. 4.3	X	X											
5.3.5. 6	X	X											
DASC 3000 MISSION SKILL													
MET	RNA	VDA	ACCC	SM	TDSM	C2SA	SA	TBMCS A	NETAD	DLA	C2N M	SIM	
5.3.5. 3.1	X	X	X	X	X	X	X	X	X	X	X	X	
5.3.5. 3.3	X	X	X	X	X	X	X	X	X	X	X	X	
5.3.5. 3.4	X	X	X	X	X	X	X	X	X	X	X	X	
5.3.5. 4.3	X	X	X	X	X	X	X	X	X	X	X	X	
5.3.5. 6	X	X	X	X	X	X	X	X	X	X	X	X	
DASC 4000 CORE PLUS SKILL													
MET	AVC OMM	MMG T											
5.3.2. 7.2.2	X	X											
5.3.2. 7.2.3	X	X											
TAOC 2000 CORE SKILL													

MET	BEM	BSET	MRRCO	MRRET	IEM												
6.1.1.7.2	X	X	X	X	X												
6.1.1.7.3	X	X	X	X	X												
5.3.5.3.2	X	X	X	X	X												
5.3.5.4.1	X	X	X	X	X												
TAOC 3000 MISSION SKILL																	
MET	RNA	VDA	ACCC	SM	AEM	AMRRET	MRRCC	TDSM	C2SA	SA	NA	TBMCSA	NETAD	DLA	C2NM	SIM	
6.1.1.7.2	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
6.1.1.7.3	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
5.3.5.3.2	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
5.3.5.4.1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
TAOC 4000 CORE PLUS SKILL																	
MET	MMGT	AVCOMM															
6.1.1.7.2	X	X															
6.1.1.7.3	X	X															
5.3.5.3.2	X	X															
5.3.5.4.1	X	X															
MATC 2000 CORE SKILL																	
MET	BEM	SEC	FUND	MA	TECH	RAD	NET										
5.3.5.4.1.2	X	X	X	X	X	X	X										
5.3.5.4.1.4	X	X	X	X	X	X	X										

5.3.5. 4.1.5	X	X	X	X	X	X	X									
5.3.5. 4.1.6	X	X	X	X	X	X	X									
5.3.5. 8	X	X	X	X	X	X	X									
5.3.5. 8.1																
MATC 3000 MISSION SKILL																
MET	DEPL	OPLN	TECH	FUND	MMTM	DEPL44	DEPL47	DEPL47 V2	SURV	MA	DEP L IFR	DTS	NET	MMGT	NAV CHIEF	
5.3.5. 4.1.2	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
5.3.5. 4.1.4	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
5.3.5. 4.1.5	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
5.3.5. 4.1.6	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
5.3.5. 8	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
5.3.5. 8.1																
MATC 4000 CORE PLUS SKILL																
MET	NAV	MMG T	COMM	IADS												
5.3.5. 4.1.2	X	X	X	X												
5.3.5. 4.1.4	X	X	X	X												
5.3.5. 4.1.5	X	X	X	X												
5.3.5. 4.1.6	X	X	X	X												
5.3.5. 8	X	X	X	X												
5.3.5. 8.1																
MATC 4000 MISSION PLUS SKILL																
MET	MMG T	DEPL	AV COMM	SYSAD	CONFI G	COMM										

5.3.5. 4.1.2	X	X	X	X	X	X	
5.3.5. 4.1.4	X	X	X	X	X	X	
5.3.5. 4.1.5	X	X	X	X	X	X	
5.3.5. 4.1.6	X	X	X	X	X	X	
5.3.5. 8	X	X	X	X	X	X	
5.3.5. 8.1							

1.6 **MISSION ESSENTIAL TASK (MET) OUTPUT STANDARDS.** The following MET output standards are the required level of performance a UNIT OR T/M/S must be capable of sustaining during contingency operations by MET to be considered MET-ready.

AVIATION COMMAND AND CONTROL SYSTEMS MAINTENANCE			
TACC CORE METL OUTPUT STANDARDS			
MCT	MET	OUTPUT STANDARD	TOTAL CMMR CREWS
5.1.2.2.1	Establish, Maintain, and Operate Aviation C2 Systems	Able to establish a help desk and troubleshoot local area network issues.	1
		Able to establish and maintain single channel communications.	
		Able to establish, maintain, and operate fires, chat, and friendly force tracking systems of record as required.	
		Able to establish, maintain, and operate the aviation C2 system server.	
5.1.3.1.1	Display and Disseminate Common Tactical Picture (CTP)	Able to coordinate data link connectivity between MACCS and Joint/Combined/coalition/host nation/C2 agencies.	1
		Able to maintain a connection to HHQ'S CTP and receive the ground tactical	

		picture, maritime tactical picture, and map overlays.	
		Able to manage the ACE's air tactical picture.	
		Able to provide the ACE's CTP to HHQ.	
		Able to update the Battle Command Display.	
5.3.2.7.5	Provide Tactical Air Command Center (TACC) Infrastructure	Able to establish voice and data connectivity with subordinate MACCS agencies and HHQ, joint, and coalition forces.	1
		Able to provide equipment and facilities for COPS, FOPS, FPLANS, and ACI for the ACE CMDR and the battlefield staff to plan, execute MAGTF air operations.	
5.3.5.1.1	Conduct Air Direction in Current Operations	Able to coordinate the recovery of isolated personnel and aircraft.	1
		Able to coordinate air defense operations of MACCS agencies with external agencies.	
		Able to coordinate theater missile defense operations with external agencies.	
		Able to manage MAGTF air assets in support of the close, rear, and deep battle areas.	
		Able to monitor the equipment status and operational posture of MACCS agencies.	

		Able to monitor, supervise, and direct the control of aircraft and missiles by subordinate MACCS agencies.	
		Air support requests processed in accordance with the MAGTF and ACE Commander's priorities.	
		Coordinate the establishment and dissemination of AIR Defense Warning Conditions (ADWCs) and Weapons Control Statuses (WCS)	
		Current ATO missions executed in accordance with the MAGTF and ACE Commander's priorities, to include changing or altering pre-schedule missions as required.	
5.5.7	Conduct Joint and /or Combined Air Operations	Able to coordinate air operations with joint/combined/coalition/host nation command and control agencies.	1
		Able to coordinate airspace deconfliction procedures.	
		Able to integrate joint and coalition requirements into the COPS floor.	
		Able to integrate joint/combined/coalition/host nation command and control elements into TACC current operations.	
TACC CORE PLUS METL OUTPUT STANDARDS			

MCT	MET	OUTPUT STANDARD	TOTAL CMMR CREWS
5.5.8	Conduct AviationC2 in Amphibious Operations	Able to augment the Navy Tactical Air Control Center as required.	1
		Able to build into an appropriate sized Marine Tactical Air Command Center when required by the OPLAN and mission.	
		Able to establish a Tactical Air Direction Center ashore as required.	
		Able to take control of ACE current operations when required.	
5.5.9	Enable C2 Operations for a Task Organized ACE	Able to augment C2 equipment shortfalls as required.	1
		Able to augment COC communications deficiencies as required.	
		Able to provide TBMCS functionality as required.	
		Able to provide infrastructure as required.	
		Able to task organize the Current Operations cell to properly augment the COC.	
DASC CORE METL OUTPUT STANDARDS			
MCT	MET	OUTPUT STANDARD	TOTAL CMMR CREWS
5.3.5.3.1	Conduct Airspace Management	Able to establish / maintain communications.	1

		Able to integrate all airspace users within assigned airspace during Operational Tempo 3 IAW DASC T&R.	
		Able to receive, develop and process changes to airspace control procedures.	
		Able to receive, pass, and utilize applicable information from appropriate airspace documents.	
5.3.5.3.3	Process Requests For Immediate Air Support	Able to establish / maintain communications.	1
		Able to receive / process updates and required mission reports during Operational Tempo 3 IAW DASC T&R.	
		Able to receive / send immediate air support requests and mission data during Operational Tempo 3 IAW DASC T&R.	
		Able to validate and assign or recommend sourcing for immediate air support requests during Operational Tempo 3 IAW DASC T&R.	
5.3.5.3.4	Conduct Continuous Direct Air Support Operations While Echeloning	Able to conduct tactical movement in conjunction with ground scheme of maneuver.	1
		Able to displace and emplace with organic capabilities.	
		Able to pass control of direct air support operations.	
		Passing and receiving agencies able to conduct 24 hour operations.	

5.3.5.4.3	Conduct Procedural Control	Passing and receiving agencies able to establish / maintain communications.	1
		Passing and receiving agencies able to provide limited self-defense capabilities with organic crew served weapons systems.	
		Passing and receiving agencies possess and disseminate passage of control procedures / checklist.	
5.3.5.6	Coordinate Aviation Operations With Area Of Operations Fire Support Coordination Measures	Able to establish / maintain communications.	1
		Able to provide appropriate aircraft routing through DASC airspace IAW published operational documents during Operational Tempo 3 IAW DASC T&R.	
		Able to receive / process mission reports from air assets.	
		Able to receive and pass assigned missions and updates to air assets in DASC airspace during Operational Tempo 3 IAW DASC T&R.	
DASC CORE PLUS METL OUTPUT STANDARDS			
MCT	MET	OUTPUT STANDARD	TOTAL CMMR CREWS
5.3.2.7.2.2	Conduct Beyond Line of Sight Direct Air Support Operations	Establish / maintain beyond line of sight (BLOS) communications.	1
		Plan beyond line of sight (BLOS) direct air support operations.	
5.3.2.7.2.3	Conduct Direct Air Support Functions	Able to pass / receive control of direct air support operations.	1

	During Amphibious Operations	Maintain communication between higher and adjacent command and control (C2) agencies.	
		Plan direct air support in support of amphibious operations.	
TAOC CORE METL OUTPUT STANDARDS			
MCT	MET	OUTPUT STANDARD	TOTAL CMMR CREWS
5.3.5.3.2	SURV	Disseminate Air/Ground Surveillance information to adjacent, higher, subordinate agencies and aircraft.	1
		Detect and track aircraft and missiles with organic sensor.	
		Conduct combat identification which support engagement decisions.	
		Conduct sustained operations.	
5.3.5.4.1	CTRL	Provide air control IAW MEF/MAW sustained sortie generation rates.	1
		Provide sustained operations.	
6.1.1.7.2	ADACT	Provide sustained operations.	1
		Provide threat warning via sensors(s).	
		Provide management and control of AAW aircraft engagements, expenditures, and employment IAW MEF/MAW sortie generation rates.	

		Provide management of GBAD engagements, expenditures, and employment.		
6.1.1.7.3	DSOPS	Provide sustained operations at two sites.	1	
TAOC CORE PLUS METL OUTPUT STANDARDS				
MCT	MET	OUTPUT STANDARD	TOTAL CMMR CREWS	
6.1.1.7.1	ADCAPS	Plan and /or manage air defense operations for the assigned region/sector.	1	
		Plan or manage the interface control cell for assigned region / sector.		
		Provide sustained operations.		
MATC CORE METL OUTPUT STANDARDS				
MCT	MET	OUTPUT STANDARD	MACS 1/2/4	MACS 24
5.3.5.4.1.2	TWR	Able to provide accurate survey data and develop terminal instrument procedures in conjunction with NAVFIG.	1	
		Able to provide sustained (2) main air bases or air facilities with ATC tower services.		
		Able to provide sustained integration with the MACCS, other military command and control (C2) agencies, and civilian entities to include the Federal Aviation Administration (FAA) and International Civil Aviation Organization (ICAO).		

		Able to provide sustained navigational guidance.	
5.3.5.4.1.4	MMT	Able to provide navigational guidance.	1
		Able to provide sustained integration with the MACCS, other military command and control (C2) agencies, and civilian entities to include the Federal Aviation Administration (FAA) and International Civil Aviation Organization (ICAO).	
		Able to support MMT services at (4) remote air sites or points.	
5.3.5.4.1.5	APC	Able to provide accurate survey data and develop terminal instrument procedures in conjunction with NAVFIG.	1
		Able to provide sustained (1) main air base or air facility with ATC approach and enroute radar services.	
		Able to provide sustained integration with the MACCS, other military command and control (C2) agencies, and civilian entities to include the Federal Aviation Administration (FAA) and International Civil Aviation Organization (ICAO).	
		Able to provide sustained navigational guidance.	

		Able to provide sustained radar air surveillance data to the MAGTF or joint force via tactical data link.	
5.3.5.4.1.6	ADC	Able to provide accurate survey data and develop terminal instrument procedures in conjunction with NAVFIG.	1
		Able to provide precision/non-precision approaches within a terminal area.	
		Able to provide sustained (1) main air base or air facility with ATC arrival/departure control radar services.	
		Able to provide sustained integration with the MACCS, other military command and control (C2) agencies, and civilian entities to include the Federal Aviation Administration (FAA) and International Civil Aviation Organization (ICAO).	
		Able to provide sustained navigational guidance.	
		Able to provide sustained radar air surveillance data to the MAGTF or joint force via tactical data link.	
5.3.5.8	C2	Able to coordinate METOC operations with external agencies.	1
		Able to monitor the equipment status and operational posture of METOC activities.	

		Able to monitor, supervise, and direct METOC operations by subordinate METOC elements.	
		Able to provide direct support and sustain 2 main air bases or air facilities with METOC services.	
		Able to provide sustained integration and collaboration with the Marine Corps Information Environment Enterprise (MCIEE), other military METOC activities and civil METOC entities.	
		Able to provide sustained meteorological support in all-weather conditions.	
		Coordinate the establishment and dissemination of Weather Warning, Watches, and Advisories (WWAs).	
5.3.5.8.1	MST	Able to coordinate METOC operations with external agencies.	N/A
		Able to provide sustained meteorological support in all weather conditions.	
		Able to support MST services at (4) remote operating bases, or remote air sites or points.	
		Coordinate the establishment and dissemination of Weather Warning, Watches and Advisories (WWAs).	

1.7 CORE MODEL MINIMUM REQUIREMENT (CMMR) SKILLS PROFICIENCY REQUIREMENTS. The CMMR is the optimum number of crew personnel, per crew position, to be trained per stage as detailed below.

TACC										
CORE MODEL MINIMUM REQUIREMENT (CMMR) FOR READINESS REPORTING										
CORE										
MET	ABBR	Crew Position							Formed Crews per MET	
		5939	5939	5939	5939	5939	5939	5974	SQDN	RES
5.1.2.2.1	EMOA	ACCC, RNA, VDA	SM	EM	ACCC, RNA, VDA	SM	EM	TDSM, TBMCSA, C2SA	1	1
5.1.3.1.1	DDCTP	ACCC, RNA, VDA	SM	EM	ACCC, RNA, VDA	SM	EM	TDSM, TBMCSA, C2SA	1	1
5.3.2.7.5	TACC	ACCC, RNA, VDA	SM	EM	ACCC, RNA, VDA	SM	EM	TDSM, TBMCSA, C2SA	1	1
5.5.5.1.1	CADCO	ACCC, RNA, VDA	SM	EM	ACCC, RNA, VDA	SM	EM	TDSM, TBMCSA, C2SA	1	1
5.3.5.3.5	CAMCO	ACCC, RNA, VDA	SM	EM	ACCC, RNA, VDA	SM	EM	TDSM, TBMCSA, C2SA	1	1
5.5.7	CJCAO	ACCC, RNA, VDA	SM	EM	ACCC, RNA, VDA	SM	EM	TDSM, TBMCSA, C2SA	1	1
		5974	5974	5974	5974	5974	5979	5979		
5.1.2.2.1	EMOA	SA	EM	TDSM, TBMCSA, C2SA	SA	EM	C2NM, DLA, EM	NA		
5.1.3.1.1	DDCTP	SA	EM	TDSM, TBMCSA, C2SA	SA	EM	C2NM, DLA, EM	NA		
5.3.2.7.5	TACC	SA	EM	TDSM, TBMCSA, C2SA	SA	EM	C2NM, DLA, EM	NA		
5.5.5.1.1	CADCO	SA	EM	TDSM, TBMCSA, C2SA	SA	EM	C2NM, DLA, EM	NA		
5.3.5.3.5	CAMCO	SA	EM	TDSM, TBMCSA, C2SA	SA	EM	C2NM, DLA, EM	NA		
5.5.7	CJCAO	SA	EM	TDSM, TBMCSA, C2SA	SA	EM	C2NM, DLA, EM	NA		

		5979	5979	5979	5979																
5.1.2.2.1	EMOA	EM	C2NM, DLA, EM	NA	EM																
5.1.3.1.1	DDCTP	EM	C2NM, DLA, EM	NA	EM																
5.3.2.7.5	TACC	EM	C2NM, DLA, EM	NA	EM																
5.5.5.1.1	CADCO	EM	C2NM, DLA, EM	NA	EM																
5.3.5.3.5	CAMCO	EM	C2NM, DLA, EM	NA	EM																
5.5.7	CJCAO	EM	C2NM, DLA, EM	NA	EM																
						CORE PLUS														Formed Crews Per MET	
MET	ABBR	5939	5939	5939	5939	5939	5939	5974	5974	5974	5974	5974	5974	SQDN	RES						
5.5.8	C2AO	ACCC, RNA, VDA	SM	EM	ACCC, RNA, VDA	SM	EM	TDSM, TBMCSA, C2SA	SA	EM	TDSM, TBMCSA, C2SA	SA	EM	1	1						
5.5.9	C2TOACE	ACCC, RNA, VDA	SM	EM	ACCC, RNA, VDA	SM	EM	TDSM, TBMCSA, C2SA	SA	EM	TDSM, TBMCSA, C2SA	SA	EM	1	1						
CORE PLUS								Formed Crews Per MET													
MET	ABBR	5979	5979	5979	5979	5979	5979	SQDN	RES												
5.5.8	C2AO	C2NM, DLA, NA, EM	NA	EM	C2NM, DLA, NA, EM	NA	EM	1	1												
5.5.9	C2TOACE	C2NM, DLA, NA, EM	NA	EM	C2NM, DLA, NA, EM	NA	EM	1	1												
COMBAT LEADERSHIP																					

DESIGNATIONS	SQDN	
DSMO	1	
EMC	1	
SCC	1	

DASC										
CORE MODEL MINIMUM REQUIREMENT (CMMR) FOR READINESS REPORTING										
CORE										
MET	ABBR	Crew Position							Formed Crews per MET	
		5939	5939	5939	5939	5939	5939	5939	Sqdn	Reserve
5.3.5.3.1	CAM	ACCC, RNA, VDA	SM	EM	ACCC, RNA, VDA	SM	EM	ACCC, RNA, VDA	1	1
5.3.5.3.3	IAS	ACCC, RNA, VDA	SM	EM	ACCC, RNA, VDA	SM	EM	ACCC, RNA, VDA	1	1
5.3.5.3.4	DASO	ACCC, RNA, VDA	SM	EM	ACCC, RNA, VDA	SM	EM	ACCC, RNA, VDA	1	1
5.3.5.4.3	PCON	ACCC, RNA, VDA	SM	EM	ACCC, RNA, VDA	SM	EM	ACCC, RNA, VDA	1	1
5.3.5.6	CAOFSCM	ACCC, RNA, VDA	SM	EM	ACCC, RNA, VDA	SM	EM	ACCC, RNA, VDA	1	1
		5939	5939	5939	5939	5939	5974	5974		
5.3.5.3.1	CAM	SM	EM	ACCC, RNA, VDA	SM	EM	TDSM, C2SA	SA		
5.3.5.3.3	PRIAS	SM	EM	ACCC, RNA, VDA	SM	EM	TDSM, C2SA	SA		
5.3.5.3.4	DASE	SM	EM	ACCC, RNA, VDA	SM	EM	TDSM, C2SA	SA		
5.3.5.4.3	CPC	SM	EM	ACCC, RNA, VDA	SM	EM	TDSM, C2SA	SA		
5.3.5.6	AOFSCM	SM	EM	ACCC, RNA, VDA	SM	EM	TDSM, C2SA	SA		
		5974	5974	5974	5974	5979	5979	5979		
5.3.5.3.1	CAM	EM	TDSM, C2SA	SA	EM	C2NM, DLA	NA	EM		

DASC												
CORE MODEL MINIMUM REQUIREMENT (CMMR) FOR READINESS REPORTING												
CORE												
5.3.5.3.3	PRIAS	EM	TDSM, C2SA	SA	EM	C2NM, DLA	NA	EM				
5.3.5.3.4	DASE	EM	TDSM, C2SA	SA	EM	C2NM, DLA	NA	EM				
5.3.5.4.3	CPC	EM	TDSM, C2SA	SA	EM	C2NM, DLA	NA	EM				
5.3.5.6	AOFSCM	EM	TDSM, C2SA	SA	EM	C2NM, DLA	NA	EM				
		5979	5979	5979								
5.3.5.3.1	CAM	C2NM, DLA	NA	EM								
5.3.5.3.3	PRIAS	C2NM, DLA	NA	EM								
5.3.5.3.4	DASE	C2NM, DLA	NA	EM								
5.3.5.4.3	CPC	C2NM, DLA	NA	EM								
5.3.5.6	AOFSCM	C2NM, DLA	NA	EM								
CORE PLUS												
5.3.2.7.2.2	BLOS											
5.3.2.7.2.3	DASAO											
COMBAT LEADERSHIP												
DESIGNATIONS		DASC										
DSMO		1										
EMC		1										
SCC		1										

TAOC										
CORE MODEL MINIMUM REQUIREMENT (CMMR) FOR READINESS REPORTING										
CORE										
MET	ABBR	Crew Position							Formed Crews per MET	
		5939	5939	5939	5939	5939	5939	5939	SQDN	RES
5.3.5.3.2	SURV	ACCC, RNA, VDA	SM	EM	ACCC, RNA, VDA	SM,	EM		1	1

TAOC										
CORE MODEL MINIMUM REQUIREMENT (CMMR) FOR READINESS REPORTING										
CORE										
5.3.5.4.1	CTRL	ACCC, RNA, VDA	SM	EM	ACCC, RNA, VDA	SM,	EM		1	1
6.1.1.7.2	ADACT	ACCC, RNA, VDA	SM	EM	ACCC, RNA, VDA	SM,	EM		1	1
6.1.1.7.3	DSOPS	ACCC, RNA, VDA	SM	EM	ACCC, RNA, VDA	SM,	EM	ACCC, RNA, VDA	1	1
		5939	5939	5939	5939	5939	5948	5948		
5.3.5.3.2	SURV						MRRCC, AMRRET, MRRET, MRRCO	AEM		
5.3.5.4.1	CTRL						MRRCC, AMRRET, MRRET, MRRCO	AEM		
6.1.1.7.2	ADACT						MRRCC, AMRRET, MRRET, MRRCO	AEM		
6.1.1.7.3	DSOPS	SM	EM	ACCC, RNA, VDA	SM	EM	MRRCC, AMRRET, MRRET, MRRCO	AEM		
		5948	5948	5948	5974	5974	5974	5974		
5.3.5.3.2	SURV	IEM, BSET	BEM, MRRCO	BSET	TDSM, C2SA, SA	SA	EM	TDSM, C2SA, SA		
5.3.5.4.1	CTRL	IEM, BSET	BEM, MRRCO	BSET	TDSM, C2SA, SA	SA	EM	TDSM, C2SA, SA		
6.1.1.7.2	ADACT	IEM, BSET	BEM, MRRCO	BSET	TDSM, C2SA, SA	SA	EM	TDSM, C2SA, SA		
6.1.1.7.3	DSOPS	IEM, BSET	BEM, MRRCO	BSET	TDSM, C2SA, SA	SA	EM	TDSM, C2SA, SA		
		5974	5974	5974	5974	5974	5974	5974		
5.3.5.3.2	SURV	SA	EM							
5.3.5.4.1	CTRL	SA	EM							
6.1.1.7.2	ADACT	SA	EM							

TAOC										
CORE MODEL MINIMUM REQUIREMENT (CMMR) FOR READINESS REPORTING										
CORE										
6.1.1.7.3	DSOPS	SA	EM	TDSM, C2SA, SA	SA	EM	TDSM, C2SA	SA		
		5974	5979	5979	5979	5979	5979	5979		
5.3.5.3.2	SURV		C2NM, DLA, NA, EM	NA	EM	C2NM, DLA	NA	EM		
5.3.5.4.1	CTRL		C2NM, DLA, NA, EM	NA	EM	C2NM, DLA	NA	EM		
6.1.1.7.2	ADACT		C2NM, DLA, NA, EM	NA	EM	C2NM, DLA	NA	EM		
6.1.1.7.3	DSOPS	EM	C2NM, DLA	NA	EM	C2NM, DLA	NA	EM		
		5979	5979	5979	5979	5979	5979			
5.3.5.3.2	SURV									
5.3.5.4.1	CTRL									
6.1.1.7.2	ADACT									
6.1.1.7.3	DSOPS	C2NM, DLA	NA	EM	C2NM, SIM, DLA	NA	EM			
CORE PLUS										
MET	ABBR	Crew Position							Formed Crews per MET	
		CM1	CM2	CM3	CM4	CM5	CM6	CM7	SQDN	RES
6.1.1.7.1	ADCAPS								1	1

COMBAT LEADERSHIP	
DESIGNATIONS	SQDN
ARMO	1
DSMO	1*
EMC	2
SCC	1

* Note: The EWC does not have a DSMO.

MATC															
CORE MODEL MINIMUM REQUIREMENT (CMMR) FOR READINESS REPORTING															
CORE															
		5951	5951	5951	5951	5952	5952	5952	5952	5952	5952	5952	5952	5952	5952
5.3.5.4.1 .4	MMT					MMTM	MMTM	MMTM	MMTM						
5.3.5.4.1 .2	TWR									FUND 47	FUND, TECH, MA	FUND 47	FUND, TECH, MA	FUND 47	FUND 47
5.3.5.4.1 .5	APC									FUND 47	FUND, TECH, MA,	FUND 47	FUND TECH, MA	FUND 47	FUND 47
5.3.5.4.1 .6	ADC									FUND , 47	FUND, TECH, MA	FUND, 47	FUND, TECH, MA	FUND 47	FUND 47
5.3.5.8	C2	TECH DEPL OPLN	FUND TECH SEC	TECH DEPL OPLN	FUND TECH SEC										
5.3.5.8.1	MST														
		5953	5953	5953	5953	5953	5953	5953	5953	5953	5953	5953	5953	5953	5953
5.3.5.4.1 .4	MMT														
5.3.5.4.1 .2	TWR														

MATC																
CORE MODEL MINIMUM REQUIREMENT (CMMR) FOR READINESS REPORTING																
CORE																
5.3.5.4.1 .5	APC	FUND TECH RADO	FUND	FUND TECH A NET SURV	FUND TECH	FUND	FUND TECH	FUND								
5.3.5.4.1 .6	ADC								FUND TECH, RADO	FUND	FUND TECH MA NET SURV	FUND TECH	FUND	FUND TECH	FUND	
5.3.5.8	C2															
5.3.5.8.1	MST															
		5954	5954	5954	5954	5954	5954	5954	5954	5954	5954	5954	5954	5954	5954	
5.3.5.4.1 .4	MMT	MMTM	MMTM	MMTM	MMTM											
5.3.5.4.1 .2	TWR					FUND TECH, A, DT	FUND	FUND								
5.3.5.4.1 .5	APC								FUND TECH A DIFR	FUND	FUND					
5.3.5.4.1 .6	ADC											FUND TECH A DIFR	FUND	FUND		
5.3.5.8	C2															
5.3.5.8.1	MST															
CORE PLUS																
MET		Crew Position							Formed Crews per MET							
		CM1	CM2	CM3	CM4	CM5	CM6	CM7	SQDN	RES						
COMBAT LEADERSHIP																
MAINT CHIEF		2														
MAINT OFFICER		2														

1.8 INSTRUCTOR DESIGNATIONS (5000 Phase).

INSTRUCTOR DESIGNATIONS					
INSTRUCTOR	TACC	DASC	TAOC	MATC	FLC
BI	6	6	8	7	
SI	5	5	11	9	
WTI	2	2	3		
FLCI	0	0	0	0	

MARINE AVIATION COMMAND AND CONTROL SYSTEMS MAINTENANCE								
INSTRUCTOR DESIGNATIONS								
TACC								
INSTRUCTOR	5902	5970	5939	5974	5979	5993		
BASIC INSTRUCTOR	0	0	2	2	2	0		
SENIOR INSTRUCTOR	0	1	1	1	1	0		
WEAPONS AND TACTICS INSTRUCTOR	1	0	0	0	0	1		
FORMAL LEARNING CENTER INSTRUCTOR	0							
DASC								
INSTRUCTOR	5902	5970	5939	5974	5979	5993		
BASIC INSTRUCTOR	0	0	2	2	2	0		
SENIOR INSTRUCTOR	0	1	1	1	1	0		
WEAPONS AND TACTICS INSTRUCTOR	1	0	0	0	0	1		
FORMAL LEARNING CENTER INSTRUCTOR	0							
TAOC								
INSTRUCTOR	5902	5910	5970	5939	5948	5974	5979	5993
BASIC INSTRUCTOR	0	0	0	2	2	2	2	0
SENIOR INSTRUCTOR	0	1	1	2	2	2	2	1
WEAPONS AND TACTICS INSTRUCTOR	1*	0	0	0	0	0	0	1^
FORMAL LEARNING CENTER INSTRUCTOR	0							

MATC							
INSTRUCTOR	5902	5950	5951	5952	5953	5954	5959
BASIC INSTRUCTOR	0	0	1	2	2	2	
SENIOR INSTRUCTOR	0	1	1	2	2	2	1
WEAPONS AND TACTICS INSTRUCTOR	1*	0	0	0	0	0	1^
FORMAL LEARNING CENTER INSTRUCTOR	0						

* MACS S-6 Officer fills the WTI role for both TAOC and MATC.

^Denotes MGySgt at Squadron HQ.

1.9 CERTIFICATIONS, QUALIFICATIONS, AND DESIGNATIONS (CQD) (6000 Phase).

CERTIFICATIONS, QUALIFICATIONS, AND DESIGNATIONS (CQD) 6000 PHASE								
TACC								
CERTIFICATIONS								
CREW COMPOSITION	MOS							
	5902	5970	5939	5974	5979	5993		
	Cyber Security Workforce Technical Support	0	0	0	0	0		0
	Cyber Security Workforce System Administration	0	0	0	0	0		0
	Cyber Security Workforce IT Specialist	0	0	0	0	0		0
DESIGNATIONS								
Data Systems Maintenance Officer (DSMO)	0	1	0	0	0	0	*NOTE: Designation numbers denoted with an * can be filled by any individual with that MOS.	
Electronics Maintenance Chief (EMC)	0	0	0	0	0	1		
Systems Configuration Coordinator (SCC)	0	0	0	1*		0		
DASC								
CERTIFICATIONS								
CREW COMPOSITION	MOS							
	5902	5970	5939	5974	5979	5993		
	Cyber Security Workforce Technical Support	0	0	0	0	0		0
	Cyber Security Workforce System Administration	0	0	0	0	0		0
	Cyber Security Workforce IT Specialist	0	0	0	0	0		0
DESIGNATIONS								
Data Systems Maintenance Officer (DSMO)	0	1	0	0	0	0		
Electronics Maintenance Chief (EMC)	0	0	0	0	0	1		

Systems Configuration Coordinator (SCC)	0	0	0	1*	0	
TAOC						
CERTIFICATIONS						
CREW COMPOSITION	MOS					
	5902	5910	5939	5948	5970	5974 5979 5993
Cyber Security Workforce Technical Support	0	0	0	0	0	0 0 0
Cyber Security Workforce System Administration	0	0	0	0	0	0 0 0
Cyber Security Workforce IT Specialist	0	0	0	0	0	0 0 0
DESIGNATIONS						
Electronics Maintenance Chief (EMC)	0	0	0	0	0	0 0 2
Data Systems Maintenance Officer (DSMO)	0	0	0	0	1	0 0 0
Aviation Radar Maintenance Officer (ARMO)	0	1	0	0	0	0 0 0
Systems Configuration Coordinator (SCC)	0	0	0	0	0	1* 0
MATC						
CERTIFICATIONS						
CREW COMPOSITION	MOS					
	5950	5951	5952	5953	5954	5959 ^NOTE: Only 1 designation is required per detachment.
Cyber Security Workforce Technical Support	1^					
Cyber Security Workforce System Administration	1^					
Cyber Security Workforce IT Specialist	1^					
COMBAT LEADERSHIP (By Detachment)						
	5950	5951	5952	5953	5954	5959 *NOTE: Can be filled by any MOS regardless of rank.
Maintenance Officer (MO)	1	0	0	0	0	0
Maintenance Chief (MC)	0	1*				

CHAPTER 2

ELECTRONICS MAINTENANCE OFFICER AVIATION COMMAND AND CONTROL
(MOS 5902) / TRAINING AND READINESS REQUIREMENTS

	<u>PARAGRAPH</u>	<u>PAGE</u>
CREWMEMBER T&R SYLLABUS REQUIREMENTS	2.0	2-3
TRAINING PROGRESSION MODEL	2.1	2-3
PROGRAMS OF INSTRUCTION (POI)	2.2	2-3
PROFICIENCY AND CURRENCY	2.3	2-3
CERTIFICATION, QUALIFICATION, AND DESIGNATION TABLES.	2.4	2-4
SYLLABUS NOTES	2.5	2-4
CORE INTRODUCTION PHASE (0000)	2.6	2-5
CORE PHASE (2000)	2.7	2-5
MISSION PHASE (3000)	2.8	2-6
CORE PLUS PHASE (4000)	2.9	2-6
MISSION PLUS PHASE (4500)	2.10	2-6
INSTRUCTOR TRAINING PHASE (5000)	2.11	2-6
CERTIFICATION, QUALIFICATION AND DESIGNATIONS (CQD) PHASE (6000) . . .	2.12	2-11
MISSION ESSENTIAL TASK (MET) PHASE (7000).	2.13	2-16
AVIATION CAREER PROGRESSION MODEL (8000)	2.14	2-30
T&R SYLLABUS MATRIX.	2.15	2-47

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CHAPTER 2

ELECTRONICS MAINTENANCE OFFICER AVIATION COMMAND AND CONTROL (MOS 5902)/INDIVIDUAL TRAINING AND READINESS REQUIREMENTS

2.0 CREWMEMBER T&R SYLLABUS REQUIREMENTS. This T&R Syllabus is based on specific goals and performance standards designed to track proficiency in Core Phase and Mission Phase skills. The goal of this chapter is to develop individual and unit warfighting capabilities.

2.1 TRAINING PROGRESSION MODEL. This model represents the recommended average training progression for the Electronics Maintenance Officer Aviation Command and Control. Units should use the model as a point of departure to generate individual training plans. Marines are not required to hold the 5902 MOS to begin the syllabus.

MOS 5902 TRAINING PROGRESSION MODEL	
	5902 MAINTENANCE OFFICER
5910/5950/5970 MAINTENANCE OFFICER	
186	240

2.2 5902 PROGRAMS OF INSTRUCTION (POI).

2.2.1 General. These tables reflect average time-to-train versus the minimum to maximum time-to-train parameters in the Training Progression Model.

2.2.2 Basic POI. N/A.

2.2.3 Refresher POI. N/A.

2.3 PROFICIENCY AND CURRENCY.

2.3.1 Event Proficiency. Event proficiency is defined as successful completion of the performance standard as determined by the instructor or evaluator. Event completion is predicated upon demonstrated proficiency. Once completed, it is logged in M-SHARP by entering the appropriate event code. M-SHARP automatically updates the event proficiency date to reflect the completion date.

2.3.2 Skill Proficiency. Proficiency is a measure of achievement of a specific skill. To attain individual skill proficiency, an individual must be simultaneously proficient in all events for that phase. Individuals may be attaining proficiency in some skills while maintaining proficiency in others. Refresher training is required once an individual has been absent from a technician billet for 36 months or longer. Upon return, the individual will complete R-coded events.

2.3.2.1 Maintaining Skill Proficiency. Once attained, skill proficiency is maintained by executing those events which have a Proficiency Period (Maintain events). Proficiency Periods establish the maximum time between event

demonstration. Should proficiency be lost in any maintain event, for a specific phase, that skill proficiency is temporarily lost. Skill proficiency can be re-attained by again demonstrating proficiency in the event(s) that are not proficient. For flying communities, an individual shall complete delinquent events with a proficient instructor, crewman/flight lead as delineated by the T/M/S Syllabus Sponsor (see Chapter 3 of the Program Manual on specific instructor requirements for Low Altitude Flight, Night Systems, ACM, DM, DACM, DCM, FAC(A)).

2.3.2.2 Loss of Individual Skill Proficiency. Should an individual lose proficiency in all maintain events in a skill, the individual will be assigned to the Refresher POI for the skill. To regain skill proficiency, the individual must demonstrate proficiency in all R-coded events for the skill.

2.3.2.3 Loss of Unit Skill Proficiency. If an entire unit loses proficiency in an event, unit instructors shall regain proficiency by completing the event with an instructor from a like unit. If not feasible, the instructor shall regain proficiency by completing the event with another instructor. For flying communities, if a unit has only one instructor and cannot complete the event with an instructor from another unit, the instructor shall regain proficiency with another aircraft commander or as designated by the commanding officer.

2.3.2.4 Proficiency Status. Proficiency is a “Yes/No” status by phase assigned to an individual. When an individual attains and maintains Core Phase Proficiency, Mission Phase Proficiency, Core Plus Phase Proficiency, or Mission Plus Phase Proficiency, the individual may count towards CMMR or CMTS.

2.3.3 Currency. Currency is a control measure used to provide an additional margin of safety based on exposure frequency to a particular skill and applies to all MOS’s that must comply with NATOPS and OPNAV requirements. It is a measure of time since the last event demanding that specific skill. Specific currency requirements for aircrew individual type mission profiles can be found in Chapter 3.

2.4 CERTIFICATION, QUALIFICATION, AND DESIGNATION TABLES. The tables below delineate T&R events required to be completed to attain proficiency for designations. In addition to event requirements, all required stage lectures, briefs, squadron training, prerequisites, and other criteria shall be completed prior to completing final events. Designation letters signed by the commanding officer shall be placed in training Performance Records and NATOPS. See Chapter 6 of the Aviation T&R Program Manual on regaining lost qualifications.

2.4.1 INSTRUCTOR DESIGNATIONS.

MOS 5902 INSTRUCTOR DESIGNATIONS	
INSTRUCTOR DESIGNATION	EVENTS
SENIOR INSTRUCTOR (SI)	5000, 5010, 5020, 5100, 5110, 5120, 5130
WEAPONS AND TACTICS INSTRUCTOR (WTI)	6000, 6321, 8000, 8001, 8002, 8003, 8004, 8005, 8006, 8008, 8020, 8021, 8022, 8023, 8024, 8025, 8026, 8027, 8028, 8040, 8041, 8042, 8043, 8044, 8080, 8081, 8082, 8083, 8084, 8085, 8086, 8087, 8088

2.4.2 CERTIFICATIONS, QUALIFICATIONS, AND DESIGNATIONS. N/A.

2.5 SYLLABUS NOTES.

2.5.1 Environmental Conditions Matrix.

Environmental Conditions	
Code	Meaning
(N)	May be conducted day or night. If at night, may be aided or unaided.

2.5.2 Device Matrix.

DEVICE	
Symbol	Meaning
L	Conducted using Unit T/E equipment.
L/S	Live preferred/Simulator optional.
G	Ground/academic training. May include Distance Learning, CBT, lectures, self paced.

2.5.3 Program of Instruction Matrix.

PROGRAM OF INSTRUCTION MATRIX		
Program of Instruction (POI)	Symbol	Aviation Ground
Basic	B	Initial MOS Training
Refresher	R	Return to community from non (MOS/Skill) associated tour
Maintain	M	All individuals who have attained CSP/MSP/CPD by initial POI assignment are re-assigned to the M POI to maintain proficiency.

2.5.4 Event Terms.

EVENT TERMS	
TERM	DESCRIPTION
Discuss	An explanation of systems, procedures, or tactics during the brief, exercise, or debrief. Student is responsible for knowledge of procedures.
Demonstrate	The description and performance of a particular event by the instructor, observed by the student. The student is responsible for knowledge of the procedures prior to the demonstration of a required event.
Introduce	The instructor may demonstrate a procedure or event to a student, or may coach the student through the maneuver without demonstration. The student performs the procedures or maneuver with coaching as necessary. The student is responsible for knowledge of the procedures.
Practice	The performance of a maneuver or procedure by the student that may have been previously introduced in order to attain a specified level of performance.
Review	Demonstrated proficiency of an event by the student.
Evaluate	Any event designed to evaluate team/crew standardization that does not fit another category.

2.6 CORE INTRODUCTION PHASE (0000)

2.6.1 Purpose. **RESERVED FOR FUTURE USE.**

2.6.2 General.

2.6.2.1 Admin Notes. None.

2.6.2.2 Prerequisite.

2.6.2.3 Stages.

2.7 CORE PHASE (2000)

2.7.1 Purpose. **RESERVED FOR FUTURE USE.**

2.7.2 General.

2.7.2.1 Admin Notes.

2.7.2.2 Prerequisite.

2.7.2.3 Stages.

2.8 MISSION PHASE (3000)

2.8.1 Purpose. **RESERVED FOR FUTURE USE.**

2.8.2 General.

2.8.2.1 Admin Notes.

2.8.2.2 Prerequisite.

2.8.2.3 Stages. The following stages are included in the Mission Phase.

2.9 CORE PLUS PHASE (4000)

2.9.1 Purpose. **RESERVED FOR FUTURE USE.**

2.9.2 General.

2.9.2.1 Admin Notes.

2.9.2.2 Prerequisite.

2.9.2.3 Stages.

2.10 MISSION PLUS PHASE (4500)

2.10.1 Purpose. **RESERVED FOR FUTURE USE.**

2.10.2 General.

2.10.2.1 Admin Notes.

2.10.2.2 Prerequisite.

2.10.2.3 Stages.

2.11 INSTRUCTOR TRAINING PHASE (5000)

2.11.1 Purpose. The MACCS instructor concept is a means to standardize all instructors across the MACCS in regards to the concepts of managing a WTTP, properly conducting training, performing evaluations, and recommending training plans. Upon completion of the required training, an individual may be approved for instructor designation by the commanding officer.

2.11.2 General.

2.11.2.1 Admin Notes.

INSTRUCTOR	Event Training, Evaluation and Approval
BI	Core events in which current and proficient.
SI	Core Phase and Mission Phase events.
WTI	Mission Phase and Qualification events. Evaluate and recommend for qualification. Endorse recommendations for position designations. The Commanding Officer is the approving authority for qualifications and designations.

2.11.2.2 Prerequisite. None.

2.11.2.3 Stages. The following stages are included in the Instructor Under Training Phase.

PAR NO.	STAGE NAME	PAGE NUMBER
2.11.3	INSTRUCTOR UNDER TRAINING (IUT)	2-7

2.11.3 INSTRUCTOR UNDER TRAINING (IUT) STAGE

2.11.3.1 Purpose. To train Aviation Radar Maintenance Officers in the fundamentals of instructing and training processes.

2.11.3.2 General.

Admin Notes. None.

Prerequisite. None.

Crew Requirements. None.

IUT-5000 2.0 * B (N) L

Goal. Introduce principals of instruction.

Requirement. Given the reference, the BIUT will demonstrate the following with the assistance of a unit instructor:

1. Adult learning principles.
 - a. Pedagogy to andragogy.
 - b. Characteristics of the adult learner.
 - c. Learning styles.
 - d. How adults learn.
 - e. Domains of learning.
 - f. Group dynamics.
 - g. Motivation.
 - h. Constructivist learning environments.
2. Introduce, discuss, and demonstrate instruction techniques.
3. Introduce, discuss, and demonstrate class management techniques.
 - a. How to select teaching resources to accommodate student learning styles.
 - b. How to properly organize the instructional environment for effective learning.

Performance Standard. With the aid of references, the BIUT shall demonstrate principles of instruction. During this session, the instructor shall discuss the event content and question the student throughout the training session to ensure understanding.

Instructor. BI.

Prerequisite. None.

References.

1. Adult Learning section, Systems Approach to Training Manual (2004)
2. NAVMC 3500.14
3. NAVMC 1553.1

IUT-5010	2.0	*	B	(N)	G

Goal. Describe individual T&R requirements.

Requirement. Using the Aviation T&R Program Manual, discuss the purpose of each of the following items with an instructor:

1. Training progression model.
2. Programs of Instruction.
 - a. Basic.
 - b. Refresher.
 - c. Conversion.
 - d. Series Conversion.
 - e. Transition.
 - f. Maintain.
3. T&R attain and maintain tables.
4. Syllabus notes.
5. T&R syllabus structure.
 - a. Phase.
 - b. Stage.
 - c. Event.
 - d. Phase.
 - e. Syllabus.
6. Event format.
 - a. Header.
 - (1) Event prefix - event code.
 - (2) Projected event duration.
 - (3) Proficiency period.
 - (4) Programs of instruction (POI).
 - (5) Event conditions.
 - (6) Device options.
 - (7) Device number.
 - (8) Device type.
 - b. Body.
 - (1) Goal.
 - (2) Requirement.
 - (3) Performance standard.
 - (4) Equipment.

Performance Standard. Without the aid of references and during a discussion session, the BIUT shall describe Individual T&R requirements. During this session, the instructor shall discuss the event content and question the student throughout the training session to ensure understanding.

Instructor. BI.

Prerequisite. None.

References.

1. NAVMC 3500.14
2. NAVMC 1553.1

IUT-5020 12.0 90 B, R, M (N) L

Goal. Conduct T&R instruction.

Requirement. The BIUT, under the supervision of an instructor, will conduct three periods of instruction on three different T&R events selected by the instructor and should include as many different methods of instruction as possible (lecture or academic, demonstration, and practical application). The event must be one the BIUT is current and proficient in. The BIUT will complete the following for each of the three events instructed:

1. Prepare to train the event.
 - a. Review a trainee's performance record to identify required training for the event selected.
 - b. Ensure the student has met prerequisites for the event to be trained.
 - c. Gather the resources necessary to conduct the training (i.e., instructional materials, references, and equipment).
 - d. Conduct task analysis on each event to ensure all intended requirements and prerequisite skills, specified or implied, are trained IAW applicable references.
 - e. Schedule the training event (facilities and students).
 - f. Prepare an evaluation form for each student to be evaluated.
2. Conduct training on the event selected:
 - a. Ensure all training resources are properly staged/equipment if set up properly for training.
 - b. Instruct the student in a thorough manner so as to cover all requirements for the event.
 - c. Ensure continuous, objective assessment of the student's progress during training.
3. Assess student performance:
 - a. Assess the student's performance to the performance standard.
 - b. Correct student deficiencies in a timely manner and provide the student feedback.
 - c. Complete the evaluation form on for each student trained.
 - d. Debrief student on the performance and provide corrective action.
4. Route evaluation form as required.

Performance Standard. Complete the requirement items IAW the reference and ensure training is doctrinally and technically current. Instructor shall use the instructor evaluation form from the SAT user's guide for each class and a mark of satisfactory must be achieved for each of the three classes.

Instructor. BI.

Prerequisite. 5000, 5010.

References.

1. NAVMC 3500.14, Ch 6
2. NAVMC 1553.1
3. MCO 1553.2B, Appendix O

IUT-5100 2.0 * B (N) G

Goal. Describe the Aviation Training and Readiness (T&R) Program.

Requirement. Using the community T&R manual discuss the following with an instructor:

1. Describe the Weapons and Tactics Training Program (WTPP).
2. Define each element of the Core Model:
 - a. Mission statements.
 - b. Core Mission Essential Task List (METL).
 - c. Output standards.
 - d. Core Phases (How to attain and maintain).
 - e. Mission Phases (How to attain and maintain).
 - f. Combat Leadership.

3. Define each of the following elements of unit training:
 - a. Training Exercise Employment Plan (TEEP).
 - b. Core Model Minimum Requirements (CMMR).
 - c. Instructors.
 - d. Core Model Training Report (CMTR).
 - e. T&R manual connection to readiness reporting.
4. Define each of the following elements of training:
 - a. Certification.
 - b. Qualification.
 - c. Designation.
5. Performance Record explain how changes are made to the Program manual:
 - a. Explain T&R conference procedures.
 - b. Explain correspondence change procedures.

Performance Standard. Complete the requirements IAW the reference. Instructor will question the SIUT to check for thorough understanding of the Aviation T&R Program.

Instructor. SI.

Prerequisite. None.

References.

1. NAVMC 3500.14
2. MCO 3500.109

IUT-5110	4.0	365	B, R, M	(N)	L

Goal. Conduct instructor evaluations.

Requirement. Using the instructor evaluation checklist from the SAT manual, conduct two evaluations on instructors of equal or lower designation.

1. Provide notification of evaluation to the instructor being evaluated.
2. Do not interfere with or disrupt the instruction while taking place.
3. Thoroughly document observed items on the checklist.
4. Ensure student evaluation form is filled out correctly and the appropriate debrief took place.
5. Debrief the instructor being evaluated on their preparation, instruction, evaluation, and documentation.
6. Have the evaluated instructor complete the instructor improvement plan section and sign.
7. File a copy of the completed evaluation form in both the evaluator's and evaluated instructor's performance record.

Performance Standard. Complete the requirements IAW the reference.

Instructor. SI.

Prerequisite. 5100.

References.

1. NAVMC 3500.14
2. Applicable community T&R Manual
3. MCO1553.2B, Appendix O

IUT-5120	2.0	*	B	(N)	L

Goal. Perform T&R administration.

Requirement. Document training to include:

1. Performance records.
2. Ensure MSHARP is updated appropriately.
3. Assemble recommendation package for certifications, qualifications, and designations IAW T&R manual.

Performance Standard. Complete the requirement items IAW the references. Instructor will question the trainee to check for understanding of the administration process.

Instructor. SI.

Prerequisite. 5100, 5110.

References.

1. NAVMC 3500.14
2. Local WTTP SOP
3. <http://msharpsupport.com>

IUT-5130	2.0	*	B	(N)	L

Goal. Develop a training plan.

Requirement. Given a deployment scenario develop a training plan to determine individual, and crew training needed to meet CMMR by completing the following:

1. Review Commander's training guidance.
2. Analyze the CMTR to determine training deficiencies and how to achieve CMMR.
3. Identify and schedule T&R training opportunities IAW the TEEP to achieve requirements.
4. Determine instructors required.
5. Determine equipment required.
6. Determine external support required.
7. Deliver a brief to the instructor that shows:
 - a. Crew manning and training requirements.
 - b. Current training status.
 - c. Identify the training deficiencies and resource shortfalls.
 - d. Explain the training plan to correct the training deficiencies.
 - e. Training plan meets commander's guidance.

Performance Standard. Complete the requirement items IAW the references and commander's training guidance. Training plan will ensure adequate time is allocated to include preparation, instruction, assessment, documentation, and remediation.

Instructor. SI.

Prerequisite. 5100, 5110, 5120.

References.

1. NAVMC 3500.14
2. Applicable Community T&R manuals

2.12 CERTIFICATION, QUALIFICATION, AND DESIGNATION (CQD) PHASE (6000)

2.12.1 Purpose. This phase provides community standardization for MACCS Warrant Officer certifications and designations; combat leaders and instructor designations.

2.12.2 General.

2.12.2.1 Admin Notes.

1. This section enables units to document and track combat leaders, instructors, technician and CD assignments. All syllabus training and administration requirements must be complete prior to being qualified or designated. A qualification or designation is not effective until all administration is completed.

2. Only once an individual is qualified or designated in writing, the signed letter is filed in the IPR, and all administrative actions are completed, and the event code has been logged in M-SHARP shall the qualification or designation be effective.

2.12.2.2 Prerequisite. None.

2.12.2.3 Stages. The following stages are included in the Instructor Training Phase.

PAR NO.	STAGE NAME	PAGE NUMBER
2.12.3	SCHOOL CODES (SCHL)	2-12
2.12.4	DESIGNATION (DESG)	2-15

2.12.3 SCHOOL CODES (SCHL) STAGE

2.12.3.1 Purpose. To provide tracking codes for schools that are pertinent to the training of the 5902 in the training progression of the Marine.

2.12.3.2 General.

Admin Notes. Policies and prerequisites for attending the listed schools are maintained within MCTIMS.

Prerequisite. None.

Crew Requirements. None.

SCHL CODE	NAME OF COURSE	LOCATION	CID
SCHL-6000	Weapons and Tactics Instructor (WTI)	MCAS Yuma, AZ	M14P2A1
SCHL-6020	Link 16 Basics Course (JT-100)	Joint Knowledge Online (JKO)	N/A
SCHL-6021	Intro to Multi TDL Network (JT-101)	Fort Bragg, NC	N/A
SCHL-6022	Multi-TDL Advanced Joint Interoperability Course (MAJIC) (JT-102)	Fort Bragg, NC	A05L6Z1
SCHL-6023	Link 16 Joint Interoperability Course (US-109)	Joint Knowledge Online (JKO)	N/A
SCHL-6024	Multi TDL Planner Course (JT-201)	Fort Bragg, NC	A05KHY1
SCHL-6025	Link 16 Unit Manager (LUM) Course (JT-220)	Fort Bragg, NC	A05A111
SCHL-6026	Joint Interface Control Officer (JICO) (JT-301)	Fort Bragg, NC	A05FH21
SCHL-6027	Advanced JICC Operator Course (JT-310)	Fort Bragg, NC	A05FH11
SCHL- 6073	Micro-Miniature Electronics Repair Course	San Diego, CA	N01A351
		Norfolk, VA	N02A351
		Oak Harbor, WA	N26A352
SCHL- 6093	Micro-Miniature /Automated Test Equipment Repair Course	29 Palms, CA	M09E2D1
SCHL- 6094	Advanced Electronics Course	29 Palms, CA	M09DSK1

SCHL-6000 1 * B (N) G

Goal. Complete WTI Course.

Requirement.

Performance Standard. Successfully complete course requirements.

Prerequisite. 6320, 6321, 8000, 8020, 8040, 8060, 8080

Reference.

SCHL-6020 1 * B (N) G

Goal. Complete Link 16 Basics Course (JT-100).

Requirement.

Performance Standard. Successfully complete course requirements.

Prerequisite. None.

Reference.

SCHL-6021 1 * B (N) G

Goal. Complete Intro to Multi TDL Network (JT-101) Course.

Requirement.

Performance Standard. Successfully complete course requirements.

Prerequisite. None.

Reference.

SCHL-6022 1 * B (N) G

Goal. Complete Multi-TDL Advanced Joint Interoperability Course (MAJIC) (JT-102).

Requirement.

Performance Standard. Successfully complete course requirements.

Prerequisite. None.

Reference.

SCHL-6023 1 * B (N) G

Goal. Complete Link 16 Joint Interoperability Course (US-109).

Requirement.

Performance Standard. Successfully complete course requirements.

Prerequisite. None.

Reference.

SCHL-6024	1	*	B	(N)	G

Goal. Complete Multi TDL Planner Course (JT-201).

Requirement.

Performance Standard. Successfully complete course requirements.

Prerequisite. None.

Reference.

SCHL-6025	1	*	B	(N)	G

Goal. Complete Link 16 Unit Manager (LUM) Course (JT-220).

Requirement.

Performance Standard. Successfully complete course requirements.

Prerequisite. None.

Reference.

SCHL-6026	1	*	B	(N)	G

Goal. Complete Joint Interface Control Officer (JICO) (JT-301).

Requirement.

Performance Standard. Successfully complete course requirements.

Prerequisite. None.

Reference. None.

SCHL-6027	1	*	B	(N)	G

Goal. Complete Advanced JICC Operator Course (JT-310).

Requirement.

Performance Standard. Successfully complete course requirements.

Prerequisite. None.

Reference.

SCHL-6073	1	*	B	(N)	G

Goal. Complete Micro-Miniature Electronics Repair Course.

Requirement.

Performance Standard. Successfully complete course requirements.

Prerequisite. None.

Reference. None.

SCHL-6093 1 * B (N) G

Goal. Complete Micro-Miniature / Automated Test Equipment Repair Course

Requirement.

Performance Standard. Successfully complete course requirements.

Prerequisite. None.

Reference. None.

SCHL-6094 1 * B (N) G

Goal. Complete Advanced Electronics Course.

Requirement.

Performance Standard. Successfully complete course requirements.

Prerequisite. None.

Reference.

2.12.4 DESIGNATION (DESG) STAGE

2.12.1 Purpose. To provide for designation of combat leaders and instructors. Designations are command specific and expire when an individual transfers out of a command. In order to ensure proficiency is maintained, specific events throughout this syllabus have been R-coded. The gaining command shall review the IPR to ensure prerequisite R-coded events for a designation are current prior to approving that designation. If prerequisite R-coded events are delinquent, the individual shall update those events.

2.12.2 General.

Admin Notes. Policies and rules for attaining and maintaining designations are detailed in the Aviation T&R Program Manual and this Manual.

Prerequisite. None.

Crew Requirements. None.

DESG-6320 1.0 * B (N) G

Goal. Designation as a Basic Instructor (BI).

Requirement. Be recommended for designation by a WTI and designated in writing by the commanding officer.

Performance Standard. N/A.

Instructor. WTI.

Prerequisite. 5000, 5010, 5020.

Reference. NAVMC 3500.14_

DESG-6321	1.0	*	B	(N)	G

Goal. Designation as a Senior Instructor (SI).

Requirement. Be recommended for designation by a WTI and designated in writing by the commanding officer.

Performance Standard. N/A.

Instructor. WTI.

Prerequisite. 5000, 5010, 5020, 5100, 5110, 5120, 5130.

Reference. NAVMC 3500.14_

DESG-6322	1.0	*	B	(N)	G

Goal. Designation as Weapons and Tactics Instructor (WTI).

Requirement. Be certified by MAWTS-1 as a WTI and be recommended for designation by the squadron WTI. The commanding officer will designate the WTI in writing.

Performance Standard. N/A.

Instructor. WTI.

Prerequisite. 6000, 6320, 6321, 8000, 8001, 8002, 8003, 8004, 8005, 8006, 8008, 8020, 8021, 8022, 8023, 8024, 8025, 8026, 8027, 8028, 8040, 8041, 8042, 8043, 8044, 8080, 8081, 8082, 8083, 8084, 8085, 8086, 8087, 8088.

Reference. NAVMC 3500.14_

2.13 MISSION ESSENTIAL TASK (MET) PHASE (7000)

2.13.1 Purpose. This phase takes CMMR proficient Marines from multiple PMOS, puts them in CMMR representative crews, and trains them as combat effective teams in combined events.

2.13.2 General.

2.13.2.1 Admin Notes. Prerequisites for this phase of training cannot be waived. Multiple events can be trained at the same time as long as separate evaluations are being conducted.

2.13.2.2 Prerequisite. Marines must either be CMMR crew position or non-aviation PMOS proficient to train in this phase. For those events requiring combat leaders, only Marines currently designated as such can train in this phase.

2.13.2.3 Stages. The following stages are included in the Mission Essential Task (MET) Phase of training.

PAR NO.	STAGE NAME	PAGE NUMBER
2.13.3	TACC CONDITION (COND)	2-16
2.13.4	TAOC CONDITION (COND)	2-20
2.13.5	DASC CONDITION (COND)	2-23

2.13.3 TACC CONDITION (COND) STAGE

2.13.3.1 Purpose. To train unit level teams in executing community specific MET(s) or MET preparatory events.

2.13.3.2 General.

Admin Notes. All events in this stage will require the following administrative/operational documents to be identified or created:

1. Letter of Intent (LOI)
2. Personnel Roster
3. Bill of Material (BOM)
4. Equipment Density List (EDL)

Prerequisite. If an event requires prerequisites in addition to those listed for the MET Phase, they will be covered in the individual event.

Crew Requirements. This stage requires that all crew members and combat leaders be qualified/designated and proficient (current) in the position they are assigned for the following events. Crews shall be task organized to meet the mission.

COND-7001 4.0 730 B, R, M (N) E L

Goal. Establish communications.

Requirement. Perform the following:

1. Establish communication nets in accordance with SOPs, published communications plan.
2. Communications are available for standby operational contingency actions; e.g., SAR.
3. Communications plan reflects correct key lists and edition numbers, and they are verified as correct.
4. Post communications status to include delineated alternate paths and current EMCON status.
5. Ensure operations personnel are aware of alternate communications paths to assure constant contact with higher, adjacent and subordinate commands when required.
6. Communication restoration priorities have been published and provided to communication maintenance personnel.
7. Detect instances of communications jamming, potential cyber intrusion, or imitative deceptions and provide reports in accordance with appropriate annex of the Op Order.
8. Direct changes in EMCON conditions to subordinate agencies when processed intelligence or combat information reveals a change in the enemy's threat capabilities.
9. Enact restoration procedures.
10. Ensure communication plan includes communications requirements for succession of command or control in case of catastrophic failure of any major air control agency (TADC/TACC, DASC, TAOC).
11. Crew members understand crew procedures to change communications nets and/or radio configurations.
12. Crew members perform net control station duties by initiating radio checks on appropriate nets.

Performance Standard. Establish voice and data connectivity with subordinate MACCS agencies and higher headquarters IAW ANNEX K, COMSEC Callout, ACEOI, and OPTASK LINK.

Instructor. WTI

Prerequisite. None.

External Syllabus Support. External C3 Agencies.

References.

1. MCWP 3-20F.2, Marine TACC Handbook
2. TACC Primer

COND-7003 8.0 730 B, R, M (N) E L/S

Goal. Display the Common Tactical Picture.

Requirement. Perform the following:

1. Maintain a connection to higher headquarters Common Tactical Picture per the exercise or operation's Annex U.
2. Ensure applicable ground tactical picture, maritime tactical picture, and map overlays are received from higher headquarters.
3. Provide the ACE's Common Tactical Picture to higher headquarters.
4. Manage, receive, display, and disseminate the common tactical picture.
5. Update the Battle Command Display.

Performance Standard. Complete the required items.

Instructor. WTI

Prerequisite. None.

External Syllabus Support. HHQ to provide Common Tactical Picture. MWCS support for digital backbone.

References.

1. Exercise or Operation's OPORD Annex U
2. CJCSM 3115.01_, Common Tactical Picture Reporting Requirements

COND-7004 18.0 730 B, R, M (N) E L/S

Goal. Coordinate air operations between the MACCS and Joint/Combined/Coalition/Host Nation command and control agencies.

Requirement. Perform the following:

1. Establish liaison necessary to request additional aviation assets from any theater/national sources.
2. Coordinate airspace de-confliction.
3. Integrate joint, coalition, and host nation requirements/elements into the COPS floor.

Performance Standard. Complete the required items.

Instructor. WTI

Prerequisite. None.

References.

1. MCWP 3-20F.2, Marine TACC Handbook
2. TACC Primer

COND-7005 8.0 730 B, R, M (N) E L/S

Goal. Manage the current air tasking order.

Requirement. Perform the following:

1. Coordinate the recovery of isolated personnel and aircraft.
2. Coordinate air defense operations of MACCS agencies with external agencies.
3. Coordinate theater missile defense operations with external agencies.
4. Manage MAGTF air assets in support of the close, rear, and deep battle areas.
5. Monitor the equipment status and operational posture of MACCS agencies.
6. Monitor, supervise, and direct the control of aircraft and missiles by subordinate MACCS agencies.
7. Process air support requests in accordance with the MAGTF and ACE Commander's priorities.
8. Coordinate the establishment and dissemination of Air Defense Warning Conditions (ADWCs) and Weapons Control Statuses (WCS).
9. Current ATO missions executed in accordance with the MAGTF and ACE Commanders priorities, to include changing or altering pre-schedule missions as required.

Performance Standard. Complete the required items.

Instructor. WTI

Prerequisite. None.

External Syllabus Support. External C3 agencies, ACE Battlestaff, MWCS.

References.

1. MCWP 3-20F.2, Marine TACC Handbook
2. TACC Primer

COND-7007 16.0 730 B, R, M (N) E L/S

Goal. Maintain a facility and associated command and control systems for the TACC.

Requirement. Given the references, a Table of Equipment (T/E) and/or an Equipment Density List, a mission statement, commander's guidance, and an operation plan's initiating order, provide a TACC infrastructure to include the following:

1. Provide required support personnel to set up and maintain the TACC infrastructure.
2. Provide equipment and facilities for current operation (COPS).
3. Provide equipment and facilities for future operations (FOPS).
4. Provide equipment and facilities for future plans (FPLANS).
5. Provide facilities for air combat intelligence (ACI).

Performance Standard. Perform the requirement items listed.

Instructor. WTI

Prerequisite. None.

External Syllabus Support. MTACS Commander and representatives from the S-1, S-2, S-3, S-4, S-6. Simulation execution will require coordination with external agencies.

References.

1. U-TACC-PCL-0350, TACC Pocket Checklist
2. MCWP 3-20F.2, Marine Tactical Air Command Center Handbook

3. Squadron SOP

COND-7009 2.0 730 B, R, M (N) E S/L

Goal. Coordinate Airspace Management in Current Operations.

Requirement. Given the references, an operational TACC and an operations order, and airspace control plan coordinate airspace requirements in support of the MAGTF:

1. Coordinate and employ the use of air defense control measures.
2. Coordinate through the Ground Watch Section for the deconfliction of FSCMs and immediate Airspace Control Measures.
3. Coordinate with subordinate MACCS agencies for immediate Airspace Management issues.
4. Coordinate with the Air and Space Operations Center for immediate Airspace Management issues that affect the joint force.
5. Update and monitor changes to the ACP/ACO/SPINS as applicable.

Performance Standard. Perform the requirement items listed during live, virtual, or constructed exercise or real world operation.

Instructor. WTI

Prerequisite. None.

Reference.

1. JP 3-52, Joint Airspace Control

2.13.4 TAOC CONDITION (COND) STAGE

2.13.4.1 Purpose. To train unit level teams in executing community specific MET(s) or MET preparatory events.

2.13.4.2 General.

Admin Notes. All events in this stage will require the following administrative/operational documents to be identified or created:

1. Letter of Intent (LOI)
2. Personnel Roster
3. Bill of Material (BOM)
4. Equipment Density List (EDL)

Prerequisite. If an event requires prerequisites in addition to those listed for the MET Phase, they will be covered in the individual event.

Crew Requirements. This stage requires that all crew members and combat leaders be qualified/designated and proficient (current) in the position they are assigned for the following events. Crews shall be task organized to meet the mission.

COND-7000 16.0 730 B, R, M (N) E L

Goal. Conduct Airspace Surveillance.

Requirement. Given organic C2 systems, radars, and a minimum of two CMMR surveillance crews, perform the following:

1. Plan for the emplacement, setup, operation, and maintenance of TAOC radar(s) and C2 equipment

- within the MAGTF and/or joint assigned airspace.
2. Extract tactical data link (TDL) architecture information from MAGTF and joint documents.
 3. Extract required surveillance operations information exchange requirements from source MAGTF and/or joint documents.
 4. Plan for TAOC airspace surveillance operations.
 5. Conduct the emplacement, setup, operation, and maintenance of TAOC radar(s) and C2 equipment.
 6. Detect and track aircraft and missiles within MAGTF and/or joint assigned airspace using organic TAOC radar(s).
 7. Conduct combat identification on objects detected and tracked using information extracted from surveillance operations source documents.
 8. Disseminate air/ground surveillance information to adjacent, higher, and subordinate agencies and aircraft identified in surveillance operations source documents.
 9. Demonstrate proficiency during crew changeover.

Performance Standard. Complete the requirements conducting TAOC operations in support of MAGTF and/or joint exercises or operations.

Instructor. WTI

Prerequisite. None.

External Syllabus Support. TDSM, RDR, AVRAD, UT. Live execution will require specific T/M/S aviation assets.

Reference. None.

COND-7001 16.0 730 B, R, M (N) E L/S

Goal. Conduct Positive Control.

Requirement. Given organic C2 systems, radars, and a minimum of two CMMR weapons crews, perform the following:

1. Plan for the emplacement, setup, operation, and maintenance of TAOC radar(s) and C2 equipment within the MAGTF and/or joint assigned airspace.
2. Conduct the emplacement, setup, operation, and maintenance of TAOC radar(s) and C2 equipment.
3. Extract airspace control measures within TAOC assigned airspace from MAGTF and/or joint source documents.
4. Conduct airspace management using MEF/MAW sustained sortie generation rates.
5. Conduct airspace control using MEF/MAW sustained sortie generation rates.
6. Conduct positive control using MEF/MAW sustained sortie generation rates.
7. Demonstrate proficiency during crew changeover.

Performance Standard. Complete the requirements conducting TAOC operations in support of MAGTF and/or joint exercises or operations.

Instructor. WTI

Prerequisite. None.

External Syllabus Support. TDSM, RDR, AVRAD, UT. Live execution will require specific T/M/S aviation assets.

Reference. None.

COND-7002 16.0 730 B, R, M (N) E L/S

Goal. Coordinate Air Defense Actions.

Requirement. Given organic C2 systems, radars, and a minimum of two CMMR weapons crews, perform the following:

1. Plan for the emplacement, setup, operation, and maintenance of TAOC radar(s) and C2 equipment within the MAGTF and/or joint assigned airspace.
2. Conduct the emplacement, setup, operation, and maintenance of TAOC radar(s) and C2 equipment.
3. Extract air defense requirements from MAGTF and/or joint air defense documents.
4. Create a plan for the TAOC to manage and control AAW aircraft engagements, expenditures, and employment using MEF/MAW sortie generation rates.
5. Create a plan for the TAOC to provide management of GBAD engagements, expenditures, and employment.
6. Manage and control AAW aircraft engagements, expenditures, and employment using MEF/MAW sortie generation rates.
7. Provide management of GBAD engagements, expenditures, and employment.
8. Detect potential threat aircraft and/or missiles using TAOC organic radars.
9. Disseminate threat information to higher, adjacent, and subordinate MACCS agencies.
10. Demonstrate proficiency during crew changeover.

Performance Standard. Complete the requirements conducting TAOC operations in support of MAGTF and/or joint exercises or operations.

Instructor. WTI

Prerequisite. None.

External Syllabus Support. TDSM, RDR, AVRAD, UT. Live execution will require specific T/M/S aviation assets.

Reference. None.

COND-7003 16.0 730 B, R, M (N) E L/S

Goal. Conduct Dual Site Air Defense Operations.

Requirement. Given organic C2 systems, radars, and a minimum of four CMMR air defense crews, perform the following at two geographically disparate sites:

1. Plan for the emplacement, setup, operation, and maintenance of TAOC radar(s) and C2 equipment within the MAGTF and/or joint assigned airspace.
2. Conduct the emplacement, setup, operation, and maintenance of TAOC radar(s) and C2 equipment.
3. Conduct airspace surveillance.
4. Conduct positive control.
5. Coordinate air defense actions.
6. Demonstrate proficiency during crew changeover.

Performance Standard. Complete the requirements conducting TAOC operations in support of MAGTF and/or joint exercises or operations.

Instructor. WTI

Prerequisite. None.

External Syllabus Support. TDSM, RDR, AVRAD, UT. Live execution will require specific T/M/S

aviation assets.

Reference. None.

COND-7004 16.0 730 B, R, M (N) E L/S

Goal. Integrate Operational Air Defense Capabilities.

Requirement. Given organic C2 systems, radars, and a minimum of two core plus proficient SADC crews, perform the following:

1. Plan for the emplacement, setup, operation, and maintenance of TAOC radar(s) and C2 equipment within the MAGTF and/or joint assigned airspace.
2. Conduct the emplacement, setup, operation, and maintenance of TAOC radar(s) and C2 equipment
3. Extract air defense requirements from MAGTF and joint air defense documents.
4. Create a plan for the TAOC to manage air defense operations within MAGTF and/or joint assigned region/sector.
6. Manage air defense operations within the MAGTF and/or joint assigned region/sector.
7. Extract tactical data link (TDL) architecture information from MAGTF and joint documents.
8. Create a plan for TAOC to assist the (Joint) Interface Control Officer J/ICO with the management of TDLs.
9. Manage TDLs for the TAOC in support of MAGTF and joint operations.
10. Demonstrate proficiency during crew changeover.

Performance Standard. Complete the requirements conducting TAOC operations in support of MAGTF AAW and/or joint DCA exercises or operations.

Instructor. WTI

Prerequisite. None.

External Syllabus Support. TDSM, RDR, AVRAD, UT. Live execution will require specific T/M/S aviation assets.

Reference. None.

2.13.5 DASC CONDITION (COND) STAGE

2.13.5.1 Purpose. To train unit level teams in executing community specific MET(s) or MET preparatory events.

2.13.5.2 General.

Admin Notes. All events in this stage will require the following administrative/operational documents to be identified or created:

- (1) Letter of Intent (LOI).
- (2) Personnel Roster.
- (3) Bill of Material (BOM).
- (4) Equipment Density List (EDL).

Prerequisite. If an event requires prerequisites in addition to those listed for the MET Phase, they will be covered in the individual event.

Crew Requirements. This stage requires that all crew members and combat leaders be qualified/designated and proficient (current) in the position they are assigned for the following events. Crews shall be task organized to meet the mission.

COND-7400 3.0 730 B, R, M (N) E L/S

Goal. Employ an Air Support Liaison Team (ASLT).

Requirement. Requirement. Given the references, a Table of Equipment (T/E) and/or Equipment Density List (EDL), Commander's guidance, and an operations order/initiating directive, employ an ASLT to include the following:

1. Plan for employment of an ASLT:
 - a. Conduct Problem Framing.
 - (1) Identify level of support required of MASS Unit.
 - (2) Develop Mission Statement/Commander's Intent.
 - b. Create Employment Plan.
 - (1) Coordinate with external entities (and/or agencies).
 - (2) Identify required personnel and equipment.
 - (3) Conduct site reconnaissance and selection.
 - (4) Identify and coordinate external support requirements.
 - c. Create supporting planning products.
 - (1) Create/publish POA&M/LOI.
 - (2) Create necessary manning documents/EDL/BOM/Load Plan via MDSS.
 - (3) Conduct Required Briefs. (IPC/MPC, Confirmation Brief, etc.)
2. Deploy an ASLT:
 - a. Conduct movement.
 - (1) Conduct embarkation (unit to APOE).
 - (2) Conduct convoy operations (APOD to TAA to tactical site).
 - b. Establish ASLT site.
 - (1) Establish and maintain site security.
 - (2) Establish communications and connectivity.
 - (3) Establish administrative and logistics functions.
3. Operate an ASLT:
 - a. Conduct ASLT operations.
4. Sustain an ASLT:
 - a. Conduct staff functions.
 - (1) Conduct administrative functions.
 - (2) Conduct intelligence functions.
 - (3) Conduct operations and training.
 - (4) Conduct logistical functions.
 - (5) Conduct communications functions.
5. Re-deploy an ASLT:
 - a. Plan for Re-deployment.
 - (1) Identify logistics requirements.
 - (2) Identify external support requirements.
 - (3) Identify maintenance functions and requirements.
 - (4) Identify administration requirements and functions.
 - b. Conduct movement.
 - (1) Conduct convoy operations (tactical site to TAA to APOE).
 - (2) Conduct embarkation (APOD to the unit).

Performance Standard. Perform the requirement items listed and conduct ASLT operations supporting the DASC during a minimum operational tempo three (3) real world operation or training simulation.

Prerequisite. (1) CMMR ASLT Crew.

Range. Range space capable of hosting ground and air fires.

External Syllabus Support. FSCC, air and fire support missions as defined by operational tempo level three, a DASC, S-1, S-2, S-3, S-4, S-6.

References.

1. MCRP 3-20F.5, DASC Handbook
2. Squadron SOP

COND-7405 3.0 730 B, R, M (N) E L/S

Goal. Employ an Air Support Element (ASE).

Requirement. Requirement. Given the references, a Table of Equipment (T/E) and/or Equipment Density List (EDL), Commander's guidance, and an operations order/ initiating directive, employ an ASE to include the following:

1. Plan for employment of an ASE:
 - a. Conduct problem Framing.
 - (1) Identify level of support required of MASS unit.
 - (2) Develop Mission Statement/Commander's Intent.
 - b. Create Employment Plan.
 - (1) Coordinate with external entities (and/or agencies).
 - (2) Identify required personnel and equipment.
 - (3) Conduct site reconnaissance and selection.
 - (4) Identify and coordinate external support requirements.
 - c. Create supporting planning products.
 - (1) Create/publish POA&M/LOI.
 - (2) Create necessary manning documents/EDL/BOM/Load Plan via MDSS.
 - (3) Conduct required briefs (IPC/MPC, Confirmation Brief, etc.)
2. Deploy an ASE:
 - a. Conduct movement.
 - (1) Conduct embarkation (unit to APOE).
 - (2) Conduct convoy operations (APOD to TAA to tactical site).
 - b. Establish ASE site.
 - (1) Establish and maintain site security.
 - (2) Establish external ASE infrastructure.
 - (3) Establish internal ASE infrastructure.
 - (4) Establish communications and connectivity.
 - (5) Establish administrative and logistics functions.
3. Operate an ASE:
 - a. Conduct ASE operations.
 - (1) Process Immediate Air Support Requests.
 - (2) Integrate Aircraft Employment with other supporting arms.
 - (3) Manage terminal control assets.
 - (4) Procedurally control aircraft within Assigned Area of Operations.
4. Sustain an ASE:
 - a. Conduct staff functions.
 - (1) Conduct administrative functions.
 - (2) Conduct intelligence functions.
 - (3) Conduct operations and training.
 - (4) Conduct logistical functions.
 - (5) Conduct communications functions.
5. Re-deploy an ASE:
 - a. Plan for re-deployment.
 - (1) Identify logistics requirements.
 - (2) Identify external support requirements.

- (3) Identify maintenance functions and requirements.
- (4) Identify administration requirements and functions.
- b. Conduct movement.
 - (1) Conduct convoy operations. (tactical site to TAA to APOE).
 - (2) Conduct embarkation (APOD to the unit).

Performance Standard. Perform the requirement items listed and conduct ASE operations during a minimum operational tempo three (3) real world operation or training simulation.

Prerequisite. (1) CMMR ASE Crew.

Range. Range space capable of hosting ground and air fires.

External Syllabus Support. S-1, S-2, S-3, S-4, S-6, air and fire support missions as defined by operational tempo three, FFCC/FSCC, and if required, a SACC and NTACC/HCS.

References.

- 1. MCRP 3-20F.5, DASC Handbook
- 2. Squadron SOP

COND-7410 3.0 730 B, R, M (N) E L/S

Goal. Employ a Direct Air Support Center (DASC).

Requirement. Requirement. Given the references, a Table of Equipment (T/E) and/or Equipment Density List (EDL), Commander's guidance, and an operations order/initiating directive, employ a DASC to include the following:

- 1. Plan for employment of a DASC:
 - a. Conduct problem framing.
 - (1) Identify level of support required of MASS unit.
 - (2) Identify Potential Need for DASC Extensions.
 - (3) Develop Mission Statement/ Commander's Intent.
 - b. Create Employment Plan.
 - (1) Coordinate with external entities (and/or agencies).
 - (2) Identify required personnel and equipment.
 - (3) Conduct site reconnaissance and selection.
 - (4) Identify and coordinate external support requirements.
 - (5) Plan for any/all required DASC extensions.
 - c. Create supporting planning products.
 - (1) Create/publish POA&M/LOI.
 - (2) Create necessary manning documents/EDL/BOM/Load Plan via MDSS.
 - (3) Conduct required briefs (IPC/MPC, Confirmation Brief, etc.).
- 2. Deploy a DASC:
 - a. Conduct movement.
 - (1) Conduct embarkation (unit to APOE).
 - (2) Conduct convoy operations (APOD to TAA to tactical site).
 - b. Establish DASC site.
 - (1) Establish and maintain site security.
 - (2) Establish external DASC infrastructure.
 - (3) Establish internal DASC infrastructure.
 - (4) Establish communications and connectivity.
 - (5) Establish administrative and logistics functions.
- 3. Operate a DASC:
 - a. Conduct DASC operations.
 - (1) Process Immediate Air Support Requests.

- (2) Integrate aircraft employment with other supporting arms.
 - (3) Manage terminal control assets.
 - (4) Procedurally control aircraft within Assigned Area of Operations.
- b. Manage DASC extensions.
- 4. Sustain a DASC:
 - a. Conduct staff functions.
 - (1) Conduct administrative functions.
 - (2) Conduct intelligence functions.
 - (3) Conduct operations and training.
 - (4) Conduct logistical functions.
 - (5) Conduct communications functions.
- 5. Re-deploy a DASC:
 - a. Plan for Re-deployment.
 - (1) Identify logistics requirements.
 - (2) Identify external support requirements.
 - (3) Identify maintenance functions and requirements.
 - (4) Identify administration functions and requirements.
 - b. Conduct movement.
 - (1) Conduct convoy operations (tactical site to TAA to APOE).
 - (2) Conduct embarkation (APOD to the unit).

Performance Standard. Perform the requirement items listed and conduct DASC operations during a minimum operational tempo three (3) real world operation or training simulation.

Prerequisite. Two (2) CMMR DASC crews.

Range. Range space capable of hosting ground and air fires.

External Syllabus Support. S-1, S-2, S-3, S-4, S-6, MHE, air and fire support missions as defined by operational tempo three (3), digital backbone, FFCC/FSCC, and if required, aircraft designated to provide an airborne DASC capability.

References.

- 1. MCRP 3-20F.5, DASC Handbook
- 2. Squadron SOP

COND-7415 3.0 730 B, R, M (N) E L/S

Goal. Conduct a Reconnaissance, Selection, and Occupation of Position (RSOP) for the DASC.

Requirement. Given the references, a Table of Equipment (T/E) and/or Equipment Density List (EDL) and an operations order/initiating directive, conduct an RSOP for DASC operations to include the following:

- 1. Conduct a Map Survey selecting primary and alternate sites.
- 2. Identify environmental concerns that may affect DASC communication.
- 3. Coordinate with the FSCC to provide DASC requirements.
- 4. Coordinate site security, camouflage, dispersion, and determine trafficability.
- 5. Identify locations for emplacement of communications and support equipment.
- 6. Coordinate priorities for equipment emplacement.
- 7. Identify echelon considerations.
- 8. Identify Advanced Party/RSOP Team.
- 9. Occupy the site.
- 10. Emplace the DASC.

Performance Standard. Perform the requirement items. The RSOP team will be prepared to discuss decisions/actions.

Prerequisite. None.

External Syllabus Support. MASS Detachment Commander, DASC Chief, security team, Representatives from the following sections: S-4, S-2, S-6.

References.

1. MCWP 3-16.3, TTP for the Field Artillery Cannon Battery
2. MCRP 3-20F.5, DASC Handbook
3. MCWP 3-16.3, Tactics, Techniques, and Procedures for the Field Artillery Cannon Battery, Chapter 2, Reconnaissance, Selection, and Occupation of a Position
4. Squadron SOP

COND-7420	3.0	730	B, R, M	(N)	E	L/S

Goal. Conduct Echelon Operations.

Requirement. Given the references, a Table of Equipment (T/E) and/or Equipment Density List (EDL), Commander's guidance, and an operations order/initiating directive, conduct echelon operations to include the following:

1. Continue DASC operations without pause or loss of situational awareness.
2. Checklists for the transfer of control are on hand and are utilized.
3. Deploy the echelon element to the new position.
4. Brief the operational crew concerning their duties for passage of control.
5. Establish and maintain required communications and connectivity.
6. Updated intelligence information, to include the friendly and enemy order of battle and current ATO is on hand and posted.
7. Receive current status of air defense warnings, weapons conditions, anti-air warfare intelligence, and other pertinent data is updated prior to the transfer of control taking place.
8. Receive current status of all fixed wing aircraft to include scheduled events, alert aircraft, and airborne aircraft is verified.
9. Receive current status of all helicopter and assault support aircraft to include scheduled events, alert aircraft, airborne aircraft, MEDEVAC aircraft, and SAR aircraft is verified.
10. Review status of all Tactical Air and Assault Support Requests and ensure they are plotted and on hand.
11. Verify with the FSCC the locations of friendly artillery and active Fire Support Areas (FSAs), for naval gunfire assets.
12. Maintain continuous coordination with adjacent and higher agencies during preparation for and transfer of OAS/AS control, if required.
13. Pass control of DASC functions to the echelon element.
14. Notify the TACC, FSCC, and other agencies, as necessary, control has been passed.
15. Recover the rear element into the DASC when echelon operations have concluded.
16. Debrief with the DASC OIC and DASC Chief.

Performance Standard. Perform the requirement items listed to conduct echelon operations during a minimum operational tempo three (3) real world operation or training simulation.

Prerequisite. Two (2) CMMR DASC crews.

Range. Range space capable of hosting ground and air fires.

External Syllabus Support. S-1, S-2, S-3, S-4, S-6, MHE, air and fire support missions as defined by operational tempo three (3), digital backbone, and if required, aircraft designated to provide an airborne DASC capability.

References.

1. MCRP 3-20F.5, DASC Handbook

2. Squadron SOP

COND-7425 3.0 730 B, R, M (N) E S/L

Goal. Conduct Phasing of Control Ashore.

Requirement. Given the references, a Table of Equipment (T/E) and/or Equipment Density List (EDL), Commander's guidance, and an operations order/initiating directive, conduct phasing of control ashore to include the following:

1. Conduct a Map Survey selecting primary and alternate sites.
2. Checklists for the transfer of control ashore are on hand and utilized.
3. Review the procedures delineated in the operation plan/other directives for the phasing of control ashore and keeps the Naval Tactical Air Control Center informed of current status.
4. Deploy ashore.
5. Brief the operational crew concerning their duties for the passage of control.
6. Establish and maintain required communications and connectivity.
7. Updated intelligence information, to include the friendly and enemy order of battle and current ATO is on hand and posted.
8. Receive current status of air defense warnings, weapons conditions, anti-air warfare intelligence, and other pertinent data is updated prior to the transfer of control taking place.
9. Receive current status of all fixed wing aircraft to include scheduled events, alert aircraft, and airborne aircraft.
10. Receive current status of all helicopter and assault support aircraft to include scheduled events, alert aircraft, airborne aircraft, MEDEVAC aircraft, and SAR aircraft.
11. Review status of all Tactical Air and Assault Support Requests and ensure they are plotted and on hand.
12. Verify with the FSCC the locations of friendly artillery and active Fire Support Areas (FSAs), for naval gunfire assets.
13. Ensure all requirements have been met and then advise the TACC (afloat) and FSCC that the DASC is prepared for the phasing of control of OAS/AS ashore.
14. Ensure the preplanned sequence of phasing control of OAS/AS ashore is completed and the SAD acknowledges/produces any reports required.
15. Advise CLF when ready to assume control of all or a portion of direct air support ashore (specify OAS, Assault Support, Air Recce, EW) at a specified date and time.
16. Advise CLF that control has been transferred and the date/time group that transfer was accomplished.
17. Advise the TACC (afloat)/TADC (ashore) and FSCC that the DASC now has control referencing date and time (local).
18. Maintain continuous coordination with adjacent and higher agencies.
19. Notify all adjacent agencies when transfer of control is completed.
20. As necessary, DASC/SACC liaison team provides further updates of information upon arrival at DASC site.

Performance Standard. Perform the requirement items listed to conduct phasing control ashore during a minimum operational tempo three (3) real world operation or training simulation.

Prerequisite. (1) CMMR ASE crew or (1) CMMR DASC crew.

Range. Range space capable of hosting ground and air fires.

External Syllabus Support. S-1, S-2, S-3, S-4, S-6, MHE, air and fire support missions as defined by operational tempo three (3), digital backbone, Navy TACC, FSCC, Marine TACC, LFOC, SACC/HCS.

References.

1. JP 3-02.1, Joint Doctrine for Landing Forces Operations
2. MCWP 3-16.3, Tactics, Techniques, and Procedures for the Field Artillery Cannon Battery, Chapter 2, Reconnaissance, Selection, and Occupation of a Position

3. MCRP 3-20F.5, DASC Handbook
4. MCRP 3-30B.2 MAGTF Communications System
5. Squadron SOP

2.14 AVIATION CAREER PROGRESSION MODEL (8000).

2.14.1 Purpose. To enhance professional understanding of Marine Aviation and the MAGTF, and to ensure individuals possess the requisite skills to fill battle command and battle staff positions in support of the ACE and the MAGTF in a joint environment. The focus of training in the Aviation Career Progression Model (ACPM) is on academic events in the following areas:

Marine Air Command and Control System (MACCS)
Aviation Ground Support
Joint Air Operations
ACE Battle Staff
MAGTF
Seabased Operations
Combatant Commander Organizations

2.14.2 General. The ACPM is intended to be an integrated series of academic events contained within each phase of training. Accordingly, ACPM academic events are like any other academic event in that they serve as pre-requisites to selected events or stages. Additionally, several ACPM academic events are integrated as prerequisites for combat leadership syllabi. ACPM events may be conducted in group session with an assigned instructor teaching the period of instruction or they may be accomplished by self-paced instruction. MAWTS-1 is responsible for the update and validity of the ACPM periods of instruction. In the future, courses may be consolidated or revised to meet changing requirements.

Refer to the MAWTS-1 ACPM link for the current ACPM program of instruction:

<https://vcepub.tecom.usmc.mil/sites/msc/magtftc/mawts1/Aviation%20Career%20Progression%20Model/Forms/AllItems.aspx>

2.13.3 ACPM (ACPM) STAGE

2.13.4 .1 Purpose. To enhance professional understanding of Marine Aviation and the MAGTF, and to ensure individuals possess the requisite skills to fill battle command and battle staff positions in support of the ACE and the MAGTF in a joint environment.

2.13.5 .2 General

Prerequisite. None.

Admin Notes. None

Crew Requirements. None.

ACPM-8000	1.0	*	B	(N)	G

Goal. Demonstrate an understanding of the MACCS stage.

Requirement. Pass a closed book examination that encompasses all learning objectives contained in the prerequisites.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. SI.

Prerequisite. 8001, 8002, 8003, 8004, 8005, 8006, 8008.

Reference. C3 Course Catalog.

ACPM-8001 4.0 * B (N) G

Goal. Demonstrate an understanding of the Marine Air Command and Control System (MACCS).

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Describe how the control of aircraft and missiles relates to the other five functions of USMC aviation.
2. Define the control of aircraft and missiles and each of its subcomponents.
3. Define the Marine aviation's philosophy of centralized command and decentralized control.
4. Differentiate between Marine aviation philosophy and Joint aviation philosophy.
5. Identify the principle objectives of the MACCS.
6. Recall the primary role of each agency of the MACCS.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 MACCS Agencies, Functions and the Control of Aircraft and Missiles Class
2. MCWP 3-25.3 MACCS Handbook
3. MCWP 3-25 Control of Aircraft and Missiles

ACPM-8002 4.0 * B (N) G

Goal. Demonstrate an understanding of the Tactical Air Command Center (TACC).

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. State the mission of the TACC.
2. Identify the four organizations of the TACC.
3. List the primary responsibilities of Air Combat Intelligence (ACI).
4. List the primary responsibilities of Future Operations (FOPS).
5. List the primary responsibilities of Future Plans (FPLANS).
6. List the primary responsibilities of Current Operations (COPS).
7. List the major end items used by the TACC.
8. List the system limitations of the TACC.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 TACC Class
2. MAWTS-1 MTACS Class
3. MCWP 3-25.4 TACC Handbook

ACPM-8003 4.0 * B (N) G

Goal. Demonstrate an understanding of the Direct Air Support Center (DASC).

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify the role of the DASC.
2. List the structure and task organization of the DASC.
3. Identify the major end items and their characteristics used by the DASC.
4. List the capabilities and limitations of the DASC.
5. Identify how the DASC is doctrinally employed as part of the MACCS.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 DASC Class
2. MCWP 3-25.5 DASC Handbook

ACPM-8004 4.0 * B (N) G

Goal. Demonstrate an understanding of the Tactical Air Operations Center (TAOC).

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Define the mission of the TAOC.
2. Identify the Mission Essential Tasks (METs) for the TAOC.
3. Identify the structure and task organization of the TAOC.
4. Identify the major end items and their characteristics used by the TAOC.
5. Identify the capabilities and limitations of the TAOC.
6. Identify how the TAOC is doctrinally employed as part of the MACCS.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

3. MAWTS-1 TAOC Class
4. MCWP 3-25.7 TAOC Handbook

ACPM-8005 4.0 * B (N) G

Goal. Demonstrate an understanding of the Marine Air Traffic Control (MATC).

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify the mission of MATC.
2. Identify the Mission Essential Tasks (METs) for MATC.
3. List the structure and task organization of MATC.
4. Identify the major end items and their characteristics used by MATC.
5. Identify the capabilities and limitations of MATC.
6. Identify how MATC is doctrinally employed as part of the MACCS.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 MATC Class
2. MAWTS-1 MMT Class
3. MCWP 3-25.8 MATC Detachment Handbook

ACPM-8006 4.0 * B (N) G

Goal. Demonstrate an understanding of the Low Altitude Air Defense (LAAD).

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify the mission of the LAAD battalion.
2. Identify the structure and task organization of the LAAD battalion.
3. Identify the primary vehicle and surface-to-air weapon used by the LAAD Battalion.
4. Define the LAAD employed guidelines.
5. List the LAAD weapon applications.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 LAAD Class
2. MCWP 3-25.10 LAAD BN Handbook
3. MCWP 3-25.10A LAAD Gunner's Handbook

ACPM-8008 4.0 * B (N) G

Goal. Demonstrate an understanding of the Marine Wing Communications Squadron (MWCS).

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify the mission of the MWCS.
2. Identify the structure and task organization of the MWCS.
3. Identify the Mission Essential Tasks (METs) for the MWCS.
4. Identify the major end items and their characteristics used by MWCS.
5. Identify the capabilities and limitations of the MWCS.
6. Identify how the MWCS is doctrinally employed as part of the MACCS.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 MWCS Employment Class
2. MCRP 3-30B.2 MAGTF Communications Systems
3. NAVMC 3500.56 Communications Training and Readiness Manual

ACPM-8020 1.0 * B (N) G

Goal. Demonstrate an understanding of the ACE stage of the MACCS ACPM.

Requirement. Pass a closed book examination that encompasses all learning objectives contained in the prerequisites.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. 8021, 8022, 8023, 8024, 8025, 8026, 8027, 8028.

Reference. C3 Course Catalog.

ACPM-8021 4.0 * B (N) G

Goal. Demonstrate an understanding of USMC aviation operations doctrine.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify the six functions of Marine aviation to include all their subsets.
2. Identify the organization and mission of the Marine Aircraft Wing (MAW), to include each type of group and squadron.
3. Define who has operational control of organic MAGTF aviation assets during Joint operations.
4. List the four types of sorties the MAGTF Commander makes available to the Joint Force.
5. Identify the purpose of the Air Tasking Order (ATO).
6. Identify the six phases of the air tasking cycle.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

Reference. MCWP 3-2 Aviation Operations

ACPM-8022 4.0 * B (N) G

Goal. Demonstrate an understanding of USMC doctrine for the control of aircraft and missiles.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify how the control of aircraft and missiles relates to the other five functions of USMC aviation.
2. Identify distinctions between Marine aviation philosophy and that of the other services.
3. Identify the principle objectives of the Marine Air Command and Control System (MACCS).
4. Describe how the COMMARFOR may serve as the Joint Force Air
5. Component Commander (JFACC), Airspace Control Authority (ACA), and Area Air Defense Commander (AADC).

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 Control of Aircraft and Missiles Class
2. MCWP 3-25 Control of Aircraft and Missiles

ACPM-8023 4.0 * B (N) G

Goal. Demonstrate an understanding of USMC Offensive Air Support (OAS) doctrine.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify the purpose of the MAGTF Commanders Single Battle Concept.
2. Define the subcategories of OAS.
3. Define the requirements for effective OAS.
4. Define the three types of Deep Air Support (DAS).
5. Define the capabilities and limitations of the OAS function.
6. Identify the elements of a Joint Tactical Air Strike Request (JTAR).
7. Identify the three types of control of Close Air Support (CAS).

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 OAS Class
2. MCWP 3-23 Offensive Air Support

ACPM-8024 4.0 * B (N) G

Goal. Demonstrate an understanding of USMC Assault Support doctrine.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Define the types of assault support operations.
2. Identify which aircraft conduct each of the types of assault support operations.
3. Identify the elements of an Assault Support Request (ASR).
4. List assault support capabilities and limitations.
5. Define the role of the air mission commander and the assault force commander during air assault operations.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 Assault Support Class
2. MAWTS-1 Direct Air Support Requests Class

ACPM-8025 4.0 * B (N) G

Goal. Demonstrate an understanding of USMC Air Reconnaissance doctrine.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the

following learning objectives:

1. Identify the three categories of air reconnaissance.
2. Identify the four principals of air reconnaissance.
3. Identify the five prerequisites for effective air reconnaissance.
4. Identify the current USMC aircraft that have the mission of air reconnaissance.
5. Identify the form used to request air reconnaissance.
6. Identify the five supporting operations for effective air reconnaissance.
7. Identify the capabilities and limitations of air reconnaissance.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

Reference. MCWP 3-26 Air Reconnaissance

ACPM-8026 4.0 * B (N) G

Goal. Demonstrate an understanding of USMC Electronic Warfare (EW) doctrine.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Define radar.
2. List the three basic radar types.
3. Identify the limitations and characteristics of radar systems.
4. Identify the six guidance systems and how they work.
5. List the three subdivisions of Electronic Warfare (EW).

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 (S) Electronic Warfare Class—for additional training only, secret courseware should not to be used for testing purposesMAWTS-1 Direct Air Support Requests Class
2. MCWP 3-40.5 Electronic Warfare

ACPM-8027 4.0 * B (N) G

Goal. Demonstrate an understanding of USMC Anti-air Warfare (AAW) doctrine.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Define AAW.
2. Define the two subsets of AAW.
3. Identify the principles of AAW.
4. Identify the types of Offensive Anti-air Warfare (OAAW).
5. Identify the active air defense functions.
6. List three examples of passive air defense measures.
7. Define a Joint Engagement Zone (JEZ), Fighter Engagement Zone (FEZ), Missile Engagement Zone (MEZ), and Base Defense Zone (BDZ).
8. Define the air defense warning conditions.
9. Define the weapons control statuses.

10. Identify the responsibilities of the Regional Air Defense Commander (RADC) and the Sector Air Defense Commander (SADC).

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 Air Defense Class
2. MAWTS-1 Air Defense Commanders Class
3. MAWTS-1 Offensive Antiair Warfare Class
4. MCWP 3-22 Antiair Warfare

ACPM-8028	4.0	*	B	(N)	G

Goal. Demonstrate an understanding of USMC Ground Support (AGS) doctrine.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify the organization responsible for providing AGS to the Marine Aircraft Wing (MAW).
2. Identify the 13 functions of AGS.
3. Identify the five activities that the Marine Wing Support Squadron (MWSS) performs for the ACE when deployed.
4. Identify the four basing concepts for MAGTF Forward Operating Bases (FOBs).
5. List the four classifications of FOBs.
6. Differentiate the distinguishing characteristics of FOBs.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 AGS Class
2. MCWP 3-21.1 Aviation Ground Support

ACPM-8040	1.0	*	B	(N)	G

Goal. Demonstrate an understanding of the Threat stage of the MACCS ACPM

Requirement. Pass a closed book examination that encompasses all learning objectives contained in the prerequisites.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. SI.

Prerequisite. 8041, 8042, 8043, 8044.

Reference. C3 Course Catalog.

ACPM-8041	4.0	*	B	(N)	G

Goal. Demonstrate an understanding of the surface-to-air threat to the MAGTF.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Match the system name with the guidance and target aspect for the following Man Portable Air Defense Systems (MANPADS):
 - a. SA-7
 - b. SA-14
 - c. SA-16
 - d. SA-18
2. Match the system name with the guidance and associated radars for the following Radio Frequency Surface-to-Air Missile Systems (RF SAMS):
 - a. SA-2
 - b. SA-6
 - c. SA-8
 - d. SA-10
 - e. SA-11
 - f. SA-15
 - g. SA-20
 - h. Roland-III
3. Match the system name with the type and associated radar for the following Air Defense Artillery (AAA):
 - a. ZPU 1, 2, 4
 - b. ZSU-23-4
 - c. 2S6
 - d. S-60

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

Reference. MAWTS-1 Marine Aviation Intelligence Reference
(<https://vcepub.tecom.usmc.mil/sites/msc/magftc/mawts1/departments1/newc3/default.aspx>)

ACPM-8042 4.0 * B (N) G

Goal. Demonstrate an understanding of the fixed wing threat to the MAGTF.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify the role of the AN-2 Colt.
2. Identify the role of the MIG-23 Flogger.
3. Identify the role of the MIG-29 Fulcrum.
4. Identify the role of the MIG-31 Foxhound.
5. Identify the role of the Su-24 Fencer.
6. Identify the role of the Su-25 Frogfoot.
7. Identify the role of the Su-27 Flanker.
8. Identify the role of the Su-30 Flanker.
9. Identify the role of the Tu-22M Backfire.
10. Identify the role of the Tu-95 Bear.
11. Identify the role of the Tu-160 Blackjack.
12. Identify the role of the J-7 Fishbed.
13. Identify the role of the JH-7 Flounder.

14. Identify the role of the J-8 Finback.
15. Identify the role of the J-10 Firebird.
16. Identify the role of the H-6 Badger.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

Reference. MAWTS-1 Marine Aviation Intelligence Reference
(<https://vcepub.tecom.usmc.mil/sites/msc/magtftc/mawts1/departments1/newc3/default.aspx>)

ACPM-8043 4.0 * B (N) G

Goal. Demonstrate an understanding of the rotary wing threat to the MAGTF.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify the role of the Mi-24 Hind.
2. Identify the role of the SA 342 Gazelle.
3. Identify the role of the Ka-25 Hormone.
4. Identify the role of the Mi-6 Hook.
5. Identify the role of the Mi-28 Havoc.
6. Identify the role of the Mi-8 Hip.
7. Identify the role of the Ka-50 Kokum.
8. Identify the role of the Ka-29 Helix B.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

Reference. MAWTS-1 Marine Aviation Intelligence Reference
(<https://vcepub.tecom.usmc.mil/sites/msc/magtftc/mawts1/departments1/newc3/default.aspx>)

ACPM-8044 4.0 * B (N) G

Goal. Demonstrate an understanding of the missile and Unmanned Aircraft System (UAS) threat to the MAGTF.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Match the system name with the terminal guidance for the following Air-to-Surface Missiles:
 - a. AS-10 Karen
 - b. AS-11 Kilter
 - c. AS-12 Kegler
 - d. AS-14 Kedge
 - e. AS-17 Krypton
2. Match the system name with the warhead and guidance for the following Surface-to-Surface Missiles:
 - a. FROG-7
 - b. SCUD-B
 - c. SCUD-C
 - d. Nodong 1
 - e. C 801

- f. C 802
3. Identify the mission of the following threat UAS:
 - a. Ababil
 - b. Mohajer
 - c. Harpy
 - d. Heron
 - e. ASN-206
 - f. Pchela-1T

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 Marine Aviation Intelligence Reference
2. <https://vcepub.tecom.usmc.mil/sites/msc/magtftc/mawts1/departments1/ne>
3. wc3/default.aspx
4. Marine Corps Intelligence Activity Iran Country Handbook (appendix A)
5. Marine Corps Intelligence Activity North Korea Country Handbook (page 86)
6. Marine Corps Intelligence Activity China Country Handbook (appendix A)
<https://www.intelink.gov/mcia/handbook.htm>
7. MCIA UAV Recognition Guide <https://www.intelink.gov/mcia/index.htm>

ACPM-8060	1.0	*	B	(N)	G

Goal. Demonstrate an understanding of the MAGTF stage of the MACCS ACPM.

Requirement. Pass a closed book examination that encompasses all learning objectives contained in the prerequisites.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. SI.

Prerequisite. 8061, 8062, 8063, 8064, 8065.

References. C3 Course Catalog.

ACPM-8061	4.0	*	B	(N)	G

Goal. Demonstrate an understanding of the MAGTF ground combat operations.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify how the Ground Combat Element (GCE) is employed as part of the MAGTF and the capabilities the GCE provides to the MAGTF commander
2. Define the following items related to command and control of ground combat operations:
 - a. Echelons of the GCE headquarters
 - b. Battlespace Organization
 - c. Battlespace Framework
3. Define the five types of amphibious operations.
4. Identify the following items related to offensive operations:
 - a. Types of offensive operations

- b. Types of attack
 - c. Forms of maneuver
 - d. Distribution of forces
5. Identify the following items related to defensive operations:
- a. Organization of the defense
 - b. Distribution of forces
 - c. Types of defensive operations
 - d. Defensive methods

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

- 1. MCDP 1-0 Marine Corps Operations
- 2. MCWP 3-1 Ground Combat Operations

ACPM-8062 4.0 * B (N) G

Goal. Demonstrate an understanding of fire support coordination in the Ground Combat Element (GCE).

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

- 1. Identify the four fire support tasks.
- 2. List the functions of the senior fire support coordination center (FSCC) in the GCE.
- 3. List the four steps of the MAGTF Targeting Process.
- 4. Define the purpose of essential fire support tasks (EFST).

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

- 1. MAWTS-1 MAGTF Targeting and Fire Support Planning Class
- 2. MCWP 3-16 Fire Support Coordination in the GCE

ACPM-8063 4.0 * B (N) G

Goal. Demonstrate an understanding of MAGTF command and control.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

- 1. Identify MAGTF command and support relationships.
- 2. Identify the purpose and role of the command and control centers in the CE, ACE, GCE, and LCE.
- 3. Identify the purpose and role of the amphibious command and control facilities.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

Reference. MCWP 3-40.1 MAGTF C2

ACPM-8064 4.0 * B (N) G

Goal. Demonstrate an understanding of MAGTF communications.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify the six characteristics of communications and information systems.
2. Identify the mission and organizational structure of the Communications Battalion.
3. Identify the purpose of the Communications-Electronics Operating Instructions (CEOI) and what information is usually included in it.
4. Identify what information can be found in Annex K of an operations order.
5. Identify the purpose of select fires, support, and ACE specific radio nets.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

Reference. MCWP 3-40.3 MAGTF Communications System

ACPM-8065 4.0 * B (N) G

Goal. Demonstrate an understanding of phasing control ashore.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify types of amphibious operations and how command relationships may change during the conduct of each.
2. Identify how disputes among commanders during amphibious operations are resolved.
3. Identify the key commanders and command relationships.
4. Identify the key characteristics of each phase in phasing the MACCS ashore.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 Phasing Control Ashore Class
2. JP 3-02 Joint Doctrine for Amphibious Operations (Ch 2)
3. MCWP 3-25 Control of Aircraft and Missiles (Appendix C)

ACPM-8066 4.0 * B (N) G

Goal. Demonstrate an understanding of information management.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Match the principles of information management with their descriptions.
2. Define each of the classes of information within an information hierarchy.
3. List the characteristics of quality information.
4. Identify the role and responsibilities of an Information Management Officer (IMO).

5. Define C2 support structure and the three steps followed to develop one.
6. Identify the purpose of an information management matrix and the information management plan.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

Reference. MCWP 3-40.2 Information Management

ACPM-8067 4.0 * B (N) G

Goal. Demonstrate an understanding of Unmanned Aircraft Systems in support of MAGTF operations.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify the four types of payloads.
2. Identify the three attributes that determine UAS Groups.
3. Identify the five different UAS Group Categories.
4. Identify the two types of VMU operational employment.
5. Identify the three components of the RQ-7B Communications Relay Package.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

Reference.

1. MAWTS-1 UAS In Support of MAGTF Operations
2. MCRP 3-42.1A
3. NTTP 3-22.3-VMU

ACPM-8080 1.0 * B (N) G

Goal. Demonstrate an understanding of the MAGTF stage of the joint air operations stage of the MACCS ACPM.

Requirement. Pass a closed book examination that encompasses all learning objectives contained in the prerequisites.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. SI.

Prerequisite. 8081, 8082, 8083, 8084, 8085, 8086, 8087, 8088.

Reference. C3 Course Catalog.

ACPM-8081 4.0 * B (N) G

Goal. Demonstrate an understanding of the command and control of joint air operations.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify the definition of joint air operations.
2. Identify the Joint Force Air Component Commander's responsibilities.
3. Identify the five sections that comprise the Joint Air Operations Center.
4. Identify the six phases of the Joint Air Tasking Cycle.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives or pass the DOCNET course listed below with a score of 80% or higher.

Instructor. BI.

Prerequisite. None.

References.

1. DOCNET Course 3-30 (<http://www.dtic.mil/doctrine/docnet/>)
2. MAWTS-1 Joint Air Operations Class
3. JP 3-30 C2 of Joint Air Operations

ACPM-8082 4.0 * B (N) G

Goal. Demonstrate an understanding of the theater air ground system (TAGS).

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. List the primary characteristics of the Theater Air Ground System (TAGS).
2. Identify the elements within the Air Force's Theater Air Control System (TACS) and their primary responsibilities.
3. Identify the aviation command and control elements with the Army Air and Ground System (AAGS) and their primary responsibilities.
4. Identify the aviation elements within the Navy's Composite Warfare Commander (CWC) architecture.
5. Identify the Amphibious Task Force (ATF) construct and its primary responsibilities.
6. Identify the aviation command and control elements within the Special Operations Air-Ground System.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 TAGS ClassMAWTS-1 Joint Air Operations Class
2. ALSA TAGS Pub. (<https://wwwmil.alsa.mil/default.aspx>)

ACPM-8083 4.0 * B (N) G

Goal. Demonstrate an understanding of joint fire support doctrine.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Define joint fires.
2. Define joint fire support.
3. Identify the steps of the joint fire support planning process.
4. List the various elements of the component commander's fires command and control system.
5. Define the various joint control and coordination measures associated with joint fire support.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives or

pass the DOCNET course listed below with a score of 80% or higher.

Instructor. BI.

Prerequisite. None.

References.

1. DOCNET Course 3-09 (<http://www.dtic.mil/doctrine/docnet/>)
2. JP 3-09 Joint Fire Support

ACPM-8084 4.0 * B (N) G

Goal. Demonstrate an understanding of close air support (CAS) doctrine.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Explain key roles and responsibilities related to the planning and execution of CAS.
2. Detail key steps in the planning and execution of CAS.
3. Describe various coordination measures used in the planning and conduct of CAS.
4. Describe the manner in which the two types of CAS requests are fulfilled.
5. Identify the goal and purpose of synchronizing CAS with surface fires.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives or pass the DOCNET course listed below with a score of 80% or higher.

Instructor. BI.

Prerequisite. None.

References.

1. DOCNET Course 3-09 (<http://www.dtic.mil/doctrine/docnet/>)
2. MAWTS-1 CAS Class
3. JP 3-09.3 Close Air Support

ACPM-8085 4.0 * B (N) G

Goal. Demonstrate an understanding of joint targeting doctrine.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify types of targets.
2. Identify and describe the six phases of the joint targeting cycle.
3. Identify characteristics of a target.
4. Identify and describe steps in dynamic targeting.
5. Describe roles and responsibilities related to the joint targeting process.
6. Describe key products and processes of the joint targeting cycle.
7. Identify key terms related to the joint targeting process.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives or pass the DOCNET course listed below with a score of 80% or higher.

Instructor. BI.

Prerequisite. None.

References.

4. DOCNET Course 3-09 (<http://www.dtic.mil/doctrine/docnet/>)
5. JP 3-60 Joint Targeting

ACPM-8086 4.0 * B (N) G

Goal. Demonstrate an understanding of the North Atlantic Treaty Organization (NATO).

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify the composition of the NATO alliance.
2. Identify the three key articles of the NATO alliance.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 NATO Class
2. "What is NATO" Brief (http://www.nato.int/welcome/intro_to_NATO_en.ppt)
3. AJP-01(D)

ACPM-8087 4.0 * B (N) G

Goal. Demonstrate an understanding of joint airspace control doctrine.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify the responsibilities of the airspace control authority (ACA).
2. Identify the basic principles for airspace control.
3. Identify the purpose of the airspace control plan (ACP).
4. Identify the purpose of the airspace control order (ACO).
5. Identify the methods of airspace control.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 Airspace Control Authority and Airspace Class
2. JP 3-52 Joint Airspace Control

2.15 T&R SYLLABUS MATRIX.

5902 T&R SYLLABUS MATRIX										
STAGE	CODE	TITLE	POI	DEVICE	COND	PROFICIENCY PERIOD	E-CODED	TIM E	PREREQ	CHAI N
INSTRUCTOR TRAINING PHASE (5000)										
INSTRUCTOR UNDER TRAINING (IUT) STAGE										
IUT	5000	Introduce principals of instruction.	B	L	(N)	*	*	2	*	*
IUT	5010	Describe individual T&R requirements.	B	G	(N)	*	*	2	*	*
IUT	5020	Conduct T&R instruction.	B,R,M	L	(N)	90	*	12	5000, 5010	*
IUT	5100	Describe the Aviation Training and Readiness (T&R) Program.	B	G	(N)	*	*	2	*	*
IUT	5110	Conduct instructor evaluations.	B,R,M	L	(N)	365	*	4	5100	*
IUT	5120	Perform T&R administration.	B	L	(N)	*	*	2	5100, 5110	*
IUT	5130	Develop a training plan.	B	L	(N)	*	*	2	5100, 5110, 5120	*
TOTAL HOURS (IUT) STAGE			EVENTS		7	HOURS		26		
TOTAL HOURS INSTRUCTOR TRAINING PHASE (5000)								26		
CERTIFICATIONS, QUALIFICATIONS AND DESIGNATIONS (CQD) PHASE (6000)										
SCHOOL CODES (SCHL) STAGE										
SCHL	6000	Weapons and Tactics Instructor (WTI)	B	G	(N)	*	*	1	6320, 6321, 8000, 8020, 8040, 8060, 8080	*
SCHL	6020	Link 16 Basics Course (JT-100)	B	G	(N)	*	*	1	*	*

5902 T&R SYLLABUS MATRIX										
STAGE	CODE	TITLE	POI	DEVICE	COND	PROFICIENCY PERIOD	E-CODED	TIM E	PREREQ	CHAI N
SCHL	6021	Intro to Multi TDL Network (JT-101)	B	G	(N)	*	*	1	*	*
SCHL	6022	Multi-TDL Advanced Joint Interoperability Course (MAJIC) (JT-102)	B	G	(N)	*	*	1	*	*
SCHL	6023	Link 16 Joint Interoperability Course (US-109)	B	G	(N)	*	*	1	*	*
SCHL	6024	Multi TDL Planner Course (JT-201)	B	G	(N)	*	*	1	*	*
SCHL	6025	Link 16 Unit Manager (LUM) Course (JT-220)	B	G	(N)	*	*	1	*	*
SCHL	6026	Joint Interface Control Officer (JICO) (JT-301)	B	G	(N)	*	*	1	*	*
SCHL	6027	Advanced JICC Operator Course (JT-310)	B	G	(N)	*	*	1	*	*
SCHL	6073	Micro-Miniature Electronics Repair Course.	B	G	(N)	*	*	1	*	*
SCHL	6093	Micro-Miniature /Automated Test Equipment Repair Course	B	G	(N)	*	*	1	*	*
SCHL	6094	Advanced Electronics Course	B	G	(N)	*	*	1	*	*
TOTAL HOURS DESIGNATION (DESG) STAGE			EVENTS		12	HOURS		12		
TOTAL HOURS QCD PHASE (6000)								18		
DESIGNATION (DESG) STAGE										

5902 T&R SYLLABUS MATRIX										
STAGE	CODE	TITLE	POI	DEVICE	COND	PROFICIENCY PERIOD	E-CODED	TIM E	PREREQ	CHAI N
DESG	6321	Senior Instructor (SI)	B	G	(N)	*	*	1	5000, 5010, 5020, 5100, 5110, 5120, 5130	*
DESG	6322	Weapons and Tactics Instructor (WTI)	B	G	(N)	*	*	1	6000, 6321, 8000, 8001, 8002, 8003, 8004, 8005, 8006, 8008, 8020, 8021, 8022, 8023, 8024, 8025, 8026, 8027, 8028, 8040, 8041, 8042, 8043, 8044, 8080, 8081, 8082, 8083, 8084, 8085, 8086, 8087, 8088	*
MISSION ESSENTIAL TASK (MET) PHASE (7000)										
TACC CONDITION (TACC)										
COND	7001	Establish communications.	B,R,M	L	(N)	730	E	4	*	*
COND	7003	Display the Common Tactical Picture.	B,R,M	L/S	(N)	730	E	8	*	*
COND	7004	Coordinate air operations with Joint / Combined /Coalition/ Host Nation agencies	B,R,M	L/S	(N)	730	E	18	*	*
COND	7005	Manage the current air tasking order.	B,R,M	S/L	(N)	730	E	8	*	*
COND	7007	Maintain a facility and associated command and control systems for the TACC	B,R,M	L/S	(N)	730	E	16	*	*
COND	7009	Coordinate Airspace Management in Current Operations.	B,R,M	S/L	(N)	730	E	2	*	*
TACC CONDITION (TACC)			EVENTS		6	HOURS		56		
TACC CONDITION (TAOC)										

5902 T&R SYLLABUS MATRIX										
STAGE	CODE	TITLE	POI	DEVICE	COND	PROFICIENCY PERIOD	E-CODED	TIM E	PREREQ	CHAI N
COND	7000	Conduct Airspace Surveillance.	B,R,M	L	(N)	730	E	16	*	*
COND	7001	Conduct Positive Control.	B,R,M	L/S	(N)	730	E	16	*	*
COND	7002	Coordinate Air Defense Actions.	B,R,M	L/S	(N)	730	E	16	*	*
COND	7003	Conduct Dual Site Air Defense Operations.	B,R,M	L/S	(N)	730	E	8	*	*
COND	7004	Integrate Operational Air Defense Capabilities.	B,R,M	L/S	(N)	730	E	16	*	*
TACC CONDITION (TAOC)			EVENTS		6	HOURS		72		
DASC CONDITION (DASC)										
COND	7400	Employ an ASLT.	B,R,M	L/S	(N)	730	E	3	*	*
COND	7405	Employ an ASE.	B,R,M	L/S	(N)	730	E	3	*	*
COND	7410	Employ a DASC.	B,R,M	L/S	(N)	730	E	3	*	*
COND	7415	Conduct a Reconnaissance, selection, and Occupation of Position (RSOP) for the DASC.	B,R,M	L/S	(N)	730	E	3	*	*
COND	7420	Conduct Echelon Operations.	B,R,M	L/S	(N)	730	E	3	*	*
COND	7425	Conduct Phasing of Control Ashore	B,R,M	S/L	(N)	730	E	3	*	*
DASC CONDITION (DASC)			EVENTS		6	HOURS		18		
TOTAL HOURS MET PHASE (7000)								80		
ACPM MATRIX										
STAGE	CODE	TITLE	POI	DEVICE	COND	REFLY	E-CODED	TIME	PREREQ	CHAIN

5902 T&R SYLLABUS MATRIX										
STAGE	CODE	TITLE	POI	DEVICE	COND	PROFICIENCY PERIOD	E-CODED	TIM E	PREREQ	CHAI N
AVIATION CAREER PROGRESSION MODEL PHASE (ACPM) (8000)										
AVIATION CAREER PROGRESSION MODEL (ACPM) STAGE										
ACPM	8000	MACCS	B	G	(N)	*	*	1	8001, 8002, 8003, 8004, 8005, 8006, 8008	*
ACPM	8001	Marine Air Command and Control System	B	G	(N)	*	*	4	*	*
ACPM	8002	Tactical Air Command Center (TACC)	B	G	(N)	*	*	4	*	*
ACPM	8003	Direct Air Support Center (DASC)	B	G	(N)	*	*	4	*	*
ACPM	8004	Tactical Air Operations Center (TAOC)	B	G	(N)	*	*	4	*	*
ACPM	8005	Marine Air Traffic Control (MATC)	B	G	(N)	*	*	4	*	*
ACPM	8006	Low Altitude Air Defense (LAAD)	B	G	(N)	*	*	4	*	*
ACPM	8008	Marine Wing Communications Squadron (MWCS)	B	G	(N)	*	*	4	*	*
ACPM	8020	ACE	B	G	(N)	*	*	1	8021, 8022, 8023, 8024, 8025, 8026, 8027, 8028	*
ACPM	8021	Aviation Operations	B	G	(N)	*	*	4	*	*
ACPM	8022	Control of Aircraft and Missiles	B	G	(N)	*	*	4	*	*
ACPM	8023	Offensive Air Support (OAS)	B	G	(N)	*	*	4	*	*
ACPM	8024	Assault Support (AS)	B	G	(N)	*	*	4	*	*
ACPM	8025	Air Reconnaissance	B	G	(N)	*	*	4	*	*
ACPM	8026	Electronic Warfare (EW)	B	G	(N)	*	*	1	*	*
ACPM	8027	Anti-Air Warfare (AAW)	B	G	(N)	*	*	4	*	*

5902 T&R SYLLABUS MATRIX										
STAGE	CODE	TITLE	POI	DEVICE	COND	PROFICIENCY PERIOD	E-CODED	TIME	PREREQ	CHAIN
ACPM	8028	Aviation Ground Support	B	G	(N)	*	*	4	*	*
ACPM	8040	Threat	B	G	(N)	*	*	1	8041, 8042, 8043, 8044	*
ACPM	8041	Surface to Air threat to the MAGTF	B	G	(N)	*	*	4	*	*
ACPM	8042	Fixed Wing threat to the MAGTF	B	G	(N)	*	*	4	*	*
ACPM	8043	Rotary Wing threat to the MAGTF	B	G	(N)	*	*	4	*	*
ACPM	8044	Missile and UAS threat to the MAGTF	B	G	(N)	*	*	4	*	*
ACPM	8060	MAGTF	B	G	(N)	*	*	1	8061, 8062, 8063, 8064, 8065, 8066, 8067	*
ACPM	8061	Ground Combat Operations	B	G	(N)	*	*	4	*	*
ACPM	8062	Fire Support Coordination in the GCE	B	G	(N)	*	*	4	*	*
ACPM	8063	MAGTF Command and Control	B	G	(N)	*	*	4	*	*
ACPM	8064	MAGTF Communications	B	G	(N)	*	*	4	*	*
ACPM	8065	Phasing Control Ashore	B	G	(N)	*	*	4	*	*
ACPM	8066	Information Management	B	G	(N)	*	*	4	*	*
ACPM	8067	UAS support of the MAGTF	B	G	(N)	*	*	4	*	*
ACPM	8080	Joint Air Operations	B	G	(N)	*	*	1	8081, 8082, 8083, 8084, 8085, 8086, 8087, 8088	*
ACPM	8081	Command and Control of Joint Air Operations	B	G	(N)	*	*	4	*	*
ACPM	8082	Theater Air Ground System (TAGS)	B	G	(N)	*	*	4	*	*
ACPM	8083	Joint Fire Support	B	G	(N)	*	*	4	*	*
ACPM	8084	Close Air Support (CAS)	B	G	(N)	*	*	4	*	*

5902 T&R SYLLABUS MATRIX										
STAGE	CODE	TITLE	POI	DEVICE	COND	PROFICIENCY PERIOD	E-CODED	TIM E	PREREQ	CHAI N
ACPM	8085	Joint Targeting	B	G	(N)	*	*	4	*	*
ACPM	8086	North Atlantic Treaty Organization (NATO)	B	G	(N)	*	*	4	*	*
ACPM	8087	Joint Airspace Control	B	G	(N)	*	*	4	*	*
ACPM	8088	Countering Air and Missile Threats	B	G	(N)	*	*	4	*	*
TOTAL HOURS AVIATION CAREER PROGRESSION MODEL (ACPM) STAGE								138		
TOTAL ACPM (8000 PHASE)								138		

CHAPTER 3
AVIATION RADAR MAINTENANCE OFFICER (MOS 5910)
INDIVIDUAL TRAINING AND READINESS REQUIREMENTS

	<u>PARAGRAPH</u>	<u>PAGE</u>
CREWMEMBER T&R SYLLABUS REQUIREMENTS	3.0	3-3
TRAINING PROGRESSION MODEL.	3.1	3-3
PROGRAMS OF INSTRUCTION (POI).	3.2	3-3
PROFICIENCY AND CURRENCY.	3.3	3-4
CERTIFICATION, QUALIFICATION, AND DESIGNATION TABLES	3.4	3-4
SYLLABUS NOTES.	3.5	3-5
CORE INTRODUCTION PHASE (0000)	3.6	3-6
CORE PHASE (2000)	3.7	3-17
MISSION PHASE (3000)	3.8	3-17
CORE PLUS PHASE (4000)	3.9	3-17
MISSION PLUS PHASE (4500)	3.10	3-17
INSTRUCTOR TRAINING PHASE (5000)	3.11	3-18
CERTIFICATIONS, QUALIFICATIONS, DESIGNATIONS (CQD) PHASE (6000).	3.12	3-22
MISSION ESSENTIAL TASK (MET) PHASE (7000).	3.13	3-29
AVIATION CAREER PROGRESSION MODEL (8000).	3.14	3-32
T&R SYLLABUS MATRIX.	3.15	3-50

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CHAPTER 3
AVIATION RADAR MAINTENANCE OFFICER (MOS 5910)
INDIVIDUAL TRAINING AND READINESS REQUIREMENTS

3.0 CREWMEMBER T&R SYLLABUS REQUIREMENTS REQUIREMENTS. This T&R Syllabus is based on specific goals and performance standards designed to ensure individual proficiency in Core Phase and Mission Phase skills. The goal of this chapter is to develop individual and unit warfighting capabilities.

3.1 TRAINING PROGRESSION MODEL. This model represents the recommended average training progression for the Aviation Radar Maintenance Officer. Units should use the model as a point of departure to generate individual training plans.

MOS 5910 Career Progression Model												
MACCS WO			ARMO									
1	2	3	5	6	7	8	9	10	11	12	13	
WEEKS*			MONTHS*									

* Months indicated are training months, not calendar months.

3.2 PROGRAMS OF INSTRUCTION (POI).

3.2.1 General. These tables reflect average time-to-train versus the minimum to maximum time-to-train parameters in the Training Progression Model.

3.2.2 Basic POI.

MACCS MAINTENANCE MOS 5910 BASIC POI		
WEEKS	PHASE OF INSTRUCTION	UNIT RESPONSIBLE
0-3	CORE INTRODUCTION PHASE	MCCES

3.2.3 Refresher POI.

MACCS MAINTENANCE MOS 5910 REFRESHER POI		
WEEKS	PHASE OF INSTRUCTION	UNIT RESPONSIBLE
VARIES	CORE PHASE	TACTICAL SQUADRON

3.3 PROFICIENCY AND CURRENCY.

3.3.1 Event Proficiency. Event proficiency is defined as successful completion of the performance standard as determined by the instructor or evaluator. Event completion is predicated upon demonstrated proficiency. Once completed, it is logged in M-SHARP by entering the appropriate event code. M-SHARP automatically updates the event proficiency date to reflect the completion date.

3.3.2 Skill Proficiency. Proficiency is a measure of achievement of a specific skill. To attain Individual Skill proficiency, an individual must be simultaneously proficient in all events for that Skill. Individuals may be attaining proficiency in some skills while maintaining proficiency in others.

3.3.2.1 Maintaining Skill Proficiency. Once attained, skill proficiency is maintained by executing those events which have a Proficiency Period (Maintain events). Proficiency Periods establish the maximum time between event demonstration. Should proficiency be lost in any maintain event, for a specific skill, that skill proficiency is temporarily lost. Skill proficiency can be re-attained by again demonstrating proficiency in the event(s) that are not proficient. For flying communities, an individual shall complete delinquent events with a proficient instructor, crewman/flight lead as delineated by the T/M/S Syllabus Sponsor (see Chapter 3 of the Program Manual on specific instructor requirements for Low Altitude Flight, Night Systems, ACM, DM, DACM, DCM, FAC(A)).

3.3.2.2 Loss Of Individual Skill Proficiency. Should an individual lose proficiency in all maintain events in a skill, the individual will be assigned to the Refresher POI for the skill. To regain skill proficiency, the individual must demonstrate proficiency in all R-coded events for the skill. Refresher training is required once an individual has been absent from a technician billet for 36 months or longer. Upon return, the individual will complete R-coded events.

3.3.2.3 Loss of Unit Skill Proficiency. If an entire unit loses proficiency in an event, unit instructors shall regain proficiency by completing the event with an instructor from a like unit. If not feasible, the instructor shall regain proficiency by completing the event with another instructor. For flying communities, if a unit has only one instructor and cannot complete the event with an instructor from another unit, the instructor shall regain proficiency with another aircraft commander or as designated by the commanding officer.

3.3.2.4 Proficiency Status. Proficiency is a “Yes/No” status by skill assigned to an individual. When an individual attains and maintains Core Phase Proficiency, Mission Phase Proficiency, Core Plus Phase Proficiency, or Mission Plus Phase Proficiency, the individual may count towards CMMR or CMTS.

3.3.3 Skill Currency. Currency is a control measure used to provide an additional margin of safety based on exposure frequency to a particular skill and applies to all MOS's that must comply with NATOPS and OPNAV requirements. It is a measure of time since the last event demanding that specific skill. For example, currency determines minimum altitudes in rules of conduct based upon the most recent low altitude fly date. Specific currency requirements for aircrew individual type mission profiles can be found in Chapter 3.

3.4 CERTIFICATION, QUALIFICATION, AND DESIGNATION TABLES. The tables below delineate T&R events required to be completed to attain proficiency for select designations. In addition to event requirements, all required stage lectures, briefs, squadron training, prerequisites, and other criteria shall be completed prior to completing final events. Designation letters signed by the commanding officer shall be placed in training Performance Records and NATOPS. See Chapter 6 of the Aviation T&R Program Manual on regaining lost qualifications.

3.4.1 INSTRUCTOR DESIGNATIONS.

MOS 5910 INSTRUCTOR DESIGNATIONS	
INSTRUCTOR DESIGNATION	EVENTS
BASIC INSTRUCTOR (BI)	5000, 5010, 5020, 6320
SENIOR INSTRUCTOR (SI)	5000, 5010, 5020, 5100, 5110, 5120, 5130, 6320, 6321
WEAPONS AND TACTICS INSTRUCTOR (WTI)	6000, 6320, 6321, 6322

FORMAL LEARNING CENTER INSTRUCTOR (FLCI)	6330

3.4.2 CERTIFICATIONS, QUALIFICATIONS AND DESIGNATIONS.

MOS 5910	
CERTIFICATIONS, QUALIFICATIONS, AND DESIGNATIONS (CQD)	
DESIGNATION	EVENTS
AVIATION RADAR MAINTENANCE OFFICER	6340

3.5 SYLLABUS NOTES.

3.5.1 Environmental Conditions Matrix.

Environmental Conditions	
Code	Meaning
(N)	May be conducted day or night. If at night, may be aided or unaided.

3.5.2 Device Matrix.

DEVICE	
Symbol	Meaning
L	Conducted using Unit T/E equipment.
L/S	Live preferred/Simulator optional.
S/L	Simulator preferred/Live optional.
G	Ground/academic training. May include Distance Learning, CBT, lectures, self paced.

3.5.3 Program of Instruction Matrix.

PROGRAM OF INSTRUCTION MATRIX		
Program of Instruction (POI)	Symbol	Aviation Ground
Basic	B	Initial MOS Training
Refresher	R	Return to community from non (MOS/Skill) associated tour
Maintain	M	All individuals who have attained CSP/MSP/PPP by initial POI assignment are re-assigned to the M POI to maintain proficiency.

3.5.4 Event Terms.

EVENT TERMS	
TERM	DESCRIPTION
Discuss	An explanation of systems, procedures, or tactics during the brief, exercise, or debrief. Student is responsible for knowledge of procedures.
Demonstrate	The description and performance of a particular event by the instructor, observed by the student. The student is responsible for knowledge of the procedures prior to the demonstration of a required event.
Introduce	The instructor may demonstrate a procedure or event to a student, or may coach the student through the maneuver without demonstration. The student performs the procedures or maneuver with coaching as necessary. The student is responsible for knowledge of the procedures.
Practice	The performance of a maneuver or procedure by the student that may have been previously introduced in order to attain a specified level of performance.
Review	Demonstrated proficiency of an event by the student.

EVENT TERMS	
TERM	DESCRIPTION
Evaluate	Any event designed to evaluate team/crew standardization that does not fit another category.

3.6 CORE INTRODUCTION PHASE (0000)

3.6.1 Purpose. To provide entry level instruction to develop the basic skills necessary to become designated as an Aviation Radar Maintenance Officer MOS 5910 or Data Systems Maintenance Officer MOS 5970. This training is completed upon graduation from the MACCS Maintenance Warrant Officer Course.

3.6.2 General.

3.6.2.1 Admin Notes. Hours are not utilized in the header information for each of the blocks of training provided by MCCES. MACCS Warrant Officer Course (CID: M099681), MCCES, located in 29 Palms, CA.

3.6.2.2 Prerequisite. Meet the requirement delineated in the MOS Manual (MCBul 1200).

3.6.2.3 Stages. The following stages are included in the Core Introduction Phase.

PAR NO.	STAGE NAME	PAGE NUMBER
3.6.3	AIR SCHOOLS (AIRS) STAGE	3-7

3.6.3 AIR SCHOOLS (AIRS) STAGE

3.6.3.1 Purpose. To train Aviation Radar Maintenance Officer and Data System Maintenance Officers in Core Introduction Phase events.

3.6.3.2 General.

Admin Notes. Hours are not utilized in the header information for each of the blocks of training provided by MCCES. MACCS Warrant Officer Course (CID: M099681), MCCES, located in 29 Palms, CA.

Prerequisite. MOS 5910 or 5970.

Crew Requirements. None.

AIRS-1002 0 * B (N) G

Goal. Conduct an inspection of maintenance functional areas.

Requirement. Given required references and a current inspection checklist, demonstrate the procedures for inspecting the following functional areas:

1. State the purpose for inspecting the functional areas.
2. Identify and review the references for each functional area and obtain applicable and current inspection lists for all.
3. Conduct an inspection of all areas to familiarize the trainee with the specifics of each.
 - a. Calibration Control Program.
 - b. Publication Control Program.
 - c. Quality Assurance Program.
 - d. Preventive Maintenance Program.
 - e. Modification Control Program.
 - f. Tool Control Program.
 - g. GCSS-MC.
 - h. Training Program.
 - i. Records.

- j. Safety Program.
- k. Corrosion Prevention and Control (CPAC).
- l. Warranty Program.
- 4. Explain the inspection procedures.
 - a. Schedule the inspection.
 - b. Inform functional area manager.
 - c. Turn over folders are IAW the references.
 - d. Submit an executive summary at the conclusion of the inspection.

Performance Standard. Pass an exam.

Instructor. FLC instructor

Prerequisite. None.

References.

- 1. FSMAO Checklist
- 2. MMSOP

AIRS-1003 0 * B (N) G

Goal. Identify the key elements of Operational Orders (OPORD).

Requirement. Given an OPORD, identify those key elements pertaining to the unit's communications requirements, perform the following:

- 1. Identify the purpose and major sections of the OPORD.
- 2. State the purpose and content of the Annex K.
 - a. State the purpose and content of the OPTASKLINK.
 - b. State the purpose and content of an KMI Callout.

Performance Standard. Pass an exam.

Instructor. FLC instructor

Prerequisite. None.

Reference.

- 1. MCWP 5-1

AIRS-1004 0 * B (N) G

Goal. Reconcile Global Combat Support Systems-Marine Corps (GCSS-MC) automated reports.

Requirement. Given the reports listed in item 1 below:

- 1. Identify the purpose of:
 - a. Maintenance Production Report (MPR).
 - b. Equipment Status Report (ESR).
 - c. Preventative Maintenance (PM) Report.
 - d. Calibration Report.
 - e. Modification Report.
 - f. Sub-Inventory Report
 - g. Maintenance Management Report (MMR).
 - h. Due and Status File (DASF) Report.
 - i. Mechanized Allowance List (MAL) Report.
 - j. Inspection repair tag (NAVMC 1018).
- 2. Identify the type of information contained in each of the forms listed above.

3. Identify the status of a parts requisition.
4. Identify proper use of a Uniform Material Movement and Issue Priority System (UMMIPS) priorities.
5. State item requisition priorities.
6. State any errors found within each of the forms listed above.
7. Reconcile all items listed above and list all errors found in each form.
8. Explain how to maintain a layette bin.

Performance Standard. Given the GCSS-MC automated reports, reconcile these reports to pass an exam.

Instructor. FLC instructor

Prerequisite. None.

References.

1. MCO 3000.11E Ground Equipment Condition and Supply Material Readiness Reporting (MRR) Policy
2. MCO P4400.16 Uniform Material Movement and Issue Priority System (UMMIPS)
3. MCO 4790.2 Field-Level Maintenance Management Policy (FLMMP)
4. TM 4700-15/1_ Ground Equipment Record Procedures
5. UM 4000-125 Marine Corps User's Manual

AIRS-1005 0 * B (N) G

Goal. Identify the services provided by Marine Wing Communications Squadron.

Requirement. Given the references, describe the following services:

1. Single Channel Radio Communications.
2. Wide Area Networks (WAN) / Local Area Networks (LAN) Communications.
3. Electronic Message Communications.
4. Telephone Communications.
5. Digital Backbone.
6. Communications Control.

Performance Standard. Pass an exam.

Instructor. FLC instructor

References.

1. MCWP 3-40.3
2. MCWP 3-25 Control of Aircraft and Missiles

AIRS-1006 0 * B (N) G

Goal. Identify cyber security requirements for tactical employment of information systems.

Requirement. Given the reference, perform the following:

1. Identify the Accreditation package requirements.
2. Explain the purpose of the Authority to Operate (ATO) / Authority to Connect (ATC).
3. Explain configuration management and its relationship to cyber security.

Performance Standard. Pass an exam.

Instructor. FLC instructor

Prerequisite. None.

References.

1. DOD Directive 5200.28
2. DOD Directive 5200.40
3. MCO 5239.2A
4. DoD 8570.01-M

AIRS-1007 0 * B (N) G

Goal. Identify TAOC and EW/C communications information exchange requirements.

Requirement. Given the references, perform the following:

1. Data systems.
2. Radio systems.
3. Data link systems.

Performance Standard. Pass an exam.

Instructor. FLC instructor

Prerequisite. None.

References.

1. MCRP 5-12D
2. Unit Core METL
3. MCBUL 3000
4. MCWP 3-25.7
5. MCWP 3-25.8
6. MCWP 3-25

AIRS-1008 0 * B (N) G

Goal. Identify TACC Communications information exchange requirements.

Requirement. Given the references, perform the following:

1. Data systems.
2. Radio systems.
3. Data link systems.

Performance Standard. Pass an exam.

Instructor. FLC instructor

Prerequisite. None.

References.

1. MCRP 5-12D
2. MCWP 3-25.4
3. Unit Core METL
4. MCBUL 3000

AIRS-1009 0 * B (N) G

Goal. Identify DASC communications information exchange requirements.

Requirement. Given the references, perform the following:

1. Data systems.

2. Radio systems.
3. Data link systems.

Performance Standard. Pass an exam.

Instructor. FLC instructor

Prerequisite. None.

References.

1. MCRP 5-12D
2. Unit Core METL
3. MCBUL 3000
4. MCWP 3-25.5
5. MCWP 3-25

AIRS-1010	0	*	B	(N)	G

Goal. Analyze the TO/E.

Requirement. Given a TO/E, explain the following:

1. Mission statement.
2. Billet Organization.
3. Equipment Organization.

Performance Standard. Pass an exam.

Instructor. FLC instructor

Prerequisite. None.

References.

1. URL <https://tfsms.mccdc.usmc.mil>
2. MCO 5311.1

AIRS-1011	0	*	B	(N)	G

Goal. Identify spectrum management procedures.

Requirement. Given the references and a scenario with operational requirements, perform the following:

1. Submit frequency requirements.
 - a. Identify submission timelines.
 - b. Identify data elements (Freq, Location, Power, Dates).
2. Submit Satellite Access requirements.

Performance Standard. Pass an exam.

Instructor. FLC instructor

Prerequisite. None.

References.

1. MCRP 3-40
2. MCO 2400.2

AIRS-1012	0	*	B	(N)	G

Goal. Identify the embarkation requirements for the major end items of the TACC, DASC, TAOC, and EW/C.

Requirement. Given the reference, list:

1. Hazardous Material requirements.
2. Security requirements.
3. Material Handling Equipment requirements.
4. Equipment specific transportation requirements.
5. Identify MAGTF Deployment Support System II (MDSS II) elements.

Performance Standard. Pass an exam.

Instructor. FLC instructor

Prerequisite. None.

References.

1. MCO 4030.33
2. MCRP 4-11C

AIRS-1013 0 * B (N) G

Goal. Identify LAAD Communications information exchange requirements.

Requirement. Given the references, perform the following:

1. Data systems.
2. Radio systems.
3. Data link systems.

Performance Standard. Pass an exam.

Instructor. FLC instructor

Prerequisite. None.

References.

1. MCWP 3-25.10
2. MCWP 3-25
3. Unit Core METL
4. MCBUL 3000

AIRS-1014 0 * B (N) G

Goal. Identify MATC communications information exchange requirements.

Requirement. Given the references, perform the following:

1. Data systems.
2. Radio systems.
3. Data link systems.

Performance Standard. Pass an exam.

Instructor. FLC instructor

Prerequisite. None.

References.

1. MCWP 3-25
2. MCWP 3-25.8
3. Unit Core METL
4. MCBUL 3000

AIRS-1016 0 * B (N) G

Goal. Identify the Marine Corps Urgent Needs Process (MCUNP).

Requirement. Given the references and an equipment requirement, identify the process for submission and complete the MCUNP form.

1. State the purpose of the MCUNP.
2. State the purpose of the urgent Universal Needs Statement (UNS).
3. State the purpose of the deliberate UNS.
4. Describe the process of completing an Urgent UNS form.
5. Describe the process of completing a deliberate UNS form.

Performance Standard. Pass an exam.

Instructor. FLC instructor

Prerequisite. None.

References.

1. NAVMC 11475
2. MCO 3900.17

AIRS-1017 0 * B (N) G

Goal. Validate induction of new equipment into service.

Requirement. Given a Material Fielding Plans (MFP) or Users Logistics Support Summary (ULSS), and applicable references, demonstrate and validate the induction of new equipment into service.

1. Review the Users Logistics Support Summary (ULSS) or Material Fielding Plan (MFP).
2. Validate new equipment is properly placed into service.
 - a. Ensure record jacket was created with proper documentation IAW the reference.
 - b. Ensure initial SL-3 was performed.
 - c. Ensure an initial LTI was performed.
 - d. Ensure induction of new equipment into calibration cycle as required.
 - e. Ensure equipment is accounted for within KMI as required.
 - f. Ensure the equipment and proper documentation was sent to Supply.
 - g. Ensure supply received the proper documentation to add equipment to the CMR.

Performance Standard. Pass an exam.

Instructor. FLC instructor

Prerequisite. None.

References.

1. Supply Instruction (SI)
2. ULSS
3. Equipment SL-3
4. Initial Issuing Provision Inventories

8. UM 4000-125 GCSS User's Manual
9. MMSOP
5. MCO 4790.2
6. MCO 4400.150

AIRS-1018 0 * B (N) G

Goal. Demonstrate the process to phase out obsolete equipment.

Requirement. Given a Phase out Plan (POP) and applicable references, demonstrate and validate phase out of obsolete equipment, to include at minimum:

1. Review the POP and applicable references.
2. State the purpose of:
 - a. Equipment disposition (Formerly WIR).
 - b. Requesting equipment disposition in GCSS-MC.
 - c. Materiel Returns (MTR) program.
3. Validate obsolete equipment was disposed of properly by ensuring the following:
 - a. Ensure a final LTI was performed.
 - b. Ensure a final SL-3 was performed.
 - c. Ensure equipment disposition request was submitted in GCSS-MC.
 - d. Ensure equipment was disposed of IAW instructions in Phase out plan.
 - e. Ensure the record jackets were completed and accompanied equipment.
 - f. Ensure the equipment and proper documentation was sent to Supply for turn-in.
 - g. Ensure supply received the proper documentation to remove equipment from the CMR.

Performance Standard. Pass an exam.

Instructor. FLC instructor

Prerequisite. None.

References.

1. UM 4000-125 GCSS User's Manual
2. MMSOP
3. Supply Instruction (SI)
4. Equipment SL-3
5. Initial Issuing Provision Inventories
6. MCO P4400.82
7. MCO 4790.2
8. MCO 4400.150

AIRS-1019 0 * B (N) G

Goal. Identify maintenance funding requirements.

Requirement. Given a scenario, equipment maintenance history and anticipated maintenance shortfalls, propose funding allocations for maintenance activities to create a maintenance budget.

1. Identify and prioritize funding requirements.
2. Provide a maintenance funding request based on requirement and prior year utilization.
3. Provide an anticipated maintenance funding request based on the unit's TEEP.
4. Submit a budget request to the instructor for validation.

Performance Standard. Pass an exam.

Instructor. FLC instructor

Prerequisite. None.

References.

1. MCO 4400.150
2. MCO 7300.21

AIRS-1020 0 * B (N) G

Goal. Identify the SECREP management process.

Requirement. Given a practical application scenario, applicable maintenance and supply history documents, review and provide recommendations for organizational Low Density SECREP (LD) assets and required on-hand quantities:

1. Define the purpose of the SECREP management process.
2. Define the purpose of the SECREP exchange process.
3. Identify the key components of the SECREP exchange process.
4. Identify the key documentation within each component of the SECREP exchange process.
5. Identify the SECREP management re-computation process.
6. Identify Low Density SECREP assets.

Performance Standard. Pass an exam.

Instructor. FLC instructor

Prerequisite. None.

References.

1. MCO 4790.2
2. MCO 4400.150
3. FEDLOG
4. MCO P4400.82F
5. MCO P4400.151B
6. UM 4000-125 GCSS User's Manual
7. MMSOP

AIRS-1021 0 * B (N) G

Goal. Identify DOD cyber security workforce structure.

Requirement. Given the reference, identify:

1. The cyber security categories.
2. Requirements for cyber security categories.

Performance Standard. Pass an exam.

Instructor. FLC instructor

Prerequisite. None.

Reference.

1. DOD 8570.01-M

AIRS-1022 0 * B (N) G

Goal. Access published information within TFSMS.

Requirement. Given access to TFSMS, complete the following:

1. Access unit TO/E.
2. Access standard reports.
3. Create custom reports.
4. Manage custom reports.

Performance Standard. Pass an exam.

Instructor. FLC instructor

Prerequisite. None.

References.

1. URL <https://tfsms.mccdc.usmc.mil>
2. MCO 5311.1

AIRS-1023 0 * B (N) G

Goal. Describe readiness ratings within DRRS-MC.

Requirement. IAW the reference, describe the following:

1. Describe P-rating.
2. Describe S-rating.
3. Describe R-rating.
4. Describe T-rating.
5. Describe C-level assessment.
6. Identify how the Commander will assess their METs.
 - a. Trained.
 - b. Qualified.
 - c. Not Observed.

Performance Standard. Pass an exam.

Instructor. FLC instructor

Prerequisite. None.

References.

1. NAVMC 3500.14C
2. MCO 3000.13 MARINE CORPS READINESS REPORTING STANDARD OPERATING PROCEDURES (SOP)
3. MCO 3000.11E

AIRS-1024 0 * B (N) G

Goal. Explain the product quality deficiency report (PQDR).

Requirement. Given the reference, an item of equipment or a scenario, identify the following:

1. Purpose of the PQDR.
2. Criteria under which a PQDR should be submitted.
3. Information required for submitting a PQDR.

Performance Standard. Pass an exam.

Instructor. FLC instructor

Prerequisite. None.

References.

1. MCO 4790.2
2. UM 4400.125
3. MCO 4855.10B PRODUCT QUALITY DEFICIENCY REPORT (PQDR)
4. SECNAVINST 4855.5, Product Quality Deficiency Report Program
5. <http://www.logcom.usmc.mil/pqdr/files/PQDR%20Users%20Guide.pdf>

AIRS-1025 0 * B (N) G

Goal. Identify major funding lines.

Requirement. Given the references, identify major funding lines:

1. Operation & Maintenance (O&M) Funds.
 - a. Planning Estimate (PE).
 - (1) Direct Support Stock Center (DSSC).
 - (2) Temporary Additional Duty.
 - (3) Fuel.
 - (4) Government-Wide Commercial Purchase Card Program (GCPC).
 - b. Requisition Authority (RA) – Supported Activities Supply System (SASSY).
2. Research, Development, Test & Evaluation (RDT&E).
3. Procurement Marine Corps (PMC).
4. Military Construction (MILCON).
5. Blue Dollars (2F Funds).

Performance Standard. Pass an exam.

Instructor. FLC instructor

Prerequisite. None.

References.

1. MCO 4400.150
2. MCO 7300.21

AIRS-1026 0 * B (N) G

Goal. State the duties of a CMR responsible officer.

Requirement. IAW the reference, complete the following:

1. State the purpose of a CMR.
2. Review TE.
3. Describe the process of the CMR inventory.
 - a. Ensure SL-3 accountability for assumption and relief.
 - b. Determine UURI requirements.
 - c. Ensure equipment have record jackets.
 - d. Identify discrepancies, if any.
4. State the purpose for the letter of RFI.
5. State the purpose of the delegation of authority.
6. State the purpose of the Responsible Individual (RI).
7. State the purpose for maintaining source documents.

Performance Standard. Pass an exam.

Instructor. FLC instructor

Prerequisite. None.

References.

1. MCO 4400.150
2. CMR
3. MMSOP
4. MCO 4790.2
5. UM 4000.125

3.7 CORE PHASE (2000)

3.7.1 Purpose. **RESERVED FOR FUTURE USE.**

3.7.2 General.

3.7.2.1 Admin Notes.

3.7.2.2 Prerequisite.

3.7.2.3 Stages.

3.8 MISSION PHASE (3000)

3.8.1 Purpose. **RESERVED FOR FUTURE USE.**

3.8.2 General.

3.8.2.1 Admin Notes.

3.8.2.2 Prerequisite.

3.8.2.3 Stages. The following stages are included in the Mission Phase.

3.9 CORE PLUS PHASE (4000)

3.9.1 Purpose. **RESERVED FOR FUTURE USE.**

3.9.2 General.

3.9.2.1 Admin Notes.

3.9.2.2 Prerequisite.

3.9.2.3 Stages.

3.10 MISSION PLUS PHASE (4500)

3.10.1 Purpose. **RESERVED FOR FUTURE USE.**

3.10.2 General.

3.10.2.1 Admin Notes.

3.10.2.2 Prerequisite.

3.10.2.3 Stages.

3.11 INSTRUCTOR TRAINING PHASE (5000)

3.11.1 Purpose. The MACCS instructor concept is a means to standardize all instructors across the MACCS in regards to the concepts of managing a WTTP, properly conducting training, performing evaluations, and recommending training plans. Upon completion of the required training, an individual may be approved for instructor designation by the commanding officer.

3.11.2 General.

3.11.2.1 Admin Notes. None.

3.11.2.2 Prerequisite. None.

3.11.2.3 Stages. The following stages are included in the Instructor Training Phase.

PAR NO.	STAGE NAME	PAGE NUMBER
3.11.3	INSTRUCTOR UNDER TRAINING (IUT)	3-18

3.11.3 INSTRUCTOR UNDER TRAINING (IUT) STAGE

3.11.3.1 Purpose. To train Aviation Radar Maintenance Officers in the fundamentals of instructing and training processes.

3.11.3.2 General.

Admin Notes. None.

Prerequisite. None.

Crew Requirements. None.

IUT-5000 2.0 * B (N) L

Goal. Introduce principals of instruction.

Requirement. Given the reference, the BIUT will demonstrate the following with the assistance of a unit instructor:

1. Adult learning principles.
 - a. Pedagogy to andragogy.
 - b. Characteristics of the adult learner.
 - c. Learning styles.
 - d. How adults learn.
 - e. Domains of learning.
 - f. Group dynamics.
 - g. Motivation.
 - h. Constructivist learning environments.
2. Introduce, discuss, and demonstrate instruction techniques.
3. Introduce, discuss, and demonstrate class management techniques.
 - a. How to select teaching resources to accommodate student learning styles.
 - b. How to properly organize the instructional environment for effective learning.

Performance Standard. With the aid of references, the BIUT shall demonstrate principles of instruction. During this session, the instructor shall discuss the event content and question the student throughout the

training session to ensure understanding.

Instructor. SI.

Prerequisite. None.

References.

1. Adult Learning section, Systems Approach to Training Manual (2004)
2. NAVMC 3500.14
3. NAVMC 1553.1

IUT-5010 2.0 * B (N) G

Goal. Describe individual T&R requirements.

Requirement. Using the Aviation T&R Program Manual, discuss the purpose of each of the following items with an instructor:

1. Training progression model.
2. Programs of Instruction.
 - a. Basic.
 - b. Refresher.
 - c. Conversion.
 - d. Series Conversion.
 - e. Transition.
 - f. Maintain.
3. T&R attain and maintain tables.
4. Syllabus notes.
5. T&R syllabus structure.
 - a. Phase.
 - b. Stage.
 - c. Event.
 - d. Skill.
 - e. Syllabus.
6. Event format.
 - a. Header.
 - (1) Event prefix - event code.
 - (2) Projected event duration.
 - (3) Proficiency period.
 - (4) Programs of instruction (POI).
 - (5) Event conditions.
 - (6) Device options.
 - (7) Device number.
 - (8) Device type.
 - b. Body.
 - (1) Goal.
 - (2) Requirement.
 - (3) Performance standard.
 - (4) Equipment.

Performance Standard. Without the aid of references and during a discussion session, the BIUT shall describe Individual T&R requirements. During this session, the instructor shall discuss the event content and question the student throughout the training session to ensure understanding.

Instructor. SI.

Prerequisite. None.

References.

1. NAVMC 3500.14
2. NAVMC 1553.1

IUT-5020 12.0 90 B, R, M (N) L

Goal. Conduct T&R instruction.

Requirement. The BIUT, under the supervision of an instructor, will conduct three periods of instruction on three different T&R events selected by the instructor and should include as many different methods of instruction as possible (lecture or academic, demonstration, and practical application). The event must be one the BIUT is current and proficient in. The BIUT will complete the following for each of the three events instructed:

1. Prepare to train the event.
 - a. Review a trainee's performance record to identify required training for the event selected.
 - b. Ensure the student has met prerequisites for the event to be trained.
 - c. Gather the resources necessary to conduct the training (i.e., instructional materials, references, and equipment).
 - d. Conduct task analysis on each event to ensure all intended requirements and prerequisite skills, specified or implied, are trained IAW applicable references.
 - e. Schedule the training event (facilities and students).
 - f. Prepare an evaluation form for each student to be evaluated.
2. Conduct training on the event selected:
 - a. Ensure all training resources are properly staged/equipment if set up properly for training.
 - b. Instruct the student in a thorough manner so as to cover all requirements for the event.
 - c. Ensure continuous, objective assessment of the student's progress during training.
3. Assess student performance:
 - a. Assess the student's performance to the performance standard.
 - b. Correct student deficiencies in a timely manner and provide the student feedback.
 - c. Complete the evaluation form on for each student trained.
 - d. Debrief student on the performance and provide corrective action.
4. Route evaluation form as required.

Performance Standard. Complete the requirement items IAW the reference and ensure training is doctrinally and technically current. Instructor shall use the instructor evaluation form from the SAT user's guide for each class and a mark of satisfactory must be achieved for each of the three classes.

Instructor. SI.

Prerequisite. 5000, 5010

References.

1. NAVMC 3500.14, Ch 6
2. NAVMC 1553.1
3. MCO 1553.2B, Appendix O

IUT-5100 2.0 * B (N) G

Goal. Describe the Aviation Training and Readiness (T&R) Program.

Requirement. Using the community T&R manual discuss the following with an instructor:

1. Describe the Weapons and Tactics Training Program (WTPP).
2. Define each element of the Core Model:
 - a. Mission statements.
 - b. Core Mission Essential Task List (METL).

- c. Output standards.
- d. Core Phase (How to attain and maintain).
- e. Mission Phase (How to attain and maintain).
- f. Combat Leadership.
- 3. Define each of the following elements of unit training:
 - a. Training Exercise Employment Plan (TEEP).
 - b. Core Model Minimum Requirements (CMMR).
 - c. Instructors.
 - d. Core Model Training Report (CMTR).
 - e. T&R manual connection to readiness reporting.
- 4. Define each of the following elements of training:
 - a. Certification.
 - b. Qualification.
 - c. Designation.
- 5. PERFORMANCE RECORD Explain how changes are made to the Program manual:
 - a. Explain T&R conference procedures.
 - b. Explain correspondence change procedures.

Performance Standard. Complete the requirements IAW the reference. Instructor will question the SIUT to check for thorough understanding of the Aviation T&R Program.

Instructor. SI

Prerequisite. None.

References.

- 1. NAVMC 3500.14
- 2. MCO 3500.109

IUT-5110 4.0 365 B, R, M (N) L

Goal. Conduct instructor evaluations.

Requirement. Using the instructor evaluation checklist from the SAT manual, conduct two evaluations on instructors of equal or lower designation.

- 1. Provide notification of evaluation to the instructor being evaluated.
- 2. Do not interfere with or disrupt the instruction while taking place.
- 3. Thoroughly document observed items on the checklist.
- 4. Ensure student evaluation form is filled out correctly and the appropriate debrief took place.
- 5. Debrief the instructor being evaluated on their preparation, instruction, evaluation, and documentation.
- 6. Have the evaluated instructor complete the instructor improvement plan section and sign.
- 7. File a copy of the completed evaluation form in both the evaluator's and evaluated instructor's performance record.

Performance Standard. Complete the requirements IAW the reference.

Instructor. SI

Prerequisite. 5100

References.

- 1. NAVMC 3500.14
- 2. Applicable community T&R Manual
- 3. MCO1553.2B, Appendix O

IUT-5120 2.0 * B (N) L

Goal. Perform T&R administration.

Requirement. Document training to include:

1. Performance records.
2. Ensure MSHARP is updated appropriately.
3. Assemble recommendation package for certifications, qualifications, and designations IAW T&R manual.

Performance Standard. Complete the requirement items IAW the references. Instructor will question the trainee to check for understanding of the administration process.

Instructor. SI

Prerequisite. 5100, 5110

References.

1. NAVMC 3500.14
2. Local WTTP SOP
3. <http://msharpsupport.com>

IUT-5130	2.0	*	B	(N)	L

Goal. Develop a training plan.

Requirement. Given a deployment scenario develop a training plan to determine individual, and crew training needed to meet CMMR by completing the following:

1. Review Commander's training guidance.
2. Analyze the CMTR to determine training deficiencies and how to achieve CMMR.
3. Identify and schedule T&R training opportunities IAW the TEEP to achieve requirements.
4. Determine instructors required.
5. Determine equipment required.
6. Determine external support required.
7. Deliver a brief to the instructor that shows:
 - a. Crew manning and training requirements.
 - b. Current training status.
 - c. Identify the training deficiencies and resource shortfalls.
 - d. Explain the training plan to correct the training deficiencies.
 - e. Training plan meets commander's guidance.

Performance Standard. Complete the requirement items IAW the references and commander's training guidance. Training plan will ensure adequate time is allocated to include preparation, instruction, assessment, documentation, and remediation.

Instructor. SI

Prerequisite. 5100, 5110, 5120

References.

1. NAVMC 3500.14
2. Applicable Community T&R manuals

3.12 CERTIFICATIONS, QUALIFICATION, DESIGNATIONS (CQD) (6000) PHASE.

3.12.1 Purpose. This phase provides community standardization for MACCS Warrant Officer designations; combat leaders and instructor designations.

3.12.2 General.

3.12.2.1 Admin Notes.

1. This section enables units to document and track combat leaders, instructors, and technicians All syllabus training and administration requirements must be complete prior to being designated. A designation is not effective until all administration is completed.

2. Only once an individual is designated in writing, the signed letter is filed in the IPR, and all administrative actions are completed, and the event code has been logged in M-SHARP shall the designation be effective.

3.12.2.2 Prerequisite. None.

3.12.2.3 Stages. The following stages are included in the Instructor Under Training Stage.

PAR NO.	STAGE NAME	PAGE NUMBER
3.12.3	SCHOOL CODES (SCHL)	3-23
3.12.4	DESIGNATION (DESG)	3-27

3.12.3 SCHOOL CODES (SCHL) STAGE

3.12.3.1 Purpose. To provide tracking codes for schools that are pertinent to the training of the 5910 in the skill progression of the Marine.

3.12.3.2 General.

Admin Notes. Policies and prerequisites for attending the listed schools are maintained within MCTIMS.

Prerequisite. None.

Crew Requirements. None.

SCHL CODE	NAME OF COURSE	LOCATION	CID
SCHL-6000	Weapons and Tactics Instructor (WTI)	MCAS Yuma, AZ	M14P2A1
SCHL-6020	Link 16 Basics Course (JT-100)	Joint Knowledge Online (JKO)	N/A
SCHL-6021	Intro to Multi TDL Network (JT-101)	Fort Bragg, NC	N/A
SCHL-6022	Multi-TDL Advanced Joint Interoperability Course (MAJIC) (JT-102)	Fort Bragg, NC	A05L6Z1
SCHL-6023	Link 16 Joint Interoperability Course (US-109)	Joint Knowledge Online (JKO)	N/A
SCHL-6024	Multi TDL Planner Course (JT-201)	Fort Bragg, NC	A05KHY1
SCHL-6025	Link 16 Unit Manager (LUM) Course (JT-220)	Fort Bragg, NC	A05A111
SCHL-6026	Joint Interface Control Officer (JICO) (JT-301)	Fort Bragg, NC	A05FH21
SCHL-6027	Advanced JICC Operator Course (JT-310)	Fort Bragg, NC	A05FH11
SCHL-6031	MATC Maintenance Managers Course	NATTC, FL	N23KCN2
SCHL-6073	Micro-Miniature Electronics Repair Course	San Diego, CA	N01A351
		Norfolk, VA	N02A351
SCHL-6093	Micro-miniature/Automated Test Equipment Repair Course	29 Palms, CA	M09E2D1
SCHL-6094	Advanced Electronics Course	29 Palms, CA	M09DSK1

SCHL CODE	NAME OF COURSE	LOCATION	CID
SCHL-6095	Ground Electronics Maintenance NCO Course	Camp Johnson, NC	M03DNSG
SCHL-6097	Mountain Command Control Communications Course	Bridgeport, CA	M24CXJ1

SCHL-6000 .5 * B (N) G

Goal. WTI Course.

Requirement. Attend the WTI course as a student and complete the requirements outlined in the course curriculum.

Performance Standard. Successfully complete course requirements.

Prerequisite. 6320, 6321, 8000, 8020, 8040, 8060, 8080

Reference. None.

SCHL-6020 .5 * B (N) G

Goal. Link 16 Basics Course (JT-100).

Requirement. Attend the course as a student and complete the requirements outlined in the course curriculum.

Performance Standard. Successfully complete course requirements.

Prerequisite. None.

Reference. None.

SCHL-6021 .5 * B (N) G

Goal. Intro to Multi TDL Network (JT-101) Course.

Requirement. Attend the course as a student and complete the requirements outlined in the course curriculum.

Performance Standard. Successfully complete course requirements.

Prerequisite. None.

Reference. None.

SCHL-6022 .5 * B (N) G

Goal. Multi-TDL Advanced Joint Interoperability Course (MAJIC) (JT-102).

Requirement. Attend the course as a student and complete the requirements outlined in the course curriculum.

Performance Standard. Successfully complete course requirements.

Prerequisite. None.

Reference. None.

SCHL-6023 .5 * B (N) G

Goal. Link 16 Joint Interoperability Course (US-109).

Requirement. Attend the course as a student and complete the requirements outlined in the course curriculum.

Performance Standard. Successfully complete course requirements.

Prerequisite. None.

Reference. None.

SCHL-6024 .5 * B (N) G

Goal. Multi TDL Planner Course (JT-201).

Requirement. Attend the course as a student and complete the requirements outlined in the course curriculum.

Performance Standard. Successfully complete course requirements.

Prerequisite. None.

Reference. None.

SCHL-6025 .5 * B (N) G

Goal. Complete Link 16 Unit Manager (LUM) Course (JT-220).

Requirement. Attend the course as a student and complete the requirements outlined in the course curriculum.

Performance Standard. Successfully complete course requirements.

Prerequisite. None.

Reference. None.

SCHL-6026 .5 * B (N) G

Goal. Complete Joint Interface Control Officer (JICO) Course(JT-301).

Requirement. Attend the course as a student and complete the requirements outlined in the course curriculum.

Performance Standard. Successfully complete course requirements.

Prerequisite. None.

Reference. None.

SCHL-6027 .5 * B (N) G

Goal. Complete Advanced JICC Operator Course (JT-310)

Requirement. Attend the course as a student and complete the requirements outlined in the course curriculum.

Performance Standard. Successfully complete course requirements.

Prerequisite. None.

Reference. None.

SCHL-6073 .5 * B (N) G

Goal. Complete Micro-miniature Electronics Repair Course.

Requirement. Attend the course as a student and complete the requirements outlined in the course curriculum.

Performance Standard. Successfully complete course requirements.

Prerequisite. None.

Reference. None.

SCHL-6093 .5 * B (N) G

Goal. Complete Micro-miniature/Automated Test Equipment Repair Course.

Requirement. Attend the course as a student and complete the requirements outlined in the course curriculum.

Performance Standard. Successfully complete course requirements.

Prerequisite. None.

Reference. None.

SCHL-6094 .5 * B (N) G

Goal. Complete Advanced Electronics Course.

Requirement. Attend the course as a student and complete the requirements outlined in the course curriculum.

Performance Standard. Successfully complete course requirements.

Prerequisite. None.

Reference. None.

SCHL-6095 .5 * B (N) G

Goal. Complete Ground Electronics Maintenance NCO Course.

Requirement. Attend the course as a student and complete the requirements outlined in the course curriculum.

Performance Standard. Successfully complete course requirements.

Prerequisite. None.

Reference. None.

SCHL-6096 .5 * B (N) G

Goal. Complete Formal Learning Center Instructor Course.

Requirement. Attend the course as a student and complete the requirements outlined in the course curriculum.

Performance Standard. Successfully complete course requirements.

Prerequisite. None.

Reference. None.

SCHL-6097 .5 * B (N) G

Goal. Complete Mountain Command Control Communications Course

Requirement. Attend the course as a student and complete the requirements outlined in the course curriculum.

Performance Standard. Successfully complete course requirements.

Prerequisite. None.

Reference. None.

3.12.4 DESIGNATIONS (DESG) STAGE

3.12.4.1 Purpose. To provide for designation of combat leaders and instructors.

3.12.4.2 General.

Admin Notes. Policies and rules for attaining and maintaining designations are detailed in the Aviation T&R Program Manual and this Manual. Designations are command specific and expire when an individual transfers out of a command. In order to ensure proficiency is maintained, specific events throughout this syllabus have been R-coded. The gaining command shall review the IPR to ensure prerequisite R-coded events for a designation are current prior to approving that designation. If prerequisite R-coded events are delinquent, the individual shall update those events.

Prerequisite. None.

Crew Requirements. None.

DESG-6320 .5 * B (N) G

Goal. Basic Instructor (BI).

Requirement. Be recommended for designation by a WTI and designated in writing by the commanding officer.

Performance Standard. N/A

Instructor. WTI

Prerequisite. 5000, 5010, 5020

Reference. MAWTS-1 C3 Course Catalog

DESG-6321	.5	*	B	(N)	G

Goal. Senior Instructor (SI).

Requirement. Be recommended for designation by a WTI and designated in writing by the commanding officer.

Performance Standard. N/A

Instructor. WTI

Prerequisite. 5000, 5010, 5020, 5100, 5110, 5120, 5130

Reference. MAWTS-1 C3 Course Catalog

DESG-6322	.5	*	B	(N)	G

Goal. Weapons and Tactics Instructor (WTI).

Requirement. Be certified by MAWTS-1 as a WTI and be recommended for designation by the squadron WTI. The commanding officer will designate the WTI in writing.

Performance Standard. N/A

Instructor. WTI

Prerequisite. 6000, 8000, 8001, 8002, 8003, 8004, 8005, 8006, 8008, 8020, 8021, 8022, 8023, 8024, 8025, 8026, 8027, 8028, 8040, 8041, 8042, 8043, 8044, 8060, 8080

Reference. MAWTS-1 C3 Course Catalog

DESG-6330	0.5	*	B	(N)	G

Goal. Formal Learning Center Instructor (FLCI).

Requirement. Complete the formal learning center's instructor requirements, designated by the commanding officer in writing.

Performance Standard. N/A.

Instructor. WTI.

Prerequisite. None.

Reference.

1. NAVMC 3500.14, Naval Aviation Program Manual

DESG-6340	0.5	*	B	(N)	G

Goal. Aviation Radar Maintenance Officer (ARMO).

Requirement. Be designated by the commanding officer in writing.

Performance Standard. N/A.

Instructor. WTI.

Prerequisite. None.

Reference.

1. NAVMC 3500.14, Naval Aviation Program Manual

3.13 MISSION ESSENTIAL TASK (MET) PHASE (7000)

3.13.1 Purpose. This phase takes CMMR proficient Marines from multiple PMOS, puts them in CMMR representative crews, and trains them as combat effective teams in combined events.

3.13.2 General.

3.13.2.1 Admin Notes. Prerequisites for this phase of training cannot be waived. Multiple events can be trained at the same time as long as separate evaluations are being conducted.

3.13.2.2 Prerequisite. Marines must either be CMMR crew position or non-aviation PMOS proficient to train in this phase. For those events requiring combat leaders, only Marines currently designated as such can train in this phase.

3.13.2.3 Stages. The following stages are included in the Mission Essential Task (MET) Phase of training.

PAR NO.	STAGE NAME	PAGE NUMBER
3.13.3	CONDITION (COND)	3-29

3.13.3 CONDITION (COND)

3.13.3.1 Purpose. To train unit level teams in executing community specific MET(s) or MET preparatory events.

3.13.3.2 General.

Admin Notes. All events in this stage will require the following administrative/operational documents to be identified or created:

1. Letter Of Instruction (LOI)
2. Personnel Roster
3. Bill Of Material (BOM)
4. Equipment Density List (EDL)

Prerequisite. If an event requires prerequisites in addition to those listed for the MET Phase, they will be covered in the individual event.

Crew Requirements. This stage requires that all crew members and combat leaders be qualified/designated and proficient (current) in the position they are assigned for the following events. Crews shall be task organized to meet the mission.

COND-7000 16.0 730 B, R, M (N) L

Goal. Conduct Airspace Surveillance.

Requirement. Given organic C2 systems, radars, and a minimum of two CMMR surveillance crews, perform the following:

1. Plan for the emplacement, setup, operation, and maintenance of TAOC radar(s) and C2 equipment within the MAGTF and/or joint assigned airspace.
2. Extract tactical data link (TDL) architecture information from MAGTF and joint documents.
3. Extract required surveillance operations information exchange requirements from source MAGTF and/or joint documents.
4. Plan for TAOC airspace surveillance operations.
5. Conduct the emplacement, setup, operation, and maintenance of TAOC radar(s) and C2 equipment.
6. Detect and track aircraft and missiles within MAGTF and/or joint assigned airspace using organic TAOC radar(s).
7. Conduct combat identification on objects detected and tracked using information extracted from surveillance operations source documents.
8. Disseminate air/ground surveillance information to adjacent, higher, and subordinate agencies and aircraft identified in surveillance operations source documents.
9. Demonstrate proficiency during crew changeover.

Performance Standard. Complete the requirements conducting TAOC operations in support of MAGTF and/or joint exercises or operations.

Instructor. WTI

Prerequisite. None.

External Syllabus Support. TDSM, RDR, AVRAD, UT. Live execution will require specific T/M/S aviation assets.

Reference. None.

COND-7001 16.0 730 B, R, M (N) E L/S

Goal. Conduct Positive Control.

Requirement. Given organic C2 systems, radars, and a minimum of two CMMR weapons crews, perform the following:

1. Plan for the emplacement, setup, operation, and maintenance of TAOC radar(s) and C2 equipment within the MAGTF and/or joint assigned airspace.
2. Conduct the emplacement, setup, operation, and maintenance of TAOC radar(s) and C2 equipment.
3. Extract airspace control measures within TAOC assigned airspace from MAGTF and/or joint source documents.
4. Conduct airspace management using MEF/MAW sustained sortie generation rates.
5. Conduct airspace control using MEF/MAW sustained sortie generation rates.
6. Conduct positive control using MEF/MAW sustained sortie generation rates.
7. Demonstrate proficiency during crew changeover.

Performance Standard. Complete the requirements conducting TAOC operations in support of MAGTF and/or joint exercises or operations.

Instructor. WTI

Prerequisite. None.

External Syllabus Support. TDSM, RDR, AVRAD, UT. Live execution will require specific T/M/S aviation assets.

Reference. None.

COND-7002 16.0 730 B, R, M (N) E L/S

Goal. Coordinate Air Defense Actions.

Requirement. Given organic C2 systems, radars, and a minimum of two CMMR weapons crews, perform the following:

1. Plan for the emplacement, setup, operation, and maintenance of TAOC radar(s) and C2 equipment within the MAGTF and/or joint assigned airspace.
2. Conduct the emplacement, setup, operation, and maintenance of TAOC radar(s) and C2 equipment.
3. Extract air defense requirements from MAGTF and/or joint air defense documents.
4. Create a plan for the TAOC to manage and control AAW aircraft engagements, expenditures, and employment using MEF/MAW sortie generation rates.
5. Create a plan for the TAOC to provide management of GBAD engagements, expenditures, and employment.
6. Manage and control AAW aircraft engagements, expenditures, and employment using MEF/MAW sortie generation rates.
7. Provide management of GBAD engagements, expenditures, and employment.
8. Detect potential threat aircraft and/or missiles using TAOC organic radars.
9. Disseminate threat information to higher, adjacent, and subordinate MACCS agencies.
10. Demonstrate proficiency during crew changeover.

Performance Standard. Complete the requirements conducting TAOC operations in support of MAGTF and/or joint exercises or operations.

Instructor. WTI

Prerequisite. None.

External Syllabus Support. TDSM, RDR, AVRAD, UT. Live execution will require specific T/M/S aviation assets.

Reference. None.

COND-7003 16.0 730 B, R, M (N) E L/S

Goal. Conduct Dual Site Air Defense Operations.

Requirement. Given organic C2 systems, radars, and a minimum of four CMMR air defense crews, perform the following at two geographically disparate sites:

1. Plan for the emplacement, setup, operation, and maintenance of TAOC radar(s) and C2 equipment within the MAGTF and/or joint assigned airspace.
2. Conduct the emplacement, setup, operation, and maintenance of TAOC radar(s) and C2 equipment.
3. Conduct airspace surveillance.
4. Conduct positive control.
5. Coordinate air defense actions.
6. Demonstrate proficiency during crew changeover.

Performance Standard. Complete the requirements conducting TAOC operations in support of MAGTF and/or joint exercises or operations.

Instructor. WTI

Prerequisite. None.

External Syllabus Support. TDSM, RDR, AVRAD, UT. Live execution will require specific T/M/S aviation assets.

Reference. None.

COND-7004 16.0 730 B, R, M (N) E L/S

Goal. Integrate Operational Air Defense Capabilities.

Requirement. Given organic C2 systems, radars, and a minimum of two core plus proficient SADC crews, perform the following:

1. Plan for the emplacement, setup, operation, and maintenance of TAOC radar(s) and C2 equipment within the MAGTF and/or joint assigned airspace.
2. Conduct the emplacement, setup, operation, and maintenance of TAOC radar(s) and C2 equipment.
3. Extract air defense requirements from MAGTF and joint air defense documents.
4. Create a plan for the TAOC to manage air defense operations within MAGTF and/or joint assigned region/sector.
6. Manage air defense operations within the MAGTF and/or joint assigned region/sector.
7. Extract tactical data link (TDL) architecture information from MAGTF and joint documents.
8. Create a plan for TAOC to assist the (Joint) Interface Control Officer J/ICO with the management of TDLs.
9. Manage TDLs for the TAOC in support of MAGTF and joint operations.
10. Demonstrate proficiency during crew changeover.

Performance Standard. Complete the requirements conducting TAOC operations in support of MAGTF AAW and/or joint DCA exercises or operations.

Instructor. WTI

Prerequisite. None.

External Syllabus Support. TDSM, RDR, AVRAD, UT. Live execution will require specific T/M/S aviation assets.

Reference. None.

3.14 AVIATION CAREER PROGRESSION MODEL (8000).

3.14.1 Purpose. To enhance professional understanding of Marine Aviation and the MAGTF, and to ensure individuals possess the requisite skills to fill battle command and battle staff positions in support of the ACE and the MAGTF in a joint environment. The focus of training in the Aviation Career Progression Model (ACPM) is on academic events in the following areas:

Marine Air Command and Control System (MACCS)
Aviation Ground Support
Joint Air Operations
ACE Battle Staff
MAGTF
Seabased Operations
Combatant Commander Organizations

3.14.2 General. The ACPM is intended to be an integrated series of academic events contained within each phase of training. Accordingly, ACPM academic events are like any other academic event in that they serve as pre-

requisites to selected flight events or stages. Additionally, several ACPM academic events are integrated as prerequisites for flight leadership syllabi. ACPM events may be conducted in group session with an assigned instructor teaching the period of instruction or they may be accomplished by self-paced instruction. MAWTS-1 is responsible for the update and validity of the ACPM periods of instruction. In the future, courses may be consolidated or revised to meet changing requirements.

Refer to the MAWTS-1 ACPM link for the current ACPM program of instruction:
<https://mcalms.usmc.mil/kc/login/PAWAcknowledgement.aspx>

3.14.3 ACPM (ACPM) STAGE

3.14.3.1 Purpose. To enhance professional understanding of Marine Aviation and the MAGTF, and to ensure individuals possess the requisite skills to fill battle command and battle staff positions in support of the ACE and the MAGTF in a joint environment.

3.14.3.2 General

Prerequisite. None.

Admin Notes. None

Crew Requirements. None.

ACPM-8000	1.0	*	B	(N)	G

Goal. Demonstrate an understanding of the MACCS stage.

Requirement. Pass a closed book examination that encompasses all learning objectives contained in the prerequisites.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. SI.

Prerequisite. 8001, 8002, 8003, 8004, 8005, 8006, 8008.

Reference. C3 Course Catalog.

ACPM-8001	4.0	*	B	(N)	G

Goal. Demonstrate an understanding of the Marine Air Command and Control System (MACCS).

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Describe how the control of aircraft and missiles relates to the other five functions of USMC aviation.
2. Define the control of aircraft and missiles and each of its subcomponents.
3. Define the Marine aviation's philosophy of centralized command and decentralized control.
4. Differentiate between Marine aviation philosophy and Joint aviation philosophy.
5. Identify the principle objectives of the MACCS.
6. Recall the primary role of each agency of the MACCS.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 MACCS Agencies, Functions and the Control of Aircraft and Missiles Class
2. MCWP 3-25.3 MACCS Handbook
3. MCWP 3-25 Control of Aircraft and Missiles

ACPM-8002 4.0 * B (N) G

Goal. Demonstrate an understanding of the Tactical Air Command Center (TACC).

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. State the mission of the TACC.
2. Identify the four organizations of the TACC.
3. List the primary responsibilities of Air Combat Intelligence (ACI).
4. List the primary responsibilities of Future Operations (FOPS).
5. List the primary responsibilities of Future Plans (FPLANS).
6. List the primary responsibilities of Current Operations (COPS).
7. List the major end items used by the TACC.
8. List the system limitations of the TACC.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 TACC Class
2. MAWTS-1 MTACS Class
3. MCWP 3-25.4 TACC Handbook

ACPM-8003 4.0 * B (N) G

Goal. Demonstrate an understanding of the Direct Air Support Center (DASC).

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify the role of the DASC.
2. List the structure and task organization of the DASC.
3. Identify the major end items and their characteristics used by the DASC.
4. List the capabilities and limitations of the DASC.
5. Identify how the DASC is doctrinally employed as part of the MACCS.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 DASC Class
2. MCWP 3-25.5 DASC Handbook

ACPM-8004 4.0 * B (N) G

Goal. Demonstrate an understanding of the Tactical Air Operations Center (TAOC).

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Define the mission of the TAOC.
2. Identify the Mission Essential Tasks (METs) for the TAOC.
3. Identify the structure and task organization of the TAOC.
4. Identify the major end items and their characteristics used by the TAOC.
5. Identify the capabilities and limitations of the TAOC.
6. Identify how the TAOC is doctrinally employed as part of the MACCS.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 TAOC Class
2. MCWP 3-25.7 TAOC Handbook

ACPM-8005 4.0 * B (N) G

Goal. Demonstrate an understanding of the Marine Air Traffic Control (MATC).

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify the mission of MATC.
2. Identify the Mission Essential Tasks (METs) for MATC.
3. List the structure and task organization of MATC.
4. Identify the major end items and their characteristics used by MATC.
5. Identify the capabilities and limitations of MATC.
6. Identify how MATC is doctrinally employed as part of the MACCS.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 MATC Class
2. MAWTS-1 MMT Class
3. MCWP 3-25.8 MATC Detachment Handbook

ACPM-8006 4.0 * B (N) G

Goal. Demonstrate an understanding of the Low Altitude Air Defense (LAAD).

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify the mission of the LAAD battalion.
2. Identify the structure and task organization of the LAAD battalion.
3. Identify the primary vehicle and surface-to-air weapon used by the LAAD Battalion.
4. Define the LAAD employed guidelines.
5. List the LAAD weapon applications.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 LAAD Class
2. MCWP 3-25.10 LAAD BN Handbook
3. MCWP 3-25.10A LAAD Gunner's Handbook

ACPM-8008 4.0 * B (N) G

Goal. Demonstrate an understanding of the Marine Wing Communications Squadron (MWCS).

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify the mission of the MWCS.
2. Identify the structure and task organization of the MWCS.
3. Identify the Mission Essential Tasks (METs) for the MWCS.
4. Identify the major end items and their characteristics used by MWCS.
5. Identify the capabilities and limitations of the MWCS.
6. Identify how the MWCS is doctrinally employed as part of the MACCS.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 MWCS Employment Class
2. MCRP 3-30B.2 MAGTF Communications Systems
3. NAVMC 3500.56 Communications Training and Readiness Manual

ACPM-8020 1.0 * B (N) G

Goal. Demonstrate an understanding of the ACE stage of the MACCS ACPM.

Requirement. Pass a closed book examination that encompasses all learning objectives contained in the prerequisites.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. 8021, 8022, 8023, 8024, 8025, 8026, 8027, 8028.

Reference. C3 Course Catalog.

ACPM-8021 4.0 * B (N) G

Goal. Demonstrate an understanding of USMC aviation operations doctrine.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify the six functions of Marine aviation to include all their subsets.
2. Identify the organization and mission of the Marine Aircraft Wing (MAW), to include each type of group and squadron.
3. Define who has operational control of organic MAGTF aviation assets during Joint operations.
4. List the four types of sorties the MAGTF Commander makes available to the Joint Force.
5. Identify the purpose of the Air Tasking Order (ATO).
6. Identify the six phases of the air tasking cycle.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

Reference. MCWP 3-2 Aviation Operations

ACPM-8022 4.0 * B (N) G

Goal. Demonstrate an understanding of USMC doctrine for the control of aircraft and missiles.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify how the control of aircraft and missiles relates to the other five functions of USMC aviation.
2. Identify distinctions between Marine aviation philosophy and that of the other services.
3. Identify the principle objectives of the Marine Air Command and Control System (MACCS).
4. Describe how the COMMARFOR may serve as the Joint Force Air
5. Component Commander (JFACC), Airspace Control Authority (ACA), and Area Air Defense Commander (AADC).

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 Control of Aircraft and Missiles Class
2. MCWP 3-25 Control of Aircraft and Missiles

ACPM-8023 4.0 * B (N) G

Goal. Demonstrate an understanding of USMC Offensive Air Support (OAS) doctrine.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify the purpose of the MAGTF Commanders Single Battle Concept.
2. Define the subcategories of OAS.
3. Define the requirements for effective OAS.
4. Define the three types of Deep Air Support (DAS).
5. Define the capabilities and limitations of the OAS function.
6. Identify the elements of a Joint Tactical Air Strike Request (JTAR).
7. Identify the three types of control of Close Air Support (CAS).

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 OAS Class
2. MCWP 3-23 Offensive Air Support

ACPM-8024 4.0 * B (N) G

Goal. Demonstrate an understanding of USMC Assault Support doctrine.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Define the types of assault support operations.
2. Identify which aircraft conduct each of the types of assault support operations.
3. Identify the elements of an Assault Support Request (ASR).
4. List assault support capabilities and limitations.
5. Define the role of the air mission commander and the assault force commander during air assault operations.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 Assault Support Class
2. MAWTS-1 Direct Air Support Requests Class

ACPM-8025 4.0 * B (N) G

Goal. Demonstrate an understanding of USMC Air Reconnaissance doctrine.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify the three categories of air reconnaissance.
2. Identify the four principals of air reconnaissance.
3. Identify the five prerequisites for effective air reconnaissance.
4. Identify the current USMC aircraft that have the mission of air reconnaissance.
5. Identify the form used to request air reconnaissance.
6. Identify the five supporting operations for effective air reconnaissance.
7. Identify the capabilities and limitations of air reconnaissance.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

Reference. MCWP 3-26 Air Reconnaissance

ACPM-8026 4.0 * B (N) G

Goal. Demonstrate an understanding of USMC Electronic Warfare (EW) doctrine.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Define radar.
2. List the three basic radar types.
3. Identify the limitations and characteristics of radar systems.
4. Identify the six guidance systems and how they work.
5. List the three subdivisions of Electronic Warfare (EW).

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 (S) Electronic Warfare Class—for additional training only, secret courseware should not to be used for testing purposesMAWTS-1 Direct Air Support Requests Class
2. MCWP 3-40.5 Electronic Warfare

ACPM-8027 4.0 * B (N) G

Goal. Demonstrate an understanding of USMC Antiair Warfare (AAW) doctrine.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Define AAW.
2. Define the two subsets of AAW.
3. Identify the principles of AAW.
4. Identify the types of Offensive Antiair Warfare (OAAW).
5. Identify the active air defense functions.
6. List three examples of passive air defense measures.
7. Define a Joint Engagement Zone (JEZ), Fighter Engagement Zone (FEZ), Missile Engagement Zone (MEZ), and Base Defense Zone (BDZ).
8. Define the air defense warning conditions.
9. Define the weapons control statuses.
10. Identify the responsibilities of the Regional Air Defense Commander (RADC) and the Sector Air Defense Commander (SADC).

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 Air Defense Class
2. MAWTS-1 Air Defense Commanders Class
3. MAWTS-1 Offensive Antiair Warfare Class
4. MCWP 3-22 Antiair Warfare

ACPM-8028 4.0 * B (N) G

Goal. Demonstrate an understanding of USMC Ground Support (AGS) doctrine.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify the organization responsible for providing AGS to the Marine Aircraft Wing (MAW).
2. Identify the 13 functions of AGS.
3. Identify the five activities that the Marine Wing Support Squadron (MWSS) performs for the ACE when deployed.
4. Identify the four basing concepts for MAGTF Forward Operating Bases (FOBs).
5. List the four classifications of FOBs.
6. Differentiate the distinguishing characteristics of FOBs.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 AGS Class
2. MCWP 3-21.1 Aviation Ground Support

ACPM-8040 1.0 * B (N) G

Goal. Demonstrate an understanding of the Threat stage of the MACCS ACPM

Requirement. Pass a closed book examination that encompasses all learning objectives contained in the prerequisites.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. SI.

Prerequisite. 8041, 8042, 8043, 8044.

Reference. C3 Course Catalog.

ACPM-8041 4.0 * B (N) G

Goal. Demonstrate an understanding of the surface-to-air threat to the MAGTF.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Match the system name with the guidance and target aspect for the following Man Portable Air Defense Systems (MANPADS):
 - a. SA-7
 - b. SA-14
 - c. SA-16
 - d. SA-18
2. Match the system name with the guidance and associated radars for the following Radio Frequency Surface-to-Air Missile Systems (RF SAMS):
 - a. SA-2
 - b. SA-6
 - c. SA-8
 - d. SA-10
 - e. SA-11
 - f. SA-15
 - g. SA-20
 - h. Roland-III

3. Match the system name with the type and associated radar for the following Air Defense Artillery (AAA):
 - a. ZPU 1, 2, 4
 - b. ZSU-23-4
 - c. 2S6
 - d. S-60

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

Reference. MAWTS-1 Marine Aviation Intelligence Reference
(<https://vcepub.tecom.usmc.mil/sites/msc/magtftc/mawts1/departments1/newc3/default.aspx>)

ACPM-8042 4.0 * B (N) G

Goal. Demonstrate an understanding of the fixed wing threat to the MAGTF.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify the role of the AN-2 Colt.
2. Identify the role of the MIG-23 Flogger.
3. Identify the role of the MIG-29 Fulcrum.
4. Identify the role of the MIG-31 Foxhound.
5. Identify the role of the Su-24 Fencer.
6. Identify the role of the Su-25 Frogfoot.
7. Identify the role of the Su-27 Flanker.
8. Identify the role of the Su-30 Flanker.
9. Identify the role of the Tu-22M Backfire.
10. Identify the role of the Tu-95 Bear.
11. Identify the role of the Tu-160 Blackjack.
12. Identify the role of the J-7 Fishbed.
13. Identify the role of the JH-7 Flounder.
14. Identify the role of the J-8 Finback.
15. Identify the role of the J-10 Firebird.
16. Identify the role of the H-6 Badger.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

Reference. MAWTS-1 Marine Aviation Intelligence Reference
(<https://vcepub.tecom.usmc.mil/sites/msc/magtftc/mawts1/departments1/newc3/default.aspx>)

ACPM-8043 4.0 * B (N) G

Goal. Demonstrate an understanding of the rotary wing threat to the MAGTF.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify the role of the Mi-24 Hind.
2. Identify the role of the SA 342 Gazelle.

3. Identify the role of the Ka-25 Hormone.
4. Identify the role of the Mi-6 Hook.
5. Identify the role of the Mi-28 Havoc.
6. Identify the role of the Mi-8 Hip.
7. Identify the role of the Ka-50 Kokum.
8. Identify the role of the Ka-29 Helix B.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

Reference. MAWTS-1 Marine Aviation Intelligence Reference
(<https://vcepub.tecom.usmc.mil/sites/msc/magtftc/mawts1/departments1/newc3/default.aspx>)

ACPM-8044 4.0 * B (N) G

Goal. Demonstrate an understanding of the missile and Unmanned Aircraft System (UAS) threat to the MAGTF.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Match the system name with the terminal guidance for the following Air-to-Surface Missiles:
 - a. AS-10 Karen
 - b. AS-11 Kilter
 - c. AS-12 Kegler
 - d. AS-14 Kedge
 - e. AS-17 Krypton
2. Match the system name with the warhead and guidance for the following Surface-to-Surface Missiles:
 - a. FROG-7
 - b. SCUD-B
 - c. SCUD-C
 - d. Nodong 1
 - e. C 801
 - f. C 802
3. Identify the mission of the following threat UAS:
 - a. Ababil
 - b. Mohajer
 - c. Harpy
 - d. Heron
 - e. ASN-206
 - f. Pchela-1T

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 Marine Aviation Intelligence Reference
2. <https://vcepub.tecom.usmc.mil/sites/msc/magtftc/mawts1/departments1/newc3/default.aspx>
3. [wc3/default.aspx](https://vcepub.tecom.usmc.mil/sites/msc/magtftc/mawts1/departments1/newc3/default.aspx)
4. Marine Corps Intelligence Activity Iran Country Handbook (appendix A)
5. Marine Corps Intelligence Activity North Korea Country Handbook (page 86)

6. Marine Corps Intelligence Activity China Country Handbook (appendix A)
<https://www.intelink.gov/mcia/handbook.htm>
7. MCIA UAV Recognition Guide <https://www.intelink.gov/mcia/index.htm>

ACPM-8060 1.0 * B (N) G

Goal. Demonstrate an understanding of the MAGTF stage of the MACCS ACPM.

Requirement. Pass a closed book examination that encompasses all learning objectives contained in the prerequisites.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. SI.

Prerequisite. 8061, 8062, 8063, 8064, 8065.

References. C3 Course Catalog.

ACPM-8061 4.0 * B (N) G

Goal. Demonstrate an understanding of the MAGTF ground combat operations.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify how the Ground Combat Element (GCE) is employed as part of the MAGTF and the capabilities the GCE provides to the MAGTF commander
2. Define the following items related to command and control of ground combat operations:
 - a. Echelons of the GCE headquarters
 - b. Battlespace Organization
 - c. Battlespace Framework
3. Define the five types of amphibious operations.
4. Identify the following items related to offensive operations:
 - a. Types of offensive operations
 - b. Types of attack
 - c. Forms of maneuver
 - d. Distribution of forces
5. Identify the following items related to defensive operations:
 - a. Organization of the defense
 - b. Distribution of forces
 - c. Types of defensive operations
 - d. Defensive methods

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MCDP 1-0 Marine Corps Operations
2. MCWP 3-1 Ground Combat Operations

ACPM-8062 4.0 * B (N) G

Goal. Demonstrate an understanding of fire support coordination in the Ground Combat Element (GCE).

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify the four fire support tasks.
2. List the functions of the senior fire support coordination center (FSCC) in the GCE.
3. List the four steps of the MAGTF Targeting Process.
4. Define the purpose of essential fire support tasks (EFST).

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 MAGTF Targeting and Fire Support Planning Class
2. MCWP 3-16 Fire Support Coordination in the GCE

ACPM-8063 4.0 * B (N) G

Goal. Demonstrate an understanding of MAGTF command and control.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify MAGTF command and support relationships.
2. Identify the purpose and role of the command and control centers in the CE, ACE, GCE, and LCE.
3. Identify the purpose and role of the amphibious command and control facilities.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

Reference. MCWP 3-40.1 MAGTF C2

ACPM-8064 4.0 * B (N) G

Goal. Demonstrate an understanding of MAGTF communications.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify the six characteristics of communications and information systems.
2. Identify the mission and organizational structure of the Communications Battalion.
3. Identify the purpose of the Communications-Electronics Operating Instructions (CEOI) and what information is usually included in it.
4. Identify what information can be found in Annex K of an operations order.
5. Identify the purpose of select fires, support, and ACE specific radio nets.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

Reference. MCWP 3-40.3 MAGTF Communications System

ACPM-8065 4.0 * B (N) G

Goal. Demonstrate an understanding of phasing control ashore.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify types of amphibious operations and how command relationships may change during the conduct of each.
2. Identify how disputes among commanders during amphibious operations are resolved.
3. Identify the key commanders and command relationships.
4. Identify the key characteristics of each phase in phasing the MACCS ashore.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 Phasing Control Ashore Class
2. JP 3-02 Joint Doctrine for Amphibious Operations (Ch 2)
3. MCWP 3-25 Control of Aircraft and Missiles (Appendix C)

ACPM-8066 4.0 * B (N) G

Goal. Demonstrate an understanding of information management.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Match the principles of information management with their descriptions.
2. Define each of the classes of information within an information hierarchy.
3. List the characteristics of quality information.
4. Identify the role and responsibilities of an Information Management Officer (IMO).
5. Define C2 support structure and the three steps followed to develop one.
6. Identify the purpose of an information management matrix and the information management plan.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

Reference. MCWP 3-40.2 Information Management

ACPM-8067 4.0 * B (N) G

Goal. Demonstrate an understanding of Unmanned Aircraft Systems in support of MAGTF operations.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify the four types of payloads.
2. Identify the three attributes that determine UAS Groups.
3. Identify the five different UAS Group Categories.
4. Identify the two types of VMU operational employment.

5. Identify the three components of the RQ-7B Communications Relay Package.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

Reference.

1. MAWTS-1 UAS In Support of MAGTF Operations
2. MCRP 3-42.1A
3. NTTP 3-22.3-VMU

ACPM-8080 1.0 * B (N) G

Goal. Demonstrate an understanding of the MAGTF stage of the joint air operations stage of the MACCS ACPM.

Requirement. Pass a closed book examination that encompasses all learning objectives contained in the prerequisites.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. SI.

Prerequisite. 8081, 8082, 8083, 8084, 8085, 8086, 8087, 8088.

Reference. C3 Course Catalog.

ACPM-8081 4.0 * B (N) G

Goal. Demonstrate an understanding of the command and control of joint air operations.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify the definition of joint air operations.
2. Identify the Joint Force Air Component Commander's responsibilities.
3. Identify the five sections that comprise the Joint Air Operations Center.
4. Identify the six phases of the Joint Air Tasking Cycle.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives or pass the DOCNET course listed below with a score of 80% or higher.

Instructor. BI.

Prerequisite. None.

References.

1. DOCNET Course 3-30 (<http://www.dtic.mil/doctrine/docnet/>)
2. MAWTS-1 Joint Air Operations Class
3. JP 3-30 C2 of Joint Air Operations

ACPM-8082 4.0 * B (N) G

Goal. Demonstrate an understanding of the theater air ground system (TAGS).

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. List the primary characteristics of the Theater Air Ground System (TAGS).
2. Identify the elements within the Air Force's Theater Air Control System (TACS) and their primary responsibilities.
3. Identify the aviation command and control elements with the Army Air and Ground System (AAGS) and their primary responsibilities.
4. Identify the aviation elements within the Navy's Composite Warfare Commander (CWC) architecture.
5. Identify the Amphibious Task Force (ATF) construct and its primary responsibilities.
6. Identify the aviation command and control elements within the Special Operations Air-Ground System.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 TAGS ClassMAWTS-1 Joint Air Operations Class
2. ALSA TAGS Pub. (<https://wwwmil.alsa.mil/default.aspx>)

ACPM-8083 4.0 * B (N) G

Goal. Demonstrate an understanding of joint fire support doctrine.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Define joint fires.
2. Define joint fire support.
3. Identify the steps of the joint fire support planning process.
4. List the various elements of the component commander's fires command and control system.
5. Define the various joint control and coordination measures associated with joint fire support.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives or pass the DOCNET course listed below with a score of 80% or higher.

Instructor. BI.

Prerequisite. None.

References.

1. DOCNET Course 3-09 (<http://www.dtic.mil/doctrine/docnet/>)
2. JP 3-09 Joint Fire Support

ACPM-8084 4.0 * B (N) G

Goal. Demonstrate an understanding of close air support (CAS) doctrine.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Explain key roles and responsibilities related to the planning and execution of CAS.
2. Detail key steps in the planning and execution of CAS.
3. Describe various coordination measures used in the planning and conduct of CAS.
4. Describe the manner in which the two types of CAS requests are fulfilled.
5. Identify the goal and purpose of synchronizing CAS with surface fires.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives or pass the DOCNET course listed below with a score of 80% or higher.

Instructor. BI.

Prerequisite. None.

References.

1. DOCNET Course 3-09 (<http://www.dtic.mil/doctrine/docnet/>)
2. MAWTS-1 CAS Class
3. JP 3-09.3 Close Air Support

ACPM-8085	4.0	*	B	(N)	G

Goal. Demonstrate an understanding of joint targeting doctrine.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify types of targets.
2. Identify and describe the six phases of the joint targeting cycle.
3. Identify characteristics of a target.
4. Identify and describe steps in dynamic targeting.
5. Describe roles and responsibilities related to the joint targeting process.
6. Describe key products and processes of the joint targeting cycle.
7. Identify key terms related to the joint targeting process.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives or pass the DOCNET course listed below with a score of 80% or higher.

Instructor. BI.

Prerequisite. None.

References.

4. DOCNET Course 3-09 (<http://www.dtic.mil/doctrine/docnet/>)
5. JP 3-60 Joint Targeting

ACPM-8086	4.0	*	B	(N)	G

Goal. Demonstrate an understanding of the North Atlantic Treaty Organization (NATO).

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify the composition of the NATO alliance.
2. Identify the three key articles of the NATO alliance.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 NATO Class
2. "What is NATO" Brief (http://www.nato.int/welcome/intro_to_NATO_en.ppt)

3. AJP-01(D)

ACPM-8087 4.0 * B (N) G

Goal. Demonstrate an understanding of joint airspace control doctrine.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify the responsibilities of the airspace control authority (ACA).
2. Identify the basic principles for airspace control.
3. Identify the purpose of the airspace control plan (ACP).
4. Identify the purpose of the airspace control order (ACO).
5. Identify the methods of airspace control.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 Airspace Control Authority and Airspace Class
2. JP 3-52 Joint Airspace Control

3.15 T&R SYLLABUS MATRIX.

5910 T&R SYLLABUS MATRIX										
STAGE	CODE	TITLE	POI	DEVICE	COND	PROFICIENCY PERIOD	E-CODED	TIME	PREREQ	CHAIN
CORE INTRODUCTION PHASE (1000)										
AIRS SCHOOL (AIRS) STAGE										
AIRS	1002	Conduct an inspection of maintenance functional areas	B	G	(N)	*	*	0	*	*
AIRS	1003	Identify the key elements of Operational Orders (OPORD)	B	G	(N)	*	*	0	*	*
AIRS	1004	Reconcile Global Combat Support Systems-Marine Corps (GCSS-MC) automated reports	B	G	(N)	*	*	0	*	*
AIRS	1005	Identify the services provided by Marine Wing Communications Squadron	B	G	(N)	*	*	0	*	*
AIRS	1006	Identify cyber security requirements for tactical employment of information systems	B	G	(N)	*	*	0	*	*
AIRS	1007	Identify TAOC and EW/C communications information exchange requirements	B	G	(N)	*	*	0	*	*
AIRS	1008	Identify TACC communications information exchange requirements	B	G	(N)	*	*	0	*	*
AIRS	1009	Identify DASC communications information exchange requirements	B	G	(N)	*	*	0	*	*
AIRS	1010	Analyze the TO/E	B	G	(N)	*	*	0	*	*
AIRS	1011	Identify spectrum management procedures	B	G	(N)	*	*	0	*	*
AIRS	1012	Identify the embarkation requirements for the major end items of the TACC, DASC, TAOC, and EW/C	B	G	(N)	*	*	0	*	*
AIRS	1013	Identify LAAD Communications information exchange requirements	B	G	(N)	*	*	0	*	*

5910 T&R SYLLABUS MATRIX										
STAGE	CODE	TITLE	POI	DEVICE	COND	PROFICIENCY PERIOD	E-CODED	TIME	PREREQ	CHAIN
AIRS	1014	Identify MATC communications information exchange requirements	B	G	(N)	*	*	0	*	*
AIRS	1016	Identify the Marine Corps Urgent Needs Process (MCUNP)	B	G	(N)	*	*	0	*	*
AIRS	1017	Validate induction of new equipment into service	B	G	(N)	*	*	0	*	*
AIRS	1018	Demonstrate the process to phase out obsolete equipment	B	G	(N)	*	*	0	*	*
AIRS	1019	Identify maintenance funding requirements	B	G	(N)	*	*	0	*	*
AIRS	1020	Identify the SECREP management process	B	G	(N)	*	*	0	*	*
AIRS	1021	Identify DOD cyber security workforce structure	B	G	(N)	*	*	0	*	*
AIRS	1022	Access published information within TFSMS	B	G	(N)	*	*	0	*	*
AIRS	1023	Describe readiness ratings within DRRS-MC	B	G	(N)	*	*	0	*	*
AIRS	1024	Explain the product quality deficiency report (PQDR)	B	G	(N)	*	*	0	*	*
AIRS	1025	Identify major funding lines	B	G	(N)	*	*	0	*	*
AIRS	1026	State the duties of a CMR responsible officer	B	G	(N)	*	*	0	*	*
TOTAL HOURS AIR SCHOOL (AIRS) STAGE								0		
TOTAL HOURS CORE INTRODUCTION PHASE (1000)								0		
INSTRUCTOR TRAINING PHASE (5000)										
INSTRUCTOR UNDER TRAINING (IUT) STAGE										
IUT	5000	Introduce principles of instruction	B	L	(N)	*	*	2	*	*
IUT	5010	Describe individual T&R requirements	B	G	(N)	*	*	2	*	*
IUT	5020	Conduct T&R instruction	B,R,M	L	(N)	90	*	12	5000, 5010	*
IUT	5100	Describe the Aviation Training and Readiness (T&R) Program	B	G	(N)	*	*	2	*	*

5910 T&R SYLLABUS MATRIX										
STAGE	CODE	TITLE	POI	DEVICE	COND	PROFICIENCY PERIOD	E-CODED	TIME	PREREQ	CHAIN
IUT	5110	Conduct instructor evaluations	B,R,M	L	(N)	365	*	4	5100	*
IUT	5120	Perform T&R administration	B	L	(N)	*	*	2	5100, 5110	*
IUT	5130	Develop a training plan	B	L	(N)	*	*	2	5100, 5110, 5120	*
TOTAL HOURS (IUT) STAGE			EVENTS		7	HOURS		24		
TOTAL HOURS INSTRUCTOR TRAINING PHASE (5000)								24		
CERTIFICATIONS, QUALIFICATIONS, DESIGNATIONS (CQD) PHASE (6000)										
SCHOOL CODES (SCHL) STAGE										
SCHL	6000	Weapons and Tactics Instructor (WTI)	B	G	(N)	*	*	0.5	*	*
SCHL	6020	Link 16 Basics Course (JT-100)	B	G	(N)	*	*	0.5	*	*
SCHL	6021	Intro to Multi TDL Network (JT-101)	B	G	(N)	*	*	0.5	*	*
SCHL	6022	Multi-TDL Advanced Joint Interoperability Course (MAJIC) (JT-102)	B	G	(N)	*	*	0.5	*	*
SCHL	6023	Link 16 Joint Interoperability Course (US-109)	B	G	(N)	*	*	0.5	*	*
SCHL	6024	Multi TDL Planner Course (JT-201)	B	G	(N)	*	*	0.5	*	*
SCHL	6025	Link 16 Unit Manager (LUM) Course (JT-220)	B	G	(N)	*	*	0.5	*	*
SCHL	6026	Joint Interface Control Officer (JICO) Course(JT-301).	B	G	(N)	*	*	0.5	*	*
SCHL	6027	Advanced JICC Operator Course (JT-310)	B	G	(N)	*	*	0.5	*	*
SCHL	6031	MATC Maintenance Manager's Course	B	G	(N)	*	*	0.5	*	*
SCHL	6073	Micro-miniature Electronics Repair Course.	B	G	(N)	*	*	0.5	*	*
SCHL	6093	Micro-miniature/Automated Test Equipment Repair Course	B	G	(N)	*	*	0.5	*	*
SCHL	6094	Advanced Electronics Course	B	G	(N)	*	*	0.5	*	*

5910 T&R SYLLABUS MATRIX										
STAGE	CODE	TITLE	POI	DEVICE	COND	PROFICIENCY PERIOD	E-CODED	TIME	PREREQ	CHAIN
SCHL	6095	Ground Electronics Maintenance NCO Course	B	G	(N)	*	*	0.5	*	*
SCHL	6096	Ground Electronics Maintenance NCO Course	B	G	(N)	*	*	0.5	*	*
SCHL	6097	Mountain Command Control Communications Course	B	G	(N)	*	*	0.5	*	*
TOTAL HOURS DESIGNATION (DESG) STAGE			EVENTS		10	HOURS		8		
DESIGNATION (DESG) STAGE										
DESG	6320	Basic Instructor (BI)	B	G	(N)	*	*	0.5	5000, 5010, 5020	*
DESG	6321	Senior Instructor (SI)	B	G	(N)	*	*	0.5	5000, 5010, 5020, 5100, 5110, 5120, 5130	*
DESG	6322	Weapons and Tactics Instructor (WTI)	B	G	(N)	*	*	0.5	6000, 6020, 6021, 6022, 8000, 8001, 8002, 8003, 8004, 8005, 8006, 8008, 8020, 8021, 8022, 8023, 8024, 8025, 8026, 8027, 8028, 8040, 8041, 8042, 8043, 8044, 8060, 8061, 8062, 8063, 8064, 8065, 8066, 8067, 8080, 8081, 8082, 8083, 8084, 8085, 8086, 8087, 8088	*
DESG	6330	Formal Learning Center Instructor (FLCI)	B	G	(N)	*	*	0.5	*	*
DESG	6340	Aviation Radar Maintenance Officer (ARMO)	B	G	(N)	*	*	0.5	*	*
TOTAL HOURS DESIGNATION (DESG) STAGE			EVENTS		4	HOURS		2.5		
TOTAL HOURS RQCD (6000 PHASE)								10.5		
MISSION ESSENTIAL TASK (MET) 7000 PHASE										
TAOC CONDITION (COND) STAGE										
COND	7000	Conduct Airspace Surveillance	B,R,M	L	(N)	730	E	16	*	*
COND	7001	Conduct Positive Control	B,R,M	L/S	(N)	730	E	16	*	*

5910 T&R SYLLABUS MATRIX										
STAGE	CODE	TITLE	POI	DEVICE	COND	PROFICIENCY PERIOD	E-CODED	TIME	PREREQ	CHAIN
COND	7002	Coordinate Air Defense Actions	B,R,M	L/S	(N)	730	E	16	*	*
COND	7003	Conduct Dual Site Air Defense Operations	B,R,M	L/S	(N)	730	E	16	*	*
COND	7004	Integrate Operational Air Defense Capabilities	B,R,M	L/S	(N)	730	E	16	*	*
TOTAL HOURS TAOC CONDITION (COND) STAGE			EVENTS		5	HOURS		80		
TOTAL HOURS CQD PHASE (6000)								80		
AVIATION CAREER PROGRESSION MODEL (ACPM) (8000)										
AVIATION CAREER PROGRESSION MODEL (ACPM) STAGE										
ACPM	8000	MACCS	B	G	(N)	*	*	1	8001, 8002, 8003, 8004, 8005, 8006, 8008	*
ACPM	8001	Marine Air Command and Control System	B	G	(N)	*	*	4	*	*
ACPM	8002	Tactical Air Command Center (TACC)	B	G	(N)	*	*	4	*	*
ACPM	8003	Direct Air Support Center (DASC)	B	G	(N)	*	*	4	*	*
ACPM	8004	Tactical Air Operations Center (TAOC)	B	G	(N)	*	*	4	*	*
ACPM	8005	Marine Air Traffic Control (MATC)	B	G	(N)	*	*	4	*	*
ACPM	8006	Low Altitude Air Defense (LAAD)	B	G	(N)	*	*	4	*	*
ACPM	8008	Marine Wing Communications Squadron (MWCS)	B	G	(N)	*	*	4	*	*
ACPM	8020	ACE	B	G	(N)	*	*	1	8021, 8022, 8023, 8024, 8025, 8026, 8027, 8028	*
ACPM	8021	Aviation Operations	B	G	(N)	*	*	4	*	*
ACPM	8022	Control of Aircraft and Missiles	B	G	(N)	*	*	4	*	*
ACPM	8023	Offensive Air Support (OAS)	B	G	(N)	*	*	4	*	*
ACPM	8024	Assault Support (AS)	B	G	(N)	*	*	4	*	*
ACPM	8025	Air Reconnaissance	B	G	(N)	*	*	4	*	*
ACPM	8026	Electronic Warfare (EW)	B	G	(N)	*	*	1	*	*

5910 T&R SYLLABUS MATRIX										
STAGE	CODE	TITLE	POI	DEVICE	COND	PROFICIENCY PERIOD	E-CODED	TIME	PREREQ	CHAIN
ACPM	8027	Anti-Air Warfare (AAW)	B	G	(N)	*	*	4	*	*
ACPM	8028	Aviation Ground Support	B	G	(N)	*	*	4	*	*
ACPM	8040	Threat	B	G	(N)	*	*	1	8041, 8042, 8043, 8044	*
ACPM	8041	Surface to Air threat to the MAGTF	B	G	(N)	*	*	4	*	*
ACPM	8042	Fixed Wing threat to the MAGTF	B	G	(N)	*	*	4	*	*
ACPM	8043	Rotary Wing threat to the MAGTF	B	G	(N)	*	*	4	*	*
ACPM	8044	Missile and UAS threat to the MAGTF	B	G	(N)	*	*	4	*	*
ACPM	8060	MAGTF	B	G	(N)	*	*	1	8061, 8062, 8063, 8064, 8065, 8066, 8067	*
ACPM	8061	Ground Combat Operations	B	G	(N)	*	*	4	*	*
ACPM	8062	Fire Support Coordination in the GCE	B	G	(N)	*	*	4	*	*
ACPM	8063	MAGTF Command and Control	B	G	(N)	*	*	4	*	*
ACPM	8064	MAGTF Communications	B	G	(N)	*	*	4	*	*
ACPM	8065	Phasing Control Ashore	B	G	(N)	*	*	4	*	*
ACPM	8066	Information Management	B	G	(N)	*	*	4	*	*
ACPM	8067	UAS support of the MAGTF	B	G	(N)	*	*	4	*	*
ACPM	8080	Joint Air Operations	B	G	(N)	*	*	1	8081, 8082, 8083, 8084, 8085, 8086, 8087, 8088	*
ACPM	8081	Command and Control of Joint Air Operations	B	G	(N)	*	*	4	*	*
ACPM	8082	Theater Air Ground System (TAGS)	B	G	(N)	*	*	4	*	*
ACPM	8083	Joint Fire Support	B	G	(N)	*	*	4	*	*
ACPM	8084	Close Air Support (CAS)	B	G	(N)	*	*	4	*	*
ACPM	8085	Joint Targeting	B	G	(N)	*	*	4	*	*
ACPM	8086	North Atlantic Treaty Organization (NATO)	B	G	(N)	*	*	4	*	*
ACPM	8087	Joint Airspace Control	B	G	(N)	*	*	4	*	*

5910 T&R SYLLABUS MATRIX										
STAGE	CODE	TITLE	POI	DEVICE	COND	PROFICIENCY PERIOD	E-CODED	TIME	PREREQ	CHAIN
ACPM	8088	Countering Air and Missile Threats	B	G	(N)	*	*	4	*	*
TOTAL HOURS ACPM STAGE			EVENTS		39	HOURS		138		
TOTAL HOURS ACPM (8000)								138		

CHAPTER 4
AVIATION COMMUNICATIONS SYSTEMS TECHNICIAN (MOS 5939)
INDIVIDUAL TRAINING AND READINESS REQUIREMENTS

	<u>PARAGRAPH</u>	<u>PAGE</u>
CREWMEMBER T&R SYLLABUS REQUIREMENTS.....	4.0	4-3
TRAINING PROGRESSION MODEL.....	4.1	4-3
PROGRAMS OF INSTRUCTION.....	4.2	4-3
PROFICIENCY AND CURRENCY.....	4.3	4-4
CERTIFICATION, QUALIFICATION, AND DESIGNATION TABLES.....	4.4	4-5
SYLLABUS NOTES.....	4.5	4-6
CORE INTRODUCTION PHASE (0000).....	4.6	4-6
CORE PHASE (2000).....	4.7	4-15
MISSION PHASE (3000).....	4.8	4-37
CORE PLUS PHASE (4000).....	4.9	4-46
MISSION PLUS PHASE (4500).....	4.10	4-54
INSTRUCTOR TRAINING PHASE (5000).....	4.11	4-54
CERTIFICATIONS, QUALIFICATIONS, AND DESIGNATIONS (CQD) PHASE (6000).....	4.12	4-59
MISSION ESSENTIAL TASK (MET) PHASE (7000).....	4.13	4-67
AVIATION CAREER PROGRESSION MODEL (8000).....	4.14	4-80
T&R SYLLABUS MATRIX.....	4.15	4-98

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CHAPTER 4
AVIATION COMMUNICATIONS SYSTEMS TECHNICIAN/5939
INDIVIDUAL TRAINING AND READINESS REQUIREMENTS

4.0 CREWMEMBER T&R SYLLABUS REQUIREMENTS. This T&R Syllabus is based on specific goals and performance standards designed to ensure individual proficiency in Core Phase and Mission Phase skills. The goal of this chapter is to develop individual and unit warfighting capabilities.

4.1 TRAINING PROGRESSION MODEL. This model represents the recommended average training progression for the Aviation Communications Systems Technician crewmember. Units should use the model as a point of departure to generate individual training plans.

MACCS MAINTENANCE MOS 5939 CAREER PROGRESSION MODEL																																
					BI	AVIATION COMMUNICATIONS CREW CHIEF (ACCC)					SI																					
						VOICE DATA ADMINISTRATION (VDA)																										
						RADIO NETWORK ADMINISTRATION (RNA)																										
						SYSTEMS MANAGEMENT (SM)																										
				EQUIPMENT MANAGEMENT (EM)																												
ENTRY LEVEL																																
2	4	6	8	10	1	2	3	4	5	6	7	8	9	10	12	36	38	40	42	44	48	50	52	54	56							

* Months indicated are training months, not calendar months.

4.2 PROGRAMS OF INSTRUCTION (POI). These tables reflect average time-to-train versus the minimum to maximum time-to-train parameters in the Training Progression Model.

4.2.1 Basic POI.

MACCS MAINTENANCE MOS 5939		
BASIC POI		
WEEKS ¹	PHASE OF INSTRUCTION	UNIT RESPONSIBLE
1-33	CORE INTRODUCTION PHASE (0000)	MCCES
34-58	CORE PHASE (2000)	TACTICAL SQUADRON
59-82	MISSION PHASE (3000)	TACTICAL SQUADRON
83-88	CORE PLUS (4000)	TACTICAL SQUADRON

4.2.2 Refresher POI.

MACCS MAINTENANCE MOS 5939		
REFRESHER POI		
WEEKS ¹	PHASE OF INSTRUCTION	UNIT RESPONSIBLE
VARIES	CORE PHASE (2000)	TACTICAL SQUADRON
VARIES	MISSION PHASE (3000)	TACTICAL SQUADRON
VARIES	CORE PLUS PHASE (4000)	TACTICAL SQUADRON

NOTE 1: TRAINING DURATIONS VARIES BY POSITION BEING TRAINED. SEE PROGRESSION MODEL FOR NOTIONAL TRAINING TIMES.

4.3 PROFICIENCY AND CURRENCY.

4.3.1 Event Proficiency. Event proficiency is defined as successful completion of the performance standard as determined by the instructor or evaluator. Event completion is predicated upon demonstrated proficiency. Once completed, it is logged in M-SHARP by entering the appropriate event code. M-SHARP automatically updates the event proficiency date to reflect the completion date.

4.3.2 Skill Proficiency. Proficiency is a measure of achievement of a specific skill. To attain Individual Skill proficiency, an individual must be simultaneously proficient in all events for that Skill. Individuals may be attaining proficiency in some skills while maintaining proficiency in others. Refresher training is required once an individual has been absent from a technician billet for 36 months or longer. Upon return, the individual will complete R-coded events.

4.3.2.1 Maintaining Skill Proficiency. Once attained, skill proficiency is maintained by executing those events which have a Proficiency Period (Maintain events). Proficiency Periods establish the maximum time between event demonstration. Should proficiency be lost in any maintain event, for a specific skill, that skill proficiency is temporarily lost. Skill proficiency can be re-attained by again demonstrating proficiency in the event(s) that are not proficient. For flying communities, an individual shall complete delinquent events with a proficient instructor, crewman/flight lead as delineated by the T/M/S Syllabus Sponsor (see Chapter 3 of the Program Manual on specific instructor requirements for Low Altitude Flight, Night Systems, ACM, DM, DACM, DCM, FAC(A)).

4.3.2.2 Loss of Individual Skill Proficiency. Should an individual lose proficiency in all maintain events in a skill, the individual will be assigned to the Refresher POI for the skill. To regain skill proficiency, the individual must demonstrate proficiency in all R-coded events for the skill.

4.3.2.3 Loss of Unit Skill Proficiency. If an entire unit loses proficiency in an event, unit instructors shall regain proficiency by completing the event with an instructor from a like unit. If not feasible, the instructor shall regain

proficiency by completing the event with another instructor. For flying communities, if a unit has only one instructor and cannot complete the event with an instructor from another unit, the instructor shall regain proficiency with another aircraft commander or as designated by the commanding officer.

4.3.2.4 Proficiency Status. Proficiency is a “Yes/No” status by skill assigned to an individual. When an individual attains and maintains Core Phase, Mission Phase, Core Plus Phase, or Mission Plus Phase Proficiency, the individual may count towards CMMR or CMTS.

4.3.3 Skill Currency. Currency is a control measure used to provide an additional margin of safety based on exposure frequency to a particular skill and applies to all MOS’s that must comply with NATOPS and OPNAV requirements. It is a measure of time since the last event demanding that specific skill. Specific currency requirements for aircrew individual type mission profiles can be found in Chapter 3.

4.4 CERTIFICATION, QUALIFICATION AND DESIGNATION TABLES. The tables below delineate T&R events required to be completed to attain proficiency for select certifications, qualifications and designations. In addition to event requirements, all required stage lectures, briefs, squadron training, prerequisites, and other criteria shall be completed prior to completing final events. Certification, qualification and designation letters signed by the commanding officer shall be placed in training Performance Records and NATOPS. See Chapter 6 of the Aviation T&R Program Manual on regaining lost qualifications.

4.4.1 INSTRUCTOR DESIGNATIONS.

MOS 5939 INSTRUCTOR DESIGNATIONS	
DESIGNATION	EVENTS
BASIC INSTRUCTOR (BI)	5000, 5010, 5020, 6320
SENIOR INSTRUCTOR (SI)	5000, 5010, 5020, 5100, 5110, 5120, 5130, 6320, 6321
WEAPONS AND TACTICS INSTRUCTOR (WTI)	6000
FORMAL LEARNING CENTER INSTRUCTOR (FLCI)	6096

4.4.2 CERTIFICATIONS, QUALIFICATIONS, AND DESIGNATIONS.

MOS 5939	
CERTIFICATIONS, QUALIFICATIONS, AND DESIGNATIONS (CQD)	
CERTIFICATION	EVENTS
CSWF Technical Support Specialist	6260
CSWF IT Specialist	6261
CSWF System Administrator	6262

4.5 SYLLABUS NOTES.

4.5.1 Environmental Conditions Matrix.

Environmental Conditions	
Code	Meaning
(N)	May be conducted day or night. – If at night, may be aided or unaided.

4.5.2 Device Matrix.

DEVICE	
Symbol	Meaning
L	Event shall be conducted live (conducted in the field/garrison, during an exercise, etc). Requires live (non-simulated) execution of the event.
L/S	Event performed live preferred/simulator optional.
S/L	Event performed in simulator preferred/live optional.
G	Ground/academic training. May include Distance Learning, CBT, lectures, self paced.

4.5.3 Program of Instruction Matrix.

PROGRAM OF INSTRUCTION MATRIX		
Program of Instruction (POI)	Symbol	Aviation Ground
Basic	B	Initial MOS Training
Refresher	R	Return to community from non (MOS/Skill) associated tour
Maintain	M	All individuals who have attained CSP/MSP/PPP by initial POI assignment are re-assigned to the M POI to maintain proficiency.

4.6 CORE INTRODUCTION PHASE (0000)

4.6.1 Purpose. To provide entry level instruction to develop the basic skills necessary to become a MOS 5939 Aviation Communication Systems Technician. This training is completed upon graduation from the Aviation Communication Systems Technician Course.

4.6.2 General.

4.6.2.1 Admin Notes. None.

4.6.2.2 Prerequisite. Meet the 5939 requirement delineated in the MOS Manual (MCBul 1200).

4.6.2.3 Stages. The following stages are included in the Core Introduction Phase.

PAR NO.	STAGE NAME	PAGE NUMBER
4.6.3	5900 COMMONS (59CM) STAGE	4-6
4.6.4	AIR SCHOOLS (AIRS) STAGE	4-11

4.6.3 5900 COMMONS (59CM) STAGE

4.6.3.1 Purpose. To provide entry-level instruction to 5900 personnel to develop the basic skills necessary to safely setup, operate, and maintain Marine Air Command and Control System (MACCS) Systems. This training phase is complete upon graduation of the 5900 commons course.

4.6.3.2 General.

Admin Notes. 5900 Commons Course (CID: M091J31), MCCES, located in 29 Palms, CA.

Prerequisites.

Crew Requirements. None.

59CM-0001 0 * B (N) G

Goal. Describe the characteristics of the Marine Air Command and Control System (MACCS).

Requirement. Given the references:

1. Describe the six functions of Marine Aviation.
2. Describe the mission of the MACCS.
3. Describe the organization of the MACCS tactical agencies resident within the Marine Air Control Group (MACG).
4. Describe the function(s) of each MACCS agency within the MACG.
5. Describe the MACCS specific equipment systems within the MACG.
6. Describe the characteristics of the Multi-Tactical Data Link network used within the MACG.

Performance Standard. Pass an exam.

Instructor. FLCI.

Prerequisite. None.

References.

1. Control of Aircraft and Missiles MCWP 3-25
2. Direct Air Support Center Handbook MCRP 3-20F.5
3. Antenna Handbook MCRP 8-10B.11
4. Harris Radio Communications in the Digital Age, Volume Two: VHF/UHF Technology 00 132465
5. Interoperability Standard for the Joint Range Extension Applications Protocol (JREAP) STANAG 5518
6. Joint Multi-Tactical Digital Information Link (TADIL) Operating Procedures CJCSM 6120.01A
7. Joint Range Extension Application Protocol (JREAP), Interoperability Standard MIL-STD-3011
8. Low Altitude Air Defense (LAAD) Gunner's Handbook MCRP 3-20F.9
9. Aviation Operations MCWP 3-20
10. Marine Air Traffic Control Detachment Handbook MCRP 3-20F.7
11. Radio Communications in the Digital Age: HF Technology Vol 1
12. Radio Operators Handbook MCRP 8-10B.10
13. Marine Tactical Air Command Center Handbook MCRP 3-20F.2
14. Tactical Air Operations Center Handbooks MCRP 3-20F.6
15. Tactical Data Link (TDL) Link-11 Message Standard (U) MIL-STD-6011
16. Tactical Data Link (TDL) Link-16, DoD Interoperability Standard MIL-STD-6016

59CM-0002 0 * B (N) G

Goal. Measure circuit performance.

Requirement. Given the references:

1. Observe safety precautions.
2. Measure electronic parameters (voltage, current, resistance, time).
3. Calculate electronic parameters.
4. Identify electronic components.
5. Read schematics.

Performance Standard. Pass an exam.

Instructor. FLCI.

Prerequisite. None.

References.

1. Electronics Technician: Volume 1 – Safety NAVEDTRA 12411-A
2. Getting Started in Electronics (Forrest M. Mims III) ISBN: 0-94-505328-2
3. Navy Electricity and Electronics Training Series, Module 2- Alternating Current and Transformers NAVEDTRA 14174A 2012 edition
4. Navy Electricity and Electronics Training Series, Module 3- Circuit Protection, Control, and Measurement NAVEDTRA 14175A 2013 edition

59CM-0003 0 * B (N) G

Goal. Configure MACCS radios for secure RF communications.

Requirement.

1. Describe the characteristics of RF propagation.
2. Describe the capabilities and limitations of the radio.
3. Configure radio.
4. Assemble radio.
5. Disassemble radio.
6. Demonstrate safe handling of controlled items.
7. Load crypto.
8. Load a frequency.
9. Load time.

Performance Standard. Pass an exam.

Instructor. FLCI.

Prerequisite. None.

References.

1. Antenna Handbook MCRP 8-10B.11
2. Harris Radio Communications in the Digital Age, Volume Two: VHF/UHF Technology 00 132465
3. Radio Communications in the Digital Age: HF Technology Vol 1
4. Radio Operators Handbook MCRP 8-10B.10

59CM-0004 0 * B (N) G

Goal. Describe proper handling and storage of classified materials.

Requirement.

1. State the different levels of classification.
2. State the marking Requirements for each level of classification.
3. State the Two-Person Integrity (TPI) rule.
4. State storage procedures for each level of classification.
5. Identify transportation Requirements for classified material.
6. Identify the approved security containers utilized for storage.
7. Identify the procedures for handling Controlled Cryptographic Items (CCIs).

Performance Standard. Pass an exam.

Instructor. FLCI.

Prerequisite. None.

References.

1. Antenna Handbook MCRP 8-10B.11
2. Harris Radio Communications in the Digital Age, Volume Two: VHF/UHF Technology 00 132465
3. Radio Communications in the Digital Age: HF Technology Vol 1
4. Radio Operators Handbook MCRP 8-10B.10
5. United States Marine Corps Information and Personnel Security Program Manual MCO 5510.18B

59CM-0005 0 * B (N) G

Goal. Provide cyber security technical support for MACCS specific equipment.

Requirement. Provided the references and appropriate equipment:

1. Install and configure hardware, software, and peripheral equipment.
2. Manage accounts, networks, and access to systems and equipment.
3. Monitor client-level computer system performance.
4. Diagnose and resolve operator reported system incidents.
5. Troubleshoot system hardware and software.
6. Assist in the execution of disaster recovery continuity of operations plans.

Performance Standard. Pass an exam.

Instructor. FLCI.

Prerequisite. None.

Reference.

IT Essentials PC Hardware and Software Companion Guide 3rd Edition ISBN-13:978-1-58713-199-8

59CM-0006 0 * B (N) G

Goal. Repair common cables.

Requirement. Provided the appropriate equipment repair:

1. Ethernet/RJ-45 cable.
2. BNC cable.
3. RF cable.
4. Power cable.
5. Data cable.

Performance Standard. Pass an exam.

Instructor. FLCI.

Prerequisite. None.

References.

1. IT Essentials PC Hardware and Software Companion Guide 3rd Edition ISBN-13:978-1-58713-199-8
2. Standard Maintenance Practices Miniature/Microminiature (2M) Electronic Assembly Repair
3. Organizational/Intermediate/Depot Level TM 5895-45/1_
4. TIA/EIA-568-B.1-2001
5. Twisted Pair Cable test set 33-933NV Operator Manual 6510-00-5037

User's Manual for Cable Analyzer, DSP-4300/AN TM 10704B-OI/1

59CM-0007 0 * B (N) G

Goal. Demonstrate an earth ground installation.

Requirement. Given the references, grounding kit and PPE, perform the following:

1. Identify ground tolerances for equipment and personnel.
2. Identify methods of grounding.
3. Identify a method for improving a ground.
4. Identify proper location to test a ground.
5. Install an earth ground.
6. Verify proper grounding reading utilizing appropriate test equipment.

Performance Standard. Pass an exam.

Instructor. FLCI.

Prerequisite. None.

References.

1. Earth Grounding Pamphlet CECOM TR-96-2
2. Getting Down to Earth: A Practical Guide to Earth Resistance Testing (Megger, 2005) MEG-456/MIL/5M/11.2005
3. Grounding Procedures for Electromagnetic Interference Control and Safety TM 9406-15_ Grounding Techniques TC 11-6
4. Grounding, Bonding, and Shielding for Electronic Equipment and Facilities (DEC 1987) MIL-HDBK-419A
5. Intermediate and Depot Maintenance Manual for 6470-BM Kit 300FT TM 10069B-ID/1
6. Operation and Maintenance Instructions with Illustrated Parts Breakdown for Ground Resistance Ohmmeter Model R1L-C TM 10069A-14
7. User Manual for Clamp-On Ground Resistance Tester, Models 3711 and 3731 TM 10096B-10/1

59CM-0008 0 * B (N) G

Goal. Inspect common cables.

Requirement. Provided the appropriate equipment:

1. Ethernet/RJ-45 cable.
2. BNC cable.
3. RF cable.
4. Power cable.
5. Data cable.
6. Fiber optic cable.

Performance Standard. Pass an exam.

Instructor. FLCI.

Prerequisite. None.

References.

1. Fiber Optics Technicians Manual 3rd Edition ISBN-1-4018-9699-5
2. IT Essentials PC Hardware and Software Companion Guide 3rd Edition ISBN-13:978-1-58713-199-8
3. Standard Maintenance Practices Miniature/Microminiature (2M) Electronic Assembly Repair Organizational/Intermediate/Depot Level TM 5895-45/1_

TIA/EIA-568-B.1-2001

4. Twisted Pair Cable test set 33-933NV Operator Manual 6510-00-5037
5. Understanding Fiber Optics 5th Edition ISBN 0-13-117429-0
6. User's Manual for Cable Analyzer, DSP-4300/AN TM 10704B-OI/1

4.6.4 AIR SCHOOLS (AIRS) STAGE

4.6.4.1 Purpose. To provide entry-level instruction to develop the basic skills necessary to configure and setup equipment, conduct preventive maintenance and limited technical inspections on assigned equipment. This training phase is complete upon graduation and assigned primary MOS.

4.6.4.2 General.

Admin Notes. Hours are not utilized in the header information for each of the blocks of training provided by MCCES. Aviation Communication Systems Technician Course (CID: M09E2Z1), MCCES, located in 29 Palms, CA.

Prerequisite. None.

Crew Requirements. None.

AIRS-1030	0	*	B	(N)	G

Goal. Maintain the Communication System (CS).

Requirement. Given the references, a CS, and a simulated communication plan:

1. Describe the PMCS process for the CS.
2. Isolate a fault in the CS DC Power Distribution System.
3. Isolate a fault in the CS AC Power Distribution System.
4. Isolate a fault in the CS Radio Distribution System.
5. Isolate a fault in the CS Signal Distribution System.
6. Restore the CS to an operational state.

Performance Standard. Pass an exam.

Instructor. FLCI.

Prerequisite. None.

References.

1. TM 12039A/12041A/12045A-14/1 Operator and Field Maintenance Manual for Communications System AN/MRQ-13
2. TM 11402B/12506A/12714A-15/111 Software Administrator Manual for Air Command and Control System (AC2S)
3. TM 11402B/12506A/12714A-15/112 Software Users Manual for Air Command and Control System (AC2S)

AIRS-1031	0	*	B	(N)	G

Goal. Maintain voice circuits within the aviation C2 system.

Requirement. Given the references, a Communication System (CS), an aviation C2 system, and a simulated communications plan:

1. Perform an operational check of voice circuits.
2. Maintain radio circuits.
3. Maintain secure telephone circuits.
4. Maintain non-secure telephone circuits.
5. Maintain public address circuits.
6. Maintain the voice signal distribution system.

Performance Standard. Pass an exam.

Instructor. FLCI.

Prerequisite. None.

References.

1. TM 12039A/12041A/12045A-14/1 Operator and Field Maintenance Manual for Communications System
2. TM11402B12506A/1271414A-15/110 Operator and Field Maintenance Manual for Aviation Command and Controls System (AC2S)
3. TM 11402B/12506A/12714A-15/112 Software Users Manual for Air Command and Control System (AC2S)

AIRS-1032 0 * B (N) G

Goal. Set-up the Communication System (CS) for operation.

Requirement. Given the references, a CS, and a simulated communication plan:

1. Describe the CS.
2. Emplace the CS.
3. Initialize the CS Power Distribution System.
4. Initialize the CS Radio Distribution System.
5. Initialize the CS Signal Distribution System.
6. Configure communication circuits.
7. Conduct an operational check on the CS.

Performance Standard. Pass an exam.

Instructor. FLCI.

Prerequisite. None.

References.

1. TM 12039A/12041A/12045A-14/1 Operator and Field Maintenance Manual for Communications System
2. TM 11402B/12506A/12714A-15/111 Software Administrator Manual for Air Command and Control System (AC2S)
3. TM 11402B/12506A/12714A-15/112 Software Users Manual for Air Command and Control System (AC2S)

AIRS-1033 0 * B (N) G

Goal. Initialize voice circuits within the Common Aviation Command and Control System (CAC2S).

Requirement. Given the references, a Communication System (CS), an aviation C2 system, and a

simulated communications plan:

1. Describe the voice network.
2. Configure radio circuits.
3. Configure secure telephone circuits.
4. Configure non-secure telephone circuits.
5. Configure public address circuits.
6. Configure voice signal distribution system components.
7. Manage the networking system.
8. Integrate the CS with the aviation C2 system.

Performance Standard. Pass an exam.

Instructor. FLCI.

Prerequisite. None.

References.

1. TM 12039A/12041A/12045A-14/1 Operator and Field Maintenance Manual for Communications System
2. TM11402B12506A/1271414A-15/110 Operator and Field Maintenance Manual for Aviation Command and Controls System (AC2S)
3. TM 11402B/12506A/12714A-15/112 Software Users Manual for Air Command and Control System (AC2S)

AIRS-1034 0 * B (N) G

Goal. Configure aviation C2 system voice network.

Requirement. Given references, network equipment, an aviation C2 system network design document, an aviation C2 system network design diagram, and appropriate software:

1. Describe networking fundamentals.
2. Describe functions of networking equipment.
3. Configure a switch for voice traffic.

Performance Standard. Pass an exam.

Instructor. FLCI.

Prerequisite. None.

References.

1. Computer Networks and Internets book 0-13-083617-6
2. CISCO Certified Network Associate Study Guide, 2nd Edition 0-07-212667-1
3. Data Communications Networking Devices book part 1 0-47197515-X, PT1
4. Data Communications Networking Devices book part 2 0-471-97515-X, PT2
5. TCP/IP Network Administration 1-56592 322-7
6. Essential System Administration, O'Reilly & Associates 1 56592-127-5
7. TM 11402B/12506A/12714A-15/110 Operator and Field Maintenance Manual for Air Command and Control System (AC2S)
8. TM 11402B/12506A/12714A-15/112 Software Users Manual for Air Command and Control System

AIRS-1035 0 * B (N) G

Goal. Maintain the aviation C2 system voice network.

Requirement. Given the references, aviation C2 system voice network equipment, and a simulated communication plan:

1. Restore software on a DSU.
2. Restore software on a Voice System Operator Laptop (VSOL).
3. Reimage a VSOL.
4. Isolate a fault in the network.
5. Isolate a hardware fault.
6. Perform routine network maintenance tasks.
7. Monitor the network utilizing monitoring software.

Performance Standard. Pass an exam.

Instructor. FLCI.

Prerequisite. None.

References.

1. Computer Networks and Internets book 0-13-083617-6
2. CISCO Certified Network Associate Study Guide, 2nd Edition 0-07-212667-1
3. Data Communications Networking Devices book part 1 0-47197515-X, PT1
4. Data Communications Networking Devices book part 2 0-471-97515-X, PT2
5. TCP/IP Network Administration 1-56592 322-7
6. Essential System Administration, O'Reilly & Associates 1 56592-127-5
7. TM 11402B/12506A/12714A-15/110 Operator and Field Maintenance Manual for Air Command and Control System (AC2S)
8. TM 11402B/12506A/12714A-15/112 Software Users Manual for Air Command and Control System

AIRS-1036 0 * B (N) G

Goal. Configure the aviation C2 system voice network for operations.

Requirement. Given the references, aviation C2 system voice network equipment, and a simulated communication plan:

1. Describe the network.
2. Describe the equipment.
3. Configure a Digital Switching Unit.
4. Configure a VSOL.
5. Conduct an operational check of the network.

Performance Standard. Pass an exam.

Instructor. FLCI

Prerequisite. None.

References.

1. Computer Networks and Internets book 0-13-083617-6
2. CISCO Certified Network Associate Study Guide, 2nd Edition 0-07-212667-1
3. Data Communications Networking Devices book part 1 0-47197515-X, PT1
4. Data Communications Networking Devices book part 2 0-471-97515-X, PT2
5. TCP/IP Network Administration 1-56592 322-7
6. Essential System Administration, O'Reilly & Associates 1 56592-127-5
7. TM 11402B/12506A/12714A-15/110 Operator and Field Maintenance Manual for Air Command and Control System (AC2S)
8. TM 11402B/12506A/12714A-15/112 Software Users Manual for Air Command and Control System

AIRS-1037 0 * B (N) G

Goal. Configure AN/VRC-103.

Requirement. Given the references, a simulated communication plan, an AN/VRC-103, a fill device, and a computer with Communications Planning Application (CPA) software:

1. Describe the AN/VRC-103.
2. Perform a limited technical inspection of the AN/VRC-103.
3. Manually configure the AN/VRC-103.
4. Configure the AN/VRC-103 using the CPA software.
5. Perform an operational check of an established AN/VRC-103 radio net.

Performance Standard. Pass an exam.

Instructor. FLCI

Prerequisite. None.

References.

1. TM 10597A-OR/4 – PRC-117 Operation Manual
2. TM 11255A-OR/1 – AN/VRC-103(V)2 Vehicular Radio Communication System Operation and Maintenance Manual
3. MCRP 8-10B.10 – Radio Operator's Handbook
4. MCRP 8-10B.11 – Antenna Handbook

AIRS-1038 0 * B (N) G

Goal. Configure AN/VRC-104.

Requirement. Given the references, a simulated communication plan, an AN/VRC-104, a fill device, and a computer with Communications Planning Application (CPA) software:

1. Describe the AN/VRC-104.
2. Perform a limited technical inspection of the AN/VRC-104.
3. Manually configure the AN/VRC-104.
4. Configure the AN/VRC-104 using the CPA software.
5. Perform an operational check of an established AN/VRC-104 radio net.

Performance Standard. Pass an exam.

Instructor. FLCI

Prerequisite. None.

References.

1. TM 10822A-10/1 – AN/PRC-150(V)(C) Operation Manual
2. RF-5800H 150-WATT Communication System and Installation & Maintenance Manual
3. MCRP 8-10B.10 – Radio Operator's Handbook
4. MCRP 8-10B.11 – Antenna Handbook

4.7 CORE PHASE (2000)

4.7.1 Purpose. To develop core phase proficiency for 5939 personnel to be able to perform duties while assigned to the MACCS.

4.7.2 General.

4.7.2.1 Admin Notes.

1. Training in this phase does not preclude simultaneous training in the mission phase and core plus phase provided applicable prerequisites have been met.

2. Individual core phase skills are learned and mastered using a varied combination of written exams, scenarios and practical demonstrations of proficiency.

4.7.2.2 Prerequisite. None.

4.7.2.3 Stages. The following stages are included in the Core Phase.

PAR NO.	STAGE NAME	PAGE NUMBER
4.7.3	MACCS MAINTENANCE COMMON (MMCN)	4-16
4.7.4	CYBER SECURITY WORKFORCE (CSWF)	4-20
4.7.5	MAINTENANCE MANAGEMENT (MMGT)	4-24
4.7.6	DEPLOYMENT (DEPL)	4-26
4.7.7	AVIATION COMMUNICATION (AVCOMM)	4-29
4.7.8	SYSTEM ADMINISTRATOR (SYSAD)	4-35
4.7.9	CONFIGURATION (CONFIG)	4-36

4.7.3 MACCS MAINTENANCE COMMON (MMCN) STAGE

4.7.3.1 Purpose. To provide entry-level skills that are common to all 5900 occupational field technicians that will be used in the performance of assigned duties within the Marine Air Command and Control System (MACCS).

4.7.3.2 General.

Prerequisite. None.

Admin Notes. None.

Crew Requirements. None

MMCN-2000 2.0 * B, R (N) L

Goal. Operate a common fill device.

Requirement. Given two loaded common fill devices and a zeroized cryptographic device, perform the following:

1. Describe the purpose of a common fill device.
2. Define the common fill device loading procedure.
3. Configure the common fill device.
4. Identify common fill device indicators and messages.
5. Transfer key material to Controlled Cryptographic Item (CCI) equipment.
6. Transfer cryptographic information from common fill device to common fill device.
7. Destroy superseded key material within the cryptographic fill device.

Performance Standard. With the aid of reference, load key material into appropriate COMSEC equipment using a fill device and destroy superseded key material without error.

Instructor. BI

Prerequisite. 2001

Reference.

1. EKMS-1_, Electronic Key Management System

MMCN-2001	1.0	*	B, R	(N)	G

Goal. State the physical security requirements for classified areas.

Requirement. Given a tactical scenario and references, identify the following:

1. Purpose of a guard schedule.
2. Purpose of access control.
3. Purpose of the entry control point.
4. Perimeter barrier requirements.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. BI

Prerequisite. None.

Reference.

1. MCO P5530.14_, Marine Corps Physical Security Program Manual

MMCN-2002	2.0	*	B, R	(N)	G

Goal. Extract key material information from COMSEC callout.

Requirement. Given a COMSEC callout and references, perform the following:

1. State the purpose of the COMSEC callout.
2. Identify the five main pieces of key information:
 - a. Short Title
 - b. Edition
 - c. Segment
 - d. Classification
 - e. Supersession date
3. Identify segment roll over dates and time.
4. Identify short titles applicable to specific implementations within the unit.

Performance Standard. With the aid of reference, state the purpose and identify the key information on the callout. Minor errors corrected by the trainee are acceptable.

Instructor. BI

Prerequisite. None.

References.

1. EKMS-1_, Electronic Key Management System
2. MCRP 3-30B.2 MAGTF Communications System

MMCN-2003	2.0	*	B, R	(N)	L

Goal. Create a classified area physical security diagram.

Requirement. Given a tactical scenario and references, create a diagram that includes the following:

1. Entry control point(s).
2. Perimeter barrier.
3. Communication lines.
4. Storage area locations.

Performance Standard. With the aid of reference, draw a diagram depicting the information listed in the requirement. Instructor will validate that the diagram supports the scenario. Minor errors corrected by the trainee are acceptable.

Instructor. BI

Prerequisite. 2001

References.

1. MCO P5530.14, Marine Corps Physical Security Program Manual
2. FM 5-34, Engineer Field Data

MMCN-2004 2.0 1095 B, R, M (N) L

Goal. Operate the handheld GPS.

Requirement. Perform the following:

1. State the purpose of the handheld GPS.
2. State the characteristics of the handheld GPS.
3. Find current location (coordinates including elevation).
 - a. MGRS
 - b. LAT/LONG
 - c. UTM/UPS
4. Plot a way point.
5. Given coordinates, navigate to a location.

Performance Standard. Given a handheld GPS, complete the requirements without error. The navigation part of requirement will be three points within a one mile radius and within one hour.

Instructor. BI

Prerequisite. None.

Reference.

1. TM 11-5820-1172-13, Defense Advanced GPS Receiver (DAGR), AN/PSN-13

MMCN-2005 1.0 365 B, R, M (N) L

Goal. Demonstrate an earth ground installation.

Requirement. Given a grounding kit and the reference:

1. Identify ground tolerances for equipment and personnel.
2. Identify methods of grounding.
3. Identify a method for improving a ground.
4. Identify proper location to test a ground.
5. Install an earth ground.
6. Create grounding pits.
7. Connect grounding braids/cables.

8. Test grounds with TMDE.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. BI

Prerequisite. None.

Reference.

1. TM 9406-15, Ground Procedures Manual
2. MIL-STD-188-125
3. TM 5-690

MMCN-2006 2.0 1095 B, R, M (N) L

Goal. Develop an embarkation plan.

Requirement. Given the references and an operational scenario, perform the following:

1. State the purpose of an embarkation plan.
2. Produce an Equipment Density List (EDL).
3. Produce logistics documents as required.
4. Identify heavy equipment required to move EDL items.
5. Identify the modes of transportation required to move EDL items.

Performance Standard. With the aid of reference, complete the requirement and develop an embarkation plan to support the scenario. Minor corrections by the trainee are acceptable.

Instructor. BI

Prerequisite. None.

References.

1. MCRP 4-11.3G Unit Embarkation Handbook
2. Applicable TM
3. Unit SOP

MMCN-2007 2.0 1095 B, R, M (N) G

Goal. Identify spectrum management procedures.

Requirement. Given the references and a scenario with operational requirements, perform the following:

1. Identify frequency requirements.
 - a. Identify submission timelines.
 - b. Identify data elements (freq, location, power, dates).
2. Identify Satellite Access requirements.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. BI

Prerequisite. None.

Reference.

1. MCO 2400.2, Marine Corps Management of the Radio Frequency Spectrum

MMCN-2008 4.0 1095 B, R, M (N) L

Goal. Construct and use a field expedient antenna.

Requirement. Given all required materials, construct field expedient antennas using wave propagation techniques by performing the following:

1. Determine frequency.
2. Determine distance and direction of distant station.
3. Determine antenna type and configuration.
4. Erect antenna using recommended construction techniques.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. BI

Prerequisite. None.

References.

1. MCRP 3-40B, Tactical Level Logistics
2. MCRP 8-10B.11 Antenna Handbook
3. MCI 2515H Antenna Construction and Propagation of Radio Waves
4. USMC Field Antenna Handbook APK2.5
5. Field Antenna Handbook 1999

MMCN-2009 4.0 * B, R (N) L

Goal. Complete a Bill of Material (BOM) request.

Requirement. Given Training Exercise and Employment Plan (TEEP) documents and reference, perform the following:

1. Collect requests from maintenance sections.
2. Consolidate required materials into a BOM request.
3. Verify the request is sufficient to support 24 hour operations and for the length of the exercise, validate the content to ensure that it meets sustained operational requirement.
4. Submit a BOM request to the instructor.

Performance Standard. With the aid of reference, perform the requirements. Minor corrections by the trainee are acceptable.

Instructor. BI

Prerequisite. None.

References.

1. MCRP 3-40D.6 Construction Project Management
2. Operation Order

4.7.4 CYBER SECURITY WORKFORCE (CSWF) STAGE

4.7.4.1 Purpose. To provide entry-level skills in cyber security workforce related tasks that are common to all 5900 occupational field technicians that will be used in the performance of assigned duties within the Marine Air Command and Control System (MACCS).

4.7.4.2 General.

Prerequisite. None.

Admin Notes. None.

Crew Requirements. None.

CSWF-2040 4.0 1095 B, R, M (N) G

Goal. Explain Information Security Principles.

Requirement. With the aid of references, perform the following:

1. Explain common threats and vulnerabilities.
 - a. Malware
 - b. Ransomware
 - c. Viruses
 - d. Denial of Service
 - e. Insider Threats
2. Explain the function and purpose of authentication services.
3. Explain data and network security tools.
 - a. Firewall
 - b. Access Control Lists
 - c. Port Security
 - d. Anti-Virus
 - e. Log Files
 - f. Network monitoring application(s)
4. Describe cyber security, privacy principles, and organizational requirements to provide Confidentiality, Integrity, and Availability (CIA).

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. BI

Prerequisite. None.

References.

1. NIST Special Publication 800-__
2. Applicable user manuals
3. Current industry-standard curriculum and references

CSWF-2041 2.0 1095 B, R, M (N) L

Goal. Perform account management.

Requirement. With the aid of reference, perform the following:

1. Plan user accounts.
2. Create user accounts IAW naming convention.
3. Create groups IAW naming convention.
4. Set account permissions.
5. Manage user accounts.
6. Document as required.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. BI

Prerequisite. None.

References.

1. NIST Special Publication 800-__
2. Applicable user manuals
3. Current industry-standard curriculum and references

CSWF-2042 4.0 1095 B, R, M (N) G

Goal. Explain risk management involved in operational security.

Requirement. With the aid of reference, perform the following:

1. Explain risk related concepts.
2. Explain appropriate risk mitigation strategies.
3. Explain appropriate incident response procedures.
4. Explain the importance of security related awareness and training.
5. Compare aspects of business continuity.
6. Explain the impact and proper use of environmental controls.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. BI

Prerequisite. None.

References.

1. NIST Special Publication 800-__
2. Applicable user manuals
3. Current industry-standard curriculum and references

CSWF-2043 4.0 1095 B, R, M (N) G

Goal. Explain computer and network cryptography.

Requirement. With the aid of reference, perform the following:

1. Explain symmetric key rotation techniques
2. Explain symmetric key concepts.
3. Explain cryptographic security models (e.g. Bell-LaPadula model, Biba integrity model, Clark-Wilson integrity model).
4. Explain the core concepts of Public Key Infrastructure (PKI).
5. Explain the implementation of PKI, certificate management and associated components.
6. Explain the appropriate cryptographic tools and products.

Performance Standard. With the aid of reference, complete the requirements, minor errors corrected by the trainee are acceptable.

Instructor. BI

Prerequisite. None.

References.

1. NIST Special Publication 800-__

2. Applicable user manuals
3. Current industry-standard curriculum and references

CSWF-2044 4.0 * B, R (N) G

Goal. Explain computer and networking equipment.

Requirement. With the aid of references, perform the following:

1. State the purpose and functions of:
 - a. Network switch
 - b. Router
 - c. Server
 - d. Virtual Machine
 - e. Workstation
2. Explain the installation and configuration of peripheral devices.
3. Explain installation and configuration of storage devices and appropriate media.
4. Explain the purpose of connection interfaces and transmission media.

Performance Standard. With the aid of reference, complete the requirements, minor errors corrected by the trainee are acceptable.

Instructor. BI

Prerequisite. None.

References.

1. NIST Special Publication 800-__
2. Applicable user manuals
3. Current industry-standard curriculum and references

CSWF-2045 4.0 * B, R (N) G

Goal. Explain Networking Concepts.

Requirement. With the aid of references, perform the following:

1. Identify types of network cables and connectors.
2. Categorize characteristics of connectors and cabling.
3. Compare the layers of the OSI and TCP/IP models.
4. Classify how applications, devices, and protocols relate to the OSI model layers.
5. Explain the purpose and properties of IP addressing.
6. Explain the purpose and properties of routing and switching.
7. Identify common TCP and UDP default ports.
8. Explain the function of common networking protocols.
9. Summarize DNS concepts and its components.
10. Identify virtual network components.
11. Identify appropriate network monitoring tools.
12. Explain the purpose and properties of DHCP.
13. Explain the purpose and properties of Network Address Translation (NAT).
14. Explain the purpose and properties of Port Address Translation (PAT).

Performance Standard. With the aid of reference, complete the requirements, minor errors corrected by the trainee are acceptable.

Instructor. BI

Prerequisite. None.

References.

1. NIST Special Publication 800-__
2. Applicable user manuals
3. Current industry-standard curriculum and references

CSWF-2046 4.0 * B, R (N) G

Goal. Explain Network Media and Topologies.

Requirement. With the aid of references, explain the following:

1. Describe different network topologies.
2. Compare different LAN technologies.
3. Identify components of wiring distribution.
4. Explain different methods and rationales for network performance optimization.

Performance Standard. With the aid of reference, complete the requirements, minor errors corrected by the trainee are acceptable.

Instructor. BI

Prerequisite. None.

References.

1. NIST Special Publication 800-__
2. Applicable user manuals
3. Current industry-standard curriculum and references

CSWF-2047 4.0 * B, R (N) G

Goal. Explain Troubleshooting of Computer and Network equipment.

Requirement. Given the references, Explain the following:

1. Troubleshooting theory.
2. Troubleshooting common problems related to motherboards, RAM, BIOS, CPU and power with appropriate tools.
3. Troubleshooting hard drives and RAID arrays with appropriate tools.
4. Troubleshooting common video and display issues.
5. Troubleshooting wired networks with appropriate tools.
6. Troubleshooting operating system problems with appropriate tools.
7. Troubleshooting common security issues with appropriate tools and best practices.
8. Troubleshooting of common laptop issues while adhering to the appropriate procedures.
9. Troubleshooting of common peripheral devices with appropriate tools.

Performance Standard. With the aid of reference, complete the requirements, minor errors corrected by the trainee are acceptable.

Instructor. BI

Prerequisite. 2044, 2045, 2046.

References.

1. NIST Special Publication 800-__
2. Applicable user manuals
3. Current industry-standard curriculum and references

4.7.5 MAINTENANCE MANAGEMENT (MMGT) STAGE

4.7.5.1 Purpose. To provide the core phase skills necessary to manage maintenance activities and administrative responsibilities within the maintenance section.

4.7.5.2 General.

Admin Notes. None.

Prerequisite. None.

Crew Requirements. None.

MMGT-2070	4.0	*	B	(N)	G

Goal. Complete Maintenance Management Program familiarization.

Requirement. Complete the following maintenance management program indoctrination training:

1. Describe the eight functional areas of maintenance management.
2. Define Desk-Top procedure.
3. Define Turn-Over folder.
4. Identify Collateral Duties Required IAW MMSOP.
5. Identify the objectives of maintenance management program.
6. Describe the information contained in the maintenance management program references.
 - a. MMSOP
 - b. UM 4000-125 GCSS User's Manual
 - c. MCO 4790.2
 - d. MCO 4400.201
 - e. MCO P4400.16 UMMIPS
7. Identify the responsibilities of maintenance management personnel.
 - a. Commanding Officer
 - b. Maintenance Management Officer
 - c. Maintenance Officer
 - d. Supply Officer
 - e. Maintenance Chief
 - f. Supply Clerks
 - g. Maintenance Management Office Clerks
 - h. Maintenance Marines

Performance Standard. With the aid of reference, complete the requirements, minor errors corrected by the trainee are acceptable.

Instructor. BI

Prerequisite. None.

References.

1. MMSOP
2. MCO 4790.2
3. MCO 4400.201
4. MCO 4400.16 UMMIPS
5. UM 4000-125 GCSS-MC User's Manual
6. TM-4700-15/1H
8. Desktop/Turnover
9. FSMAO Checklist
7. MCO 4400.160

MMGT-2071 2.0 * B (N) L

Goal. Conduct an SL-3 inventory.

Requirement. Given the references and a piece of equipment with its record jacket containing an SL-3 extract, perform the following:

1. Validate inventory reference in SL 1-2.
2. Verify UURI authorization.
3. Identify and document on-hand, missing, or unserviceable components.
4. Document completed inventory findings in the record jacket.
5. Initiate supply action to replace missing and/or unserviceable components.

Performance Standard. With the aid of reference, complete the requirements, minor errors corrected by the trainee are acceptable.

Instructor. BI

Prerequisite. None.

References.

1. MCO 4400.150
2. MCO 4790.2
3. Applicable equipment SL-3 or technical manual

4.7.6 DEPLOYMENT (DEPL) STAGE

4.7.6.1 Purpose. To provide the core phase skills required to deploy Marine Air Command and Control Systems (MACCS) equipment, to include planning, crew management, system configuration management, and setup procedures.

4.7.6.2 General.

Admin Notes. None.

Prerequisite. None.

Crew Requirements. None.

DEPL-2100 2.0 * B, R (N) L

Goal. Write a packing list.

Requirement. Given the references, perform the following:

1. Define the purpose of a packing list.
2. Describe essential packing list contents.
3. Complete a packing list.

Performance Standard. With the aid of reference, complete the requirements, minor errors corrected by the trainee are acceptable.

Instructor. BI

Prerequisite. None.

Reference.

1. Unit SOP

DEPL-2101 2.0 * B,R (N) L

Goal. Extract key information from communication planning documents.

Requirement. For each of the following documents, identify the purpose of and the location of key information contained within:

1. Guard Chart.
2. Communication Electronic Operating Instruction (CEOI).
3. Operations Order.
4. Annex K of the Operations Order.
5. Annex U of the Operations Order.
6. Site Diagram.
7. Operational Tasking Data Link (OPTASKLINK).
8. Identify who is responsible for creating and disseminating the OPTASKLINK.
9. KMI Callout.
10. Satellite Access Authorization (SAA).

Performance Standard. With the aid of reference, complete the requirements, minor errors corrected by the trainee are acceptable.

Instructor. BI

Prerequisite. None.

References.

1. MCWP 5-1
2. MCRP 3-30B.2 MAGTF Communications System
3. ACEOI
4. OPTASKLINK
5. KMI Callout
6. Operational Order
7. SAA
8. Guard Chart

DEPL-2102 4.0 * B,R (N) G

Goal. Determine supply support requirements.

Requirement. Given the reference and a 30 day operational scenario, perform the following:

1. Determine supply needs with consideration of the following:
 - a. Location
 - b. Equipment
 - c. Daily operations
 - d. Climate
2. Identify SECREP requirements and deficiencies.
3. Identify Bill of Material (BOM) requirements.

Performance Standard. With the aid of reference, complete the requirements, minor errors corrected by the trainee are acceptable.

Instructor. BI

Prerequisite. None.

References.

1. Applicable technical manuals
2. Operational Order
3. CMR

DEPL-2103 4.0 * B, R (N) G

Goal. Identify power requirements.

Requirement. Given a scenario, EDL, and references, determine total power requirements.

Performance Standard. With the aid of reference, complete the requirements, minor errors corrected by the trainee are acceptable.

Instructor. BI

Prerequisite. None.

Reference.

1. Applicable technical manuals

DEPL-2104 3.0 * B, R (N) G

Goal. Describe common agency doctrinal nets.

Requirement. Given a list of doctrinal net names in acronym format and references, perform the following:

1. Define each net acronym.
2. Describe function for each net.
3. State the frequency spectrum doctrinally used for each net.
4. Identify agencies required to guard each net.

Performance Standard. With the aid of reference, complete the requirements, minor errors corrected by the trainee are acceptable.

Instructor. BI

Prerequisite. None.

Reference.

1. MCRP 3-30B.2 MAGTF Communications System

DEPL-2106 2.0 * B, R (N) G

Goal. Write a crew schedule.

Requirement. Given operational tasking, references, section roster, and MSHARP crew report, perform the following:

1. Determine the duration of operations.
2. Determine total crews required to support the mission.
3. Determine the crew composition/requirements.
4. Write the crew schedule.
5. Submit the crew schedule to the instructor.
6. Describe the process to publish crew schedule once validated.

Performance Standard. With the aid of reference, complete the requirements, minor errors corrected by the trainee are acceptable.

Instructor. BI

Prerequisite. None.

References.

1. T&R Manual
2. MCWP 3-25.4

4.7.7 AVIATION COMMUNICATIONS (AVCOMM) STAGE

4.7.7.1 Purpose. To provide the core plus and mission plus phase skills to embark, setup, operate, maintain, and integrate mission specific or non-organic communication systems and other communication assets within the Marine Air Command and Control System (MACCS).

4.7.7.2 General.

Admin Notes. None.

Prerequisite. None.

Crew Requirements. None.

AVCOMM-2200	2.0	*	B	(N)	L

Goal. Erect organic antennas.

Requirement. Perform the following:

1. Erect ground antennas.
2. Erect antennas mounted to vehicles/shelters.
3. Erect antennas on antenna masts.
4. Erect SATCOM antennas.
 - a. Align the satellite antenna for correct azimuth.
 - b. Align the satellite antenna for correct elevation.

Performance Standard. With the aid of reference, complete the requirements, minor errors corrected by the trainee are acceptable.

Instructor. BI

Prerequisite. None.

References.

1. TM 12039A/12041A/12045A-14/1 Operator and Field Maintenance Manual for Communications System
2. TM 11402B/12506A/12714A-15/111 Software Administrator Manual for Air Command and Control System
3. TM 11402B/12506A/12714A-15/112 Software Users Manual for Air Command and Control System
4. TM 11409A-OR

AVCOMM-2201	1.0	*	B, R	(N)	L

Goal. Configure the AN/VRC-103.

Requirement. Given an AN/VRC-103 and a computer loaded with the Communications Planning Application, perform the following:

1. Identify the characteristics of the AN/VRC-103.
2. Identify the components of the AN/VRC-103.
3. Program the AN/VRC-103 manually.
4. Program the AN/VRC-103 using Communications Planning Application (CPA).
5. Conduct a plain text communications check.
6. Conduct an encrypted communications check.

Performance Standard. With the aid of reference, complete the requirements, minor errors corrected by the trainee are acceptable.

Instructor. BI

Prerequisite. 2000

References.

1. TM 10597A-OR/4 Manpack Radio Operation Manual AN/PRC-117F(V)1(C)Radio Set
2. Harris Premier Account
3. RF-5850-PS001 Operator's Manual

AVCOMM-2202 1.0 * B, R (N) L

Goal. Configure the AN/VRC-104.

Requirement. Given an AN/VRC-104 and a computer loaded with the Communications Planning Application, perform the following:

1. Identify the characteristics of the AN/VRC-104.
2. Identify the components of the AN/VRC-104.
3. Program the AN/VRC-104 manually.
4. Program the AN/VRC-104 using Communications Planning Application (CPA).
5. Conduct a plain text communications check.
6. Conduct an encrypted communications check.

Performance Standard. With the aid of reference, complete the requirements, minor errors corrected by the trainee are acceptable.

Instructor. BI

Prerequisite. 2000.

References.

1. TM 10822A-OR AN/PRC-150(C) Advanced Tactical HF Radio
2. Harris Premier Account

AVCOMM-2203 3.0 * B, R (N) L

Goal. Configure the AN/VRC-103 for SATCOM operation.

Requirement. Given the radios, references, satellite access authorization letter, and common fill device with keying material, perform the following:

1. Configure 5 KHz NB (dedicated) channel.
2. Configure 25 KHz WB (dedicated) channel.
3. Configure DAMA Channel.
4. Configure Integrated Waveform (IW).

5. Conduct a radio check.

Performance Standard. With the aid of reference, complete the requirements, minor errors corrected by the trainee are acceptable.

Instructor. BI

Prerequisite. 2000.

References.

1. TM 10597A-OR/4 Manpack Radio Operation Manual AN/PRC-117F(V)1(C)Radio Set
2. Harris Premier Account
3. RF-5850-PS001 Operator's Manual

AVCOMM-2204 2.0 * B, R (N) L

Goal. Interface an external radio with the CS.

Requirement. Given a CS and a stand-alone radio set, interface an external radio and conduct a communications check.

Performance Standard. With the aid of reference, complete the requirements, minor errors corrected by the trainee are acceptable.

Instructor. BI

Prerequisite. None.

References.

1. TM 11402B/12506A/12714A-15/111 Software Administrator Manual for Air Command and Control System
2. TM 11402B/12506A/12714A-15/112 Software Users Manual for Air Command and Control System

AVCOMM-2205 4.0 * B, R (N) L

Goal. Configure Distributed Scalable Access Network (DSAN) for a multiple vehicle system.

Requirement. Using doctrinal radio nets, complete the following:

1. Build Communications templates.
2. Configure Digital Switching Units (DSUs).
3. Configure voice network devices.
4. Configure LongArm.
5. Assign IP addresses to each radio.
6. Push communications template to the user.
7. Conduct radio check from VSOL.

Performance Standard. With the aid of reference, complete the requirements, minor errors corrected by the trainee are acceptable.

Instructor. BI

Prerequisite. None.

References.

1. TM 11402B/12506A/12714A-15/111 Software Administrator Manual for Air Command and Control System

2. TM 11402B/12506A/12714A-15/112 Software Users Manual for Air Command and Control System

AVCOMM-2206 2.0 * B (N) L

Goal. Conduct organizational level maintenance on the AN/VRC-103.

Requirement. Given the references, tools, and an AN/VRC-103 with a given fault(s) complete the following:

1. Conduct a visual inspection of cabling and connections.
2. Perform power on procedures.
3. Perform a built-in test.
4. Identify the fault(s) and seek verification from a second maintainer.
5. Induct the faulty component into the maintenance cycle and document maintenance actions.

Performance Standard. With the aid of reference, complete the requirements, minor errors corrected by the trainee are acceptable.

Instructor. BI

Prerequisite. 2000, 2201.

References.

1. TM 10597A-OR/4 Manpack Radio Operation Manual AN/PRC-117F(V)1(C)Radio Set
2. TM 11255A-OR/1 AN/VRC-103(V)2 Vehicular Radio Communication System
3. Harris Premier Account
4. RF-5850-PS001 Operator's Manual

AVCOMM-2207 2.0 * B (N) L

Goal. Conduct organizational level maintenance on the AN/VRC-104.

Requirement. Given the references, tools, and an AN/VRC-104 with a given fault(s) complete the following:

1. Conduct a visual inspection of cabling and connections.
2. Perform power on procedures.
3. Perform a built-in test.
4. Identify the fault(s) and seek verification from a second maintainer.
5. Induct the faulty component into the maintenance cycle and document maintenance actions.

Performance Standard. With the aid of reference, complete the requirements, minor errors corrected by the trainee are acceptable.

Instructor. BI

Prerequisite. 2000, 2202.

References.

1. TM 10822A-OR AN/PRC-150(C) Advanced Tactical HF Radio
2. Harris Premier Account

AVCOMM-2208 4.0 * B, R (N) L

Goal. Troubleshoot a fault in the alternating/direct current power distribution panels within the CS.

Requirement. Given the references, tools, TMDE, and a power distribution panel, complete the following:

1. Apply power to the CS.
2. Perform visual inspection of associated power indicators.
3. Utilize TMDE to isolate fault.
4. Repair fault.
5. Verify proper power is restored.
6. Document maintenance actions.

Performance Standard. With the aid of reference, complete the requirements, minor errors corrected by the trainee are acceptable.

Instructor. BI

Prerequisite. None.

References.

1. TM 11402B/12506A/12714A-15/111 Software Administrator Manual for Air Command and Control System
2. TM 11402B/12506A/12714A-15/112 Software Users Manual for Air Command and Control System

AVCOMM-2209 2.0 1095 B, R, M (N) L

Goal. Configure the organic multi-band radio set for enhanced operation.

Requirement. Given the references, an organic multi-band radio, and common fill device with keying material, a computer loaded with the Communications Planning Application (CPA) software, perform the following:

1. Configure for frequency hopping.
2. Configure for HAVEQUICK II.
3. Set system time from GPS.

Performance Standard. With the aid of reference, complete the requirements, minor errors corrected by the trainee are acceptable.

Instructor. BI

Prerequisite. 2000, 2004.

References.

1. TM 10597A-OR/4 Manpack Radio Operation Manual AN/PRC-117F(V)1(C)Radio Set
2. TM 2010-10/A Principle Technical Characteristics of U.S. Marine Corps HAVEQUICK Employment
3. RF-5850-PS001 Operator's Manual

AVCOMM-2210 1.0 1095 B, R, M (N) L

Goal. Configure the organic HF radio set for Automatic Link Establishment (ALE).

Requirement. Given the references, an organic HF radio set, common fill device with keying material, a computer loaded with the Communications Planning Application (CPA) software, channel group and associated addresses, perform the following.

1. Configure for ALE.
2. Configure for ALE 3G.
2. Configure for ALE 3G+.

Performance Standard. With the aid of reference, complete the requirements, minor errors corrected by the trainee are acceptable.

Instructor. BI

Prerequisite. 2000.

Reference.

1. TM 10822A-OR AN/PRC-150C Advanced Tactical HF Radio

AVCOMM-2211 2.0 1095 B, R, M (N) L

Goal. Maintain the voice network within the CS.

Requirement. Given a CS, applicable references, materials, and equipment complete the following:

1. Describe signal flow within the DSAN.
 - a. Digital Switching Unit (DSU)
 - b. Network Devices
 - c. Radios
2. Describe DSU theory of operation.
3. Troubleshoot DSAN Software.
4. Troubleshoot Network connectivity.
5. Re-image workstations.
6. Re-image the DSU/CF Card.
7. Re-install switch IOS.

Performance Standard. With the aid of reference, complete the requirements, minor errors corrected by the trainee are acceptable.

Instructor. BI

Prerequisite. None.

References.

1. TM 11402B/12506A/12714A-15/111 Software Administrator Manual for Air Command and Control System
2. TM 11402B/12506A/12714A-15/112 Software Users Manual for Air Command and Control System

AVCOMM-2212 4.0 * B, R (N) L

Goal. Conduct maintenance on the CS.

Requirement. Given the references, TMDE, and tools, perform the following:

1. Perform PMCS.
2. Perform Corrective Maintenance to the LRU.
3. Verify correct operation.
4. Document maintenance actions.

Performance Standard. With the aid of reference, complete the requirements, minor errors corrected by the trainee are acceptable.

Instructor. BI

Prerequisite. None.

References.

1. TM 11402B/12506A/12714A-15/111 Software Administrator Manual for Air Command and Control System

4-35

Instructor. BI

Prerequisite. 2044.

References.

1. TM 11402B/12506A/12714A-15/111 Software Administrator Manual for Air Command and Control System
2. TM 11402B/12506A/12714A-15/112 Software Users Manual for Air Command and Control System

SYSAD-2253	4.0	*	B, R	(N)	L

Goal. Apply Software release updates.

Requirement. With the aid of reference, perform the following:

1. Schedule software release installation.
2. Install software release updates.
3. Test system software and applications.
4. Backup systems as required.
5. Document as required.

Performance Standard. With the aid of reference, complete the requirements, minor errors corrected by the trainee are acceptable.

Instructor. BI

Prerequisite. 2044.

References.

1. Applicable technical manuals
2. Applicable MI

SYSAD-2254	3.0	*	B, R	(N)	L

Goal. Update firmware for Command and Control Systems.

Requirement. With the aid of reference, perform the following:

1. Verify version of firmware on equipment.
2. Update to current fielded firmware version as required.
3. Document changes as required.

Performance Standard. With the aid of reference, complete the requirements, minor errors corrected by the trainee are acceptable.

Instructor. BI

Prerequisite. 2044

References.

1. TM 11402B/12506A/12714A-15/111 Software Administrator Manual for Air Command and Control System
2. TM 11402B/12506A/12714A-15/112 Software Users Manual for Air Command and Control System
3. Applicable MI

4.7.9 CONFIGURATION (CONFIG) STAGE

4.7.9.1 Purpose. To provide the core skills required to configure aviation C2 systems within the Marine Air Command and Control System.

4.7.9.2 General.

Admin Notes. None.

Prerequisite. None.

Crew Requirements. None.

CONFIG-2301 4.0 * B, R (N) L

Goal. Perform data recovery on organic C2 systems.

Requirement. With the aid of reference, perform the following:

1. Create data backup.
2. Restore data from backup.
3. Document as required.

Performance Standard. With the aid of references, perform the requirement to a proficient level (correct, efficient and skillful execution of tasks requiring minimal input from the instructor). Minor errors corrected by the trainee are acceptable.

Instructor. BI

Prerequisite. None.

Reference.

1. Applicable system manuals

4.8 MISSION PHASE (3000)

4.8.1 Purpose. To provide the requisite advanced skills and working knowledge to employ the MACCS and ancillary equipment in order to accomplish the Marine Air Command and Control System missions.

4.8.2 General.

4.8.2.1 Admin Notes. None.

4.8.2.2 Prerequisite. None.

4.8.2.3 Stages. The following stages are included in the Mission Phase.

PAR NO.	STAGE NAME	PAGE NUMBER
4.8.3	CYBER SECURITY WORKFORCE (CSWF)	4-38
4.8.4	MACCS MAINTENANCE COMMON (MMCN)	4-40
4.8.5	MAINTENANCE MANAGEMENT (MMGT)	4-41
4.8.6	DEPLOYMENT (DEPL)	4-42
4.8.7	AVIATION COMMUNICATION (AVCOMM)	4-43
4.8.8	SYSTEM ADMINISTRATION (SYSAD)	4-45

4.8.3 CYBER SECURITY WORKFORCE (CSWF) STAGE

4.8.3.1 Purpose. To provide Mission Phase skills in computing and networking that will be used in the performance of assigned duties within the Marine Air Command and Control System (MACCS).

4.8.3.2 General.

Admin Notes. None.

Prerequisite. None.

Crew Requirements. None.

CSWF-3000	4.0	1095	B, R, M	(N)	L

Goal. Administer data system host security measures.

Requirement. Given a configured network, demonstrate the following:

1. Install current Anti-virus definitions and service packs.
2. Configure firewalls.
3. Troubleshoot system faults.
4. Initiate corrective actions as required.
5. Document changes.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. SI

Prerequisite. 2040, 2042, 2043, 2044, 2045, 2046, 2047

References.

1. NIST Special Publication 800-__
2. Applicable user manuals
3. Current industry-standard curriculum and references

CSWF-3001	4.0	1095	B, R, M	(N)	L

Goal. Perform network management.

Requirement. Given a LAN, references, and required equipment, perform the following:

1. Monitor the LAN for connectivity.
2. Assist with troubleshooting connectivity issues with external agencies.
3. Troubleshoot Network error(s).
4. Document changes

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. SI

Prerequisite. 2040, 2042, 2044, 2045, 2046, 2047.

References.

1. NIST Special Publication 800-__
2. Applicable user manuals

3. Current industry-standard curriculum and references

CSWF-3002 4.0 1095 B, R, M (N) L

Goal. Design network architecture.

Requirement. Given an operational scenario conduct the following:

1. Identify network requirements
 - a. External interfaces
 - b. VLANs
 - c. IP Class
2. Assign Internet Protocol (IP) addresses, subnets, and netmasks.
3. Identify notation of domain.
4. Identify asset locations .
5. Assign computer hostnames.
6. Implement security measures.
7. Record network configuration.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. SI

Prerequisite. 2040, 2042, 2043, 2044, 2045, 2046, 2047.

References.

1. NIST Special Publication 800-__
2. Applicable user manuals
3. Current industry-standard curriculum and references

4.8.4 MACCS MAINTENANCE COMMON (MMCN) STAGE

4.8.4.1 Purpose. To provide Mission Phase skills that are common to all 5900 occupational field technicians that will be used in the performance of assigned duties within the Marine Air Command and Control System (MACCS).

4.8.4.2 General.

Prerequisite.

Admin Notes.

Crew Requirements. None.

MMCN-3030 8.0 1095 B, R, M (N) L

Goal. Deploy a MACCS capability.

Requirement. Given an operational requirement and commander's guidance, conduct the following:

1. Review operational requirements and develop an EDL.
2. Coordinate for support equipment as required.
3. Verify and complete Bill of Materials.
4. Establish float requirements as required.
5. Conduct inspections on listed equipment.
6. Supervise pack-up and securing of equipment and validate EDL accuracy.
7. Create a packing list.
8. Ensure correct placement of placard/label the equipment for embark.

9. Ensure correct execution of the load plan for equipment handling and safety.
10. Ensure maintenance crews are formed and prepared for deployment.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. SI

Prerequisite. 2071, 2070, 2102, 2103, 2006, 2007, 2009, 2106.

References.

1. MCO 3120.6_, Standard Embarkation Management System
2. Applicable technical manuals

MMCN-3031	8.0	1095	B, R, M	(N)	S/L

Goal. Conduct a site survey.

Requirement. Given a scenario, applicable references, a TO/E and operational tasking, determine an appropriate site for system emplacement by performing the following:

1. Use planning tools to determine terrain masking and line of sight connectivity.
2. Determine a primary and secondary site location.
3. Identify obstructions and hazards.
4. Determine tactical orientation and equipment emplacement.
 - a. Ensure emitters are emplaced IAW Hazardous Electronic Radiation to Fuels (HERF) regulations.
 - b. Ensure emitters are emplaced IAW Hazardous Electronic Radiation to Ordinance (HERO) regulations.
 - c. Ensure emitters are emplaced IAW Hazardous Electronic Radiation to Personnel (HERP) regulations.
 - d. Ensure emitters are emplaced to support working area.
5. Identify the placement for equipment.
6. Identify the placement for antennas.
7. Identify required internal / external equipment requirements.
8. Determine communications obstacles.
8. Determine system grounding requirements.
9. Identify utility requirements to include power and fuel requirements.
10. Describe environmental considerations.
11. Determine protection from the elements.
11. Determine terrain requirements / masking.
12. Determine operational footprint.
13. Design a site layout and submit to the instructor.
14. Develop a brief that addresses all event requirement items.

Performance Standard. With the aid of reference, complete the requirements, minor errors corrected by the trainee are acceptable.

Instructor. SI

Prerequisite. 2103.

References.

1. Applicable technical manuals
2. Operational Order
3. CMR
4. MCWP 3-25.4
5. MCWP 5-1
6. MCO 5104.2

7. MCO 5104.3_

MMCN-3032 2.0 * B (N) L

Goal. Fill the handheld GPS with the appropriate crypto.

Requirement. Perform the following:

1. Identify the proper crypto load.
2. Load crypto into GPS.
3. Verify crypto load.

Performance Standard. With the aid of reference, perform the requirements. Minor corrections by the trainee are acceptable.

Instructor. SI

Prerequisite. 2004.

Reference.

1. TM 11-5820-1172-13, Defense Advanced GPS Receiver (DAGR), AN/PSN-13

4.8.5 MAINTENANCE MANAGEMENT(MMGT) STAGE

4.8.5.1 Purpose. To provide the Mission Phase skills necessary to manage maintenance activities and administrative responsibilities in support of the Mission Essential Tasks (METs).

4.8.5.2 General.

Admin Notes. None.

Prerequisite. None.

Crew Requirements. None.

MMGT-3050 6.0 1095 B, R, M (N) L

Goal. Conduct QC procedures.

Requirement. Ensure the timely performance of all corrective maintenance actions per the references.

1. Verify the induction process:
 - a. Confirm SL-3 accountability.
 - b. Ensure visual inspection occurs.
 - c. Verify record jacket.
 - d. Verify proper organizational PM.
 - e. Verify NAVMC 1018.
 - f. Verify if warranty procedures apply.
2. Determine availability of resources.
3. Ensure proper troubleshooting of faulty item.
4. Ensure repair parts are ordered.
5. Ensure faulty item is repaired to code A status.
6. Ensure safety measures are adhered to during repair process.
7. Review quality control procedures.
8. Verify quality control inspectors based on individual qualifications on equipment are assigned in writing.
9. Verification of MI and TI.
10. Verify proper closeout of SR.

11. Ensure equipment record jacket is updated.

Performance Standard. Complete the requirement items IAW the references. Minor errors corrected by the trainee are acceptable.

Instructor. SI

Prerequisite. 2070, 2071.

References.

1. MCO 4790.2
2. TM-4700-15/1H
3. MCO 4400.16_
4. MCBUL 3000
5. Associated Equipment TM
6. UM 4000-125 GCSS-MC User's Manual
7. MCO 4400.150
8. MMSOP

4.8.6 DEPLOYMENT (DEPL) STAGE

4.8.6.1 Purpose. To provide the Mission Phase skills required to deploy Marine Air Command and Control Systems (MACCS) equipment, to include planning, crew management, system configuration management, and employment procedures.

4.8.6.2 General.

Admin Notes. None.

Prerequisite. None.

Crew Requirements. None.

DEPL-3060	8.0	1095	B, R, M	(N)	L

Goal. Prepare system for embark.

Requirement. Given an Equipment Density List (EDL) that supports the mission, prepare system for embark/retrograde:

1. Conduct proper system power down/teardown.
2. Layout and conduct an SL-3 inventory of the equipment.
3. Conduct Limited Technical Inspections on listed equipment.
4. Pack and secure equipment.
5. Create a packing list.
6. Placard/label the shelters for embark.

Performance Standard. Complete the requirement items IAW the references. Minor errors corrected by the trainee are acceptable.

Instructor. SI

Prerequisite. 2071, 2070, 2102.

References.

1. MCO 3120.6 (Standard Embarkation Management System)
2. Applicable technical manuals

3. Unit SOP

4.8.7 AVIATION COMMUNICATIONS (AVCOMM) STAGE

4.8.7.1 Purpose. To provide the Mission Phase skills necessary to safely embark, setup, operate, maintain, and integrate organic communication system and other communication assets within the Marine Air Command and Control System (MACCS).

4.8.7.2 General.

Admin Notes. None.

Prerequisite. None.

Crew Requirements. None.

AVCOMM-3100 4.0 1095 B, R, M (N) L

Goal. Set-up the Communications System (CS).

Requirement. Given required communications system(s) and as a member of a crew, perform the following:

1. Emplace the communications system(s).
2. Ground equipment.
3. Erect and cable antennas.
4. Apply power.
 - a. Verify inputs and phases.
 - b. Hook up NATO cable.
 - c. Power up shelter and all ancillary equipment in proper sequence.
5. Run voice network cabling.

Performance Standard. With the aid of reference, complete the requirements, minor errors corrected by the trainee are acceptable.

Instructor. SI

Prerequisite. 2000, 2004, 2200, 2201, 2202, 2203, 2204, 2205, 2208, 2209, 2210, 2213, 2250.

External Syllabus Support. Utilities mechanic to properly connect and power up required generator.

References.

1. TM 11402B/12506A/12714A-15/112 Software Users Manual for Air Command and Control System
2. TM 11255A-OR/1 AN/VRC-103(V)2 Vehicular Radio Communication System
3. TM 10597A-OR/4 Manpack Radio Operation Manual AN/PRC-117F(V)1(C)Radio Set
4. TM-11496A-OI RF-300M-HVXXX Multiband Vehicular Radio System
5. Distributed Scalable Access Net (DSAN) Systems Manual
6. TM 9406-15 Grounding Procedures
7. MCRP 3-40.3B Radio Operator's Handbook

AVCOMM-3101 4.0 1095 B, R, M (N) L

Goal. Verify voice communications are operational.

Requirement. Given a scenario, operational documents, and a CS:

1. Verify radio frequency configuration.
2. Verify crypto.

3. Verify radio net configurations.
4. Verify antenna type and locations.
5. Conduct radio check.

Performance Standard. With the aid of reference, complete the requirements, minor errors corrected by the trainee are acceptable.

Instructor. SI

Prerequisite. 2000, 2004, 2200, 2201, 2202, 2203, 2204, 2205, 2208, 2209, 2210, 3100.

References.

1. TM 11402B/12506A/12714A-15/112 Software Users Manual for Air Command and Control System
2. TM 11255A-OR/1 AN/VRC-103(V)2 Vehicular Radio Communication System
3. TM 10597A-OR/4 Manpack Radio Operation Manual AN/PRC-117F(V)1(C)Radio Set
4. TM-11496A-OI RF-300M-HVXXX Multiband Vehicular Radio System
5. Distributed Scalable Access Net (DSAN) Systems Manual Software Build 5.13
6. TM 9406-15 Grounding Procedures
7. MCRP 3-40.3B Radio Operator's Handbook

AVCOMM-3102 12.0 1095 B, R, M (N) L

Goal. Deploy the CS in support of operational requirements.

Requirement. Given operational input, perform the following:

1. Conduct detailed planning of the Area of Operations (AO).
2. Develop a restoration priority list with operations section.
 - a. Create redundant communications paths as appropriate IAW restoration priority.
 - b. Assign priority radio nets to radios with auxiliary vehicle power.
3. Emplace antennas in accordance with mission requirements.
 - a. Directionalize antenna propagation pattern.
 - b. Reduction of RF footprint/EM signature.
4. Assign user templates IAW mission requirements/billets.
5. Ensure logistical support is confirmed.
 - a. Generator support
 - b. ECU support
 - c. Supply support
6. Develop CS network topology.

Performance Standard. With the aid of reference, complete the requirements, minor errors corrected by the trainee are acceptable.

Instructor. SI

Prerequisites. 2000, 2004, 2200, 2201, 2202, 2203, 2204, 2205, 2208, 2209, 2210, 2213, 2250, 3100, 3101.

References.

1. TM 11402B/12506A/12714A-15/112 Software Users Manual for Air Command and Control System
2. TM 11255A-OR/1 AN/VRC-103(V)2 Vehicular Radio Communication System
3. TM 10597A-OR/4 Manpack Radio Operation Manual AN/PRC-117F(V)1(C)Radio Set
4. TM-11496A-OI RF-300M-HVXXX Multiband Vehicular Radio System
5. Distributed Scalable Access Net (DSAN) Systems Manual Software Build 5.13
6. TM 9406-15 Grounding Procedures
7. MCRP 3-40.3B Radio Operator's Handbook

4.8.8 SYSTEMS ADMINISTRATION (SYSAD) STAGE

4.8.8.1 Purpose. To provide the Mission Phase skills necessary to safely embark, setup, operate, maintain, administrate, and integrate tactical data systems within the Marine Air Command and Control System (MACCS) and external agencies.

4.8.8.2 General.

Prerequisite. None.

Admin Notes. None.

Crew Requirements. None.

SYSAD-3144 4.0 1095 B, R, M (N) G

Goal. Develop data recovery management plan.

Requirement. With the aid of reference, develop a data management plan including:

1. Purpose for data backup.
2. Backup frequency.
3. Scheduling/Deconfliction.
4. Backup storage locations.
5. Levels of backup.
6. Backup disposition.
7. Document as required.

Performance Standard. With the aid of reference, complete the requirements, minor errors corrected by the trainee are acceptable.

Instructor. SI

Prerequisite. 2042

References.

1. Applicable technical manuals
2. Commercial resources

SYSAD-3145 4.0 1095 B, R, M (N) L

Goal. Develop disaster recovery plan.

Requirement. With the aid of reference, perform the following:

1. Data backup/recovery plan.
2. Backup power plan.
3. Security plan.
4. Accountability.
5. Communications restoration priorities.

Performance Standard. With the aid of reference, complete the requirements, minor errors corrected by the trainee are acceptable.

Instructor. SI

Prerequisite. 2001, 2253, 2254, 3144.

References.

1. Applicable technical manuals
2. Commercial resources

SYSAD-3146 4.0 1095 B, R, M (N) L

Goal. Manage System Administration responsibilities.

Requirement. Given a scenario, ensure the following:

1. Manage data recovery plan.
2. Manage log files.
3. Manage user accounts.
4. Verify software/firmware are up to date.
5. Manage system passwords.
6. Explain the fundamentals of dealing with prohibited content/activity.
7. Manage network architecture.

Performance Standard. With the aid of reference, complete the requirements, minor errors corrected by the trainee are acceptable.

Instructor. SI

Prerequisite. 2040,2041, 2042, 2043, 2044, 2045, 2046, 2047, 2250, 2253, 2254, 3000, 3001, 3002, 3144.

References.

1. Applicable technical manuals
2. Commercial resources

4.9 CORE PLUS PHASE (4000)

4.9.1 Purpose. To provide Core Plus Phase training. A certain number of Core Plus Phase qualified Marines must be maintained to accomplish special missions or tasks, to include supervision and training of a core competent crew. The Marine is exposed to advanced MACCS integration and employment of the MACCS within a joint environment.

4.9.2 General.

4.9.2.1 Admin Notes. The following information is provided to guide the Marine in the training of this Phase:

1. Training in this phase does not preclude simultaneous training in the Mission Phase and the Core Phase.
2. Individual Core Phase skills are learned and mastered using a varied combination of written exams, scenarios and practical demonstrations of proficiency.
3. If crew members are required to assist in the conduct of an event, the crew shall be core capable in the role they will play, as applicable. Training will be executed as individual training with appropriate assistance at the crew level as needed and as dictated by the conditions listed for each event. Crewmember assistance must be restricted to those actions required to support or facilitate individual training so as not to detract from the individual properly demonstrating the event performance standard.

4.9.2.2 Prerequisites. None.

4.9.2.3 Stages. The following stages are included in the Core Plus Phase.

PAR NO.	STAGE NAME	PAGE NUMBER
4.9.3	AVIATION COMMUNICATION (AVCOMM)	4-47
4.9.4	MAINTENANCE MANAGEMENT (MMGT)	4-49

4.9.3 AVIATION COMMUNICATION (AVCOMM) STAGE

4.9.3.1 Purpose. To instruct the trainee on configuration of the MACCS TDS equipment.

4.9.3.2 General.

Admin Notes. None.49

Prerequisite. None.

Crew Requirements. None.

AVCOMM-4212 2.0 * B (N) L

Goal. Conduct organizational level maintenance on the AN/PRC-153.

Requirement. Given the references, tools, and an AN/PRC-153 with a given fault(s) complete the following:

1. Conduct a visual inspection of cabling and connections.
2. Perform power on procedures.
3. Perform a built-in test.
4. Identify the fault(s) and seek verification from a second maintainer.
5. Induct the faulty component into the maintenance cycle and document maintenance actions.

Performance Standard. With the aid of reference, complete the requirements, minor errors corrected by the trainee are acceptable.

Instructor. BI

Prerequisite. None.

References.

1. TM 11372A/11372B/11372C Motorola Tactical Radio
2. TM 11372A-OI/1 AN/PRC-153 Basic Service Manual
3. TM 11372A-OI/2 Detailed Service Manual

AVCOMM-4213 2.0 * B (N) L

Goal. Conduct organizational level maintenance on the AN/VRC-110.

Requirement. Given the references, tools, and an AN/VRC-110 with a given fault(s) complete the following:

1. Conduct a visual inspection of cabling and connections.
2. Perform power on procedures.
3. Perform a built-in test.
4. Identify the fault(s) and seek verification from a second maintainer.
5. Induct the faulty component into the maintenance cycle and document maintenance actions.

Performance Standard. With the aid of reference, complete the requirements, minor errors corrected by the trainee are acceptable.

Instructor. BI

Prerequisite. None.

References.

1. Applicable technical manuals
2. Harris Premier Account
3. RF-5850-PS001 Operator's Manual

AVCOMM-4214 2.0 * B (N) L

Goal. Conduct organizational level maintenance on the AN/VRC-112.

Requirement. Given the references, tools, and an AN/VRC-112 with a given fault(s) complete the following:

1. Conduct a visual inspection of cabling and connections.
2. Perform power on procedures.
3. Perform a built-in test.
4. Identify the fault(s) and seek verification from a second maintainer.
5. Induct the faulty component into the maintenance cycle and document maintenance actions.

Performance Standard. With the aid of reference, complete the requirements, minor errors corrected by the trainee are acceptable.

Instructor. BI

Prerequisite. 2000

References.

1. TM 10745B/10746B/11247A-OI/23A
2. Harris Premier Account
3. RF-5850-PS001 Operator's Manual

AVCOMM-4215 2.0 * B (N) L

Goal. Conduct organizational level maintenance on the AN/PRC-148.

Requirement. Given the references, tools, and an AN/PRC-148 with a given fault(s) complete the following:

1. Conduct a visual inspection of cabling and connections.
2. Perform power on procedures.
3. Perform a built-in test.
4. Identify the fault(s) and seek verification from a second maintainer.
5. Induct the faulty component into the maintenance cycle and document maintenance actions.

Performance Standard. With the aid of reference, complete the requirements, minor errors corrected by the trainee are acceptable.

Instructor. BI

Prerequisite. 2000

Reference.

1. TM 10745B/10746B/11247A-OI/23A

AVCOMM-4224 2.0 * B (N) L

Goal. Perform fiber optic repair.

Requirement. Given a faulty fiber optic cable, a fiber optic repair kit, tools, and test equipment:

1. Identify fault.
2. Complete repair in accordance with industry standards.
3. Verify operational cable assembly.
4. Document as required.

Performance Standard. With the aid of reference, complete the requirements, minor errors corrected by the trainee are acceptable.

Instructor. BI

Prerequisite. None.

Reference.

1. Applicable technical manuals.

4.9.4 MAINTENANCE MANAGEMENT(MMGT) STAGE

4.9.4.1 Purpose. To provide the Mission Phase skills necessary to manage maintenance activities and administrative responsibilities within the maintenance section.

4.9.4.2 General.

Admin Notes. None.

Prerequisite. None.

Crew Requirements. None.

MMGT-4250 4.0 1095 B, R, M (N) L

Goal. Assess maintenance shop performance.

Requirement. Given the references, perform the following:

1. Determine key performance indicators.
2. Determine functional areas to be inspected.
3. Develop an inspection plan.
4. Assign personnel to conduct inspections.
5. Review results.
6. Assess strengths and weaknesses.
7. Develop/implement a corrective plan.

Performance Standard. Complete the requirement items IAW the references. Minor errors corrected by the trainee are acceptable.

Instructor. SI

Prerequisite. None.

References.

1. FSMAO Checklist
2. CGI Checklist

3. Unit SOP
4. MMSOP
5. MCO 4790.2
6. UM 4000-125 GCSS-MC User's Manual

MMGT-4251 2.0 1095 B, R, M (N) L

Goal. Assess maintenance section funding requirements.

Requirement. With the aid of references and given equipment maintenance history, projected TEEP, and anticipated maintenance shortfalls, propose funding allocations for maintenance activities.

1. Identify and prioritize funding requirements.
2. Provide a maintenance funding request based on requirements and prior year utilization.
3. Provide an anticipated maintenance funding request based on the unit's TEEP.
4. Identify personnel travel requirements.
5. Identify unit-funded training requirements.

Performance Standard. Complete the requirement items IAW the references. Minor errors corrected by the trainee are acceptable.

Instructor. SI

Prerequisite. None.

References.

1. MCO 4400.150
2. MCO 7300.21_

MMGT-4252 1.0 * B,R (N) L

Goal. Induct equipment into the maintenance cycle.

Requirement. Given a piece of equipment requiring a service request, NAVMC 1018, and a computer with GCSS access, perform the following:

1. Via service request, validate the following induction procedures:
 - a. Validate service request accuracy.
 - b. Confirm SL-3 accountability.
 - c. Verify and annotate visual inspection and ensure NAVMC 1018 is applied.
 - d. Verify and annotate service history in record jacket.
 - e. Verify and annotate proper organizational PM.
 - f. Verify and annotate Modification Instruction (MI) and Technical Instruction (TI).
 - g. Verify and annotate warranty (if applicable).
2. Determine availability of resources.
3. Conduct and document proper troubleshooting of faulty item.
4. Order repair parts as necessary.
5. Submit equipment and records for QC.

Performance Standard. With the aid of reference, complete the requirements, minor errors corrected by the trainee are acceptable.

Instructor. SI

Prerequisite. None.

References.

1. TM 4700-15/1H

2. MCO 4790.2
3. MCBUL 3000
4. MCO 4400.16
5. Unit MMSOP
6. UM 4000-125 GCSS-MC User's Manual

MMGT-4253 1.0 * B,R (N) G

Goal. Create a Preventive Maintenance Checks and Services (PMCS) schedule.

Requirement. Given GCSS access, an end item, and applicable references, perform the following:

1. State the purpose of PMCS.
2. Identify the PM frequency.
3. Identify PM procedures.
4. Create a PMCS schedule within GCSS.

Performance Standard. With the aid of reference, complete the requirements, minor errors corrected by the trainee are acceptable.

Instructor. SI

Prerequisite. None.

References.

1. TM 4700-15/1H
2. MCO 4790.2
3. Technical Manuals
4. UM 4400-125 GCSS-MC User's Manual

MMGT-4254 2.0 * B,R (N) L

Goal. Submit a Product Quality Deficiency Report (PQDR).

Requirement. Given the reference, equipment or a scenario:

1. State the criteria under which the PQDR should be submitted.
2. Complete the PQDR.
3. Explain the squadron's internal process for submitting a PQDR.
4. Identify the procedure to follow up with the PQDR.
5. Discuss external process flow of the PQDR.

Performance Standard. With the aid of reference, complete the requirements, minor errors corrected by the trainee are acceptable.

Instructor. SI

Prerequisite. None.

References.

1. MCO 4790.2
2. Unit MMSOP
3. MCO 4855.10B PRODUCT QUALITY DEFICIENCY REPORT (PQDR)
4. SECNAVINST 4855.5, Product Quality Deficiency Report Program

MMGT-4255 2.0 * B,R (N) G

Goal. Identify the SECREP management process.

Requirement. Given the references, perform the following:

1. Define the purpose of the SECREP management process.
2. Define the purpose of Critical Low Density SECREP exchange process.
3. Identify the SECREP management re-computation process.

Performance Standard. With the aid of reference, complete the requirements, minor errors corrected by the trainee are acceptable.

Instructor. SI

Prerequisite. None.

References.

1. MCO 4790.2
2. MCO 4400.150
3. FEDLOG/WEBFLIS
4. UM 4000-125 GCSS-MC User's Manual

MMGT-4256	4.0	*	B,R	(N)	G

Goal. Explain equipment disposition procedures.

Requirement. Given the reference and a scenario, conduct the following:

1. State the purpose of equipment disposition.
2. State the criteria under which an item should be processed for disposition.
3. State the information required to submit a disposition request.
4. State the submission procedures for a disposition request.
5. State the method to follow up on disposition submissions.
 - a. GCSS-MC.
 - b. Weekly Supply reconciliation.
6. Explain disposition instruction.
7. Ensure equipment is removed from the CMR as applicable.

Performance Standard. With the aid of reference, complete the requirements, minor errors corrected by the trainee are acceptable.

Instructor. SI

Prerequisite. None.

References.

1. Disposal Plan
2. ULSS
3. Equipment SL-3
4. MCO 4400.201 Vol. 6
5. UM 4000-125 GCSS-MC User's Manual
6. MMSOP
7. MCO 4790.2

MMGT-4257	4.0	*	B, R	(N)	L

Goal. Reconcile Global Combat Support System (GCSS) reports.

Requirement. Given the reports listed in item 1 below:

1. Identify the purpose of:

- a. Maintenance Production Report (MPR)
 - b. Equipment Status Report (ESR)
 - c. Preventative Maintenance Report
 - d. Calibrations Report
 - e. Modification Instruction report
 - f. Maintenance Management Report (MMR)
 - g. Due and status file (DASF)
 - h. Service Request (SR)
 - (1) Tasks
 - (2) Notes
 - (3) Parts Requirements
 - i. Sub-Inventory
 - (1) Layette
 - (2) Stage
 - (3) Demand Supported Items (DSI)
 - j. Oracle Install Base
 - (1) Parent/Child Relationships
2. Identify the type of information contained in each of the forms listed above.
 3. Identify the status of a parts requisition.
 4. Identify proper use of UMMIPS priorities.
 5. State item requisition priorities.
 6. Reconcile all items listed above and list all errors found in each form.
 7. Explain how to maintain a layette bin.

Performance Standard. With the aid of reference, complete the requirements, minor errors corrected by the trainee are acceptable.

Instructor. SI

Prerequisite. None.

References.

1. MCO 4790.2
2. MCBUL 3000
3. MCO P4400.16
4. DLA Handbook
5. Unit MMSOP
6. UM 4400-125 GCSS-MC User's Manual

MMGT-4258 1.0 * B,R (N) L

Goal. Verify inventory control procedures are implemented.

Requirement. Given an equipment record and SL-3:

1. Validate inventory results.
2. Validate parts requisition details.
3. Ensure service request is created within GCSS-MC.
4. Ensure parts requirement for unserviceable items are created within GCSS-MC.
5. Ensure inventory records are updated to reflect current status:
 - a. Item on-hand availability status.
 - b. Parts requisition status.

Performance Standard. With the aid of reference, complete the requirements, minor errors corrected by the trainee are acceptable.

Instructor. SI

Prerequisite. None.

References.

1. MCO 4400.150
2. MCO 4790.2
3. UM 4000-125 GCSS-MC User's Manual

4.10 MISSION PLUS PHASE (4500)

4.10.1 Purpose. **RESERVED FOR FUTURE USE.**

4.10.2 General.

4.10.2.1 Admin Notes.

4.11 INSTRUCTOR TRAINING PHASE (5000)

4.11.1 Purpose. The MACCS instructor concept is a means to standardize all instructors across the MACCS in regards to the concepts of managing a WTTP, properly conducting training, performing evaluations, and recommending training plans. Upon completion of the required training, an individual may be approved for instructor designation by the commanding officer.

4.11.2 General.

4.11.2.1 Admin Notes. None.

4.11.2.2 Prerequisite. None.

4.11.2.3 Stages. The following stages are included in the Instructor Training Phase.

PAR NO.	STAGE NAME	PAGE NUMBER
4.11.3	INSTRUCTOR UNDER TRAINING (IUT)	4-54

4.11.3 INSTRUCTOR UNDER TRAINING (IUT) STAGE

4.11.3.1 Purpose. To train Aviation Communication System Technicians in the fundamentals of instructing and training processes.

4.11.3.2 General.

Admin Notes. None.

Prerequisite. None.

Crew Requirements. None.

IUT-5000 2.0 * B (N) L

Goal. Introduce principals of instruction.

Requirement. Given the reference, the BIUT will demonstrate the following with the assistance of a unit instructor:

1. Adult learning principles.
 - a. Pedagogy to andragogy

- b. Characteristics of the adult learner
 - c. Learning styles
 - d. How adults learn
 - e. Domains of learning
 - f. Group dynamics
 - g. Motivation
 - h. Constructivist learning environments
- 2. Introduce, discuss, and demonstrate instruction techniques.
 - 3. Introduce, discuss, and demonstrate class management techniques.
 - a. How to select teaching resources to accommodate student learning styles.
 - b. How to properly organize the instructional environment for effective learning.

Performance Standard. With the aid of references, the BIUT shall demonstrate principles of instruction. During this session, the instructor shall discuss the event content and question the student throughout the training session to ensure understanding.

Instructor. SI

Prerequisite. None.

References.

- 1. Adult Learning section, Systems Approach to Training Manual (2004)
- 2. NAVMC 3500.14
- 3. NAVMC 1553.1

IUT-5010	2.0	*	B	(N)	G

Goal. Describe individual T&R requirements.

Requirement. Using the Aviation T&R Program Manual, discuss the purpose of each of the following items with an instructor:

- 1. Training progression model.
- 2. Programs of Instruction.
 - a. Basic
 - b. Refresher
 - c. Conversion
 - d. Series Conversion
 - e. Transition
 - f. Maintain
- 3. T&R attain and maintain tables.
- 4. Syllabus notes.
- 5. T&R syllabus structure.
 - a. Phase
 - b. Stage
 - c. Event
 - d. Skill
 - e. Syllabus
- 6. Event format.
 - a. Header
 - (1) Event prefix - event code
 - (2) Projected event duration
 - (3) Proficiency period
 - (4) Programs of instruction (POI)
 - (5) Event conditions
 - (6) Device options
 - (7) Device number

- (8) Device type
- b. Body
 - (1) Goal
 - (2) Requirement
 - (3) Performance standard
 - (4) Equipment

Performance Standard. Without the aid of references and during a discussion session, the BIUT shall describe Individual T&R requirements. During this session, the instructor shall discuss the event content and question the student throughout the training session to ensure understanding.

Instructor. SI

Prerequisite. None.

References.

1. NAVMC 3500.14
2. NAVMC 1553.1

IUT-5020	12.0	90	B,R,M	(N)	L

Goal. Conduct T&R instruction.

Requirement. The BIUT, under the supervision of an instructor, will conduct three periods of instruction on three different T&R events selected by the instructor and should include as many different methods of instruction as possible (lecture or academic, demonstration, and practical application). The event must be one the BIUT is current and proficient in. The BIUT will complete the following for each of the three events instructed:

1. Prepare to train the event.
 - a. Review a trainee's performance record to identify required training for the event selected.
 - b. Ensure the student has met prerequisites for the event to be trained.
 - c. Gather the resources necessary to conduct the training (i.e., instructional materials, references, and equipment).
 - d. Conduct task analysis on each event to ensure all intended requirements and prerequisite skills, specified or implied, are trained IAW applicable references.
 - e. Schedule the training event (facilities and students).
 - f. Prepare an evaluation form for each student to be evaluated.
2. Conduct training on the event selected:
 - a. Ensure all training resources are properly staged/equipment if set up properly for training.
 - b. Instruct the student in a thorough manner so as to cover all requirements for the event.
 - c. Ensure continuous, objective assessment of the student's progress during training.
3. Assess student performance:
 - a. Assess the student's performance to the performance standard.
 - b. Correct student deficiencies in a timely manner and provide the student feedback.
 - c. Complete the evaluation form on for each student trained.
 - d. Debrief student on the performance and provide corrective action.
4. Route evaluation form as required.

Performance Standard. Complete the requirement items IAW the reference and ensure training is doctrinally and technically current. Instructor shall use the instructor evaluation form from the SAT User's Guide for each class and a mark of satisfactory must be achieved for each of the three classes.

Instructor. SI

Prerequisite. 5000, 5010

References.

1. NAVMC 3500.14, Ch 6
2. NAVMC 1553.1
3. MCO 1553.2B, Appendix O

IUT-5100 2.0 * B (N) G

Goal. Describe the Aviation Training and Readiness (T&R) Program.

Requirement. Using the community T&R manual discuss the following with an instructor:

1. Describe the Weapons and Tactics Training Program (WTPP).
2. Define each element of the Core Model:
 - a. Mission statements
 - b. Core Mission Essential Task List (METL)
 - c. Output standards
 - d. Core Phase (How to attain and maintain)
 - e. Mission Phase (How to attain and maintain)
 - f. Combat Leadership
3. Define each of the following elements of unit training:
 - a. Training Exercise Employment Plan (TEEP)
 - b. Core Model Minimum Requirements (CMMR)
 - c. Instructors
 - d. Core Model Training Report (CMTR)
 - e. T&R manual connection to readiness reporting
4. Define each of the following elements of training:
 - a. Certification
 - b. Qualification
 - c. Designation
 - d. Performance Record
5. Explain how changes are made to the Program manual:
 - a. Explain T&R conference procedures.
 - b. Explain correspondence change procedures.

Performance Standard. Complete the requirements IAW the reference. Instructor will question the SIUT to check for thorough understanding of the Aviation T&R Program.

Instructor. SI

Prerequisite. None.

References.

1. NAVMC 3500.14
2. MCO 3500.109

IUT-5110 4.0 365 B,R,M (N) L

Goal. Conduct instructor evaluations.

Requirement. Using the instructor evaluation checklist from the SAT manual, conduct two evaluations on instructors of equal or lower designation.

1. Provide notification of evaluation to the instructor being evaluated.
2. Do not interfere with or disrupt the instruction while taking place.
3. Thoroughly document observed items on the checklist.
4. Ensure student evaluation form is filled out correctly and the appropriate debrief took place.
5. Debrief the instructor being evaluated on their preparation, instruction, evaluation, and documentation.
6. Have the evaluated instructor complete the instructor improvement plan section and sign.

7. File a copy of the completed evaluation form in both the evaluator's and evaluated instructor's performance record.

Performance Standard. Complete the requirements IAW the reference.

Instructor. SI

Prerequisite. 5100

References.

1. NAVMC 3500.14
2. Applicable community T&R Manual
3. MCO1553.2B, Appendix O

IUT-5120	2.0	*	B	(N)	L

Goal. Perform T&R administration.

Requirement. Document training to include:

1. Performance records.
2. Ensure MSHARP is updated appropriately.
3. Assemble recommendation package for certifications, qualifications, and designations IAW T&R manual.

Performance Standard. Complete the requirement items IAW the references. Instructor will question the trainee to check for understanding of the administration process.

Instructor. SI

Prerequisite. 5100, 5110

References.

1. NAVMC 3500.14
2. Local WTTP SOP
3. <http://msharpsupport.com>

IUT-5130	2.0	*	B	(N)	L

Goal. Develop a training plan.

Requirement. Given a deployment scenario develop a training plan to determine individual, and crew training needed to meet CMMR by completing the following:

1. Review Commander's training guidance.
2. Analyze the CMTR to determine training deficiencies and how to achieve CMMR.
3. Identify and schedule T&R training opportunities IAW the TEEP to achieve requirements.
4. Determine instructors required.
5. Determine equipment required.
6. Determine external support required.
7. Deliver a brief to the instructor that illustrates:
 - a. Crew manning and training requirements
 - b. Current training status
 - c. Identify the training deficiencies and resource shortfalls.
 - d. Explain the training plan to correct the training deficiencies.
 - e. Training plan meets commander's guidance

Performance Standard. Complete the requirement items IAW the references and commander's training

guidance. Training plan will ensure adequate time is allocated to include preparation, instruction, assessment, documentation, and remediation.

Instructor. SI

Prerequisite. 5100, 5110, 5120

References.

1. NAVMC 3500.14
2. Applicable Community T&R manuals

4.12 CERTIFICATIONS, QUALIFICATIONS, AND DESIGNATIONS (CQD) (6000)

4.12.1 Purpose. This phase provides community standardization of technician designations, combat leadership, instructor designations and training. This syllabus does not contain “one time” certification training requirements.

4.12.2 General.

4.12.2.1 Admin Notes.

1. This section enables units to document and track combat leaders, instructors, and technician assignments. All syllabus training and administration requirements must be complete prior to being qualified or designated. A qualification or designation is not effective until all administration is completed.

2. Only once an individual is qualified or designated in writing, the signed letter is filed in the IPR, all administrative actions are completed, and the event code has been logged in M-SHARP shall the qualification or designation be effective.

4.12.2.2 Prerequisite. None.

4.12.2.3 Stages. The following stages are included in the Instructor Training Phase.

PAR NO.	STAGE NAME	PAGE NUMBER
4.12.3	CERTIFICATIONS (CERT)	4-59
4.12.4	DESIGNATIONS (DESG)	4-60
4.12.5	SCHOOL CODES (SCHL)	4-63

4.12.3 CERTIFICATIONS (CERT) STAGE

4.12.3.1 Purpose. To provide for certifications of Information Assurance Work Force personnel. In order to ensure proficiency is maintained, specific events throughout this syllabus have been R-coded. The gaining command shall review the IPR to ensure prerequisite R-coded events for a certification are current prior to approving that certification. If prerequisite R-coded events are delinquent, the individual shall update those events.

4.12.3.2 General.

Admin Notes. Policies and rules for attaining and maintaining certification are detailed in the Aviation T&R Program Manual and this Manual.

Prerequisite. None.

Crew Requirements. None.

CERT-6260 4.0 * B (N) G

Goal. CSWF Technical Support Specialist.

Requirement. Complete the prerequisites. Be recommended for certification and approved in writing by the commanding officer.

Performance Standard. Complete requirements in accordance with the reference.

Instructor. SI

Prerequisite. 2040, 2041, 2042, 2044, 2045, 2046, 2047, 3001

Reference.

1. DOD 8570.01_, Information Assurance Workforce Improvement Program

CERT-6261	4.0	*	B	(N)	G

Goal. CSWF IT Specialist.

Requirement. Complete the prerequisites. Be recommended for certification and approved in writing by the commanding officer.

Performance Standard. Complete requirements in accordance with the reference.

Instructor. SI

Prerequisite. 2040, 2041, 2043, 2044, 2045, 2046, 2047, 3000, 3001, 3002

Reference.

1. DOD 8570.01_, Information Assurance Workforce Improvement Program

CERT-6262	4.0	*	B	(N)	G

Goal. CSWF System Administrator.

Requirement. Complete the prerequisites. Be recommended for certification and approved in writing by the commanding officer.

Performance Standard. Complete requirements in accordance with the reference.

Instructor. SI

Prerequisite. 2040, 2042, 2043, 2044, 2045, 2046, 2047, 3000, 3001, 3002

Reference.

1. DOD 8570.01_, Information Assurance Workforce Improvement Program

4.12.4 DESIGNATIONS (DESG) STAGE

4.12.4.1 Purpose. To provide for designation of combat leaders and instructors. Designations are command specific and expire when an individual transfers out of a command. In order to ensure proficiency is maintained, specific events throughout this syllabus have been R-coded. The gaining command shall review the IPR to ensure prerequisite R-coded events for a designation are current prior to approving that designation. If prerequisite R-coded events are delinquent, the individual shall update those events.

4.12.4.2 General.

Admin Notes. Policies and rules for attaining and maintaining designations are detailed in the Aviation T&R Program Manual and this Manual.

Prerequisite. None.

Crew Requirements. None.

DESG-6320 .5 * B (N) G

Goal. Basic Instructor (BI).

Requirement. Be recommended for designation by a WTI and designated in writing by the commanding officer.

Performance Standard. N/A

Instructor. WTI

Prerequisite. 5000, 5010, 5020

Reference.

1. NAVMC 3500.14

DESG-6321 .5 * B (N) G

Goal. Senior Instructor (SI).

Requirement. Be recommended for designation by a WTI and designated in writing by the commanding officer.

Performance Standard. N/A

Instructor. WTI

Prerequisite. 5100, 5110, 5120, 5130

Reference.

1. NAVMC 3500.14

DESG-6322 .5 * B (N) G

Goal. Weapons and Tactics Instructor (WTI).

Requirement. Be certified by MAWTS-1 as a WTI, designated by the commanding officer in writing.

Performance Standard. N/A

Instructor. WTI

Prerequisite. 6000

Reference.

1. NAVMC 3500.14

DESG-6330 .5 * B (N) G

Goal. Formal Learning Center Instructor (FLCI).

Requirement. Complete the formal learning center's instructor requirements, designated by the commanding officer in writing.

Performance Standard. N/A

Instructor. FLCI

Prerequisite. None.

Reference.

1. NAVMC 3500.14, Naval Aviation Program Manual

4.12.5 SCHOOL CODES (SCHL) STAGE

4.12.5.1 Purpose. To provide tracking codes for schools that are pertinent to the training of the 5939 in the skill progression of the Marine.

4.12.5.2 General.

Admin Notes. Policies and prerequisites for attending the listed schools are maintained within MCTIMS.

Prerequisite. None.

Crew Requirements. None.

T&R CODE	COURSE NAME	LOCATION	CID/CIN
SCHL-6000	Weapons and Tactics Instructor (WTI) course	MCAS Yuma, AZ	M149731
SCHL-6020	Link 16 Basics Course (JT-100)	Joint Knowledge Online (JKO)	N/A
SCHL-6021	Intro to Multi TDL Network (JT-101)	Joint Knowledge Online (JKO)	N/A
SCHL-6022	Multi-TDL Advanced Joint Interoperability Course (MAJIC) (JT-102)	Fort Bragg, NC	A05L6Z1
SCHL-6024	Multi TDL Planner Course (JT-201)	Fort Bragg, NC	A05KHY1
SCHL-6025	Link 16 Unit Manager (LUM) Course (JT-220)	Fort Bragg, NC	A05A111
SCHL-6026	Joint Interface Control Officer (JICO) (JT-301)	Fort Bragg, NC	A05FH21
SCHL-6027	Advanced JICC Operator Course (JT-310)	Fort Bragg, NC	A05FH11
SCHL-6030	Work Center Supervisor's Course	NATTC, FL	N23KCM2
SCHL-6031	MATC Maintenance Manager's Course	NATTC, FL	N23KCN2
SCHL-6073	Micro-Miniature Electronics Repair Course	San Diego, CA	N01A351
		Norfolk, VA	N02A351
SCHL-6093	Micro-miniature/Automated Test Equipment Repair Course	29 Palms, CA	M09E2D1
SCHL-6094	Advanced Electronics Course	29 Palms, CA	M09DSK1

SCHL-6095	Ground Electronics Maintenance NCO Course	Camp Johnson, NC	M03DNSG
SCHL-6096	Attend respective instructor development Course.	MCB Camp Lejeune, NC	M03WJBA
		MCB Camp Lejeune, NC (MTT)	M03WJBM
		MCB Camp Pendleton, CA	M10WJB1
		MCB Camp Pendleton, CA (MTT)	M10WJBM
		NAS Pensacola, FL	N23X991
SCHL-6097	Mountain Command Control Communications Course	Bridgeport, CA	M24CXJ1
SCHL-6098	Electromagnetic Spectrum Manager Course	Biloxi, MS	F0224L1

SCHL-6000 0.5 * B (N) G

Goal. WTI Course.

Requirement. Successfully complete course curriculum.

Performance Standard. N/A

Instructor. FLCI

Prerequisite. 6321, 8000, 8020, 8040, 8060, 8080

Reference. None.

SCHL-6020 0.5 * B (N) G

Goal. Link 16 Basics Course (JT-100)

Requirement. Successfully complete course curriculum.

Performance Standard. N/A

Instructor. N/A

Prerequisite. None.

Reference. None.

SCHL-6021 0.5 * B (N) G

Goal. Intro to Multi TDL Network (JT-101).

Requirement. Successfully complete course curriculum.

Performance Standard. N/A

Instructor. N/A

Prerequisite. None.

Reference. None.

SCHL-6022 0.5 * B (N) G

Goal. Multi-TDL Advanced Joint Interoperability Course (MAJIC) (JT-102).

Requirement. Successfully complete course curriculum.

Performance Standard. N/A

Instructor. FLCI

Prerequisite. 6021.

Reference. None.

SCHL-6024	0.5	*	B	(N)	G

Goal. Multi TDL Planner Course (JT-201).

Requirement. Successfully complete course curriculum.

Performance Standard. N/A

Instructor. FLCI

Prerequisite. None.

Reference. None.

SCHL-6025	0.5	*	B	(N)	G

Goal. Link 16 Unit Manager (LUM) Course (JT-220).

Requirement. Successfully complete course curriculum.

Performance Standard. N/A

Instructor. FLCI

Prerequisite. None.

Reference. None.

SCHL-6026	0.5	*	B	(N)	G

Goal. Joint Interface Control Officer (JICO) (JT-301).

Requirement. Successfully complete course curriculum.

Performance Standard. N/A

Instructor. FLCI

Prerequisite. 6021, 6022, 6024.

Reference. None.

SCHL-6027	0.5	*	B	(N)	G

Goal. Advanced JICC Operator Course (JT-310).

Requirement. Successfully complete course curriculum.

Performance Standard. N/A

Instructor. FLCI

Prerequisite. None.

Reference. None.

SCHL-6030	0.5	*	B	(N)	G

Goal. Work Center Supervisor's Course.

Requirement. Successfully complete course curriculum.

Performance Standard. N/A

Instructor. FLCI

Prerequisite. None.

Reference. None.

SCHL-6031	0.5	*	B	(N)	G

Goal. MATC Maintenance Manager's Course.

Requirement. Successfully complete course curriculum.

Performance Standard. N/A

Instructor. FLCI

Prerequisite. None.

Reference. None.

SCHL-6073	0.5	*	B	(N)	G

Goal. Micro-Miniature Electronics Repair Course.

Requirement. Successfully complete course curriculum.

Performance Standard. N/A

Instructor. FLCI

Prerequisite. None.

Reference. None.

SCHL-6093	0.5	*	B	(N)	G

Goal. Micro-miniature/Automated Test Equipment Repair Course.

Requirement. Successfully complete course curriculum.

Performance Standard. N/A

Instructor. FLCI

Prerequisite. None.

Reference. None.

SCHL-6094	0.5	*	B	(N)	G

Goal. Advanced Electronics Course.

Requirement. Successfully complete course curriculum.

Performance Standard. N/A

Instructor. FLCI

Prerequisite. None.

Reference. None.

SCHL-6095	0.5	*	B	(N)	G

Goal. Ground Electronics Maintenance NCO Course.

Requirement. Successfully complete course curriculum.

Performance Standard. N/A

Instructor. FLCI

Prerequisite. None.

Reference. None.

SCHL-6096	0.5	*	B	(N)	G

Goal. Attend respective instructor development course.

Requirement. Successfully complete course curriculum.

Performance Standard. N/A

Instructor. FLCI

Prerequisite. None.

Reference. None.

SCHL-6097	0.5	*	B	(N)	G

Goal. Mountain Command Control Communications Course.

Requirement. Successfully complete course curriculum.

Performance Standard. N/A

Instructor. FLCI

Prerequisite. None.

Reference. None.

SCHL-6098 0.5 * B (N) G

Goal. Electromagnetic Spectrum Manager Course.

Requirement. Successfully complete course curriculum.

Performance Standard. N/A

Instructor. FLCI

Prerequisite. None.

Reference. None.

4.13 MISSION ESSENTIAL TASK (MET) PHASE (7000)

4.13.1 Purpose. This phase takes CMMR proficient Marines from multiple PMOS, puts them in CMMR representative crews, and trains them as combat effective teams in combined events.

4.13.2 General.

4.13.2.1 Admin Notes. Prerequisites for this phase of training cannot be waived. Multiple events can be trained at the same time as long as separate evaluations are being conducted.

4.13.2.2 Prerequisite. Marines must either be CMMR crew position or non-aviation PMOS proficient to train in this phase. For those events requiring combat leaders, only Marines currently designated as such can train in this phase.

4.13.2.3 Stages. The following stages are included in the Mission Essential Task (MET) Phase of training.

PAR NO.	STAGE NAME	PAGE NUMBER
4.13.3	TACC CONDITION (COND)	4-67
4.13.4	TAOC CONDITION (COND)	4-71
4.13.5	DASC CONDITION (COND)	4-74

4.13.3 TACC CONDITION (COND) STAGE

4.13.3.1 Purpose. To train unit level teams in executing community specific MET(s) or MET preparatory events.

4.13.3.2 General.

Admin Notes. All events in this stage will require the following administrative/operational documents to

be identified or created:

1. Letter of Intent (LOI)
2. Personnel Roster
3. Bill of Material (BOM)
4. Equipment Density List (EDL)

Prerequisite. If an event requires prerequisites in addition to those listed for the MET Phase, they will be covered in the individual event.

Crew Requirements. This stage requires that all crew members and combat leaders be qualified/designated and proficient (current) in the position they are assigned for the following events. Crews shall be task organized to meet the mission.

COND-7001 4.0 730 B, R, M E (N) L

Goal. Establish communications.

Requirement. Perform the following:

1. Establish communication nets in accordance with SOPs, published communications plan.
2. Communications are available for standby operational contingency actions; e.g., SAR.
3. Communications plan reflects correct key lists and edition numbers, and they are verified as correct.
4. Post communications status to include delineated alternate paths and current EMCON status.
5. Ensure operations personnel are aware of alternate communications paths to assure constant contact with higher, adjacent and subordinate commands when required.
6. Communication restoration priorities have been published and provided to communication maintenance personnel.
7. Detect instances of communications jamming, potential cyber intrusion, or imitative deceptions and provide reports in accordance with appropriate annex of the Op Order.
8. Direct changes in EMCON conditions to subordinate agencies when processed intelligence or combat information reveals a change in the enemy's threat capabilities.
9. Enact restoration procedures.
10. Ensure communication plan includes communications requirements for succession of command or control in case of catastrophic failure of any major air control agency (TADC/TACC, DASC, TAOC).
11. Crew members understand crew procedures to change communications nets and/or radio configurations.
12. Crew members perform net control station duties by initiating radio checks on appropriate nets.

Performance Standard. Establish voice and data connectivity with subordinate MACCS agencies and higher headquarters IAW ANNEX K, COMSEC Callout, ACEOI, and OPTASK LINK.

Instructor. WTI

Prerequisite. None.

External Syllabus Support. External C3 Agencies.

References.

1. MCWP 3-20F.2, Marine TACC Handbook
2. TACC Primer

COND-7003 8.0 730 B, R, M E (N) L/S

Goal. Display the Common Tactical Picture.

Requirement. Perform the following:

1. Maintain a connection to higher headquarters Common Tactical Picture per the exercise or operation's Annex U.
2. Ensure applicable ground tactical picture, maritime tactical picture, and map overlays are received from higher headquarters.
3. Provide the ACE's Common Tactical Picture to higher headquarters.
4. Manage, receive, display, and disseminate the common tactical picture.
5. Update the Battle Command Display.

Performance Standard. Complete the required items.

Instructor. WTI

Prerequisite. None.

External Syllabus Support. HHQ to provide Common Tactical Picture. MWCS support for digital backbone.

References.

1. Exercise or Operation's OPOD Annex U
2. CJCSM 3115.01_, Common Tactical Picture Reporting Requirements

COND-7004 18.0 730 B, R, M E (N) L/S

Goal. Coordinate air operations between the MACCS and Joint/Combined/Coalition/Host Nation command and control agencies.

Requirement. Perform the following:

1. Establish liaison necessary to request additional aviation assets from any theater/national sources.
2. Coordinate airspace de-confliction.
3. Integrate joint, coalition, and host nation requirements/elements into the COPS floor.

Performance Standard. Complete the required items.

Instructor. WTI

Prerequisite. None.

References.

1. MCWP 3-20F.2, Marine TACC Handbook
2. TACC Primer

COND-7005 8.0 730 B, R, M E (N) L/S

Goal. Manage the current air tasking order.

Requirement. Perform the following:

1. Coordinate the recovery of isolated personnel and aircraft.
2. Coordinate air defense operations of MACCS agencies with external agencies.
3. Coordinate theater missile defense operations with external agencies.
4. Manage MAGTF air assets in support of the close, rear, and deep battle areas.
5. Monitor the equipment status and operational posture of MACCS agencies.
6. Monitor, supervise, and direct the control of aircraft and missiles by subordinate MACCS agencies.
7. Process air support requests in accordance with the MAGTF and ACE Commander's priorities.
8. Coordinate the establishment and dissemination of Air Defense Warning Conditions (ADWCs) and Weapons Control Statutes (WCS).

9. Current ATO missions executed in accordance with the MAGTF and ACE Commanders priorities, to include changing or altering pre-schedule missions as required.

Performance Standard. Complete the required items.

Instructor. WTI

Prerequisite. None.

External Syllabus Support. External C3 agencies, ACE Battlestaff, MWCS.

References.

1. MCWP 3-20F.2, Marine TACC Handbook
2. TACC Primer

COND-7007	16.0	730	B, R, M	E	(N)	L/S

Goal. Maintain a facility and associated command and control systems for the TACC.

Requirement. Given the references, a Table of Equipment (T/E) and/or an Equipment Density List, a mission statement, commander's guidance, and an operation plan's initiating order, provide a TACC infrastructure to include the following:

1. Provide required support personnel to set up and maintain the TACC infrastructure.
2. Provide equipment and facilities for current operation (COPS).
3. Provide equipment and facilities for future operations (FOPS).
4. Provide equipment and facilities for future plans (FPLANS).
5. Provide facilities for air combat intelligence (ACI).

Performance Standard. Perform the requirement items listed.

Instructor. WTI

Prerequisite. None.

External Syllabus Support. MTACS Commander and representatives from the S-1, S-2, S-3, S-4, S-6. Simulation execution will require coordination with external agencies.

References.

1. U-TACC-PCL-0350, TACC Pocket Checklist
2. MCWP 3-20F.2, Marine Tactical Air Command Center Handbook
3. Squadron SOP

COND-7009	2.0	730	B, R, M	E	(N)	S/L

Goal. Coordinate Airspace Management in Current Operations.

Requirement. Given the references, an operational TACC and an operations order, and airspace control plan coordinate airspace requirements in support of the MAGTF:

1. Coordinate and employ the use of air defense control measures.
2. Coordinate through the Ground Watch Section for the deconfliction of FSCMs and immediate Airspace Control Measures.
3. Coordinate with subordinate MACCS agencies for immediate Airspace Management issues.
4. Coordinate with the Air and Space Operations Center for immediate Airspace Management issues that affect the joint force.
5. Update and monitor changes to the ACP/ACO/SPINS as applicable.

Performance Standard. Perform the requirement items listed during live, virtual, or constructed exercise or real world operation.

Instructor. WTI

Prerequisite. None.

Reference.

1. JP 3-52, Joint Airspace Control

4.13.4 TAOC CONDITION (COND) STAGE

4.13.4.1 Purpose. To train unit level teams in executing community specific MET(s) or MET preparatory events.

4.13.4.2 General.

Admin Notes. All events in this stage will require the following administrative/operational documents to be identified or created:

1. Letter of Intent (LOI)
2. Personnel Roster
3. Bill of Material (BOM)
4. Equipment Density List (EDL)

Prerequisite. If an event requires prerequisites in addition to those listed for the MET Phase, they will be covered in the individual event.

Crew Requirements. This stage requires that all crew members and combat leaders be qualified/designated and proficient (current) in the position they are assigned for the following events. Crews shall be task organized to meet the mission.

COND-7000	16.0	730	B, R, M	E	(N)	L

Goal. Conduct Airspace Surveillance.

Requirement. Given organic C2 systems, radars, and a minimum of two CMMR surveillance crews, perform the following:

1. Plan for the emplacement, setup, operation, and maintenance of TAOC radar(s) and C2 equipment within the MAGTF and/or joint assigned airspace.
2. Extract tactical data link (TDL) architecture information from MAGTF and joint documents.
3. Extract required surveillance operations information exchange requirements from source MAGTF and/or joint documents.
4. Plan for TAOC airspace surveillance operations.
5. Conduct the emplacement, setup, operation, and maintenance of TAOC radar(s) and C2 equipment.
6. Detect and track aircraft and missiles within MAGTF and/or joint assigned airspace using organic TAOC radar(s).
7. Conduct combat identification on objects detected and tracked using information extracted from surveillance operations source documents.
8. Disseminate air/ground surveillance information to adjacent, higher, and subordinate agencies and aircraft identified in surveillance operations source documents.
9. Demonstrate proficiency during crew changeover.

Performance Standard. Complete the requirements conducting TAOC operations in support of MAGTF and/or joint exercises or operations.

Instructor. WTI

Prerequisite. None.

External Syllabus Support. TDSM, RDR, AVRAD, UT. Live execution will require specific T/M/S aviation assets.

Reference. None.

COND-7001	16.0	730	B, R, M	E	(N)	L/S

Goal. Conduct Positive Control.

Requirement. Given organic C2 systems, radars, and a minimum of two CMMR weapons crews, perform the following:

1. Plan for the emplacement, setup, operation, and maintenance of TAOC radar(s) and C2 equipment within the MAGTF and/or joint assigned airspace.
2. Conduct the emplacement, setup, operation, and maintenance of TAOC radar(s) and C2 equipment.
3. Extract airspace control measures within TAOC assigned airspace from MAGTF and/or joint source documents.
4. Conduct airspace management using MEF/MAW sustained sortie generation rates.
5. Conduct airspace control using MEF/MAW sustained sortie generation rates.
6. Conduct positive control using MEF/MAW sustained sortie generation rates.
7. Demonstrate proficiency during crew changeover.

Performance Standard. Complete the requirements conducting TAOC operations in support of MAGTF and/or joint exercises or operations.

Instructor. WTI

Prerequisite. None.

External Syllabus Support. TDSM, RDR, AVRAD, UT. Live execution will require specific T/M/S aviation assets.

Reference. None.

COND-7002	16.0	730	B, R, M	E	(N)	L/S

Goal. Coordinate Air Defense Actions.

Requirement. Given organic C2 systems, radars, and a minimum of two CMMR weapons crews, perform the following:

1. Plan for the emplacement, setup, operation, and maintenance of TAOC radar(s) and C2 equipment within the MAGTF and/or joint assigned airspace.
2. Conduct the emplacement, setup, operation, and maintenance of TAOC radar(s) and C2 equipment.
3. Extract air defense requirements from MAGTF and/or joint air defense documents.
4. Create a plan for the TAOC to manage and control AAW aircraft engagements, expenditures, and employment using MEF/MAW sortie generation rates.
5. Create a plan for the TAOC to provide management of GBAD engagements, expenditures, and employment.
6. Manage and control AAW aircraft engagements, expenditures, and employment using MEF/MAW sortie generation rates.
7. Provide management of GBAD engagements, expenditures, and employment.
8. Detect potential threat aircraft and/or missiles using TAOC organic radars.
9. Disseminate threat information to higher, adjacent, and subordinate MACCS agencies.
10. Demonstrate proficiency during crew changeover.

Performance Standard. Complete the requirements conducting TAOC operations in support of MAGTF and/or joint exercises or operations.

Instructor. WTI

Prerequisite. None.

External Syllabus Support. TDSM, RDR, AVRAD, UT. Live execution will require specific T/M/S aviation assets.

Reference. None.

COND-7003 16.0 730 B, R, M E (N) L/S

Goal. Conduct Dual Site Air Defense Operations.

Requirement. Given organic C2 systems, radars, and a minimum of four CMMR air defense crews, perform the following at two geographically disparate sites:

1. Plan for the emplacement, setup, operation, and maintenance of TAOC radar(s) and C2 equipment within the MAGTF and/or joint assigned airspace.
2. Conduct the emplacement, setup, operation, and maintenance of TAOC radar(s) and C2 equipment.
3. Conduct airspace surveillance.
4. Conduct positive control.
5. Coordinate air defense actions.
6. Demonstrate proficiency during crew changeover.

Performance Standard. Complete the requirements conducting TAOC operations in support of MAGTF and/or joint exercises or operations.

Instructor. WTI

Prerequisite. None.

External Syllabus Support. TDSM, RDR, AVRAD, UT. Live execution will require specific T/M/S aviation assets.

Reference. None.

COND-7004 16.0 730 B, R, M E (N) L/S

Goal. Integrate Operational Air Defense Capabilities.

Requirement. Given organic C2 systems, radars, and a minimum of two core plus proficient SADC crews, perform the following:

1. Plan for the emplacement, setup, operation, and maintenance of TAOC radar(s) and C2 equipment within the MAGTF and/or joint assigned airspace.
2. Conduct the emplacement, setup, operation, and maintenance of TAOC radar(s) and C2 equipment
3. Extract air defense requirements from MAGTF and joint air defense documents.
4. Create a plan for the TAOC to manage air defense operations within MAGTF and/or joint assigned region/sector.
6. Manage air defense operations within the MAGTF and/or joint assigned region/sector.
7. Extract tactical data link (TDL) architecture information from MAGTF and joint documents.
8. Create a plan for TAOC to assist the (Joint) Interface Control Officer J/ICO with the management of TDLs.
9. Manage TDLs for the TAOC in support of MAGTF and joint operations.

10. Demonstrate proficiency during crew changeover.

Performance Standard. Complete the requirements conducting TAOC operations in support of MAGTF AAW and/or joint DCA exercises or operations.

Instructor. WTI

Prerequisite. None.

External Syllabus Support. TDSM, RDR, AVRAD, UT. Live execution will require specific T/M/S aviation assets.

Reference. None.

4.13.5 DASC CONDITION (COND) STAGE

4.13.5.1 Purpose. To train unit level teams in executing community specific MET(s) or MET preparatory events.

4.13.5.2 General.

Admin Notes. All events in this stage will require the following administrative/operational documents to be identified or created:

- (1) Letter of Intent (LOI).
- (2) Personnel Roster.
- (3) Bill of Material (BOM).
- (4) Equipment Density List (EDL).

Prerequisite. If an event requires prerequisites in addition to those listed for the MET Phase, they will be covered in the individual event.

Crew Requirements. This stage requires that all crew members and combat leaders be qualified/designated and proficient (current) in the position they are assigned for the following events. Crews shall be task organized to meet the mission.

COND-7400	3.0	730	B, R, M	E	(N)	L/S

Goal. Employ an Air Support Liaison Team (ASLT).

Requirement. Given the references, a Table of Equipment (T/E) and/or Equipment Density List (EDL), Commander's guidance, and an operations order/initiating directive, employ an ASLT to include the following:

1. Plan for employment of an ASLT:
 - a. Conduct Problem Framing.
 - (1) Identify level of support required of MASS Unit.
 - (2) Develop Mission Statement/Commander's Intent.
 - b. Create Employment Plan.
 - (1) Coordinate with external entities (and/or agencies).
 - (2) Identify required personnel and equipment.
 - (3) Conduct site reconnaissance and selection.
 - (4) Identify and coordinate external support requirements.
 - c. Create supporting planning products.
 - (1) Create/publish POA&M/LOI.
 - (2) Create necessary manning documents/EDL/BOM/Load Plan via MDSS.
 - (3) Conduct Required Briefs. (IPC/MPC, Confirmation Brief, etc.)
2. Deploy an ASLT:

- a. Conduct movement.
 - (1) Conduct embarkation (unit to APOE).
 - (2) Conduct convoy operations (APOD to TAA to tactical site).
- b. Establish ASLT site.
 - (1) Establish and maintain site security.
 - (2) Establish communications and connectivity.
 - (3) Establish administrative and logistics functions.
3. Operate an ASLT:
 - a. Conduct ASLT operations.
4. Sustain an ASLT:
 - a. Conduct staff functions.
 - (1) Conduct administrative functions.
 - (2) Conduct intelligence functions.
 - (3) Conduct operations and training.
 - (4) Conduct logistical functions.
 - (5) Conduct communications functions.
5. Re-deploy an ASLT:
 - a. Plan for Re-deployment.
 - (1) Identify logistics requirements.
 - (2) Identify external support requirements.
 - (3) Identify maintenance functions and requirements.
 - (4) Identify administration requirements and functions.
 - b. Conduct movement.
 - (1) Conduct convoy operations (tactical site to TAA to APOE).
 - (2) Conduct embarkation (APOD to the unit).

Performance Standard. Perform the requirement items listed and conduct ASLT operations supporting the DASC during a minimum operational tempo three (3) real world operation or training simulation.

Prerequisite. (1) CMMR ASLT Crew.

Range. Range space capable of hosting ground and air fires.

External Syllabus Support. FSCC, air and fire support missions as defined by operational tempo level three, a DASC, S-1, S-2, S-3, S-4, S-6.

References.

1. MCRP 3-20F.5, DASC Handbook
2. Squadron SOP

COND-7405 3.0 730 B, R, M E (N) L/S

Goal. Employ an Air Support Element (ASE).

Requirement. Requirement. Given the references, a Table of Equipment (T/E) and/or Equipment Density List (EDL), Commander's guidance, and an operations order/ initiating directive, employ an ASE to include the following:

1. Plan for employment of an ASE:
 - a. Conduct problem Framing.
 - (1) Identify level of support required of MASS unit.
 - (2) Develop Mission Statement/Commander's Intent.
 - b. Create Employment Plan.
 - (1) Coordinate with external entities (and/or agencies).
 - (2) Identify required personnel and equipment.
 - (3) Conduct site reconnaissance and selection.
 - (4) Identify and coordinate external support requirements.

- c. Create supporting planning products.
 - (1) Create/publish POA&M/LOI.
 - (2) Create necessary manning documents/EDL/BOM/Load Plan via MDSS.
 - (3) Conduct required briefs (IPC/MPC, Confirmation Brief, etc.)
2. Deploy an ASE:
 - a. Conduct movement.
 - (1) Conduct embarkation (unit to APOE).
 - (2) Conduct convoy operations (APOD to TAA to tactical site).
 - b. Establish ASE site.
 - (1) Establish and maintain site security.
 - (2) Establish external ASE infrastructure.
 - (3) Establish internal ASE infrastructure.
 - (4) Establish communications and connectivity.
 - (5) Establish administrative and logistics functions.
3. Operate an ASE:
 - a. Conduct ASE operations.
 - (1) Process Immediate Air Support Requests.
 - (2) Integrate Aircraft Employment with other supporting arms.
 - (3) Manage terminal control assets.
 - (4) Procedurally control aircraft within Assigned Area of Operations.
4. Sustain an ASE:
 - a. Conduct staff functions.
 - (1) Conduct administrative functions.
 - (2) Conduct intelligence functions.
 - (3) Conduct operations and training.
 - (4) Conduct logistical functions.
 - (5) Conduct communications functions.
5. Re-deploy an ASE:
 - a. Plan for re-deployment.
 - (1) Identify logistics requirements.
 - (2) Identify external support requirements.
 - (3) Identify maintenance functions and requirements.
 - (4) Identify administration requirements and functions.
 - b. Conduct movement.
 - (1) Conduct convoy operations. (tactical site to TAA to APOE).
 - (2) Conduct embarkation (APOD to the unit).

Performance Standard. Perform the requirement items listed and conduct ASE operations during a minimum operational tempo three (3) real world operation or training simulation.

Prerequisite. (1) CMMR ASE Crew.

Range. Range space capable of hosting ground and air fires.

External Syllabus Support. S-1, S-2, S-3, S-4, S-6, air and fire support missions as defined by operational tempo three, FFCC/FSCC, and if required, a SACC and NTACC/HCS.

References.

1. MCRP 3-20F.5, DASC Handbook
2. Squadron SOP

COND-7410 3.0 730 B, R, M E (N) L/S

Goal. Employ a Direct Air Support Center (DASC).

Requirement. Given the references, a Table of Equipment (T/E) and/or Equipment Density List (EDL),

Commander's guidance, and an operations order/initiating directive, employ a DASC to include the following:

1. Plan for employment of a DASC:
 - a. Conduct problem framing.
 - (1) Identify level of support required of MASS unit.
 - (2) Identify Potential Need for DASC Extensions.
 - (3) Develop Mission Statement/ Commander's Intent.
 - b. Create Employment Plan.
 - (1) Coordinate with external entities (and/or agencies).
 - (2) Identify required personnel and equipment.
 - (3) Conduct site reconnaissance and selection.
 - (4) Identify and coordinate external support requirements.
 - (5) Plan for any/all required DASC extensions.
 - c. Create supporting planning products.
 - (1) Create/publish POA&M/LOI.
 - (2) Create necessary manning documents/EDL/BOM/Load Plan via MDSS.
 - (3) Conduct required briefs (IPC/MPC, Confirmation Brief, etc.).
2. Deploy a DASC:
 - a. Conduct movement.
 - (1) Conduct embarkation (unit to APOE).
 - (2) Conduct convoy operations (APOD to TAA to tactical site).
 - b. Establish DASC site.
 - (1) Establish and maintain site security.
 - (2) Establish external DASC infrastructure.
 - (3) Establish internal DASC infrastructure.
 - (4) Establish communications and connectivity.
 - (5) Establish administrative and logistics functions.
3. Operate a DASC:
 - a. Conduct DASC operations.
 - (1) Process Immediate Air Support Requests.
 - (2) Integrate aircraft employment with other supporting arms.
 - (3) Manage terminal control assets.
 - (4) Procedurally control aircraft within Assigned Area of Operations.
 - b. Manage DASC extensions.
4. Sustain a DASC:
 - a. Conduct staff functions.
 - (1) Conduct administrative functions.
 - (2) Conduct intelligence functions.
 - (3) Conduct operations and training.
 - (4) Conduct logistical functions.
 - (5) Conduct communications functions.
5. Re-deploy a DASC:
 - a. Plan for Re-deployment.
 - (1) Identify logistics requirements.
 - (2) Identify external support requirements.
 - (3) Identify maintenance functions and requirements.
 - (4) Identify administration functions and requirements.
 - b. Conduct movement.
 - (1) Conduct convoy operations (tactical site to TAA to APOE).
 - (2) Conduct embarkation (APOD to the unit).

Performance Standard. Perform the requirement items listed and conduct DASC operations during a minimum operational tempo three (3) real world operation or training simulation.

Prerequisite. Two (2) CMMR DASC crews.

Range. Range space capable of hosting ground and air fires.

External Syllabus Support. S-1, S-2, S-3, S-4, S-6, MHE, air and fire support missions as defined by operational tempo three (3), digital backbone, FFCC/FSCC, and if required, aircraft designated to provide an airborne DASC capability.

References.

1. MCRP 3-20F.5, DASC Handbook
2. Squadron SOP

COND-7415 3.0 730 B, R, M E (N) L/S

Goal. Conduct a Reconnaissance, Selection, and Occupation of Position (RSOP) for the DASC.

Requirement. Given the references, a Table of Equipment (T/E) and/or Equipment Density List (EDL) and an operations order/initiating directive, conduct an RSOP for DASC operations to include the following:

1. Conduct a Map Survey selecting primary and alternate sites.
2. Identify environmental concerns that may affect DASC communication.
3. Coordinate with the FSCC to provide DASC requirements.
4. Coordinate site security, camouflage, dispersion, and determine trafficability.
5. Identify locations for emplacement of communications and support equipment.
6. Coordinate priorities for equipment emplacement.
7. Identify echelon considerations.
8. Identify Advanced Party/RSOP Team.
9. Occupy the site.
10. Emplace the DASC.

Performance Standard. Perform the requirement items. The RSOP team will be prepared to discuss decisions/actions.

Prerequisite. None.

External Syllabus Support. MASS Detachment Commander, DASC Chief, security team, Representatives from the following sections: S-4, S-2, S-6.

References.

1. MCWP 3-16.3, TTP for the Field Artillery Cannon Battery
2. MCRP 3-20F.5, DASC Handbook
3. MCWP 3-16.3, Tactics, Techniques, and Procedures for the Field Artillery Cannon Battery, Chapter 2, Reconnaissance, Selection, and Occupation of a Position
4. Squadron SOP

COND-7420 3.0 730 B, R, M E (N) L/S

Goal. Conduct Echelon Operations.

Requirement. Given the references, a Table of Equipment (T/E) and/or Equipment Density List (EDL), Commander's guidance, and an operations order/initiating directive, conduct echelon operations to include the following:

1. Continue DASC operations without pause or loss of situational awareness.
2. Checklists for the transfer of control are on hand and are utilized.
3. Deploy the echelon element to the new position.
4. Brief the operational crew concerning their duties for passage of control.
5. Establish and maintain required communications and connectivity.
6. Updated intelligence information, to include the friendly and enemy order of battle and current ATO is on hand and posted.

7. Receive current status of air defense warnings, weapons conditions, anti-air warfare intelligence, and other pertinent data is updated prior to the transfer of control taking place.
8. Receive current status of all fixed wing aircraft to include scheduled events, alert aircraft, and airborne aircraft is verified.
9. Receive current status of all helicopter and assault support aircraft to include scheduled events, alert aircraft, airborne aircraft, MEDEVAC aircraft, and SAR aircraft is verified.
10. Review status of all Tactical Air and Assault Support Requests and ensure they are plotted and on hand.
11. Verify with the FSCC the locations of friendly artillery and active Fire Support Areas (FSAs), for naval gunfire assets.
12. Maintain continuous coordination with adjacent and higher agencies during preparation for and transfer of OAS/AS control, if required.
13. Pass control of DASC functions to the echelon element.
14. Notify the TACC, FSCC, and other agencies, as necessary, control has been passed.
15. Recover the rear element into the DASC when echelon operations have concluded.
16. Debrief with the DASC OIC and DASC Chief.

Performance Standard. Perform the requirement items listed to conduct echelon operations during a minimum operational tempo three (3) real world operation or training simulation.

Prerequisite. Two (2) CMMR DASC crews.

Range. Range space capable of hosting ground and air fires.

External Syllabus Support. S-1, S-2, S-3, S-4, S-6, MHE, air and fire support missions as defined by operational tempo three (3), digital backbone, and if required, aircraft designated to provide an airborne DASC capability.

References.

1. MCRP 3-20F.5, DASC Handbook
2. Squadron SOP

COND-7425 3.0 730 B, R, M E (N) S/L

Goal. Conduct Phasing of Control Ashore.

Requirement. Given the references, a Table of Equipment (T/E) and/or Equipment Density List (EDL), Commander's guidance, and an operations order/initiating directive, conduct phasing of control ashore to include the following:

1. Conduct a Map Survey selecting primary and alternate sites.
2. Checklists for the transfer of control ashore are on hand and utilized.
3. Review the procedures delineated in the operation plan/other directives for the phasing of control ashore and keeps the Naval Tactical Air Control Center informed of current status.
4. Deploy ashore.
5. Brief the operational crew concerning their duties for the passage of control.
6. Establish and maintain required communications and connectivity.
7. Updated intelligence information, to include the friendly and enemy order of battle and current ATO is on hand and posted.
8. Receive current status of air defense warnings, weapons conditions, anti-air warfare intelligence, and other pertinent data is updated prior to the transfer of control taking place.
9. Receive current status of all fixed wing aircraft to include scheduled events, alert aircraft, and airborne aircraft.
10. Receive current status of all helicopter and assault support aircraft to include scheduled events, alert aircraft, airborne aircraft, MEDEVAC aircraft, and SAR aircraft.
11. Review status of all Tactical Air and Assault Support Requests and ensure they are plotted and on hand.

12. Verify with the FSCC the locations of friendly artillery and active Fire Support Areas (FSAs), for naval gunfire assets.
13. Ensure all requirements have been met and then advise the TACC (afloat) and FSCC that the DASC is prepared for the phasing of control of OAS/AS ashore.
14. Ensure the preplanned sequence of phasing control of OAS/AS ashore is completed and the SAD acknowledges/produces any reports required.
15. Advise CLF when ready to assume control of all or a portion of direct air support ashore (specify OAS, Assault Support, Air Recce, EW) at a specified date and time.
16. Advise CLF that control has been transferred and the date/time group that transfer was accomplished.
17. Advise the TACC (afloat)/TADC (ashore) and FSCC that the DASC now has control referencing date and time (local).
18. Maintain continuous coordination with adjacent and higher agencies.
19. Notify all adjacent agencies when transfer of control is completed.
20. As necessary, DASC/SACC liaison team provides further updates of information upon arrival at DASC site.

Performance Standard. Perform the requirement items listed to conduct phasing control ashore during a minimum operational tempo three (3) real world operation or training simulation.

Prerequisite. (1) CMMR ASE crew or (1) CMMR DASC crew.

Range. Range space capable of hosting ground and air fires.

External Syllabus Support. S-1, S-2, S-3, S-4, S-6, MHE, air and fire support missions as defined by operational tempo three (3), digital backbone, Navy TACC, FSCC, Marine TACC, LFOC, SACC/HCS.

References.

1. JP 3-02.1, Joint Doctrine for Landing Forces Operations
2. MCWP 3-16.3, Tactics, Techniques, and Procedures for the Field Artillery Cannon Battery, Chapter 2, Reconnaissance, Selection, and Occupation of a Position
3. MCRP 3-20F.5, DASC Handbook
4. MCRP 3-30B.2 MAGTF Communications System
5. Squadron SOP

4.14 AVIATION CAREER PROGRESSION MODEL (8000).

4.14.1 Purpose. To enhance professional understanding of Marine Aviation and the MAGTF, and to ensure individuals possess the requisite skills to fill battle command and battle staff positions in support of the ACE and the MAGTF in a joint environment. The focus of training in the Aviation Career Progression Model (ACPM) is on academic events in the following areas:

Marine Air Command and Control System (MACCS)
Aviation Ground Support
Joint Air Operations
ACE Battle Staff
MAGTF
Seabased Operations
Combatant Commander Organizations

4.14.2 General. The ACPM is intended to be an integrated series of academic events contained within each phase of training. Accordingly, ACPM academic events are like any other academic event in that they serve as pre-requisites to selected flight events or stages. Additionally, several ACPM academic events are integrated as prerequisites for flight leadership syllabi. ACPM events may be conducted in group session with an assigned instructor teaching the period of instruction or they may be accomplished by self-paced instruction. MAWTS-1 is responsible for the update and validity of the ACPM periods of instruction. In the future, courses may be consolidated or revised to meet changing requirements. Refer to the MAWTS-1 ACPM link for the current ACPM program of instruction:

<https://mcalms.usmc.mil/>

Completed events shall be manually logged and tracked in M-SHARP.

ACPM academic events, along with their identifying prerequisite association with other training phases/stages/events, are listed below.

Completed events shall be manually logged and tracked in M-SHARP. ACPM academic events, along with their identifying prerequisite association with other training phases/stages/events, are listed below.

ACPM-8000 1.0 * B (N) G

Goal. Demonstrate an understanding of the MACCS stage.

Requirement. Pass a closed book examination that encompasses all learning objectives contained in the prerequisites.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. SI.

Prerequisite. 8001, 8002, 8003, 8004, 8005, 8006, 8008.

Reference. C3 Course Catalog.

ACPM-8001 4.0 * B (N) G

Goal. Demonstrate an understanding of the Marine Air Command and Control System (MACCS).

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Describe how the control of aircraft and missiles relates to the other five functions of USMC aviation.
2. Define the control of aircraft and missiles and each of its subcomponents.
3. Define the Marine aviation's philosophy of centralized command and decentralized control.
4. Differentiate between Marine aviation philosophy and Joint aviation philosophy.
5. Identify the principle objectives of the MACCS.
6. Recall the primary role of each agency of the MACCS.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 MACCS Agencies, Functions and the Control of Aircraft and Missiles Class
2. MCWP 3-25.3 MACCS Handbook
3. MCWP 3-25 Control of Aircraft and Missiles

ACPM-8002 4.0 * B (N) G

Goal. Demonstrate an understanding of the Tactical Air Command Center (TACC).

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. State the mission of the TACC.
2. Identify the four organizations of the TACC.

3. List the primary responsibilities of Air Combat Intelligence (ACI).
4. List the primary responsibilities of Future Operations (FOPS).
5. List the primary responsibilities of Future Plans (FPLANS).
6. List the primary responsibilities of Current Operations (COPS).
7. List the major end items used by the TACC.
8. List the system limitations of the TACC.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 TACC Class
2. MAWTS-1 MTACS Class
3. MCWP 3-25.4 TACC Handbook

ACPM-8003 4.0 * B (N) G

Goal. Demonstrate an understanding of the Direct Air Support Center (DASC).

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify the role of the DASC.
2. List the structure and task organization of the DASC.
3. Identify the major end items and their characteristics used by the DASC.
4. List the capabilities and limitations of the DASC.
5. Identify how the DASC is doctrinally employed as part of the MACCS.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 DASC Class
2. MCWP 3-25.5 DASC Handbook

ACPM-8004 4.0 * B (N) G

Goal. Demonstrate an understanding of the Tactical Air Operations Center (TAOC).

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Define the mission of the TAOC.
2. Identify the Mission Essential Tasks (METs) for the TAOC.
3. Identify the structure and task organization of the TAOC.
4. Identify the major end items and their characteristics used by the TAOC.
5. Identify the capabilities and limitations of the TAOC.
6. Identify how the TAOC is doctrinally employed as part of the MACCS.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 TAOC Class
2. MCWP 3-25.7 TAOC Handbook

ACPM-8005 4.0 * B (N) G

Goal. Demonstrate an understanding of the Marine Air Traffic Control (MATC).

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify the mission of MATC.
2. Identify the Mission Essential Tasks (METs) for MATC.
3. List the structure and task organization of MATC.
4. Identify the major end items and their characteristics used by MATC.
5. Identify the capabilities and limitations of MATC.
6. Identify how MATC is doctrinally employed as part of the MACCS.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 MATC Class
2. MAWTS-1 MMT Class
3. MCWP 3-25.8 MATC Detachment Handbook

ACPM-8006 4.0 * B (N) G

Goal. Demonstrate an understanding of the Low Altitude Air Defense (LAAD).

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify the mission of the LAAD battalion.
2. Identify the structure and task organization of the LAAD battalion.
3. Identify the primary vehicle and surface-to-air weapon used by the LAAD Battalion.
4. Define the LAAD employed guidelines.
5. List the LAAD weapon applications.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 LAAD Class
2. MCWP 3-25.10 LAAD BN Handbook
3. MCWP 3-25.10A LAAD Gunner's Handbook

ACPM-8008 4.0 * B (N) G

Goal. Demonstrate an understanding of the Marine Wing Communications Squadron (MWCS).

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify the mission of the MWCS.
2. Identify the structure and task organization of the MWCS.
3. Identify the Mission Essential Tasks (METs) for the MWCS.
4. Identify the major end items and their characteristics used by MWCS.
5. Identify the capabilities and limitations of the MWCS.
6. Identify how the MWCS is doctrinally employed as part of the MACCS.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 MWCS Employment Class
2. MCRP 3-30B.2 MAGTF Communications Systems
3. NAVMC 3500.56 Communications Training and Readiness Manual

ACPM-8020 1.0 * B (N) G

Goal. Demonstrate an understanding of the ACE stage of the MACCS ACPM.

Requirement. Pass a closed book examination that encompasses all learning objectives contained in the prerequisites.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. 8021, 8022, 8023, 8024, 8025, 8026, 8027, 8028.

Reference. C3 Course Catalog.

ACPM-8021 4.0 * B (N) G

Goal. Demonstrate an understanding of USMC aviation operations doctrine.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify the six functions of Marine aviation to include all their subsets.
2. Identify the organization and mission of the Marine Aircraft Wing (MAW), to include each type of group and squadron.
3. Define who has operational control of organic MAGTF aviation assets during Joint operations.
4. List the four types of sorties the MAGTF Commander makes available to the Joint Force.
5. Identify the purpose of the Air Tasking Order (ATO).
6. Identify the six phases of the air tasking cycle.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

Reference. MCWP 3-2 Aviation Operations

ACPM-8022 4.0 * B (N) G

Goal. Demonstrate an understanding of USMC doctrine for the control of aircraft and missiles.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify how the control of aircraft and missiles relates to the other five functions of USMC aviation.
2. Identify distinctions between Marine aviation philosophy and that of the other services.
3. Identify the principle objectives of the Marine Air Command and Control System (MACCS).
4. Describe how the COMMARFOR may serve as the Joint Force Air
5. Component Commander (JFACC), Airspace Control Authority (ACA), and Area Air Defense Commander (AADC).

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 Control of Aircraft and Missiles Class
2. MCWP 3-25 Control of Aircraft and Missiles

ACPM-8023 4.0 * B (N) G

Goal. Demonstrate an understanding of USMC Offensive Air Support (OAS) doctrine.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify the purpose of the MAGTF Commanders Single Battle Concept.
2. Define the subcategories of OAS.
3. Define the requirements for effective OAS.
4. Define the three types of Deep Air Support (DAS).
5. Define the capabilities and limitations of the OAS function.
6. Identify the elements of a Joint Tactical Air Strike Request (JTAR).
7. Identify the three types of control of Close Air Support (CAS).

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 OAS Class
2. MCWP 3-23 Offensive Air Support

ACPM-8024 4.0 * B (N) G

Goal. Demonstrate an understanding of USMC Assault Support doctrine.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Define the types of assault support operations.
2. Identify which aircraft conduct each of the types of assault support operations.
3. Identify the elements of an Assault Support Request (ASR).
4. List assault support capabilities and limitations.
5. Define the role of the air mission commander and the assault force commander during air assault operations.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 Assault Support Class
2. MAWTS-1 Direct Air Support Requests Class

ACPM-8025 4.0 * B (N) G

Goal. Demonstrate an understanding of USMC Air Reconnaissance doctrine.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify the three categories of air reconnaissance.
2. Identify the four principals of air reconnaissance.
3. Identify the five prerequisites for effective air reconnaissance.
4. Identify the current USMC aircraft that have the mission of air reconnaissance.
5. Identify the form used to request air reconnaissance.
6. Identify the five supporting operations for effective air reconnaissance.
7. Identify the capabilities and limitations of air reconnaissance.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

Reference. MCWP 3-26 Air Reconnaissance

ACPM-8026 4.0 * B (N) G

Goal. Demonstrate an understanding of USMC Electronic Warfare (EW) doctrine.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Define radar.
2. List the three basic radar types.
3. Identify the limitations and characteristics of radar systems.
4. Identify the six guidance systems and how they work.
5. List the three subdivisions of Electronic Warfare (EW).

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 (S) Electronic Warfare Class—for additional training only, secret courseware should not to be used for testing purposesMAWTS-1 Direct Air Support Requests Class
2. MCWP 3-40.5 Electronic Warfare

ACPM-8027 4.0 * B (N) G

Goal. Demonstrate an understanding of USMC Antiair Warfare (AAW) doctrine.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Define AAW.
2. Define the two subsets of AAW.
3. Identify the principles of AAW.
4. Identify the types of Offensive Antiair Warfare (OAAW).
5. Identify the active air defense functions.
6. List three examples of passive air defense measures.
7. Define a Joint Engagement Zone (JEZ), Fighter Engagement Zone (FEZ), Missile Engagement Zone (MEZ), and Base Defense Zone (BDZ).
8. Define the air defense warning conditions.
9. Define the weapons control statuses.
10. Identify the responsibilities of the Regional Air Defense Commander (RADC) and the Sector Air Defense Commander (SADC).

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 Air Defense Class
2. MAWTS-1 Air Defense Commanders Class
3. MAWTS-1 Offensive Antiair Warfare Class
4. MCWP 3-22 Antiair Warfare

ACPM-8028 4.0 * B (N) G

Goal. Demonstrate an understanding of USMC Ground Support (AGS) doctrine.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify the organization responsible for providing AGS to the Marine Aircraft Wing (MAW).
2. Identify the 13 functions of AGS.
3. Identify the five activities that the Marine Wing Support Squadron (MWSS) performs for the ACE when deployed.
4. Identify the four basing concepts for MAGTF Forward Operating Bases (FOBs).
5. List the four classifications of FOBs.
6. Differentiate the distinguishing characteristics of FOBs.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 AGS Class
2. MCWP 3-21.1 Aviation Ground Support

ACPM-8040 1.0 * B (N) G

Goal. Demonstrate an understanding of the Threat stage of the MACCS ACPM

Requirement. Pass a closed book examination that encompasses all learning objectives contained in the prerequisites.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. SI.

Prerequisite. 8041, 8042, 8043, 8044.

Reference. C3 Course Catalog.

ACPM-8041 4.0 * B (N) G

Goal. Demonstrate an understanding of the surface-to-air threat to the MAGTF.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Match the system name with the guidance and target aspect for the following Man Portable Air Defense Systems (MANPADS):
 - a. SA-7
 - b. SA-14
 - c. SA-16
 - d. SA-18
2. Match the system name with the guidance and associated radars for the following Radio Frequency Surface-to-Air Missile Systems (RF SAMS):
 - a. SA-2
 - b. SA-6
 - c. SA-8
 - d. SA-10
 - e. SA-11
 - f. SA-15
 - g. SA-20
 - h. Roland-III
3. Match the system name with the type and associated radar for the following Air Defense Artillery (AAA):
 - a. ZPU 1, 2, 4
 - b. ZSU-23-4
 - c. 2S6
 - d. S-60

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

Reference. MAWTS-1 Marine Aviation Intelligence Reference

(<https://vcepub.tecom.usmc.mil/sites/msc/magtftc/mawts1/departments1/newc3/default.aspx>)

ACPM-8042 4.0 * B (N) G

Goal. Demonstrate an understanding of the fixed wing threat to the MAGTF.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify the role of the AN-2 Colt.
2. Identify the role of the MIG-23 Flogger.
3. Identify the role of the MIG-29 Fulcrum.
4. Identify the role of the MIG-31 Foxhound.
5. Identify the role of the Su-24 Fencer.
6. Identify the role of the Su-25 Frogfoot.
7. Identify the role of the Su-27 Flanker.
8. Identify the role of the Su-30 Flanker.
9. Identify the role of the Tu-22M Backfire.
10. Identify the role of the Tu-95 Bear.
11. Identify the role of the Tu-160 Blackjack.
12. Identify the role of the J-7 Fishbed.
13. Identify the role of the JH-7 Flounder.
14. Identify the role of the J-8 Finback.
15. Identify the role of the J-10 Firebird.
16. Identify the role of the H-6 Badger.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

Reference. MAWTS-1 Marine Aviation Intelligence Reference
(<https://vcepub.tecom.usmc.mil/sites/msc/magtftc/mawts1/departments1/newc3/default.aspx>)

ACPM-8043 4.0 * B (N) G

Goal. Demonstrate an understanding of the rotary wing threat to the MAGTF.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify the role of the Mi-24 Hind.
2. Identify the role of the SA 342 Gazelle.
3. Identify the role of the Ka-25 Hormone.
4. Identify the role of the Mi-6 Hook.
5. Identify the role of the Mi-28 Havoc.
6. Identify the role of the Mi-8 Hip.
7. Identify the role of the Ka-50 Kokum.
8. Identify the role of the Ka-29 Helix B.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

Reference. MAWTS-1 Marine Aviation Intelligence Reference

(<https://vcepub.tecom.usmc.mil/sites/msc/magtftc/mawts1/departments1/newc3/default.aspx>)

ACPM-8044 4.0 * B (N) G

Goal. Demonstrate an understanding of the missile and Unmanned Aircraft System (UAS) threat to the MAGTF.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Match the system name with the terminal guidance for the following Air-to-Surface Missiles:
 - a. AS-10 Karen
 - b. AS-11 Kilter
 - c. AS-12 Kegler
 - d. AS-14 Kedge
 - e. AS-17 Krypton
2. Match the system name with the warhead and guidance for the following Surface-to-Surface Missiles:
 - a. FROG-7
 - b. SCUD-B
 - c. SCUD-C
 - d. Nodong 1
 - e. C 801
 - f. C 802
3. Identify the mission of the following threat UAS:
 - a. Ababil
 - b. Mohajer
 - c. Harpy
 - d. Heron
 - e. ASN-206
 - f. Pchela-1T

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 Marine Aviation Intelligence Reference
2. <https://vcepub.tecom.usmc.mil/sites/msc/magtftc/mawts1/departments1/newc3/default.aspx>
3. [wc3/default.aspx](https://vcepub.tecom.usmc.mil/sites/msc/magtftc/mawts1/departments1/newc3/default.aspx)
4. Marine Corps Intelligence Activity Iran Country Handbook (appendix A)
5. Marine Corps Intelligence Activity North Korea Country Handbook (page 86)
6. Marine Corps Intelligence Activity China Country Handbook (appendix A)
<https://www.intelink.gov/mcia/handbook.htm>
7. MCIA UAV Recognition Guide <https://www.intelink.gov/mcia/index.htm>

ACPM-8060 1.0 * B (N) G

Goal. Demonstrate an understanding of the MAGTF stage of the MACCS ACPM.

Requirement. Pass a closed book examination that encompasses all learning objectives contained in the prerequisites.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. SI.

Prerequisite. 8061, 8062, 8063, 8064, 8065.

Reference. C3 Course Catalog.

ACPM-8061 4.0 * B (N) G

Goal. Demonstrate an understanding of the MAGTF ground combat operations.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify how the Ground Combat Element (GCE) is employed as part of the MAGTF and the capabilities the GCE provides to the MAGTF commander
2. Define the following items related to command and control of ground combat operations:
 - a. Echelons of the GCE headquarters
 - b. Battlespace Organization
 - c. Battlespace Framework
3. Define the five types of amphibious operations.
4. Identify the following items related to offensive operations:
 - a. Types of offensive operations
 - b. Types of attack
 - c. Forms of maneuver
 - d. Distribution of forces
5. Identify the following items related to defensive operations:
 - a. Organization of the defense
 - b. Distribution of forces
 - c. Types of defensive operations
 - d. Defensive methods

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MCDP 1-0 Marine Corps Operations
2. MCWP 3-1 Ground Combat Operations

ACPM-8062 4.0 * B (N) G

Goal. Demonstrate an understanding of fire support coordination in the Ground Combat Element (GCE).

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify the four fire support tasks.
2. List the functions of the senior fire support coordination center (FSCC) in the GCE.
3. List the four steps of the MAGTF Targeting Process.
4. Define the purpose of essential fire support tasks (EFST).

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 MAGTF Targeting and Fire Support Planning Class
2. MCWP 3-16 Fire Support Coordination in the GCE

ACPM-8063 4.0 * B (N) G

Goal. Demonstrate an understanding of MAGTF command and control.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify MAGTF command and support relationships.
2. Identify the purpose and role of the command and control centers in the CE, ACE, GCE, and LCE.
3. Identify the purpose and role of the amphibious command and control facilities.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

Reference. MCWP 3-40.1 MAGTF C2

ACPM-8064 4.0 * B (N) G

Goal. Demonstrate an understanding of MAGTF communications.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify the six characteristics of communications and information systems.
2. Identify the mission and organizational structure of the Communications Battalion.
3. Identify the purpose of the Communications-Electronics Operating Instructions (CEOI) and what information is usually included in it.
4. Identify what information can be found in Annex K of an operations order.
5. Identify the purpose of select fires, support, and ACE specific radio nets.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

Reference. MCWP 3-40.3 MAGTF Communications System

ACPM-8065 4.0 * B (N) G

Goal. Demonstrate an understanding of phasing control ashore.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify types of amphibious operations and how command relationships may change during the conduct of each.
2. Identify how disputes among commanders during amphibious operations are resolved.
3. Identify the key commanders and command relationships.
4. Identify the key characteristics of each phase in phasing the MACCS ashore.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 Phasing Control Ashore Class
2. JP 3-02 Joint Doctrine for Amphibious Operations (Ch 2)
3. MCWP 3-25 Control of Aircraft and Missiles (Appendix C)

ACPM-8066 4.0 * B (N) G

Goal. Demonstrate an understanding of information management.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Match the principles of information management with their descriptions.
2. Define each of the classes of information within an information hierarchy.
3. List the characteristics of quality information.
4. Identify the role and responsibilities of an Information Management Officer (IMO).
5. Define C2 support structure and the three steps followed to develop one.
6. Identify the purpose of an information management matrix and the information management plan.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

Reference. MCWP 3-40.2 Information Management

ACPM-8067 4.0 * B (N) G

Goal. Demonstrate an understanding of Unmanned Aircraft Systems in support of MAGTF operations.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify the four types of payloads.
2. Identify the three attributes that determine UAS Groups.
3. Identify the five different UAS Group Categories.
4. Identify the two types of VMU operational employment.
5. Identify the three components of the RQ-7B Communications Relay Package.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 UAS In Support of MAGTF Operations
2. MCRP 3-42.1A
3. NTPP 3-22.3-VMU

ACPM-8080 1.0 * B (N) G

Goal. Demonstrate an understanding of the MAGTF stage of the joint air operations stage of the MACCS ACPM.

Requirement. Pass a closed book examination that encompasses all learning objectives contained in the prerequisites.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. SI.

Prerequisite. 8081, 8082, 8083, 8084, 8085, 8086, 8087, 8088.

Reference. C3 Course Catalog.

ACPM-8081	4.0	*	B	(N)	G

Goal. Demonstrate an understanding of the command and control of joint air operations.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify the definition of joint air operations.
2. Identify the Joint Force Air Component Commander's responsibilities.
3. Identify the five sections that comprise the Joint Air Operations Center.
4. Identify the six phases of the Joint Air Tasking Cycle.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives or pass the DOCNET course listed below with a score of 80% or higher.

Instructor. BI.

Prerequisite. None.

References.

1. DOCNET Course 3-30 (<http://www.dtic.mil/doctrine/docnet/>)
2. MAWTS-1 Joint Air Operations Class
3. JP 3-30 C2 of Joint Air Operations

ACPM-8082	4.0	*	B	(N)	G

Goal. Demonstrate an understanding of the theater air ground system (TAGS).

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. List the primary characteristics of the Theater Air Ground System (TAGS).
2. Identify the elements within the Air Force's Theater Air Control System (TACS) and their primary responsibilities.
3. Identify the aviation command and control elements with the Army Air and Ground System (AAGS) and their primary responsibilities.
4. Identify the aviation elements within the Navy's Composite Warfare Commander (CWC) architecture.
5. Identify the Amphibious Task Force (ATF) construct and its primary responsibilities.
6. Identify the aviation command and control elements within the Special Operations Air-Ground System.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 TAGS ClassMAWTS-1 Joint Air Operations Class
2. ALSA TAGS Pub. (<https://wwwmil.alsa.mil/default.aspx>)

ACPM-8083 4.0 * B (N) G

Goal. Demonstrate an understanding of joint fire support doctrine.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Define joint fires.
2. Define joint fire support.
3. Identify the steps of the joint fire support planning process.
4. List the various elements of the component commander's fires command and control system.
5. Define the various joint control and coordination measures associated with joint fire support.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives or pass the DOCNET course listed below with a score of 80% or higher.

Instructor. BI.

Prerequisite. None.

References.

1. DOCNET Course 3-09 (<http://www.dtic.mil/doctrine/docnet/>)
2. JP 3-09 Joint Fire Support

ACPM-8084 4.0 * B (N) G

Goal. Demonstrate an understanding of close air support (CAS) doctrine.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Explain key roles and responsibilities related to the planning and execution of CAS.
2. Detail key steps in the planning and execution of CAS.
3. Describe various coordination measures used in the planning and conduct of CAS.
4. Describe the manner in which the two types of CAS requests are fulfilled.
5. Identify the goal and purpose of synchronizing CAS with surface fires.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives or pass the DOCNET course listed below with a score of 80% or higher.

Instructor. BI.

Prerequisite. None.

References.

1. DOCNET Course 3-09 (<http://www.dtic.mil/doctrine/docnet/>)
2. MAWTS-1 CAS Class
3. JP 3-09.3 Close Air Support

ACPM-8085 4.0 * B (N) G

Goal. Demonstrate an understanding of joint targeting doctrine.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify types of targets.
2. Identify and describe the six phases of the joint targeting cycle.
3. Identify characteristics of a target.
4. Identify and describe steps in dynamic targeting.
5. Describe roles and responsibilities related to the joint targeting process.
6. Describe key products and processes of the joint targeting cycle.
7. Identify key terms related to the joint targeting process.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives or pass the DOCNET course listed below with a score of 80% or higher.

Instructor. BI.

Prerequisite. None.

References.

1. DOCNET Course 3-09 (<http://www.dtic.mil/doctrine/docnet/>)
2. JP 3-60 Joint Targeting

ACPM-8086 4.0 * B (N) G

Goal. Demonstrate an understanding of the North Atlantic Treaty Organization (NATO).

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify the composition of the NATO alliance.
2. Identify the three key articles of the NATO alliance.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 NATO Class
2. "What is NATO" Brief (http://www.nato.int/welcome/intro_to_NATO_en.ppt)
3. AJP-01(D)

ACPM-8087 4.0 * B (N) G

Goal. Demonstrate an understanding of joint airspace control doctrine.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify the responsibilities of the airspace control authority (ACA).
2. Identify the basic principles for airspace control.
3. Identify the purpose of the airspace control plan (ACP).
4. Identify the purpose of the airspace control order (ACO).
5. Identify the methods of airspace control.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References. MAWTS-

1. Airspace Control Authority and Airspace Class
2. JP 3-52 Joint Airspace Control

4.15 SYLLABUS MATRIX.

5939 SYLLABUS MATRIX										
STAGE	CODE	TITLE	POI	DEVICE	COND	PROFICIENCY PERIOD	E-CODE	TIME	PREREQ	CHAIN
CORE INTRODUCTION PHASE (1000)										
5900 COMMONS (59CM) SKILL										
59CM	0001	Describe the characteristics of the Marine Air Command and Control System (MACCS).	B	G	(N)	*	*	*	*	*
59CM	0002	Measure circuit performance.	B	G	(N)	*	*	*	*	*
59CM	0003	Configure MACCS radios for secure RF communications.	B	G	(N)	*	*	*	*	*
59CM	0004	Describe proper handling and storage of classified materials.	B	G	(N)	*	*	*	*	*
59CM	0005	Provide cyber security technical support for MACCS specific equipment.	B	G	(N)	*	*	*	*	*
59CM	0006	Repair common cables.	B	G	(N)	*	*	*	*	*
59CM	0007	Demonstrate an earth ground installation.	B	G	(N)	*	*	*	*	*
59CM	0008	Inspect common cables.	B	G	(N)	*	*	*	*	*
5900 COMMONS (59CM)			EVENTS	8		HOURS		*		
AIR SCHOOL (AIRS) SKILL										
AIRS	1030	Maintain the Communication System (CS)	B	G	(N)	*	*	*	*	*
AIRS	1031	Maintain voice circuits within the aviation C2 system.	B	G	(N)	*	*	*	*	*
AIRS	1032	Set-up the Communication System (CS) for operation.	B	G	(N)	*	*	*	*	*
AIRS	1033	Initialize voice circuits within the Common Aviation Command and Control System (CAC2S).	B	G	(N)	*	*	*	*	*
AIRS	1034	Configure aviation C2 system voice network.	B	G	(N)	*	*	*	*	*
AIRS	1035	Maintain the aviation C2 system voice network.	B	G	(N)	*	*	*	*	*
AIRS	1036	Configure the aviation C2 system voice network for operations.	B	G	(N)	*	*	*	*	*
AIRS	1037	Configure AN/VRC-103.	B	G	(N)	*	*	*	*	*
AIRS	1038	Configure AN/VRC-104.	B	G	(N)	*	*	*	*	*
AIR SCHOOL (AIRS)			EVENTS	9		HOURS		*		
CORE SKILL (2000 PHASE)										

5939 SYLLABUS MATRIX										
STAGE	CODE	TITLE	POI	DEVICE	COND	PROFICIENCY PERIOD	E-CODE	TIME	PREREQ	CHAIN
EQUIPMENT MANAGEMENT (EM) SKILL										
MMCN	2000	Operate a common fill device	B,R	L	(N)	*	*	2	2001	*
MMCN	2004	Operate the handheld GPS	B,R,M	L	(N)	1095	*	2	*	*
MMCN	2005	Demonstrate an earth ground installation	B,R,M	L	(N)	365	*	1	*	*
MMGT	2070	Complete Maintenance Management Program familiarization.	B	G	(N)	*	*	4	*	*
MMGT	2071	Conduct an SL-3 inventory.	B	L	(N)	*	*	2	*	*
AVCOMM	2200	Erect organic antennas.	B	L	(N)	*	*	2	*	*
AVCOMM	2201	Configure the AN/VRC-103.	B,R	L	(N)	*	*	1	2000	*
AVCOMM	2202	Configure the AN/VRC-104.	B,R	L	(N)	*	*	1	2000	*
AVCOMM	2203	Configure the AN/VRC-103 for SATCOM operation.	B,R	L	(N)	*	*	3	2000	*
AVCOMM	2205	Configure Distributed Scalable Access Network (DSAN) for a multiple vehicle system.	B,R	L	(N)	*	*	4	*	*
EQUIPMENT MANAGEMENT (EM)			EVENTS	10		HOURS		22		
MISSION SKILL PHASE (3000)										
SYSTEMS MANAGEMENT (SM) SKILL										
MMCN	2000	Operate a common fill device	B,R	L	(N)	*	*	2	*	*
MMCN	2004	Operate the handheld GPS	B,R,M	L	(N)	1095	*	2	*	*
MMCN	2005	Demonstrate an earth ground installation	B,R,M	L	(N)	365	*	1	*	*
MMCN	2006	Develop an embarkation plan.	B,R,M	L	(N)	1095	*	2	*	*
MMGT	2070	Complete Maintenance Management Program familiarization.	B	G	(N)	*	*	4	*	*
MMGT	2071	Conduct an SL-3 inventory.	B	L	(N)	*	*	2	*	*
DEPL	2100	Write a packing list.	B,R	L	(N)	*	*	2	*	*
DEPL	2102	Determine supply support requirements.	B,R	L	(N)	*	*	4	*	*
DEPL	2104	Describe common agency doctrinal nets.	B,R	G	(N)	*	*	3	*	*
AVCOMM	2200	Erect organic antennas.	B	L	(N)	*	*	2	*	*

5939 SYLLABUS MATRIX										
STAGE	CODE	TITLE	POI	DEVICE	COND	PROFICIENCY PERIOD	E-CODE	TIME	PREREQ	CHAIN
AVCOMM	2201	Configure the AN/VRC-103.	B,R	L	(N)	*	*	1	2000	*
AVCOMM	2202	Configure the AN/VRC-104.	B,R	L	(N)	*	*	1	2000	*
AVCOMM	2203	Configure the AN/VRC-103 for SATCOM operation.	B,R	L	(N)	*	*	3	2000	*
AVCOMM	2204	Interface an external radio with the CS.	B,R	L	(N)	*	*	2	*	*
AVCOMM	2205	Configure Distributed Scalable Access Network (DSAN) for a multiple vehicle system.	B,R	L	(N)	*	*	4	*	*
DEPL	3060	Prepare system for embark.	B,R,M	L	(N)	1095	*	8	2070, 2071, 2102	*
AVCOMM	3100	Set-up the Communications System (CS).	B,R,M	L	(N)	1095	*	4	2000, 2004, 2200, 2201, 2202, 2203, 2204, 2205, 2208, 2209, 2210, 2213, 2250	2004, 2209, 2210
SYSTEMS MANAGEMENT (SM)			EVENTS	17		HOURS		47		
RADIO NETWORK ADMINISTRATOR (RNA) SKILL										
MMCN	2000	Operate a common fill device	B,R	L	(N)	*	*	2	2001	*
MMCN	2002	Extract key material information from COMSEC callout.	B,R	G	(N)	*	*	2	*	*
MMCN	2004	Operate the handheld GPS	B,R,M	L	(N)	1095	*	2	*	*
MMCN	2007	Identify spectrum management procedures.	B,R,M	G	(N)	1095	*	2	*	*
MMCN	2008	Construct and use a field expedient antenna.	B,R,M	L	(N)	1095	*	4	*	*
DEPL	2100	Write a packing list.	B,R	L	(N)	*	*	2	*	*
DEPL	2104	Describe common agency doctrinal nets.	B,R	G	(N)	*	*	3	*	*
AVCOMM	2201	Configure the AN/VRC-103.	B,R	L	(N)	*	*	1	2000	*
AVCOMM	2202	Configure the AN/VRC-104.	B,R	L	(N)	*	*	1	2000	*
AVCOMM	2204	Interface an external radio with the CS.	B,R	L	(N)	*	*	2	*	*

5939 SYLLABUS MATRIX										
STAGE	CODE	TITLE	POI	DEVICE	COND	PROFICIENCY PERIOD	E-CODE	TIME	PREREQ	CHAIN
AVCOMM	2205	Configure Distributed Scalable Access Network (DSAN) for a multiple vehicle system.	B,R	L	(N)	*	*	4	*	*
AVCOMM	2206	Conduct organizational level maintenance on the AN/VRC-103.	B	L	(N)	*	*	2	2000, 2201	*
AVCOMM	2207	Conduct organizational level maintenance on the AN/VRC-104.	B	L	(N)	*	*	2	2000, 2202	*
AVCOMM	2208	Troubleshoot a fault in the alternating/direct current power distribution panels within the CS.	B,R	L	(N)	*	*	4	*	*
AVCOMM	2209	Configure the organic multi-band radio set for enhanced operation.	B,R,M	L	(N)	1095	*	2	2000, 2004	*
AVCOMM	2210	Configure the organic HF radio set for Automatic Link Establishment (ALE).	B,R,M	L	(N)	1095	*	1	2000	*
AVCOMM	2212	Conduct maintenance on the CS.	B,R	L	(N)	*	*	4	*	*
SYSAD	2254	Update firmware for Command and Control Systems.	B,R	L	(N)	*	*	3	2044	
MMCN	3032	Fill the handheld GPS with the appropriate crypto.	B	L	(N)	*	*	2	2004	*
MMGT	3050	Conduct QC procedures.	B,R,M	L	(N)	1095	*	6	2070, 2071	*
AVCOMM	3100	Set-up the Communications System (CS).	B,R,M	L	(N)	1095	*	4	2000, 2004, 2200, 2201, 2202, 2203, 2204, 2205, 2208, 2209, 2210, 2213, 2250	2004, 2209, 2210
AVCOMM	3101	Verify voice communications are operational.	B,R,M	L	(N)	1095	*	4	2000, 2004, 2200, 2201, 2202, 2203, 2204, 2205, 2208, 2209, 2210, 3100	2209, 2210
RADIO NETWORK ADMINISTRATOR (RNA)			EVENTS	23		HOURS		59		
VOICE DATA ADMINISTRATOR (VDA) SKILL										
MMCN	2000	Operate a common fill device	B,R	L	(N)	*	*	2	2001	*
MMCN	2004	Operate the handheld GPS	B,R,M	L	(N)	1095	*	2	*	*
CSWF	2040	Explain Information Security Principles	B,R,M	G	(N)	1095	*	4	*	*
CSWF	2041	Perform account management.	B,R,M	L	(N)	1095	*	2	*	*

5939 SYLLABUS MATRIX										
STAGE	CODE	TITLE	POI	DEVICE	COND	PROFICIENCY PERIOD	E-CODE	TIME	PREREQ	CHAIN
CSWF	2042	Explain risk management involved in operational security	B,R,M	G	(N)	1095	*	4	*	*
CSWF	2043	Explain computer and network cryptography.	B,R,M	G	(N)	1095	*	4	*	*
CSWF	2044	Explain computer and networking equipment	B,R	G	(N)	*	*	4	*	*
CSWF	2045	Explain Networking Concepts.	B,R	G	(N)	*	*	4	*	*
CSWF	2046	Explain Network Media and Topologies.	B,R	G	(N)	*	*	4	*	*
CSWF	2047	Explain Troubleshooting of Computer and Network equipment.	B,R	G	(N)	*	*	4	2044, 2045, 2046	*
DEPL	2100	Write a packing list.	B,R	L	(N)	*	*	2	*	*
AVCOMM	2205	Configure Distributed Scalable Access Network (DSAN) for a multiple vehicle system.	B,R	L	(N)	*	*	4	*	*
AVCOMM	2208	Troubleshoot a fault in the alternating/ direct current power distribution panels within the CS.	B,R	L	(N)	*	*	4	*	*
AVCOMM	2211	Maintain the voice network within the CS.	B,R,M	L	(N)	1095	*	2	*	*
AVCOMM	2212	Conduct maintenance on the CS.	B,R	L	(N)	*	*	4	*	*
AVCOMM	2213	Set up the C2 system voice equipment.	B,R	L	(N)	*	*	2	*	
SYSAD	2250	Configure workstation.	B,R	L	(N)	*	*	4	2044	*
SYSAD	2253	Apply Software release updates.	B,R	L	(N)	*	*	4	2044	*
SYSAD	2254	Update firmware for Command and Control Systems.	B,R	L	(N)	*	*	3	2044	*
CONFIG	2301	Perform data recovery on organic C2 systems.	B,R	L	(N)	*	*	4	*	*
CSWF	3000	Administer data system host security measures.	B,R,M	L	(N)	1095	*	4	2040, 2042, 2043, 2044, 2045, 2046, 2047	*
CSWF	3001	Perform network management.	B,R,M	L	(N)	1095	*	4	2040, 2042, 2044, 2045, 2046, 2047	*
CSWF	3002	Design network architecture.	B,R,M	L	(N)	1095	*	4	2040, 2042, 2043, 2044, 2045, 2046, 2047	
MMCN	3032	Fill the handheld GPS with the appropriate crypto.	B	L	(N)	*	*	2	2004	*
MMGT	3050	Conduct QC procedures.	B,R,M	L	(N)	1095	*	6	2070, 2071	*

5939 SYLLABUS MATRIX										
STAGE	CODE	TITLE	POI	DEVICE	COND	PROFICIENCY PERIOD	E-CODE	TIME	PREREQ	CHAIN
AVCOMM	3100	Set-up the Communications System (CS).	B,R,M	L	(N)	1095	*	4	2000, 2004, 2200, 2201, 2202, 2203, 2204, 2205, 2208, 2209, 2210, 2213, 2250	2004, 2209, 2210
SYSAD	3144	Develop data recovery management plan.	B,R,M	G	(N)	1095	*	4	2042	2042
SYSAD	3146	Manage System Administration responsibilities	B,R,M	L	(N)	1095	*	4	2040,2041, 2042, 2043, 2044, 2045, 2046, 2047, 2250, 2253, 2254, 3000, 3001, 3002, 3144	*
VOICE DATA ADMINISTRATOR (VDA)			EVENTS	28		HOURS		99		
AVIATION COMMUNICATIONS CREW CHIEF (ACCC) SKILL										
MMCN	2001	State the physical security requirements for classified areas.	B,R	G	(N)	*	*	1	*	*
MMCN	2002	Extract key material information from COMSEC callout.	B,R	G	(N)	*	*	2	*	*
MMCN	2003	Create a classified area physical security diagram.	B,R	L	(N)	*	*	2	2001	*
MMCN	2004	Operate the handheld GPS.	B,R,M	L	(N)	1095	*	2	*	*
MMCN	2006	Develop an embarkation plan.	B,R,M	L	(N)	1095	*	2	*	*
MMCN	2009	Complete a Bill of Material (BOM) request.	B,R	L	(N)	*	*	4	*	*
DEPL	2101	Extract key information from communication planning documents.	B,R	L	(N)	*	*	2	*	*
DEPL	2102	Determine supply support requirements.	B,R	G	(N)	*	*	4	*	*
DEPL	2103	Identify power requirements.	B,R	G	(N)	*	*	4	*	*
DEPL	2104	Describe common agency doctrinal nets.	B,R	G	(N)	*	*	3	*	*
DEPL	2106	Write a crew schedule.	B,R	G	(N)	*	*	2	*	*
MMCN	2008	Construct and use a field expedient antenna.	B,R,M	L	(N)	1095	*	4	*	*
AVCOMM	2212	Conduct maintenance on the CS.	B,R	L	(N)	*	*	4	*	*
AVCOMM	2213	Set up the C2 system voice equipment.	B,R	L	(N)	*	*	2	*	*

5939 SYLLABUS MATRIX										
STAGE	CODE	TITLE	POI	DEVICE	COND	PROFICIENCY PERIOD	E-CODE	TIME	PREREQ	CHAIN
CONFIG	2301	Perform data recovery on organic C2 systems.	B,R	L	(N)	*	*	4	*	*
CSWF	3002	Design network architecture.	B,R,M	L	(N)	1095	*	4	2040, 2042, 2043, 2044, 2045, 2046, 2047	*
MMCN	3030	Deploy a MACCS capability.	B,R,M	L	(N)	1095	*	8	2070, 2071, 2006, 2007, 2009, 2103, 2106	*
MMCN	3031	Conduct a site survey.	B,R,M	S/L	(N)	1095	*	8	2103	*
AVCOMM	3102	Deploy the CS in support of operational requirements.	B,R,M	L	(N)	1095	*	12	2000, 2004, 2200, 2201, 2202, 2203, 2204, 2205, 2208, 2209, 2210, 2213, 2250, 3100, 3101	3101
SYSAD	3145	Develop disaster recovery plan.	B,R,M	L	(N)	1095	*	4	2001, 2253, 2254, 3144	3144
SYSAD	3146	Manage System Administration responsibilities	B,R,M	L	(N)	1095	*	4	2040,2041, 2042, 2043, 2044, 2045, 2046, 2047, 2250, 2253, 2254, 3000, 3001, 3002, 3144	2040, 2041, 2042, 2043, 3000, 3001, 3002, 3144
AVIATION COMMUNICATIONS CREW CHIEF (ACCC)			EVENTS	21		HOURS		82		
CORE PLUS PHASE (4000)										
AVIATION COMMUNICATION (AVCOMM) SKILL										
AVCOMM	4212	Conduct organizational level maintenance on the AN/PRC-153.	B	L	(N)	*	*	2	*	*
AVCOMM	4213	Conduct organizational level maintenance on the AN/VRC-110.	B	L	(N)	*	*	2	*	*
AVCOMM	4214	Conduct organizational level maintenance on the AN/VRC-112.	B	L	(N)	*	*	2	2000	*
AVCOMM	4215	Conduct organizational level maintenance on the AN/PRC-148.	B	L	(N)	*	*	2	2000	*

5939 SYLLABUS MATRIX										
STAGE	CODE	TITLE	POI	DEVICE	COND	PROFICIENCY PERIOD	E-CODE	TIME	PREREQ	CHAIN
AVCOMM	4224	Perform fiber optic repair.	B	L	(N)	*	*	2	*	*
AVIATION COMMUNICATION (AVCOMM) SKILL			EVENTS	5		HOURS		10		
MAINTENANCE MANAGEMENT SKILL										
MMGT	4250	Assess maintenance shop performance.	B,R,M	L	(N)	1095	*	4	*	*
MMGT	4251	Assess maintenance section funding requirements.	B,R,M	L	(N)	1095	*	2	*	*
MMGT	4252	Induct equipment into the maintenance cycle.	B,R	L	(N)	*	*	1	*	*
MMGT	4253	Create a Preventive Maintenance Checks and Services (PMCS) schedule.	B,R	G	(N)	*	*	1	*	*
MMGT	4254	Submit a Product Quality Deficiency Report (PQDR).	B,R	L	(N)	*	*	2	*	*
MMGT	4255	Identify the SECREP management process.	B,R	G	(N)	*	*	2	*	*
MMGT	4256	Explain equipment disposition procedures.	B,R	G	(N)	*	*	4	*	*
MMGT	4257	Reconcile Global Combat Support System (GCSS) reports.	B,R	L	(N)	*	*	4	*	*
MMGT	4258	Verify inventory control procedures are implemented.	B,R	L	(N)	*	*	1	*	*
CORE PLUS SKILL			EVENTS	9		HOURS		21		
INSTRUCTOR TRAINING PHASE (5000)										
INSTRUCTOR UNDER TRAINING (IUT) SKILL										
IUT	5000	Introduce principles of instruction	B	L	(N)	*	*	2	*	*
IUT	5010	Describe individual T&R requirements	B	G	(N)	*	*	2	*	*
IUT	5020	Conduct T&R instruction.	B,R,M	L	(N)	90	*	12	5000, 5010	*
IUT	5100	Describe the Aviation Training and Readiness (T&R) Program	B	G	(N)	*	*	2	*	*
IUT	5110	Conduct instructor evaluations	B,R,M	L	(N)	365	*	4	5100	*
IUT	5120	Perform T&R administration	B	L	(N)	*	*	2	5100, 5110	*
IUT	5130	Develop a training plan	B	L	(N)	*	*	2	5100, 5110, 5120	*
INSTRUCTOR UNDER TRAINING (IUT)			EVENTS	7		HOURS		26		
CERTIFICATIONS, QUALIFICATIONS, AND DESIGNATIONS (CQD) PHASE (6000)										
CERTIFICATIONS (CERT)										

5939 SYLLABUS MATRIX										
STAGE	CODE	TITLE	POI	DEVICE	COND	PROFICIENCY PERIOD	E-CODE	TIME	PREREQ	CHAIN
CERT	6260	CSWF Technical Support Specialist.	B	G	(N)	*	*	4	2040, 2041, 2042, 2044, 2045, 2046, 2047, 3001	*
CERT	6261	CSWF IT Specialist.	B	G	(N)	*	*	4	2040, 2041, 2043, 2044, 2045, 2046, 2047, 3000, 3001, 3002	*
CERT	6262	CSWF System Administrator.	B	G	(N)	*	*	4	2040, 2042, 2043, 2044, 2045, 2046, 2047, 3000, 3001, 3002	*
CERTIFICATIONS (CERTS)			EVENTS	3		HOURS		12		
DESIGNATIONS (DESG)										
DESG	6320	Basic Instructor (BI)	B	G	(N)	*	*	0.5	5000, 5010, 5020	*
DESG	6321	Senior Instructor (SI)	B	G	(N)	*	*	0.5	5100, 5110, 5120, 5130	*
DESG	6322	Weapons and Tactics Instructor (WTI)	B	G	(N)	*	*	0.5	6000	*
DESG	6330	Formal Learning Center Instructor (FLCI)	B	G	(N)	*	*	0.5	*	*
DESIGNATION (DESG)			EVENTS	4		HOURS		2		
SCHOOL (SCHL)										
SCHL	6000	WTI Course.	B	G	(N)	*	*	0.5	6321, 8000, 8020, 8040, 8060, 8080	2002, 2800, 2801, 2802, 2803, 2805, 2806, 2808, 3032, 3046
SCHL	6020	Link 16 Basics Course (JT-100).	B	G	(N)	*	*	0.5	*	
SCHL	6021	Intro to Multi TDL Network (JT-101) Course.	B	G	(N)	*	*	0.5	*	*
SCHL	6022	Multi-TDL Advanced Joint Interoperability Course (MAJIC) (JT-102).	B	G	(N)	*	*	0.5	6021	*
SCHL	6024	Multi TDL Planner Course (JT-201).	B	G	(N)	*	*	0.5	*	*
SCHL	6025	Link 16 Unit Manager (LUM) Course (JT-220).	B	G	(N)	*	*	0.5	*	*

5939 SYLLABUS MATRIX										
STAGE	CODE	TITLE	POI	DEVICE	COND	PROFICIENCY PERIOD	E-CODE	TIME	PREREQ	CHAIN
SCHL	6026	Joint Interface Control Officer (JICO) (JT-301).	B	G	(N)	*	*	0.5	6021, 6022, 6024	*
SCHL	6027	Advanced JICC Operator Course (JT-310).	B	G	(N)	*	*	0.5	*	*
SCHL	6030	Work Center Supervisor Course.	B	G	(N)	*	*	0.5	*	*
SCHL	6031	MATC Maintenance Manager’s Course.	B	G	(N)	*	*	0.5	*	*
SCHL	6073	Micro-Miniature Electronics Repair Course.	B	G	(N)	*	*	0.5	*	*
SCHL	6093	Micro-Miniature/Automated Test Equipment Repair Course.	B	G	(N)	*	*	0.5	*	*
SCHL	6094	Advanced Electronics Course.	B	G	(N)	*	*	0.5	*	*
SCHL	6095	Ground Electronics Maintenance NCO Course.	B	G	(N)	*	*	0.5	*	*
SCHL	6096	Attend respective instructor development course.	B	G	(N)	*	*	0.5	*	*
SCHL	6097	Mountain Command Control Communications Course.	B	G	(N)	*	*	0.5	*	*
SCHL	6098	Electromagnetic Spectrum Manager Course.	B	G	(N)	*	*	0.5	*	*
SCHOOL (SCHL)			EVENTS	18		HOURS		8.5		
MISSION ESSENTIAL TASK PHASE (7000)										
TACC CONDITION (TACC)										
COND	7001	Establish communications.	B,R,M	L	(N)	730	E	4	*	*
COND	7003	Display the Common Tactical Picture.	B,R,M	L/S	(N)	730	E	8	*	*
COND	7004	Coordinate air operations between the MACCS and Joint /Combined/Coalition/Host Nation command and control agencies.	B,R,M	L/S	(N)	730	E	18	*	*
COND	7005	Manage the current air tasking order.	B,R,M	L/S	(N)	730	E	8	*	*
COND	7007	Maintain a facility and associated command and control systems for the TACC.	B,R,M	L/S	(N)	730	E	16	*	*
COND	7009	Coordinate Airspace Management in Current Operations.	B,R,M	S/L	(N)	730	E	2	*	*
TACC CONDITION (TACC)			EVENTS	6		HOURS		56		
TAOC CONDITION (TAOC)										
COND	7000	Conduct Airspace Surveillance.	B,R,M	L	(N)	730	E	16	*	*
COND	7001	Conduct Positive Control.	B,R,M	L/S	(N)	730	E	16	*	*
COND	7002	Coordinate Air Defense Actions.	B,R,M	L/S	(N)	730	E	16	*	*

5939 SYLLABUS MATRIX										
STAGE	CODE	TITLE	POI	DEVICE	COND	PROFICIENCY PERIOD	E-CODE	TIME	PREREQ	CHAIN
COND	7003	Conduct Dual Site Air Defense Operations.	B,R,M	L/S	(N)	730	E	16	*	*
COND	7004	Integrate Operational Air Defense Capabilities.	B,R,M	L/S	(N)	730	E	16	*	*
TAOC CONDITION (TAOC)			EVENTS	5		HOURS		80		
DASC CONDITION (DASC)										
COND	7400	Employ an ASLT.	B,R,M	L/S	(N)	730	E	3	*	*
COND	7405	Employ an ASE.	B,R,M	L/S	(N)	730	E	3	*	*
COND	7410	Employ a DASC.	B,R,M	L/S	(N)	730	E	3	*	*
COND	7415	Conduct a Reconnaissance, Selection, and Occupation of Position (RSOP) for the DASC.	B,R,M	L/S	(N)	730	E	3	*	*
COND	7420	Conduct Echelon Operations.	B,R,M	L/S	(N)	730	E	3	*	*
COND	7425	Conduct Phasing of Control Ashore.	B,R,M	S/L	(N)	730	E	3	*	*
DASC CONDITION (DASC)			EVENTS	6		HOURS		18		
AVIATION CAREER PROGRESSION MODEL (ACPM) PHASE (8000)										
AVIATION CAREER PROGRESSION MODEL (ACPM)										
ACPM	8000	MACCS	B	G	(N)	*	*	1	8001, 8002, 8003, 8004, 8005, 8006, 8008	*
ACPM	8001	Marine Air Command and Control System	B	G	(N)	*	*	4	*	*
ACPM	8002	Tactical Air Command Center (TACC)	B	G	(N)	*	*	4	*	*
ACPM	8003	Direct Air Support Center (DASC)	B	G	(N)	*	*	4	*	*
ACPM	8004	Tactical Air Operations Center (TAOC)	B	G	(N)	*	*	4	*	*
ACPM	8005	Marine Air Traffic Control (MATC)	B	G	(N)	*	*	4	*	*
ACPM	8006	Low Altitude Air Defense (LAAD)	B	G	(N)	*	*	4	*	*
ACPM	8008	Marine Wing Communications Squadron (MWCS)	B	G	(N)	*	*	4	*	*
ACPM	8020	ACE	B	G	(N)	*	*	1	8021, 8022, 8023, 8024, 8025, 8026, 8027, 8028	*
ACPM	8021	Aviation Operations	B	G	(N)	*	*	4	*	*
ACPM	8022	Control of Aircraft and Missiles	B	G	(N)	*	*	4	*	*

5939 SYLLABUS MATRIX										
STAGE	CODE	TITLE	POI	DEVICE	COND	PROFICIENCY PERIOD	E-CODE	TIME	PREREQ	CHAIN
ACPM	8023	Offensive Air Support (OAS)	B	G	(N)	*	*	4	*	*
ACPM	8024	Assault Support (AS)	B	G	(N)	*	*	4	*	*
ACPM	8025	Air Reconnaissance	B	G	(N)	*	*	4	*	*
ACPM	8026	Electronic Warfare (EW)	B	G	(N)	*	*	1	*	*
ACPM	8027	Anti-Air Warfare (AAW)	B	G	(N)	*	*	4	*	*
ACPM	8028	Aviation Ground Support	B	G	(N)	*	*	4	*	*
ACPM	8040	Threat	B	G	(N)	*	*	1	8041, 8042, 8043, 8044	*
ACPM	8041	Surface to Air threat to the MAGTF	B	G	(N)	*	*	4	*	*
ACPM	8042	Fixed Wing threat to the MAGTF	B	G	(N)	*	*	4	*	*
ACPM	8043	Rotary Wing threat to the MAGTF	B	G	(N)	*	*	4	*	*
ACPM	8044	Missile and UAS threat to the MAGTF	B	G	(N)	*	*	4	*	*
ACPM	8060	MAGTF	B	G	(N)	*	*	1	8061, 8062, 8063, 8064, 8065, 8066, 8067	*
ACPM	8061	Ground Combat Operations	B	G	(N)	*	*	4	*	*
ACPM	8062	Fire Support Coordination in the GCE	B	G	(N)	*	*	4	*	*
ACPM	8063	MAGTF Command and Control	B	G	(N)	*	*	4	*	*
ACPM	8064	MAGTF Communications	B	G	(N)	*	*	4	*	*
ACPM	8065	Phasing Control Ashore	B	G	(N)	*	*	4	*	*
ACPM	8066	Information Management	B	G	(N)	*	*	4	*	*
ACPM	8067	UAS support of the MAGTF	B	G	(N)	*	*	4	*	*
ACPM	8080	Joint Air Operations	B	G	(N)	*	*	1	8081, 8082, 8083, 8084, 8085, 8086, 8087, 8088	*
ACPM	8081	Command and Control of Joint Air Operations	B	G	(N)	*	*	4	*	*
ACPM	8082	Theater Air Ground System (TAGS)	B	G	(N)	*	*	4	*	*
ACPM	8083	Joint Fire Support	B	G	(N)	*	*	4	*	*
ACPM	8084	Close Air Support (CAS)	B	G	(N)	*	*	4	*	*

5939 SYLLABUS MATRIX										
STAGE	CODE	TITLE	POI	DEVICE	COND	PROFICIENCY PERIOD	E-CODE	TIME	PREREQ	CHAIN
ACPM	8085	Joint Targeting	B	G	(N)	*	*	4	*	*
ACPM	8086	North Atlantic Treaty Organization (NATO)	B	G	(N)	*	*	4	*	*
ACPM	8087	Joint Airspace Control	B	G	(N)	*	*	4	*	*
ACPM	8088	Countering Air and Missile Threats	B	G	(N)	*	*	4	*	*
AVIATION CAREER PROGRESSION MODEL (ACPM)			EVENTS	39		HOURS		138		

4.15.1 MIRRORING TABLE.

MACCS MAINTENANCE MIRRORING (5939)			
NEW EVENT	TACC	TAOC	DASC
MMCN-2000	SEC-2001	SEC-2001	SEC-2001
MMCN-2001	SEC-2002	SEC-2002	SEC-2002
MMCN-2002	SEC-2003	SEC-2003	SEC-2003
MMCN-2003	SEC-2004	SEC-2004	SEC-2004
MMCN-2004	FAM-2021	FAM-2022	FAM-2023
MMCN-2005	FAM-2055		
MMCN-2006		DEPL-2137	DEPL-2137
MMCN-2007		DEPL-2138	
MMCN-2006		DEPL-2140	DEPL-2140
MMCN-2008	AVCOMM-2209	AVCOMM-2209	AVCOMM-2209
CSWF-2040		CANT-2040	CANT-2040
CSWF-2041		CANT-2041	CANT-2041
CSWF-2042		CANT-2042	CANT-2042
CSWF-2043		CANT-2043	CANT-2043
CSWF-2044		CANT-2044	CANT-2044
CSWF-2045		CANT-2045	CANT-2045
CSWF-2046		CANT-2046	CANT-2046
CSWF-2047			
MMGT-2070	MMGT-2100	MMGT-2100	MMGT-2100
MMGT-2071	MMGT-2101	MMGT-2101	MMGT-2101
DEPL-2100		DEPL-2130	DEPL-2130
DEPL-2101		DEPL-2131	DEPL-2131
DEPL-2102		DEPL-2132	DEPL-2132
DEPL-2103		DEPL-2133	DEPL-2133
DEPL-2104		DEPL-2139	DEPL-2139
DEPL-2106		DEPL-2142	DEPL-2142
AVCOMM-2200	AVCOMM-2200	AVCOMM-2200	AVCOMM-2200
AVCOMM-2201		AVCOMM-2201	AVCOMM-2201
AVCOMM-2202	AVCOMM-2202	AVCOMM-2202	AVCOMM-2202
AVCOMM-2203	AVCOMM-2203	AVCOMM-2203	AVCOMM-2203
AVCOMM-2204	AVCOMM-2204	AVCOMM-2204	AVCOMM-2204
AVCOMM-2205	AVCOMM-2205	AVCOMM-2205	AVCOMM-2205
AVCOMM-2206		AVCOMM-2206	AVCOMM-2206
AVCOMM-2207	AVCOMM-2207	AVCOMM-2207	AVCOMM-2207
AVCOMM-2208	AVCOMM-2208	AVCOMM-2208	AVCOMM-2208
AVCOMM-2209	AVCOMM-2210	AVCOMM-2210	AVCOMM-2210

MACCS MAINTENANCE MIRRORING (5939)			
NEW EVENT	TACC	TAOC	DASC
AVCOMM-2210	AVCOMM-2211	AVCOMM-2211	AVCOMM-2211
AVCOMM-2211		AVCOMM-2216	AVCOMM-2216
AVCOMM-2212		AVCOMM-2217	AVCOMM-2217
AVCOMM-2213		AVCOMM-2222	
SYSAD-2250	SYSAD-2250		
SYSAD-2253	SYSAD-2253		
SYSAD-2254	SYSAD-2254		
CONFIG-2301		DEPL-2143	DEPL-2143
CSWF-3000		CANT-3000	CANT-3000
CSWF-3001		CANT-3001	CANT-3001
CSWF-3002		CANT-3002	CANT-3002
MMCN-3030			
MMCN-3031		DEPL-3043	DEPL-3043
MMCN-3032			
MMGT-3050		MMGT-3020	MMGT-3020
DEPL-3060		DEPL-3040	DEPL-3040
AVCOMM-3100	AVCOMM-3100	AVCOMM-3100	AVCOMM-3100
AVCOMM-3101	AVCOMM-3101	AVCOMM-3101	AVCOMM-3101
AVCOMM-3102	AVCOMM-3102	AVCOMM-3102	AVCOMM-3102
SYSAD-3144			
SYSAD-3145			
SYSAD-3146			
AVCOMM-4224			
IUT-5000	IUT-5000	IUT-5000	IUT-5000
IUT-5010	IUT-5010	IUT-5010	IUT-5010
IUT-5020	IUT-5020	IUT-5020	IUT-5020
IUT-5100	IUT-5100	IUT-5100	IUT-5100
IUT-5110	IUT-5110	IUT-5110	IUT-5110
IUT-5120	IUT-5120	IUT-5120	IUT-5120
IUT-5130	IUT-5130	IUT-5130	IUT-5130
DESG-6260		DESG-6260	DESG-6260
DESG-6261		DESG-6261	DESG-6261
DESG-6262		DESG-6262	DESG-6262
DESG-6320	DESG-6320	DESG-6320	DESG-6320
DESG-6321	DESG-6321	DESG-6321	DESG-6321
DESG-6322	DESG-6322	DESG-6322	
DESG-6330		DESG-6330	
SCHL-6000		SCHL-6000	
SCHL-6021	SCHL-6021	SCHL-6021	

MACCS MAINTENANCE MIRRORING (5939)			
NEW EVENT	TACC	TAOC	DASC
SCHL-6022	SCHL-6022	SCHL-6022	
SCHL-6024	SCHL-6024	SCHL-6024	
SCHL-6025	SCHL-6025	SCHL-6025	
SCHL-6026			
SCHL-6030			
SCHL-6031			
SCHL-6073			
SCHL-6093			
SCHL-6094			
SCHL-6095			
SCHL-6096			
SCHL-6097			
SCHL-6098			

CHAPTER 5
AVIATION RADAR TECHNICIAN (MOS 5948)
INDIVIDUAL TRAINING AND READINESS REQUIREMENTS

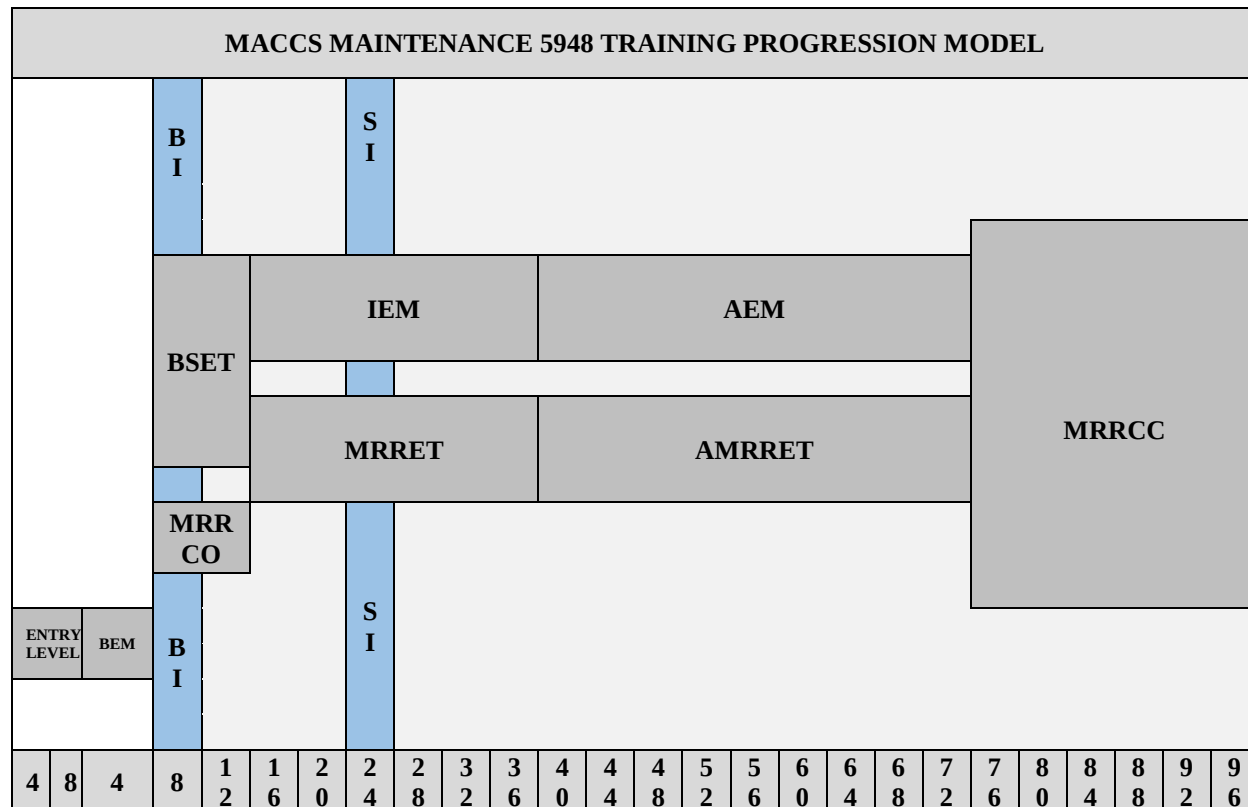
	<u>PARAGRAPH</u>	<u>PAGE</u>
CREWMEMBER SYLLABUS T&R REQUIREMENTS	5.0	5-4
TRAINING PROGRESSION MODEL	5.1	5-4
PROGRAMS OF INSTRUCTION	5.2	5-4
PROFICIENCY AND CURRENCY	5.3	5-5
CERTIFICATION, QUALIFICATION, AND DESIGNATION TABLES	5.4	5-5
SYLLABUS NOTES.....	5.5	5-6
CORE INTRODUCTION PHASE (0000)	5.6	5-7
CORE PHASE (2000).....	5.7	5-18
MISSION PHASE (3000)	5.8	5-39
CORE PLUS PHASE (4000)	5.9	5-47
MISSION PLUS PHASE (4500)	5.10	5-52
INSTRUCTOR TRAINING PHASE (5000).....	5.11	5-53
CERTIFICATIONS, QUALIFICATIONS, AND DESIGNATIONS (CQD) PHASE (6000).....	5.12	5-57
MISSION ESSENTIAL TASK PHASE (7000).....	5.13	5-70
AVIATION CAREER PROGRESSION MODEL (8000)	5.14	5-74
T&R SYLLABUS MATRICES	5.15	5-91

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CHAPTER 5
AVIATION RADAR TECHNICIAN/ (MOS 5948)
INDIVIDUAL TRAINING AND READINESS REQUIREMENTS

5.0 CREWMEMBER SYLLABUS T&R REQUIREMENTS. This T&R Syllabus is based on specific goals and performance standards designed to ensure individual proficiency in Core and Mission Phase skills. The goal of this chapter is to develop individual and unit warfighting capabilities.

5.1 TRAINING PROGRESSION MODEL. This model represents the recommended average training progression for the Aviation RADAR Technician crewmember. Units should use the model as a point of departure to generate individual training plans.



5.2 PROGRAMS OF INSTRUCTION (POI). These tables reflect average time-to-train versus the minimum to maximum time-to-train parameters in the Training Progression Model.

5.2.1 Basic POI.

WEEKS ¹	PHASE OF INSTRUCTION	UNIT RESPONSIBLE
0-44	CORE INTRODUCTION PHASE	MCCES
45-74	CORE PHASE	TACTICAL SQUADRON
75-123	MISSION PHASE	TACTICAL SQUADRON
124-128	CORE PLUSPHASE	TACTICAL SQUADRON

5.2.2 Refresher POI.

WEEKS ¹	PHASE OF INSTRUCTION	UNIT RESPONSIBLE
VARIES	CORE PHASE	TACTICAL SQUADRON
VARIES	MISSION PHASE	TACTICAL SQUADRON
VARIES	CORE PLUS PHASE	TACTICAL SQUADRON
NOTE 1: TRAINING DURATIONS VARIES BY POSITION BEING TRAINED. SEE PROGRESSION MODEL FOR NOTIONAL TRAINING TIMES.		

5.3 PROFICIENCY AND CURRENCY.

5.3.1 Event Proficiency. Event proficiency is defined as successful completion of the performance standard as determined by the instructor or evaluator. Event completion is predicated upon demonstrated proficiency. Once completed, it is logged in M-SHARP by entering the appropriate event code. M-SHARP automatically updates the event proficiency date to reflect the completion date.

5.3.2 Skill Proficiency. Proficiency is a measure of achievement of a specific skill. To attain Individual Skill proficiency, an individual must be simultaneously proficient in all events for that Skill. Individuals may be attaining proficiency in some skills while maintaining proficiency in others.

5.3.2.1 Maintaining Skill Proficiency. Once attained, skill proficiency is maintained by executing those events which have a Proficiency Period (Maintain events). Proficiency Periods establish the maximum time between event demonstrations. Should proficiency be lost in any maintain event, for a specific skill, that skill proficiency is temporarily lost. Skill proficiency can be re-attained by again demonstrating proficiency in the event(s) that are not proficient. For flying communities, an individual shall complete delinquent events with a proficient instructor, crewman/flight lead as delineated by the T/M/S Syllabus Sponsor (see Chapter 3 of the Program Manual on specific instructor requirements for Low Altitude Flight, Night Systems, ACM, DM, DACM, DCM, and FAC (A)).

5.3.2.2 Loss of Individual Skill Proficiency. Should an individual lose proficiency in all maintain events in a skill, the individual will be assigned to the Refresher POI for the skill. To regain skill proficiency, the individual must demonstrate proficiency in all R-coded events for the skill. . Refresher training is required once an individual has been absent from a technician billet for 36 months or longer. Upon return, the individual will complete R-coded events.

5.3.2.3 Loss of Unit Skill Proficiency. If an entire unit loses proficiency in an event, unit instructors shall regain proficiency by completing the event with an instructor from a like unit. If not feasible, the instructor shall regain proficiency by completing the event with another instructor. For flying communities, if a unit has only one instructor and cannot complete the event with an instructor from another unit, the instructor shall regain proficiency with another aircraft commander or as designated by the commanding officer.

5.3.2.4 Proficiency Status. Proficiency is a “Yes/No” status by skill assigned to an individual. When an individual attains and maintains Core, Mission, Core Plus, or Mission Plus Phase proficiency, the individual may count towards CMMR or CMTS.

5.3.3 Skill Currency. Currency is a control measure used to provide an additional margin of safety based on exposure frequency to a particular skill and applies to all MOS's that must comply with NATOPS and OPNAV requirements. It is a measure of time since the last event demanding that specific skill. Specific currency requirements for aircrew individual type mission profiles can be found in Chapter 3.

5.4 CERTIFICATION, QUALIFICATION AND DESIGNATION TABLES.

The tables below delineate T&R events required to be completed to attain proficiency for select certifications, qualifications and designations. In addition to event requirements, all required stage lectures, briefs, squadron training, prerequisites, and other criteria shall be completed prior to completing final events. Certification, qualification and designation letters signed by the commanding officer shall be placed in training Performance Records and NATOPS. See Chapter 6 of the Aviation T&R Program Manual on regaining lost qualifications.

5.4.1 INSTRUCTOR DESIGNATIONS.

MOS 5948 INSTRUCTOR DESIGNATIONS	
INSTRUCTOR DESIGNATION	REQUIRED EVENTS
BASIC INSTRUCTOR (BI)	5000, 5010, 5020, 6320
SENIOR INSTRUCTOR (SI)	5100, 5110, 5120, 5130, 6320, 6321
WEAPONS AND TACTICS INSTRUCTOR (WTI)	6000, 6320, 6321, 6322, 8000, 8020, 8040, 8060, 8080
FORMAL LEARNING CENTER INSTRUCTOR (FLCI)	6096, 6330

5.4.2 CERTIFICATIONS, QUALIFICATIONS, AND DESIGNATIONS.

MOS 5948 CERTIFICATIONS, QUALIFICATIONS, AND DESIGNATIONS (CQD)	
CERTIFICATION	EVENTS
CSWF TECHNICAL SUPPORT SPECIALIST	6260
CSWF IT SPECIALIST	6261
CSWF SYSTEM ADMINISTRATOR	6262

5.5 SYLLABUS NOTES.

5.5.1 Environmental Conditions Matrix.

Environmental Conditions	
Code	Meaning
(N)	May be conducted day or night. If at night, may be aided or unaided.

5.5.2 Device Matrix.

DEVICE	
Symbol	Meaning
L	Event shall be conducted live (conducted in the field/garrison, during an exercise, etc.). Requires live (non-simulated) execution of the event.
L/S	Event performed live preferred/simulator optional.
G	Ground/academic training. May include Distance Learning, CBT, lectures, self-paced.

5.5.3 Program of Instruction Matrix.

PROGRAM OF INSTRUCTION MATRIX		
Program of Instruction (POI)	Symbol	Aviation Ground

Basic	B	Initial MOS Training
Refresher	R	Return to community from non (MOS/Skill) associated tour
Maintain	M	All individuals who have attained CSP/MSP/CPD by initial POI assignment are re-assigned to the M POI to maintain proficiency.

5.5.4 Event Terms.

EVENT TERMS	
TERM	DESCRIPTION
Discuss	An explanation of systems, procedures, or tactics during the brief, exercise, or debrief. Student is responsible for knowledge of procedures.
Demonstrate	The description and performance of a particular event by the instructor, observed by the student. The student is responsible for knowledge of the procedures prior to the demonstration of a required event.
Introduce	The instructor may demonstrate a procedure or event to a student, or may coach the student through the maneuver without demonstration. The student performs the procedures or maneuver with coaching as necessary. The student is responsible for knowledge of the procedures.
Practice	The performance of a maneuver or procedure by the student that may have been previously introduced in order to attain a specified level of performance.
Review	Demonstrated proficiency of an event by the student.
Evaluate	Any event designed to evaluate team/crew standardization that does not fit another category.

5.6 CORE INTRODUCTION PHASE (0000).

5.6.1 Purpose. To provide entry level instruction to develop the basic skills necessary to become a MOS 5948 Aviation RADAR Technician. This training is completed upon graduation from the Aviation RADAR Technician Course.

5.6.2 General.

5.6.2.1 Admin Notes. None.

5.6.2.2 Prerequisite. Meet the requirement delineated in the current MOS Manual (NAVMC 1200.1).

5.6.2.3 Stages. The following stages are included in the Core Introduction Phase.

PAR NO.	STAGE NAME	PAGE NUMBER
5.6.3	5900 COMMONS (59CM) STAGE	5-7
5.6.4	AIR SCHOOLS (AIRS) STAGE	5-11

5.6.3 5900 COMMONS (59CM) STAGE.

5.6.3.1 Purpose. To provide entry-level instruction to 5900 personnel to develop the basic skills necessary to safely setup, operate, and maintain Marine Air Command and Control System (MACCS) Systems. This training phase is complete upon graduation of the 5900 Commons Course.

5.6.3.2 General.

Admin Notes. 5900 Commons Course (CID: M091J31), MCCES, located in 29 Palms, CA.

Prerequisites. None.

Crew Requirements. None.

59CM-0001 0 * B (N) G

Goal. Describe the characteristics of the Marine Air Command and Control System (MACCS).

Requirement. Given the references:

1. Describe the six functions of Marine Aviation.
2. Describe the mission of the MACCS.
3. Describe the organization of the MACCS tactical agencies resident within the Marine Air Control Group (MACG).
4. Describe the function(s) of each MACCS agency within the MACG.
5. Describe the MACCS specific equipment systems within the MACG.
6. Describe the characteristics of the Multi-Tactical Data Link network used within the MACG.

Performance Standard. Pass an exam.

Instructor. FLCI.

Prerequisite. None.

References.

1. Control of Aircraft and Missiles MCWP 3-25
2. Direct Air Support Center Handbook MCRP 3-20F.5
3. Antenna Handbook MCRP 8-10B.11
4. Harris Radio Communications in the Digital Age, Volume Two: VHF/UHF Technology 00 132465
5. Interoperability Standard for the Joint Range Extension Applications Protocol (JREAP) STANAG 5518
6. Joint Multi-Tactical Digital Information Link (TADIL) Operating Procedures CJCSM 6120.01A
7. Joint Range Extension Application Protocol (JREAP), Interoperability Standard MIL-STD-3011
8. Low Altitude Air Defense (LAAD) Gunner's Handbook MCRP 3-20F.9
9. Aviation Operations MCWP 3-20
10. Marine Air Traffic Control Detachment Handbook MCRP 3-20F.7
11. Radio Communications in the Digital Age: HF Technology Vol 1
12. Radio Operators Handbook MCRP 8-10B.10
13. Marine Tactical Air Command Center Handbook MCRP 3-20F.2
14. Tactical Air Operations Center Handbooks MCRP 3-20F.6
15. Tactical Data Link (TDL) Link-11 Message Standard (U) MIL-STD-6011
16. Tactical Data Link (TDL) Link-16, DoD Interoperability Standard MIL-STD-6016

59CM-0002 0 * B (N) G

Goal. Measure circuit performance.

Requirement. Given the references:

1. Observe safety precautions.
2. Measure electronic parameters (voltage, current, resistance, time).
3. Calculate electronic parameters.
4. Identify electronic components.
5. Read schematics.

Performance Standard. Pass an exam.

Instructor. FLCI.

Prerequisite. None.

References.

1. Electronics Technician: Volume 1 – Safety NAVEDTRA 12411-A
2. Getting Started in Electronics (Forrest M. Mims III) ISBN: 0-94-505328-2

3. Navy Electricity and Electronics Training Series, Module 2- Alternating Current and Transformers NAVEDTRA 14174A 2012 edition
4. Navy Electricity and Electronics Training Series, Module 3- Circuit Protection, Control, and Measurement NAVEDTRA 14175A 2013 edition

59CM-0003 0 * B (N) G

Goal. Configure MACCS radios for secure RF communications.

Requirement.

1. Describe the characteristics of RF propagation.
2. Describe the capabilities and limitations of the radio.
3. Configure radio.
4. Assemble radio.
5. Disassemble radio.
6. Demonstrate safe handling of controlled items.
7. Load crypto.
8. Load a frequency.
9. Load time.

Performance Standard. Pass an exam.

Instructor. FLCI.

Prerequisite. None.

References.

1. Antenna Handbook MCRP 8-10B.11
2. Harris Radio Communications in the Digital Age, Volume Two: VHF/UHF Technology 00 132465
3. Radio Communications in the Digital Age: HF Technology Vol 1
4. Radio Operators Handbook MCRP 8-10B.10

59CM-0004 0 * B (N) G

Goal. Describe proper handling and storage of classified materials.

Requirement.

1. State the different levels of classification.
2. State the marking Requirements for each level of classification.
3. State the Two-Person Integrity (TPI) rule.
4. State storage procedures for each level of classification.
5. Identify transportation Requirements for classified material.
6. Identify the approved security containers utilized for storage.
7. Identify the procedures for handling Controlled Cryptographic Items (CCIs).

Performance Standard. Pass an exam.

Instructor. FLCI.

Prerequisite. None.

References.

1. Antenna Handbook MCRP 8-10B.11
2. Harris Radio Communications in the Digital Age, Volume Two: VHF/UHF Technology 00 132465
3. Radio Communications in the Digital Age: HF Technology Vol 1
4. Radio Operators Handbook MCRP 8-10B.10

5. United States Marine Corps Information and Personnel Security Program Manual MCO 5510.18B

59CM-0005 0 * B (N) G

Goal. Provide cybersecurity technical support for MACCS specific equipment.

Requirement. Provided the references and appropriate equipment:

1. Install and configure hardware, software, and peripheral equipment.
2. Manage accounts, networks, and access to systems and equipment.
3. Monitor client-level computer system performance.
4. Diagnose and resolve operator reported system incidents.
5. Troubleshoot system hardware and software.
6. Assist in the execution of disaster recovery continuity of operations plans.

Performance Standard. Pass an exam.

Instructor. FLCI.

Prerequisite. None.

Reference.

IT Essentials PC Hardware and Software Companion Guide 3rd Edition ISBN-13:978-1-58713-199-8

59CM-0006 0 * B (N) G

Goal. Repair common cables.

Requirement. Provided the appropriate equipment repair:

1. Ethernet/RJ-45 cable.
2. BNC cable.
3. RF cable.
4. Power cable.
5. Data cable.

Performance Standard. Pass an exam.

Instructor. FLCI.

Prerequisite. None.

References.

1. IT Essentials PC Hardware and Software Companion Guide 3rd Edition ISBN-13:978-1-58713-199-8
2. Standard Maintenance Practices Miniature/Microminiature (2M) Electronic Assembly Repair Organizational/Intermediate/Depot Level TM 5895-45/1_
3. TIA/EIA-568-B.1-2001
4. Twisted Pair Cable test set 33-933NV Operator Manual 6510-00-5037
5. User's Manual for Cable Analyzer, DSP-4300/AN TM 10704B-OI/1

59CM-0007 0 * B (N) G

Goal. Demonstrate an earth ground installation.

Requirement. Given the references, grounding kit, and PPE, perform the following:

1. Identify ground tolerances for equipment and personnel.
2. Identify methods of grounding.
3. Identify a method for improving a ground.

4. Identify proper location to test a ground.
5. Install an earth ground.
6. Verify proper grounding reading utilizing appropriate test equipment.

Performance Standard. Pass an exam.

Instructor. FLCI.

Prerequisite. None.

References.

1. Earth Grounding Pamphlet CECOM TR-96-2
2. Getting Down to Earth: A Practical Guide to Earth Resistance Testing (Megger, 2005) MEG-456/MIL/5M/11.2005
3. Grounding Procedures for Electromagnetic Interference Control and Safety TM 9406-15_
4. Grounding Techniques TC 11-6
5. Grounding, Bonding, and Shielding for Electronic Equipment and Facilities (DEC 1987) MIL-HDBK-419A
6. Intermediate and Depot Maintenance Manual for 6470-BM Kit 300FT TM 10069B-ID/1
7. Operation and Maintenance Instructions with Illustrated Parts Breakdown for Ground Resistance Ohmmeter Model R1L-C TM 10069A-14
8. User Manual for Clamp-On Ground Resistance Tester, Models 3711 and 3731 TM 10096B-10/1

59CM-0008 0 * B (N) G

Goal. Inspect common cables.

Requirement. Provided the appropriate equipment:

1. Ethernet/RJ-45 cable.
2. BNC cable.
3. RF cable.
4. Power cable.
5. Data cable.
6. Fiber optic cable.

Performance Standard. Pass an exam.

Instructor. FLCI.

Prerequisite. None.

References.

1. Fiber Optics Technicians Manual 3rd Edition ISBN-1-4018-9699-5
2. IT Essentials PC Hardware and Software Companion Guide 3rd Edition ISBN-13:978-1-58713-199-8
3. Standard Maintenance Practices Miniature/Microminiature (2M) Electronic Assembly Repair Organizational/Intermediate/Depot Level TM 5895-45/1_
4. TIA/EIA-568-B.1-2001
5. Twisted Pair Cable test set 33-933NV Operator Manual 6510-00-5037
6. Understanding Fiber Optics 5th Edition ISBN 0-13-117429-0
7. User's Manual for Cable Analyzer, DSP-4300/AN TM 10704B-OI/1

5.6.4 AIR SCHOOLS (AIRS) STAGE.

5.6.4.1 Purpose. To develop the entry level skills necessary to safely embark, setup, operate, and maintain the AN/TPS-59A(V)3 Radar system, the AN/TPS-80 Air Defense Surveillance Radar system, and the Digital Interrogator.

5.6.4.2 General.

Admin Notes. Aviation Radar Maintenance Course (ARRC), MCCES, located in 29 Palms, CA.

Training track includes:

1. Aviation Radar Fundamentals (CID: M0924X1).
2. Aviation Radar Repair Course AN/TPS-80 (CID:M09A831).
3. Aviation Radar Repair Course AN/TPS-59 (CID:M09A841).

Prerequisite. None.

Crew Requirements. None.

AIRS-1050 0 * B (N) G

Goal. Perform corrective maintenance on the AN/TPS-59A(V)3 Radar system to the Line Replaceable Unit (LRU).

Requirement. Given the references and an inoperative AN/TPS-59A(V)3 Radar system, complete the following steps:

1. Adhere to safety requirements.
2. Research applicable technical data pertaining to faulty equipment.
3. Read schematic diagrams.
4. Ensure proper handling of electro-static discharge (ESD) sensitive components.
5. Set up test equipment.
6. Connect test equipment.
7. Measure basic circuit performance.
8. Trace signal paths.
9. Trace current/voltage paths.
10. Identify faulty subassembly(s).
11. Remove/replace faulty subassembly(s) as required.
12. Verify proper operation.
13. Research authorized modification and technical instructions.
14. Perform maintenance closeout procedures and ensure quality assurance checks.

Performance Standard. Pass an exam.

Instructor. FLCI.

Prerequisite. None.

Reference.

1. TM 07751C-OR Radar Set AN/TPS-59A(V)3

AIRS-1051 0 * B (N) G

Goal. Perform corrective maintenance on the Digital Interrogator to the LRU.

Requirement. Given the references, tools, test equipment, and a faulty Digital Interrogator complete the following steps:

1. Adhere to safety requirements.
2. Research applicable technical data pertaining to faulty equipment.
3. Read schematic diagrams.
4. Ensure proper handling of ESD sensitive components.
5. Set up test equipment.

6. Connect test equipment.
7. Manipulate the user interface.
8. Configure operational parameters.
9. Measure circuit performance.
10. Perform alignments.
11. Trace signal paths.
12. Trace current/voltage paths.
13. Identify faulty subassembly(s).
14. Remove/replace faulty subassembly(s) as required.
15. Verify proper operation.
16. Research authorized modification and technical instructions.
17. Perform maintenance closeout procedures and ensure quality assurance checks.

Performance Standard. Pass an exam.

Instructor. FLCI.

Prerequisite. None.

Reference.

1. TM 10851A-12&P/B Digital Interrogator AN/UPX-37
2. TM 10851A-CD Maintenance Manual w/Repair Parts

AIRS-1052	0	*	B	(N)	G

Goal. Assemble the AN/TPS-59A(V)3 Radar system.

Requirement. As a member of a crew, given tools, the reference and an AN/TPS-59A(V)3 emplaced per the reference, complete the following steps:

1. Assemble the Antenna-Transmitter Group.
 - a. Couple the trailers.
 - b. Remove the tarpaulins.
 - c. Remove components.
 - d. Emplace jack pads.
 - e. Perform initial leveling.
 - f. Place ground anchors.
2. Assemble the array.
 - a. Prepare lower array.
 - b. Prepare upper array.
 - c. Couple lower array.
 - d. Couple upper array.
 - e. Finalize array assembly.
 - (1) Install the wings.
 - (2) Install the Identification Friend or Foe (IFF) antenna.
 - (3) Install the auxiliary sub-arrays.
 - (4) Install warning light and lightning rods.
 - (5) Install back stays.
 - (6) Connect jumper cables.
 - (7) Raise the array.
 - (8) Complete array assembly.
 - (9) Stow tools and components.
3. Install maintenance platform.
4. Install air conditioners.
5. Cable system.
6. Ground system.

7. Test earth-ground conductivity.
8. Perform initial power energizing procedure.

Performance Standard. Pass an exam.

Instructor. FLCI.

Prerequisite. None.

Reference.

1. TM 07751C-OR Radar Set AN/TPS-59A(V)3

AIRS-1053 0 * B (N) G

Goal. Perform post emplacement procedures on the AN/TPS-59A(V)3 Radar system.

Requirement. Given an AN/TPS-59A(V)3 Radar and the reference, complete the following steps:

1. Perform ancillary equipment energizing procedure.
2. Perform tactical electronics energizing procedure.
3. Log-in.
4. Perform antenna leveling procedure.
5. Perform antenna north alignment procedure.
6. Perform data entry on system setup menus.

Performance Standard. Pass an exam.

Instructor. FLCI.

Prerequisite. None.

Reference.

1. TM 07751C-OR Radar Set AN/TPS-59A(V)3

AIRS-1055 0 * B (N) G

Goal. Operate the AN/TPS-59A(V)3 Radar system.

Requirement. Given an AN/TPS-59A(V)3 Radar system and the reference, complete the following steps:

1. Configure radar for operational environment.
2. Select mission mode.
3. Bring to an operational state.
4. Verify proper radar performance characteristics.
5. Verify external interface.

Performance Standard. Pass an exam.

Instructor. FLCI.

Prerequisite. None.

Reference.

1. TM 07751C-OR Radar Set AN/TPS-59A(V)3

AIRS-1056 0 * B (N) G

Goal. Perform Condition Based Maintenance on Air Defense Surveillance Radar (ADSR GB1).

Requirement. Given a radar set with an instructor-inserted fault, part task trainer, and tools, complete the following steps:

1. Monitor system performance.
2. Perform off-line manual test.
3. Navigate the G/ATOR Ethernet network.
4. Maintain fiber optic cables and connectors.
5. Perform dedicated troubleshooting-automatic fault isolation.
6. Perform dedicated troubleshooting-manual test.
7. Use the Interactive Electronic Technical Manual (IETM).
8. Remove and Replace the faulty line replaceable unit.
9. Perform maintenance action tracking.
10. Verify proper operation.

Performance Standard. Pass an exam.

Instructor. FLCI.

Prerequisite. None.

References.

1. TM 12532A-13P/1 (Operator and Field Maintenance Manual with RPSTL for G/ATOR GB1 System (Model AN/TPS-80)
2. Pocket Guide for AN/TPS-80 Block I (Emplacement-Displacement, Transport, and Power-on Troubleshooting)

AIRS-1057 0 * B (N) G

Goal. Perform Preventive Maintenance Checks and Services (PMCS) on the ADSR GB1.

Requirement. Given a radar set, tools, consumables, and a PMCS schedule, complete the following steps:

1. Inspect the Radar Equipment Group (REG).
2. Inspect the Communication Equipment Group (CEG).
3. Clean the REG.
4. Clean the CEG.
5. Lubricate the REG.
6. Lubricate the CEG.
7. Perform maintenance action tracking.

Performance Standard. Pass an exam.

Instructor. FLCI.

Prerequisite. None.

Reference. TM 12532A-13P/1 (Operator and Field Maintenance Manual with RPSTL for G/ATOR GB1 System (Model AN/TPS-80)

AIRS-1058 0 * B (N) G

Goal. Perform radar track management for the ADSR GB1.

Requirement. Given the G/ATOR Operations Command and Control Special Training System (STS) or a radar set, complete the following steps:

1. Modify Air Situation Display (ASD) settings.
2. View and edit radar track information.

3. Manage dedicated radar track overload.
4. Manage Track While Scan radar track overload.
5. Monitor detection performance.

Performance Standard. Pass an exam.

Instructor. FLCI.

Prerequisite. None.

Reference. TM 12532A-13P/1 (Operator and Field Maintenance Manual with RPSTL for G/ATOR GB1 System (Model AN/TPS-80))

AIRS-1059 0 * B (N) G

Goal. Configure the ADSR GB1.

Requirement. Given a scenario and the G/ATOR Operations Command and Control Special Training System (STS) or a radar set, complete the following steps:

1. Configure physical data.
2. Configure a sector.
3. Perform frequency selection.
4. Configure terrain mask.
5. Configure IFF settings.
6. Select mission configuration.
7. Save/load system configuration.
8. Configure Anti-Radiation Missile (ARM) alert thresholds.
9. Evaluate/modify threat auto-promote criteria.

Performance Standard. Pass an exam.

Instructor. FLCI.

Prerequisite. None.

Reference. TM 12532A-13P/1 (Operator and Field Maintenance Manual with RPSTL for G/ATOR GB1 System (Model AN/TPS-80))

AIRS-1060 0 * B (N) G

Goal. Emplace the ADSR GB1.

Requirement. As a member of a radar crew, given a radar set and a suitable site, bring the radar to the operate state by completing the following steps:

1. Unload the Power Equipment Group (PEG).
2. Emplace the REG.
3. Emplace the CEG.
4. CEG-prepare CEG for operation.
5. Initiate/monitor the Power-On Self-Test.
6. Transition to the operate state.
7. Perform the Emplacement Checkout Procedure.

Performance Standard. Pass an exam.

Instructor. FLCI.

Prerequisite. None.

Reference.

1. TM 12532A-13P/1 (Operator and Field Maintenance Manual with RPSTL for G/ATOR GB1 System (Model AN/TPS-80)
2. Pocket Guide for AN/TPS-80 Block I (Emplacement-Displacement, Transport, and Power-on Troubleshooting)

AIRS-1061 0 * B (N) G

Goal. Prepare the AN/TPS-59A(V)3 Radar for relocation.

Requirement. As a member of a radar crew, given an AN/TPS-59A(V)3 radar system and the reference, complete the following steps:

1. De-energize the radar set.
2. Lower the antenna array.
3. Disassemble the IFF antenna.
4. Disassemble the array.
5. Decouple the array.
6. Load the arrays.
7. Finalize disassembly and storage.
8. Decouple the trailers.

Performance Standard. Pass an exam.

Instructor. FLCI.

Prerequisite. None.

Reference.

1. TM 07751C-OR Radar Set AN/TPS-59A(V)3

AIRS-1062 0 * B (N) G

Goal. Displace the AN/TPS-80 ADSR.

Requirement. As a member of a radar crew, given a radar set in the operate state, displace the radar by completing the following steps:

1. Displace the Power Equipment Group (PEG).
2. Displace the Radar Equipment Group (REG).
3. Displace the Communication Equipment Group (CEG).
4. CEG-connect 28 VDC HMMWV power.
5. CEG-stow cables.

Performance Standard. Pass an exam.

Instructor. FLC Instructor.

Prerequisite. None.

References.

1. TM 12532A-13P/1 (Operator and Field Maintenance Manual with RPSTL for G/ATOR GB1 System (Model AN/TPS-80)
2. Pocket Guide for AN/TPS-80 Block I (Emplacement-Displacement, Transport, and Power-on Troubleshooting)

AIRS-1063 0 * B (N) G

Goal. Install IFF equipment in the AN/TPS-59A(V)3.

Requirement. Given a digital interrogator and an AN/TPS-59A(V)3 Radar system and references, complete the following steps:

1. Mount equipment in rack.
2. Connect cables.
3. Configure Digital Interrogator.
4. Verify proper operation.

Performance Standard. Pass an exam.

Instructor. FLCI.

Prerequisite. None.

References.

1. TM 07751C-OR Radar Set AN/TPS-59A(V)3
2. TM 10851A-12&P/B Digital Interrogator AN/UPX-37
3. TM 10851A-CD Maintenance Manual w/Repair Parts

AIRS-1065 0 * B (N) G

Goal. Perform preventive maintenance on the AN/TPS-59A(V)3 Radar system.

Requirement. Given the references and an AN/TPS-59A(V)3 Radar system, complete the following steps:

1. Adhere to safety requirements.
2. Perform Unit 1 inspection procedures.
3. Perform Unit 1 cleaning procedures.
4. Perform Unit 1 lubrication procedures.
5. Perform Unit 1 scheduled performance tests.
6. Perform Unit 2 inspection procedures.
7. Perform Unit 2 cleaning procedures.
8. Perform Unit 2 lubrication procedures.
9. Perform Unit 2 scheduled performance tests.
10. Document as required.

Performance Standard. Pass an exam.

Instructor. FLCI.

Prerequisite. None.

Reference.

1. TM 07751C-OR Radar Set AN/TPS-59A(V)3

5.7 CORE PHASE (2000).

5.7.1 Purpose. To develop Core Phase skill proficiency for 5948 personnel to be able to perform duties while assigned to the Air Defense Agency Radar sections.

5.7.2 General.

5.7.2.1 Admin Notes.

1. Training in this phase does not preclude simultaneous training in the Mission Phase and Core Plus Phase provided applicable prerequisites have been met.

2. Individual Core Phase skills are learned and mastered using a varied combination of written exams, scenarios, and practical demonstrations of proficiency.

5.7.2.2 Prerequisite. None.

5.7.2.3 Stages. The following stages are included in the Core Introduction Phase.

PAR NO.	STAGE NAME	PAGE NUMBER
5.7.3	MACCS MAINTENANCE COMMON (MMCN)	5-19
5.7.4	MAINTENANCE MANAGEMENT (MMGT)	5-23
5.7.5	DEPLOYMENT (DEPL)	5-24
5.7.6	IDENTIFY FRIEND OF FOE (IFF)	5-28
5.7.7	RADAR (RDR)	5-29
5.7.8	MEDIUM RANGE RADAR (MRR)	5-32
5.7.9	TACTICAL DATA LINK (TDL)	5-38

5.7.3 MACCS MAINTENANCE COMMON (MMCN) STAGE.

5.7.3.1 Purpose. To provide skills that are common to all 5900 occupational field technicians that will be used in the performance of assigned duties within the Marine Air Command and Control System (MACCS).

5.7.3.2 General.

Prerequisite. None.

Admin Notes. None.

Crew Requirements. None

MMCN-2000 2.0 * B, R (N) L

Goal. Operate a common fill device.

Requirement. Given two loaded common fill devices and a zeroized cryptographic device, perform the following:

1. Describe the purpose of a common fill device.
2. Define the common fill device loading procedure.
3. Configure the common fill device.
4. Identify common fill device indicators and messages.
5. Transfer key material to Controlled Cryptographic Item (CCI) equipment.
6. Transfer cryptographic information from common fill device to common fill device.
7. Destroy superseded key material within the cryptographic fill device.

Performance Standard. With the aid of reference, load key material into appropriate COMSEC equipment using a fill device and destroy superseded key material without error.

Instructor. BI.

Prerequisite. None.

Reference.

1. EKMS-1_, Electronic Key Management System

MMCN-2001 1.0 * B, R (N) G

Goal. State the physical security requirements for classified areas.

Requirement. Given a tactical scenario and references, identify the following:

1. Purpose of a guard schedule.
2. Purpose of access control.
3. Purpose of the entry control point.
4. Perimeter barrier requirements.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

Reference.

1. MCO P5530.14_, Marine Corps Physical Security Program Manual

MMCN-2002 2.0 * B, R (N) G

Goal. Extract key material information from COMSEC callout.

Requirement. Given a COMSEC callout and references, perform the following:

1. State the purpose of the COMSEC callout.
2. Identify the five main pieces of key information:
 - a. Short Title
 - b. Edition
 - c. Segment
 - d. Classification
 - e. Supersession date
3. Identify segment roll over dates and time.
4. Identify short titles applicable to specific implementations within the unit.

Performance Standard. With the aid of reference, state the purpose and identify the key information on the callout. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

Reference.

1. EKMS-1_, Electronic Key Management System
2. MCWP 3-40.3, MAGTF Communications System

MMCN-2003 2.0 * B, R (N) L

Goal. Create a classified area physical security diagram.

Requirement. Given a tactical scenario and references, create a diagram that includes the following:

1. Entry control point(s).
2. Perimeter barrier.

3. Communication lines.
4. Storage area locations.

Performance Standard. With the aid of reference, draw a diagram depicting the information listed in the requirement. Instructor will validate that the diagram supports the scenario. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. 2001.

References.

1. MCO P5530.14, Marine Corps Physical Security Program Manual
2. FM 5-34, Engineer Field Data

MMCN-2004 2.0 1095 B, R, M (N) L

Goal. Operate the handheld GPS.

Requirement. Perform the following:

1. State the purpose of the handheld GPS.
2. State the characteristics of the handheld GPS.
3. Find current location (coordinates including elevation).
 - a. MGRS
 - b. LAT/LONG
 - c. UTM/UPS
4. Plot a way point.
5. Given coordinates, navigate to a location.

Performance Standard. Given a handheld GPS, complete the requirements without error. Navigation part of requirement will be three points within a one mile radius within one hour

Instructor. BI.

Prerequisite. None.

Reference.

1. TM 11-5820-1172-13, Defense Advanced GPS Receiver (DAGR), AN/PSN-13

MMCN-2005 1.0 365 B, R, M (N) L

Goal. Demonstrate an earth ground installation.

Requirement. Given a grounding kit:

1. Identify ground tolerances for equipment and personnel.
2. Identify methods of grounding.
3. Identify a method for improving a ground.
4. Identify proper location to test a ground.
5. Install an earth ground.
6. Create grounding pits.
7. Connect grounding braids/cables.
8. Test grounds with test, measurement, and diagnostic equipment (TMDE).

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

References.

1. TM 9406-15, Ground Procedures Manual
2. MIL-STD-188-125
3. TM 5-690

MMCN-2006 2.0 1095 B, R, M (N) L

Goal. Develop an embarkation plan.

Requirement. Given the references and an operational scenario, perform the following:

1. State the purpose of an embarkation plan.
2. Produce an Equipment Density List (EDL).
3. Produce logistics documents as required.
4. Identify heavy equipment required to move EDL items.
5. Identify the modes of transportation required to move EDL items.

Performance Standard. With the aid of reference, complete the requirement and develop an embarkation plan to support the scenario. Minor corrections by the trainee are acceptable.

Instructor. BI.

Prerequisite. 2504.

References.

1. Applicable TM
2. Unit SOP

MMCN-2007 2.0 1095 B, R, M (N) G

Goal. Identify spectrum management procedures.

Requirement. Given the references and a scenario with operational requirements, perform the following:

1. Identify frequency requirements.
 - a. Identify submission timelines.
 - b. Identify data elements (frequency, location, power, dates).
2. Identify Satellite Access requirements.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

References.

1. MCRP 3-40B, Tactical Level Logistics
2. MCO 2400.2, Marine Corps Management of the Radio Frequency Spectrum

MMCN-2008 4.0 * B, R (N) L

Goal. Complete a Bill of Material (BOM) request.

Requirement. Given Training Exercise and Employment Plan (TEEP) documents and reference, perform the following:

1. Collect requests from maintenance sections.
2. Consolidate required materials into a BOM request.
3. Verify the request is sufficient to support required operations and for the length of the exercise, validate the content to ensure that it meets sustained operational requirement.
4. Submit a BOM request to the instructor.

Performance Standard. With the aid of reference, perform the requirements. Minor corrections by the trainee are acceptable.

Instructor. BI.

Prerequisite. 2102.

Reference.

1. MCO 4400.150 Consumer Supply Policy Manual

5.7.4 MAINTENANCE MANAGEMENT (MMGT) STAGE.

5.7.4.1 Purpose. To provide the Core Phase skills necessary to manage maintenance activities and administrative responsibilities within the maintenance section.

5.7.4.2 General.

Admin Notes. None.

Prerequisites. None.

Crew Requirements. None.

MMGT-2070	4.0	*	B, R	(N)	G

Goal. Complete Maintenance Management Program familiarization.

Requirement. Complete the following maintenance management program familiarization:

1. Describe the eight functional areas of maintenance management.
2. Define Desk-top procedure.
3. Define Turn-Over folder.
4. Identify collateral duties required IAW local maintenance management standard operating procedures (MMSOP).
5. Identify the objectives of maintenance management program.
6. Describe the information contained in the maintenance management program references.
 - a. MMSOP
 - b. UM 4000-125 GCSS User's Manual
 - c. MCO 4790.2
 - d. MCO 4400.201
 - e. MCO 4400.16 UMMIPS
7. Identify the responsibilities of maintenance management personnel.
 - a. Commanding Officer
 - b. Maintenance Management Officer
 - c. Maintenance Officer
 - d. Supply Officer
 - e. Maintenance Chief
 - f. Supply Clerks
 - g. Maintenance Management Office Clerks
 - h. Maintenance Marines

Performance Standard. None.

Instructor. BI.

Prerequisite. None.

References.

1. MMSOP
2. MCO 4790.2
3. MCO 4400.150
4. MCO 4400.16 UMMIPS
5. UM 4000-125 GCSS-MC User's Manual
6. TM-4700-15/1H
8. Desktop/Turnover
9. FSMAO Checklist
7. MCO 4400.160

MMGT-2071 2.0 * B (N) L

Goal. Conduct an SL-3 inventory.

Requirement. Given the references and a piece of equipment with its record jacket containing an SL-3 extract, perform the following:

1. Validate inventory reference in SL 1-2.
2. Verify Using Unit Responsible Items (UURI) authorization.
3. Identify and document on-hand, missing, or unserviceable components.
4. Document completed inventory findings in the record jacket.
5. Initiate supply action to replace missing and/or unserviceable components.

Performance Standard. With the aid of reference, complete the requirements, minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

References.

1. MCO 4400.150
2. MCO 4790.2
3. Applicable equipment SL-3 or TM

5.7.5 DEPLOYMENT (DEPL) STAGE.

5.7.5.1 Purpose. To provide the Core Phase skills required to deploy Marine Air Command and Control Systems (MACCS) equipment, to include planning, crew management, system configuration management, and setup procedures.

5.7.5.2 General.

Admin Notes. None.

Prerequisite. None.

Crew Requirements. None.

DEPL-2100 2.0 * B (N) L

Goal. Write a packing list.

Requirement. Given the references, perform the following:

1. Define the purpose of a packing list.
2. Describe essential packing list contents.
3. Complete a packing list.

Performance Standard. With the aid of reference, complete the requirements, minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

References.

1. DD1750
2. Unit SOP

DEPL-2101	2.0	*	B	(N)	G

Goal. Extract key information from communication planning documents.

Requirement. For each of the following documents, identify the purpose of and the location of key information contained within:

1. Guard Chart.
2. Communication Electronic Operating Instruction (CEOI).
3. Operations Order.
4. Annex K of the Operations Order.
5. Annex U of the Operations Order.
6. Site Diagram.
7. Operational Tasking Data Link (OPTASKLINK).
8. Identify who is responsible for creating and disseminating the OPTASKLINK.
9. KMI Callout.
10. Satellite Access Authorization (SAA).

Performance Standard. With the aid of reference, complete the requirements, minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. 2003.

References.

1. MCWP 5-1
2. MCWP 3-40.3
3. ACEOI
4. OPTASKLINK
5. KMI Callout
6. Operational Order
7. SAA
8. Guard Chart

DEPL-2102	4.0	*	B, R	(N)	G

Goal. Determine supply support requirements.

Requirement. Given the reference and a 30 day operational scenario, perform the following:

1. Determine supply needs with consideration of the following:
 - a. Location
 - b. Equipment
 - c. Daily operations
 - d. Climate
2. Identify secondary repairable (SECREP) requirements and deficiencies.
3. Identify Bill Of Material (BOM) requirements.

Performance Standard. With the aid of reference, complete the requirements, minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

References.

1. Technical Manuals
2. Operational Order
3. Consolidated Memorandum Receipt (CMR)

DEPL-2103 4.0 * B, R (N) G

Goal. Identify power requirements.

Requirement. Given a scenario and references, perform the following:

1. Determine total power requirements.

Performance Standard. With the aid of reference, complete the requirements, minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

Reference.

1. Technical manuals

DEPL-2104 3.0 * B (N) G

Goal. Describe common agency doctrinal nets.

Requirement. Given a list of doctrinal net names in acronym format and references, perform the following:

1. Define each net acronym.
2. Describe function for each net.
3. State the frequency spectrum doctrinally used for each net.
4. Identify agencies required to guard each net.

Performance Standard. With the aid of reference, complete the requirements, minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

Reference.

1. MCWP 3-40.3

DEPL-2105 8.0 * B (N) G

Goal. Identify communication service requirements.

Requirement. Given the references and a scenario with operational requirements, perform the following:

1. Identify submission timelines.
2. Identify data elements.
 - a. Internet protocol addresses
 - b. Location, user accounts
 - c. Dates
 - d. Phone lines
 - e. Command and Control (C2) application support
 - (1) Identify mission specific software requirements.
 - (2) Verify software version compatibility (JAVA, Browsers, etc.).
 - f. Data network services (NIPR/SIPR/Theater specific)
 - g. Firewall exemptions
 - h. Provide Authority to Connect (ATC)/Authority to Operate (ATO) documentation for all required systems

Performance Standard. With the aid of reference, complete the requirements, minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

References.

1. MCRP 3-40.3B Radio Operator's Handbook
2. Operational Order
3. MCWP 3-40.3
4. Unit SOP

DEPL-2106 2.0 * B (N) G

Goal. Identify crew requirements.

Requirement. Given operational tasking, references, section roster, and MSHARP crew report, perform the following:

1. Determine the duration of operations.
2. Determine total crews required to support the mission.
3. Determine the crew composition/requirements.
4. Write the crew schedule.
5. Submit the crew schedule to the instructor.
6. Describe the process to publish crew schedule once validated.

Performance Standard. With the aid of reference, complete the requirements, minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

References.

1. T&R Manual

Prerequisite. None.

References.

1. TM-10851A, (AN/UPA-61 TM)
2. DOD AIMS 03-1000A
3. TM 10851A-12&P/B Digital Interrogator AN/UPX-37
4. TM 07751C-OR
5. TM 12532A-13P/1

5.7.7 RADAR (RDR) STAGE.

5.7.7.1 Purpose. To train the trainee on the basic skills common to both the MRR and the LRR. These skills include training on the paving breaker, box drill, and radar theory.

5.7.7.2 General.

Admin Notes. None.

Prerequisite. None.

Crew Requirements. None.

RDR-2360	2.0	1095	B, R, M	(N)	G

Goal. Define RF wave propagation.

Requirement. Given the reference, explain the following:

1. Explain RF wave propagation in free space.
2. Explain the physics of E and H fields.
3. Explain the environmental effects on RF wave propagation.
 - a. Describe wave refraction.
 - b. Describe ducting.
 - c. Describe backscatter.
 - d. Describe the effects of solar activity, humidity, barometric pressure, and temperature on RF wave propagation.
 - e. Describe the effects of terrain on RF wave propagation.
4. Explain characteristics and RF wave propagation in the MRR and LRR.
 - a. Describe RF propagation of an active electronically scanned array.
 - b. Describe RF propagation of a passive electronically scanned array.
5. Explain the effects of electromagnetic interference.

Performance Standard. Without the aid of reference, complete the requirements.

Instructor. BI.

Prerequisite. None.

Reference.

1. The Radar Handbook, Skolnik

RDR-2361	2.0	1095	B, R, M	(N)	G

Goal. Explain the theory of electronic countermeasure (ECM) and electronic counter-countermeasures (ECCM).

Requirement. Given the reference, explain the following:

1. Purpose of ECM and ECCM.
2. Effects of jamming.
3. Effects of frequency agility.
4. Effects of side lobe cancellation.
5. Effects of main lobe cancellation.
6. Effects of polarization.
7. Effects of chaff.
8. Threat of ARM.
9. Identify when to apply each ECCM feature.

Performance Standard. Without the aid of reference, complete the requirements.

Instructor. BI.

Prerequisite. None.

References.

1. The Radar Handbook, Skolnik
2. OI-07751C

RDR-2362 4.0 * B (N) L

Goal. Operate the paving breaker.

Requirement. Given a paving breaker and the reference, perform the following:

1. Identify the following controls/parts:
 - a. Handle
 - b. Fuel tank cap
 - c. Choke
 - d. Air filter
 - e. Spark plug
 - f. Throttle
 - g. Starting handle
 - h. Fuel tank
 - i. Tool retainer
 - j. Stop button
 - k. Fuel filter (some models).
2. Explain safety hazards, controls, and personal protective equipment (PPE) including:
 - a. Hard hat or helmet
 - b. Hearing protection
 - c. Eye protection
 - d. Gloves
 - e. Steel toe boots
3. Adhere to safety controls.
4. Fuel the machine.
 - a. Identify the fuel to oil mixture for the breaker model used
 - b. Mix fuel and oil.
 - c. Fill the fuel tank.
 - d. Fill the shaft oil tank.
5. Select/insert tool.
6. Start the machine (cold).
7. Stop the machine.
8. Re-start the machine (warm).
9. Stop the machine.

Performance Standard. Perform the requirement to a proficient level (correct, efficient and skillful execution of tasks requiring minimal input from the instructor). Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

Reference.

1. SKIDRIL Operations and Parts Manual Engine Breaker G23

RDR-2363	2.0	*	B	(N)	L

Goal. Operate the rotary hammer.

Requirement. Given the reference, PPE, and a rotary hammer perform the following:

1. Identify the following controls/parts:
 - a. Trigger switch
 - b. Trigger release switch
 - c. Selector Lever
 - d. Variable Speed dial
 - e. Service Reminder Light
3. Adhere to safety controls.
4. Drill a hole suitable for a rock anchor.
 - a. Select/insert bit.
 - b. Plug the rotary hammer into a power source.
 - c. Ensure the selector lever is in the drilling/hammering position.
 - d. Adjust the Variable Speed Dial to the desired setting.
 - e. Drill into concrete/rock at an angle approximately in line with the guy line/tie down; drill to a depth appropriate for the rock anchor to be used.
 - f. While drilling, apply steady pressure without using excessive force.

Performance Standard. Perform the requirement to a proficient level (correct, efficient and skillful execution of tasks requiring minimal input from the instructor). Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

Reference.

1. Operating/Safety Instructions

RDR-2364	2.0	1095	B, R, M	(N)	G

Goal. Identify hazards specific to the radars.

Requirement. Given the references, identify the following hazards:

1. Electrical Hazards.
2. Radio Frequency hazards.
 - a. Hazards of Electromagnetic Radiation to Personnel (HERP).
 - b. Hazards of Electromagnetic Radiation to Ordinance (HERO).
 - c. Hazards of Electromagnetic Radiation to Fuel (HERF).
 - d. Electromagnetic Interference from adjacent emitters.
3. Mechanical hazards.

Performance Standard. Without the aid of references, identify electrical, mechanical hazard areas, and RF hazards to include Safe Separation Distances. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

References.

1. TM 07751C-OR Radar Set AN/TPS-59A(V)3
2. NAVSEA OP 3565/NAVAIR 16-1-529 VOL 1
3. NAVSEA OP 3565/NAVAIR 16-1-529 VOL 2
4. NAVSEA OP 3565/NAVAIR 16-1-529 VOL 3
5. TM 12532A-13P/1

RDR-2365 2.0 * B, R (N) L

Goal. Conduct preventive maintenance checks and services on radars.

Requirement. Given the references, an operational radar, tools, the required TMDE, required materials, and as part of a crew complete the following:

1. Locate scheduled maintenance.
2. Perform the scheduled PMCS.
3. Document as required.

Performance Standard. With the aid of reference, perform the requirement to a proficient level (correct, efficient and skillful execution of tasks without hesitation requiring minimal input from the instructor). Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

Reference.

1. TM 12532A-13P/1
2. UM 4000-125 GCSS-MC User's Manual

5.7.8 MEDIUM RANGE RADAR (MRR) STAGE.

5.7.8.1 Purpose. To train the trainee on the intermediate skills necessary to safely embark, setup, operate, maintain, and integrate the AN/TPS-80 Air Defense Surveillance Radar (ADSR) with the AN/UPX-44 Digital Interrogator set with a C2 node within the MACS.

5.7.8.2 General.

Admin Notes. None.

Prerequisite. None.

Crew Requirements. None.

MRR-2500 2.0 1095 B, R, M (N) G

Goal. Describe the operation of the System Disk and the purpose of each CSCI (Computer Software Configuration Item).

Requirement. Complete the following:

1. Describe the purpose of the System Disk.
2. Describe the following functions:
 - a. Radar Adaptation and Multi-Scan.
 - b. Communications.
 - c. Power Health Monitoring.
 - d. Radar Control Signal Processor.

Performance Standard. Without the aid of reference, perform the requirement. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

References.

1. Pocket Guide for AN/TPS-80 Radar
2. TM 12532A-13P/1

MRR-2501 2.0 1095 B, R, M (N) L

Goal. Disassemble the AN/TPS-80 ADSR system.

Requirement. As a member of a crew, given an AN/TPS-80 ADSR in an operational state, references, and tools, complete the following:

1. Transition to standby state.
2. Lower the array.
3. Raise leveling legs.
4. Disconnect ancillary equipment.
5. Prepare CEG
6. Prepare REG.
7. Pack PEG.
8. Couple the Medium Tactical Vehicle Replacement (MTVR) to the REG.

Performance Standard. With the aid of reference, perform the requirement. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

References.

1. Pocket Guide for AN/TPS-80 Radar
2. TM 12532A-13P/1

MRR-2502 2.0 1095 B, R, M (N) L

Goal. Assemble the AN/TPS-80 ADSR.

Requirement. As a member of a crew, given a disassembled AN/TPS-80 ADSR system, references, and tools, complete the following:

1. Prepare site.
2. Unpack the PEG.
3. Decouple the REG from the MTVR.

4. Prepare REG.
5. Prepare CEG.
6. Connect system cabling.
7. Verify power input.
8. Raise the array.

Performance Standard. With the aid of reference, perform the requirement. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

References.

1. Pocket Guide for AN/TPS-80 Radar
2. TM 12532A-13P/1

MRR-2503 4.0 * B, R (N) L

Goal. Configure the AN/TPS-80 ADSR for an operational environment.

Requirement. Given the reference, operational scenario, and an operational AN/TPS-80 ADSR, complete the following:

1. Configure the AN/TPS-80 ADSR for an operational environment.
 - a. Energize equipment.
 - b. Select Radar Frequency.
 - c. Select Mission Mode.
 - d. Verify Physical Data.
 - e. Verify IFF sectors and modes.
 - f. Select Weather Sectors.
 - g. Select Blanking Sectors.
 - h. Select Radar Control.
 - i. Document as required.

Performance Standard. With the aid of reference, perform the requirement. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

References.

1. Pocket Guide for AN/TPS-80 Radar
2. TM 12532A-13P/1

MRR-2504 2.0 1095 B, R, M (N) L

Goal. Identify AN/TPS-80 ADSR embarkation considerations.

Requirement. Given the reference, identify the following considerations for embarkation of the AN/TPS-80 ADSR:

1. Possible forms of transportation:
 - a. Air.

- b. Land.
 - c. Sea.
2. Heavy equipment requirements for loading/unloading.
 - a. Crane.
 - b. Forklift.
3. Loading considerations:
 - a. Equipment specifications.
 - b. Prime mover specifications.
4. List reasons for isolating air suspension.

Performance Standard. With the aid of references, identify consideration for each requirement. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

References.

1. Pocket Guide for AN/TPS-80 Radar
2. TM 12532A-13P/1

MRR-2505	2.0	730	B, R, M	(N)	L

Goal. Perform corrective maintenance on the AN/TPS-80 ADSR to the LRU.

Requirement. Given the references, tools, TMDE, an AN/TPS-80 ADSR with a fault, and evaluator feedback, complete the following:

1. Identify the fault utilizing required publications, tools, and TMDE.
2. Locate the faulted component.
3. Remove the faulty component.
4. Install the replacement component.
5. Verify correct operation utilizing necessary means, tools, and equipment.
6. Document as required.

Performance Standard. With the aid of reference, perform the requirement. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

References.

1. Pocket Guide for AN/TPS-80 Radar
2. TM 12532A-13P/1

MRR-2506	4.0	*	B, R	(N)	L

Goal. Verify connection between the AN/TPS-80 ADSR and a C2 node.

Requirement. Given the references, an AN/TPS-80 ADSR connected to a C2 node, and all required equipment, perform the following:

1. State the data that travels through the interface from the radar to the C2 node.
2. Perform interface checks.
 - a. Detection Performance menu on OCC.

3. Verify system performance indicator is green.

Performance Standard. With the aid of reference, perform the requirement to a proficient level. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. 2503.

References.

1. Pocket Guide for AN/TPS-80 Radar
2. TM 12532A-13P/1

MRR-2507 2.0 730 B, R, M (N) L

Goal. Verify AN/TPS-80 ADSR system performance.

Requirement. Given an AN/TPS-80 ADSR, complete the following:

1. Window, and Motion Control Dialogue.
2. Make a determination and set priorities to meet mission requirements based on:
 - a. System limitations.
 - b. Area.
 - c. Mission.
 - d. Document as required.

Performance Standard. With the aid of reference, perform the requirement to a proficient level. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. 2503, 2505.

References.

1. Pocket Guide for AN/TPS-80 Radar
2. TM 12532A-13P/1

MRR-2508 2.0 * B (N) L

Goal. Describe each GET function of the AN/TPS-80 ADSR.

Requirement. Without the aid of references, perform the following:

1. List each GET function.
2. Describe each GET function.

Performance Standard. Without the aid of reference, verbally explain the functional description of each of the GET functions. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. 2361.

References.

1. Pocket Guide for AN/TPS-80 Radar
2. TM 12532A-13P/1

MRR-2509 2.0 * B (N) L

Goal. Utilize LINUX functions to verify connectivity and operation of software and hardware within the AN/TPS-80 ADSR.

Requirement. Given the reference and an AN/TPS-80 ADSR, perform the following:

1. Ping switches and routers in the system.
2. Verify configuration and operability of components.

Performance Standard. With the aid of reference, perform the requirement to a proficient level (correct, efficient and skillful execution of tasks without hesitation requiring minimal input from the instructor). Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

References.

1. Pocket Guide for AN/TPS-80 Radar
2. TM 12532A-13P/1

MRR-2510 2.0 * B (N) L

Goal. Describe the transmit path of the AN/TPS-80 ADSR.

Requirement. Given the reference, complete the following:

1. Describe RF generation through:
 - a. IF/ Receiver Exciter.
 - b. Beam steering control.
2. Trace the transmit signal from creation to emission.
3. Describe what occurs within each block in regards to the transmit signal.

Performance Standard. With the aid of reference, perform the requirement to a proficient level (correct, efficient and skillful execution of tasks without hesitation requiring minimal input from the instructor). Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

References.

1. Pocket Guide for AN/TPS-80 Radar
2. TM 12532A-13P/1

MRR-2511 2.0 * B (N) L

Goal. Describe the receive path of the AN/TPS-80 ADSR.

Requirement. Given the reference, complete the following:

1. Describe creation of the receive signals through:
 - a. T/R modules.
 - b. Radar Signal Processor.
 - c. Antenna control module.

2. Trace the receive signal.
3. Describe what occurs within each block in regards to the receive signal.

Performance Standard. With the aid of reference, perform the requirement to a proficient level (correct, efficient and skillful execution of tasks without hesitation requiring minimal input from the instructor). Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

References.

1. Pocket Guide for AN/TPS-80 Radar
2. TM 12532A-13P/1

MRR-2512 2.0 * B (N) L

Goal. Describe IFF and its components in the AN/TPS-80 ADSR.

Requirement. Given the reference complete the following:

1. Describe the function of IFF components in the AN/TPS-80 ADSR:
2. Trace the IFF signal.
3. Describe the function of the UPX-44 IFF Interrogator within the system.
4. Describe the characteristics of the IFF antenna in the AN/TPS-80 ADSR.

Performance Standard. With the aid of reference, perform the requirement to a proficient level (correct, efficient and skillful execution of tasks without hesitation requiring minimal input from the instructor). Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. 2351.

References.

1. Pocket Guide for AN/TPS-80 Radar
2. TM 12532A-13P/1

5.7.9 TACTICAL DATA LINK (TDL) STAGE.

5.7.9.1 Purpose. These events will instruct MACCS agency watch standers on TDL. To provide the core TDL skills necessary for operations, maintenance, and management to support mission objectives using current tactical data systems and standardized TDLs.

5.7.9.2 General.

Admin Notes. None.

Prerequisites. None.

Crew Requirements. None.

TDL-2826 1.0 * B (N) G

Goal. State the characteristics of Cooperative Engagement Capability (CEC).

Requirement. Given the references:

1. State the purpose of CEC.
2. State the characteristics of the CEC network.
3. Identify the Navy platforms capable of participating in the CEC network.
4. State the Marine Corps equipment required to interface with CEC.

Performance Standard. Pass an exam.

Instructor. BI.

Prerequisite. 2351.

References.

1. TACMEMO 3-01.3-12 CEC Tactical Employment Guide, Feb 2012
2. USN Capabilities and Limitations website <http://cnl.phdnswc.navy.smil.mil/>
3. Navy CEC Fact Sheet
4. MIL-STD-6016, Department of Defense Interface Standard, Tactical Data Link (TDL) 16

5.8 MISSION PHASE (3000).

5.8.1 Purpose. To provide the requisite advanced skills and working knowledge to employ the MACCS and ancillary equipment in order to accomplish Marine Air Command and Control System missions.

5.8.2 General.

5.8.2.1 Admin Notes.

1. Training in this phase does not preclude simultaneous training in Core Phase and Core Plus Phase.
2. Individual Core Phase skills are learned and mastered using a varied combination of written exams, scenarios and practical demonstrations of proficiency.
3. If crew members are required to assist in the conduct of an event, the crew shall be core capable in the role they will play, as applicable. Training will be executed as individual training with appropriate assistance at the crew level as needed and as dictated by the conditions listed for each event. Crew member assistance must be restricted to those actions required to support or facilitate individual training so as not to detract from the individual properly demonstrating the event performance standard.
4. Academic Training. Academic training will be conducted prior to and concurrently with required events. An academic training event, once completed, can be credited as a prerequisite for follow-on training events.

5. Refresher Training. Refresher training is required once an individual has been absent from a technician billet for 36 months or longer. Upon return, the individual will complete R-coded events in the Attain table; else the technician will maintain proficiency by completing the R-coded events in the Maintain table.

5.8.2.2 Prerequisite. None.

5.8.2.3 Stages. The following stages are included in the Mission Phase.

PAR NO.	STAGE NAME	PAGE NUMBER
5.8.3	MACCS MAINTENANCE COMMON (MMCN) STAGE	5-40
5.8.4	MAINTENANCE MANAGEMENT (MMGT) STAGE	5-41
5.8.5	DEPLOYMENT (DEPL) STAGE	5-42

5.8.6	MEDIUM RANGE RADAR (MRR) STAGE	5-44

5.8.3 MACCS MAINTENANCE COMMON (MMCN) STAGE.

5.8.3.1 Purpose. To provide Mission Phase skills that are common to all 5900 occupational field technicians that will be used in the performance of assigned duties within the MACCS.

5.8.3.2 General.

Prerequisite.

1. Meet the requirements delineated in the MOS Manual.

Admin Notes. The following events establish the foundational skills required to be successful in the cyber security workforce.

Crew Requirements. None.

MMCN-3030 8.0 1095 B, R, M (N) L

Goal. Deploy a MACCS capability.

Requirement. Given an operational requirement and commander's guidance, conduct the following:

1. Review operational requirements and develop an EDL.
2. Coordinate for support equipment as required.
3. Verify and complete BOM.
4. Establish float requirements as required.
5. Conduct inspections on listed equipment.
6. Supervise pack-up and securing of equipment and validate EDL accuracy.
7. Create a packing list.
8. Placard/label the shelters for embark.
9. Ensure correct execution of the load plan for equipment handling and safety.
10. Ensure maintenance crews are formed and prepared for deployment.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. SI.

Prerequisite. 2006, 2008, 2100, 2106.

References.

1. MCO 3120.6_, Standard Embarkation Management System
2. Applicable TMs/Ums

MMCN-3031 8.0 1095 B, R, M (N) L

Goal. Conduct a site survey.

Requirement. Given a scenario, applicable references, a TO/E and operational tasking, determine an appropriate site for system emplacement by performing the following:

1. Use planning tools to determine terrain masking and line of sight connectivity.
2. Determine a primary and secondary site location.
3. Identify obstructions and hazards.
4. Determine tactical orientation and equipment emplacement.
 - a. Ensure emitters are emplaced IAW HERF regulations.

- b. Ensure emitters are emplaced IAW HERO regulations.
- c. Ensure emitters are emplaced IAW HERP regulations.
- d. Ensure emitters are emplaced to support working area.
5. Identify the placement for equipment.
6. Identify the placement for antennas.
7. Identify internal / external equipment requirements.
8. Determine communications obstacles.
8. Determine system grounding requirements.
9. Identify utility requirements to include power and fuel requirements.
10. Describe environmental considerations.
11. Determine protection from the elements.
11. Determine Terrain requirements / masking.
12. Determine operational footprint.
13. Design a site layout and submit to the instructor.
14. Develop a brief that addresses all event requirement items.

Performance Standard. With the aid of reference, complete the requirements, minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. 2003, 2103, 2364.

References.

1. Technical Manuals
2. Operational Order
3. CMR
4. MCWP 3-25.4
5. MCWP 5-1
6. MCO 5104.2
7. MCO 5104.3B

MMCN-3032 2.0 * B (N) L

Goal. Fill the handheld GPS with the appropriate crypto.

Requirement. Perform the following:

1. Identify the proper crypto load.
2. Load crypto into handheld GPS.
3. Verify crypto load.

Performance Standard. With the aid of reference, perform the requirements. Minor corrections by the trainee are acceptable.

Instructor. BI.

Prerequisite. 2000, 2003.

Reference.

1. TM 11-5820-1172-13, Defense Advanced GPS Receiver (DAGR), AN/PSN-13

5.8.4 MAINTENANCE MANAGEMENT (MMGT) STAGE.

5.8.4.1 Purpose. To provide the Mission Phase skills necessary to manage maintenance activities and administrative responsibilities within the maintenance section.

5.8.4.2 General.

Admin Notes. None.

Prerequisite. None.

Crew Requirements. None.

MMGT-3050 6.0 1095 B, R, M (N) L

Goal. Conduct QC procedures.

Requirement. Ensure the timely performance of all corrective maintenance actions per the references.

Verify the induction process:

- a. Confirm SL-3 accountability.
 - b. Ensure visual inspection occurs.
 - c. Verify record jacket.
 - d. Verify proper organizational PM.
 - e. Verify NAVMC 1018.
 - f. Verify if warranty procedures apply.
2. Determine availability of resources.
 3. Ensure proper troubleshooting of faulty item.
 4. Ensure repair parts are ordered.
 5. Ensure faulty item is repaired to code A status.
 6. Ensure safety measures are adhered to during repair process.
 7. Conduct quality control procedures:
 - a. Review quality control procedures.
 - b. Verify quality control inspectors based on individual qualifications on equipment are assigned in writing.
 8. Verification of MI and TI.
 9. Verify proper closeout of SR.
 10. Ensure equipment record jacket is updated.

Performance Standard. Complete the requirement items IAW the references. Minor errors corrected by the trainee are acceptable.

Instructor. SI.

Prerequisite. 2070, 2071, 2102, 2103, 2104, 2105.

References.

1. MCO 4790.2
2. TM-4700-15/1H
3. MCO 4400.16
4. MCBUL 3000
5. Associated equipment TM
6. UM 4000-125 GCSS-MC User's Manual
7. MCO 4400.150
8. MMSOP

5.8.5 DEPLOYMENT (DEPL) STAGE.

5.8.5.1 Purpose. To provide the Mission Phase skills required to deploy MACCS equipment, to include planning, crew management, system configuration management, and employment procedures.

5.8.5.2 General.

Admin Notes. None.

Prerequisite. None.

Crew Requirements. None.

DEPL-3060 8.0 * B, R (N) L

Goal. Supervise the preparation of an MRR for embarkation.

Requirement. Given a disassembled AN/TPS-80 ADSR, a crew of Marines, and an EDL that supports the mission, supervise the following:

1. Limited Technical Inspections on listed equipment.
2. System power down/teardown.
3. SL-3 inventory of the equipment.
4. Pack and secure equipment.
5. Create a packing list.
6. Placard/label the shelters for embark.

Performance Standard. Complete the requirement items IAW the references. Minor errors corrected by the trainee are acceptable.

Instructor. SI.

Prerequisite. 2100, 2501.

References.

1. MCO 3120.6 (Standard Embarkation Management System)
2. GATOR
3. Unit SOP

DEPL-3061 6.0 1095 B, R, M (N) G

Goal. Identify Operational Requirements.

Requirement. Given an OPORD and After Action Report, determine the operational requirement of the maintenance section to support the mission, to include:

1. Communication electronics equipment required.
 - a. Radio requirements.
 - b. Network requirements.
 - c. TMDE.
 - d. Tools.
2. Engineering equipment.
 - a. Air conditioners.
 - b. Heavy equipment.
 - c. Generators.
3. Personnel required.
 - a. Identify minimum number of Mission Phase skilled maintainers per crew required to support the mission.
 - b. Identify minimum number of designated leaders required to support the mission.
 - c. List the administrative requirements for crew.
 - (1) Tactical license.
 - (2) Security Clearances/Couriers.
 - (3) Personnel packing list requirements.
4. KMI required.
5. Logistics support required.

6. Supply support required.
 - a. BOM requirements.
 - b. SECREP requirements.
7. Frequencies required.
 - a. Draft a frequency request.
 - b. Draft a satellite access request.
8. Develop an EDL for primary end items and table of authorized material control number assets.
9. Draw a site layout plan.
10. Draft a brief covering addressing the deployment and emplacement plan to support the mission.
11. Submit the site layout and brief the plan.

Performance Standard. Complete the requirement items IAW the references. Minor errors corrected by the trainee are acceptable.

Instructor. SI.

Prerequisite. 2001, 2003, 2006, 2007, 2008, 2100, 2101, 2103, 2104, 2105, 2106.

References.

1. Planning MCWP 5-1
2. MOS Manual
3. Unit T/O and T/E
4. MCWP 3-40.3
5. Warning Order
6. Operational Order

5.8.6 MEDIUM RANGE RADAR (MRR) STAGE.

5.8.6.1 Purpose. To train the trainee on the Mission Phase skills necessary to safely embark, setup, operate, maintain, and integrate the Medium Range Radar system with a Digital Interrogator with a C2 node within the MACCS.

5.8.6.2 General.

Admin Notes. None.

Prerequisite. None.

Crew Requirements. None.

MRR-3510	2.0	1095	B, R, M	(N)	L

Goal. Optimize the configuration of the AN/TPS-80 ADSR for an operational environment.

Requirement. Given an energized AN/TPS-80 ADSR and the references, assess the following:

1. Configuration of the AN/TPS-80 ADSR for operational environment.
2. Radar performance characteristics.
3. Direct adjustments to AN/TPS-80 ADSR configuration as necessary.

Performance Standard. With the aid of reference, perform the requirement. Minor errors corrected by the trainee are acceptable.

Instructor. SI.

Prerequisite. 2503.

Reference.

1. TM 12532A-13P/1

MRR-3511 8.0 * B (N) L

Goal. Supervise the assembly of the AN/TPS-80 ADSR.

Requirement. Given an AN/TPS-80 ADSR, core capable crew, a suitable site, and the references, supervise the following steps:

1. Prepare the site.
2. Unpack the PEG.
3. Decouple REG from the MTRV.
4. Prepare REG.
5. Prepare CEG.
6. Connect system cabling.
7. Verify power input.
8. Raise the array.
9. Verify system Operation

Performance Standard. With the aid of reference, perform the requirement Minor errors corrected by the trainee are acceptable.

Instructor. SI.

Prerequisite. 2502.

References.

1. Pocket Guide for AN/TPS-80 Radar
2. TM 12532A-13P/1

MRR-3512 12.0 1095 B, R, M (N) L

Goal. Deploy an AN/TPS-80 ADSR in support of operations.

Requirement. Given an operations order, references, an AN/TPS-80 ADSR, and a core capable crew perform the following:

1. Coordinate and supervise the preparation of embarking the radar system.
2. Coordinate the transportation of the radar system to a given site.
3. Coordinate and supervise the emplacement of the radar system.
4. Ensure the radar system is operational state in compliance with the mission.
5. Coordinate and supervise the retrograding of the radar system.

Performance Standard. With the aid of reference, perform the requirement. Minor errors corrected by the trainee are acceptable.

Instructor. SI.

Prerequisite. 2006, 3510, 3511, 3515.

References.

1. Pocket Guide for AN/TPS-80 Radar.
2. TM 12532A-13P/1

MRR-3513 8.0 1095 B, R, M (N) L

Goal. Supervise system troubleshooting on the AN/TPS-80 ADSR.

Requirement. Given the references, an AN/TPS-80 ADSR with a fault in the system, tools, and TMDE, supervise the following:

1. Performance of operational checks and alignments of the radar system.
2. Identification of fault to the lowest replaceable unit.
3. The use of proper troubleshooting process, identifying the fault utilizing required publications, tools, and TMDE.
4. Locate the faulted component.
 - a. Remove the faulty component.
 - b. Install the replacement component.
 - c. Verify correct operation of the LRU utilizing necessary means, tools, and equipment.
5. Documentation as required.

Performance Standard. With the aid of reference, perform the requirement. Minor errors corrected by the trainee are acceptable.

Instructor. SI.

Prerequisite. 2505.

References.

1. Pocket Guide for AN/TPS-80 Radar.
2. TM 12532A-13P/1

MRR-3515 8.0 1095 B, R, M (N) L

Goal. Supervise the disassembly of the AN/TPS-80 ADSR.

Requirement. Given the reference, an assembled AN/TPS-80 ADSR, a radar crew, all required tools and material, supervise disassembly of the radar and verify the following steps are correctly performed:

1. Proper de-energizing of system.
2. Proper stowage of array components and ancillary equipment.
3. Proper coupling of system in preparation for embarkation.
4. The AN/TPS-80 ADSR is properly packed for embarkation.

Performance Standard. With the aid of reference, ensure the requirement items are performed within the radar disassembly process and correct any mistakes.

Instructor. SI.

Prerequisite. 2501.

References.

1. Pocket Guide for AN/TPS-80 Radar
2. TM 12532A-13P/1

MRR- 3516 4.0 1095 B, R, M (N) L/S

Goal. Troubleshoot external interface output on the MRR.

Requirement. Given the references, a faulted external interface on the TPS-80 ADSR, OCC, and TMDE, perform the following:

1. State the data that travels through the interface from the radar to the C2 node.
2. Isolate faulted component.
3. Restore connectivity.
4. Perform interface checks.
 - a. Display target counts on the Detection Performance Window.
 - b. Display target data output from the Detection Performance Window using the OCC.
5. Document as required.

Performance Standard. With the aid of references, complete each step listed above. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. 2506.

References.

1. Pocket Guide for AN/TPS-80 Radar
2. TM 12532A-13P/1

5.9 CORE PLUS PHASE (4000-4499).

5.9.1 Purpose. To provide Core Plus Phase training. A certain number of Core Plus qualified Marines must be maintained to accomplish special missions or tasks, to include supervision and training of a core competent crew. The Marine is exposed to advanced MACCS integration and employment of the TAOC or EW/C within a joint environment.

5.9.2 General.

5.9.2.1 Admin Notes. The following information is provided to guide the Marine in the training of this Phase:

1. Training in this phase does not preclude simultaneous training in the Mission Phase and Core Phase.
2. If crew members are required to assist in the conduct of an event, the crew shall be core capable in the role they will play, as applicable. Crewmember assistance must be restricted to those actions required to support or facilitate individual training so as not to detract from the individual properly demonstrating the event performance standard.

5.9.2.2 Prerequisites. None.

5.9.2.3 Stages. The following stages are included in the Core Plus Phase.

PAR NO.	STAGE NAME	PAGE NUMBER
5.9.3	MAINTENANCE MANAGEMENT (MMGT) STAGE	5-48

5.9.3 MAINTENANCE MANAGEMENT (MMGT) STAGE.

5.9.3.1 Purpose. To provide the skills necessary to manage maintenance activities and administrative

responsibilities within the maintenance section.

5.9.3.2 General.

Admin Notes. None.

Prerequisite. None.

Crew Requirements. None.

MMGT-4250 4.0 1095 B, R, M (N) L

Goal. Assess maintenance shop performance.

Requirement. Given the references, perform the following:

1. Determine key performance indicators.
2. Determine functional areas to be inspected.
3. Develop an inspection plan.
4. Assign personnel to conduct inspections.
5. Review results.
6. Assess strengths and weaknesses.
7. Develop/implement a corrective plan.

Performance Standard. Complete the requirement items IAW the references. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. 2070.

References.

1. FSMAO Checklist
2. CGI Checklist
3. Unit SOP
4. MMSOP
5. MCO 4790.2
6. UM 4000-125 GCSS-MC User's Manual

MMGT-4251 2.0 1095 B, R, M (N) G

Goal. Assess maintenance section funding requirements.

Requirement. With the aid of references and given equipment maintenance history, projected TEEP, and anticipated maintenance shortfalls, propose funding allocations for maintenance activities.

1. Identify and prioritize funding requirements.
2. Provide a maintenance funding request based on requirements and prior year utilization.
3. Provide an anticipated maintenance funding request based on the unit's TEEP.
4. Identify personnel travel requirements.
5. Identify unit-funded training requirements.

Performance Standard. Complete the requirement items IAW the references. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. 2070.

References.

1. MCO 4400.150
2. MCO 7300.21A

MMGT-4252 1.0 1095 B, R, M (N) L

Goal. Induct equipment into the maintenance cycle.

Requirement. Given a piece of equipment requiring a service request, NAVMC 1018, and a computer with GCSS-MC access, perform the following:

1. Via service request, validate the following induction procedures:
 - a. Validate service request accuracy.
 - b. Confirm SL-3 accountability.
 - c. Verify and annotate visual inspection and ensure NAVMC 1018 is applied.
 - d. Verify and annotate service history in record jacket.
 - e. Verify and annotate proper organizational PM.
 - f. Verify and annotate MI and TIs.
 - g. Verify and annotate warranty, if applicable.
2. Determine availability of resources.
3. Conduct and document proper troubleshooting of faulty item.
4. Order repair parts as necessary.
5. Submit equipment and records for quality control.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. 2070.

References.

1. TM 4700-15/1H
2. MCO 4790.2
3. MCBUL 3000
4. MCO 4400.16
5. Unit MMSOP
6. UM 4000-125 GCSS-MC User's Manual

MMGT-4253 1.0 * B (N) G

Goal. Create a PMCS schedule.

Requirement. Given GCSS-MC access, an end item, and applicable references, perform the following:

1. State the purpose of PMCS.
2. Identify the preventive maintenance frequency.
3. Identify preventive maintenance procedures.
4. Create a PMCS schedule within GCSS-MC.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. 2070.

References.

1. TM 4700-15/1H
2. MCO 4790.2
3. Technical Manuals
4. UM 4000-125 GCSS-MC User's Manual

MMGT-4254 2.0 * B (N) L

Goal. Submit a Product Quality Deficiency Report (PQDR).

Requirement. Given the reference, equipment or a scenario:

1. State the criteria under which the PQDR should be submitted.
2. Complete the PQDR.
3. Explain the squadron's internal process for submitting a PQDR.
4. Identify the procedure to follow up with the PQDR.
5. Discuss external process flow of the PQDR.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. 2070.

References.

1. MCO 4790.2
2. Unit MMSOP
3. MCO 4855.10B PRODUCT QUALITY DEFICIENCY REPORT (PQDR)
4. SECNAVINST 4855.5, Product Quality Deficiency Report Program

MMGT-4255 2.0 * B (N) G

Goal. Identify the SECREP management process.

Requirement. Given the references, perform the following:

1. Define the purpose of the SECREP management process.
2. Define the purpose of the SECREP exchange process.
3. Identify the SECREP management re-computation process.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. 2070.

References.

1. MCO 4790.2
2. MCO 4400.150
3. FEDLOG/WEBFLIS
4. UM 4000-125 GCSS-MC User's Manual

MMGT-4256 4.0 * B (N) G

Goal. Explain equipment disposition procedures.

Requirement. Given the reference and a scenario, conduct the following:

1. State the purpose of equipment disposition.
2. State the criteria under which an item should be processed for disposition.
3. State the information required to submit a disposition request.
4. State the submission procedures for a disposition request.
5. State the method to follow up on disposition submissions.
 - a. GCSS-MC.
 - b. Weekly Supply reconciliation.
6. Explain disposition instruction.
7. Explain how equipment is removed from the CMR as applicable.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. 2070, 2071, 2102.

References.

1. Disposal Plan
2. ULSS
3. Equipment SL-3
4. MCO P4400.82
5. UM 4000-125 GCSS-MC User's Manual
6. MMSOP
7. MCO 4790.2

MMGT-4257	4.0	*	B	(N)	G

Goal. Reconcile Global Combat Support System (GCSS)-MC reports.

Requirement. Given the reports listed in item 1 below, perform items 2 through 7:

1. Identify the purpose of:
 - a. Maintenance Production Report.
 - b. Equipment Status Report.
 - c. Preventive Maintenance Report.
 - d. Calibrations Report.
 - e. Modification Instruction Report.
 - f. Maintenance Management Report.
 - g. Due and status file.
 - h. Service Request.
 - (1) Tasks.
 - (2) Notes.
 - (3) Parts Requirements.
 - i. Sub-Inventory.
 - (1) Layette.
 - (2) Stage.
 - (3) Demand Supported Items.
 - j. Oracle Installed Base.
 - (1) Parent/Child Relationships.
2. Identify the type of information contained in each of the forms listed above.
3. Identify the status of a parts requisition.
4. Identify proper use of uniform material movement and issue priority system.
5. State item requisition priorities.
6. Reconcile all items listed above and list all errors found in each form.
7. Explain how to maintain a layette bin.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. 2070.

References.

1. MCO 4790.2
2. MCBUL 3000
3. MCO 4400.16
4. DLA Handbook
5. Unit MMSOP
6. UM 4000-125 GCSS-MC User's Manual

MMGT-4258 1.0 * B (N) L

Goal. Verify inventory control procedures are implemented.

Requirement. Given an equipment record and SL-3:

1. Validate inventory results.
2. Validate parts requisition details.
3. Ensure service request is created within GCSS-MC.
4. Ensure parts requirement for unserviceable items are created within GCSS-MC.
5. Ensure inventory records are updated to reflect current status:
 - a. Item on-hand availability status.
 - b. Parts requisition status.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. 2070, 2102.

References.

1. MCO 4400.150
2. MCO 4790.2
3. UM 4000-125 GCSS-MC User's Manual

5.10 MISSION PLUS PHASE (4500).

5.10.1 Purpose. **RESERVED FOR FUTURE USE.**

5.10.2 General.

5.10.2.1 Admin Notes.

5.10.2.2 Prerequisites. None.

5.10.2.3 Stages.

5.11 INSTRUCTOR TRAINING PHASE (5000).

5.11.1 Purpose. The MACCS instructor concept is a means to standardize all instructors across the MACCS in regards to the concepts of managing a WTTP, properly conducting training, performing evaluations, and recommending training plans. Upon completion of the required training, an individual may be approved for instructor designation by the commanding officer.

5.11.2 General.

5.11.2.1 Admin Notes. None.

5.11.2.2 Prerequisites. None.

5.11.2.3 Stages. The following stages are included in the Instructor Training Phase.

PAR NO.	STAGE NAME	PAGE NUMBER
5.11.3	INSTRUCTOR UNDER TRAINING (IUT)	5-53

5.11.3 INSTRUCTOR UNDER TRAINING (IUT) STAGE.

5.11.3.1 Purpose. To train Aviation Radar Technicians in the fundamentals of instructing and training processes.

5.11.3.2 General.

Admin Notes. None.

Prerequisite. None.

Crew Requirements. None.

IUT-5000 2.0 * B (N) L

Goal. Introduce principals of instruction.

Requirement. Given the reference, the BIUT will demonstrate the following with the assistance of a unit instructor:

1. Adult learning principles.
 - a. Pedagogy to andragogy.
 - b. Characteristics of the adult learner.
 - c. Learning styles.
 - d. How adults learn.
 - e. Domains of learning.
 - f. Group dynamics.
 - g. Motivation.
 - h. Constructivist learning environments.
2. Introduce, discuss, and demonstrate instruction techniques.
3. Introduce, discuss, and demonstrate class management techniques.
 - a. How to select teaching resources to accommodate student learning styles.
 - b. How to properly organize the instructional environment for effective learning.

Performance Standard. With the aid of references, the BIUT shall demonstrate principles of instruction. During this session, the instructor shall discuss the event content and question the student throughout the training session to ensure understanding.

Instructor. SI.

Prerequisite. None.

References.

1. Adult Learning section, Systems Approach to Training Manual (2004)
2. NAVMC 3500.14
3. NAVMC 1553.1

IUT-5010	2.0	*	B	(N)	G

Goal. Describe individual T&R requirements.

Requirement. Using the Aviation T&R Program Manual, discuss the purpose of each of the following items with an instructor:

1. Training progression model.
2. Programs of Instruction.
 - a. Basic.
 - b. Refresher.
 - c. Conversion.
 - d. Series Conversion.
 - e. Transition.
 - f. Maintain.
3. T&R attain and maintain tables.
4. Syllabus notes.
5. T&R syllabus structure.
 - a. Phase.
 - b. Stage.
 - c. Event.
 - d. Skill.
 - e. Syllabus.
6. Event format.
 - a. Header.
 - (1) Event prefix - event code.
 - (2) Projected event duration.
 - (3) Proficiency period.
 - (4) Programs of instruction (POI).
 - (5) Event conditions.
 - (6) Device options.
 - (7) Device number.
 - (8) Device type.
 - b. Body.
 - (1) Goal.
 - (2) Requirement.
 - (3) Performance standard.
 - (4) Equipment.

Performance Standard. Without the aid of references and during a discussion session, the BIUT shall describe Individual T&R requirements. During this session, the instructor shall discuss the event content and question the student throughout the training session to ensure understanding.

Instructor. SI.

Prerequisite. None.

References.

1. NAVMC 3500.14
2. NAVMC 1553.1

IUT-5020 12.0 90 B, R, M (N) L

Goal. Conduct T&R instruction.

Requirement. The BIUT, under the supervision of an instructor, will conduct three periods of instruction on three different T&R events selected by the instructor and should include as many different methods of instruction as possible (lecture or academic, demonstration, and practical application). The event must be one the BIUT is current and proficient in. The BIUT will complete the following for each of the three events instructed:

1. Prepare to train the event.
 - a. Review a trainee's performance record to identify required training for the event selected.
 - b. Ensure the student has met prerequisites for the event to be trained.
 - c. Gather the resources necessary to conduct the training (i.e., instructional materials, references, and equipment).
 - d. Conduct task analysis on each event to ensure all intended requirements and prerequisite skills, specified or implied, are trained IAW applicable references.
 - e. Schedule the training event (facilities and students).
 - f. Prepare an evaluation form for each student to be evaluated.
2. Conduct training on the event selected:
 - a. Ensure all training resources are properly staged/equipment if set up properly for training.
 - b. Instruct the student in a thorough manner so as to cover all requirements for the event.
 - c. Ensure continuous, objective assessment of the student's progress during training.
3. Assess student performance:
 - a. Assess the student's performance to the performance standard.
 - b. Correct student deficiencies in a timely manner and provide the student feedback.
 - c. Complete the evaluation form on for each student trained.
 - d. Debrief student on the performance and provide corrective action.
4. Route evaluation form as required.

Performance Standard. Complete the requirement items IAW the reference and ensure training is doctrinally and technically current. Instructor shall use the instructor evaluation form from the SAT user's guide for each class and a mark of satisfactory must be achieved for each of the three classes.

Instructor. SI.

Prerequisite. 5000, 5010.

References.

1. NAVMC 3500.14, Ch. 6
2. NAVMC 1553.1
3. MCO 1553.2B, Appendix O

IUT-5100 2.0 * B (N) G

Goal. Describe the Aviation Training and Readiness (T&R) Program.

Requirement. Using the community T&R manual discuss the following with an instructor:

1. Describe the Weapons and Tactics Training Program (WTPP).
2. Define each element of the Core Model:
 - a. Mission statements.
 - b. Core Mission Essential Task List (METL).
 - c. Output standards.
 - d. Core skills (How to attain and maintain).
 - e. Mission skills (How to attain and maintain).
 - f. Combat Leadership

3. Define each of the following elements of unit training:
 - a. Training Exercise Employment Plan (TEEP).
 - b. Core Model Minimum Requirements (CMMR).
 - c. Instructors.
 - d. Core Model Training Report (CMTR).
 - e. T&R manual connection to readiness reporting.
4. Define each of the following elements of training:
 - a. Certification.
 - b. Qualification.
 - c. Designation.
5. Explain how changes are made to the Program manual:
 - a. Explain T&R conference procedures.
 - b. Explain correspondence change procedures.

Performance Standard. Complete the requirements IAW the reference. Instructor will question the SIUT to check for thorough understanding of the Aviation T&R Program.

Instructor. SI.

Prerequisite. None.

References.

1. NAVMC 3500.14
2. MCO 3500.109

IUT-5110	4.0	365	B, R, M	(N)	L

Goal. Conduct instructor evaluations.

Requirement. Using the instructor evaluation checklist from the SAT manual, conduct two evaluations on instructors of equal or lower designation.

1. Provide notification of evaluation to the instructor being evaluated.
2. Do not interfere with or disrupt the instruction while taking place.
3. Thoroughly document observed items on the checklist.
4. Ensure student evaluation form is filled out correctly and the appropriate debrief took place.
5. Debrief the instructor being evaluated on their preparation, instruction, evaluation, and documentation.
6. Have the evaluated instructor complete the instructor improvement plan section and sign.
7. File a copy of the completed evaluation form in both the evaluator's and evaluated instructor's performance record.

Performance Standard. Complete the requirements IAW the reference.

Instructor. SI.

Prerequisite. 5100.

References.

1. NAVMC 3500.14
2. Applicable community T&R Manual
3. MCO1553.2B, Appendix O

IUT-5120	2.0	*	B	(N)	L

Goal. Perform T&R administration.

Requirement. Document training to include:

1. Performance records.
2. Ensure MSHARP is updated appropriately.
3. Assemble recommendation package for certifications, qualifications, and designations IAW T&R manual.

Performance Standard. Complete the requirement items IAW the references. Instructor will question the trainee to check for understanding of the administration process.

Instructor. SI.

Prerequisite. 5100, 5110.

References.

1. NAVMC 3500.14
2. Local WTTP SOP
3. <http://msharpsupport.com>

IUT-5130	2.0	*	B	(N)	L

Goal. Develop a training plan.

Requirement. Given a deployment scenario develop a training plan to determine individual, and crew training needed to meet CMMR by completing the following:

1. Review Commander's training guidance.
2. Analyze the CMTR to determine training deficiencies and how to achieve CMMR.
3. Identify and schedule T&R training opportunities IAW the TEEP to achieve requirements.
4. Determine instructors required.
5. Determine equipment required.
6. Determine external support required.
7. Deliver a brief to the instructor that shows:
 - a. Crew manning and training requirements.
 - b. Current training status.
 - c. Identify the training deficiencies and resource shortfalls.
 - d. Explain the training plan to correct the training deficiencies.
 - e. Training plan meets commander's guidance.

Performance Standard. Complete the requirement items IAW the references and commander's training guidance. Training plan will ensure adequate time is allocated to include preparation, instruction, assessment, documentation, and remediation.

Instructor. SI.

Prerequisite. 5100, 5110, 5120.

References.

1. NAVMC 3500.14
2. Applicable Community T&R manuals

5.12 CERTIFICATIONS, QUALIFICATIONS, DESIGNATIONS (CQD) (6000).

5.12.1 Purpose. This phase provides community standardization of technician designations, combat leadership, instructor designations and training. This syllabus does not contain "one time" certification training requirements.

5.12.2 General.

5.12.2.1 Admin Notes.

1. This section enables units to document and track combat leaders, instructors, and technician assignments. All syllabus training and administration requirements must be complete prior to being qualified or designated. A qualification or designation is not effective until all administration is completed.

2. Only once an individual is qualified or designated in writing, the signed letter is filed in the IPR, all administrative actions are completed, and the event code has been logged in M-SHARP shall the qualification or designation be effective.

5.12.2.2 Prerequisite. None.

5.12.2.3 Stages. The following stages are included in the Instructor Training Phase.

PAR NO.	STAGE NAME	PAGE NUMBER
5.12.3	CERTIFICATIONS (CERT)	5-58
5.12.4	DESIGNATIONS (DESG)	5-59
5.12.5	SCHOOL CODES (SCHL)	5-61
5.12.6	CYBER SECURITY WORKFORCE (CSWF)	5-66

5.12.3 CERTIFICATIONS (CERT) STAGE

5.12.3.1 Purpose. To provide for certifications of Information Assurance Work Force personnel. In order to ensure proficiency is maintained, specific events throughout this syllabus have been R-coded. The gaining command shall review the IPR to ensure prerequisite R-coded events for a certification are current prior to approving that certification. If prerequisite R-coded events are delinquent, the individual shall update those events.

5.12.3.2 General.

Admin Notes. Policies and rules for attaining and maintaining certification are detailed in the Aviation T&R Program Manual and this Manual.

Prerequisite. None.

Crew Requirements. None.

CERT-6260 1.0 * B (N) G

Goal. CSWF Technical Support Specialist.

Requirement. Complete the prerequisites. Be recommended for certification and approved in writing by the commanding officer.

Performance Standard. Complete requirements in accordance with the reference.

Instructor. SI.

Prerequisite. 6041, 6042, 6046, 6049.

Reference.

1. DOD 8570.01_, Information Assurance Workforce Improvement Program

CERT-6261 1.0 * B (N) G

Goal. CSWF IT Specialist.

Requirement. Complete the prerequisites. Be recommended for certification and approved in writing by the commanding officer.

Performance Standard. Complete requirements in accordance with the reference.

Instructor. SI.

Prerequisite. 6042, 6043, 6046, 6047, 6048, 6049, 6050.

Reference.

1. DOD 8570.01_, Information Assurance Workforce Improvement Program

CERT-6262	1.0	*	B	(N)	G

Goal. CSWF System Administrator.

Requirement. Complete the prerequisites. Be recommended for certification and approved in writing by the commanding officer.

Performance Standard. Complete requirements in accordance with the reference.

Instructor. SI.

Prerequisite. 6041, 6042, 6043, 6046, 6047, 6048, 6049, 6050.

Reference.

1. DOD 8570.01_, Information Assurance Workforce Improvement Program

5.12.4 DESIGNATIONS (DESG) STAGE.

5.12.4.1 Purpose. To provide for designation of combat leaders and instructors. Designations are command specific and expire when an individual transfers out of a command. In order to ensure proficiency is maintained, specific events throughout this syllabus have been R-coded. The gaining command shall review the IPR to ensure prerequisite R-coded events for a designation are current prior to approving that designation. If prerequisite R-coded events are delinquent, the individual shall update those events.

5.12.4.2 General.

Admin Notes. Policies and rules for attaining and maintaining designations are detailed in the Aviation T&R Program Manual and this Manual.

Prerequisite. None.

Crew Requirements. None.

DESG-6320	.5	*	B	(N)	G

Goal. Basic Instructor (BI).

Requirement. Be recommended for designation by a WTI and designated in writing by the commanding officer.

Performance Standard. N/A.

Instructor. WTI.

Prerequisite. 5000, 5010, 5020.

Reference.

1. NAVMC 3500.14

DESG-6321	.5	*	B	(N)	G

Goal. Senior Instructor (SI).

Requirement. Be recommended for designation by a WTI and designated in writing by the commanding officer.

Performance Standard. N/A.

Instructor. WTI.

Prerequisite. 5000, 5010, 5020, 5100, 5110, 5120, 5130.

Reference.

1. NAVMC 3500.14

DESG-6322	.5	*	B	(N)	G

Goal. Weapons and Tactics Instructor (WTI).

Requirement. Be certified by MAWTS-1 as a WTI, designated by the commanding officer in writing.

Performance Standard. N/A.

Instructor. WTI.

Prerequisite. 6000.

Reference.

1. NAVMC 3500.14

DESG-6330	0.5	*	B	(N)	G

Goal. Formal Learning Center Instructor (FLCI).

Requirement. Complete the formal learning center's instructor requirements, designated by the commanding officer in writing.

Performance Standard. N/A.

Instructor. WTI.

Prerequisite. 6096.

Reference.

1. NAVMC 3500.14, Naval Aviation Program Manual

5.12.5 SCHOOL CODES (SCHL) STAGE.

5.12.5.1 Purpose. To provide tracking codes for schools that are pertinent to the training of the 5948 in the skill progression of the Marine.

5.12.5.2 General.

Admin Notes. Policies and prerequisites for attending the listed schools are maintained within MCTIMS.

Prerequisite. None.

Crew Requirements. None.

T&R CODE	COURSE NAME	LOCATION	CID/CIN
SCHL-6000	Weapons and Tactics Instructor Course	MCAS Yuma, AZ	M14P2A1
SCHL-6020	Link 16 Basics Course (JT-100)	Joint Knowledge Online (JKO)	N/A
SCHL-6021	Intro to Multi TDL Network (JT-101)	Fort Bragg, NC	N/A
SCHL-6022	Multi-TDL Advanced Joint Interoperability Course (MAJIC) (JT-102)	Fort Bragg, NC	A05L6Z1
SCHL-6024	Multi Tactical Data Link Planners Course (JT-201)	Fort Bragg, NC	A05KHY1
SCHL-6025	Link Unit Manager (LUM) Course (JT-220)	Fort Bragg, NC	A05A111
SCHL-6026	Joint Interface Control Officer (JICO) (JT-301)	Fort Bragg, NC	A05FH21
SCHL-6027	Advanced JICC Operator Course (JT-310)	Fort Bragg, NC	A05FH11
SCHL-6030	MATCD Work Center Supervisors Course	NATTC, FL	N23KCM2
SCHL-6031	MATC Maintenance Managers Course	NATTC, FL	N23KCN2
SCHL-6073	Micro-miniature Electronics Repair Course	San Diego, CA	N01A351
		San Diego, CA	N016241
		Norfolk, VA	N02A351
SCHL 6079	JRE-GW Operators Course	Titan L3	N/A
SCHL-6093	Micro-Miniature Repair Course	29 Palms, CA	M09E2D1
SCHL-6094	Advanced Electronics Course	29 Palms, CA	M09DSK1
SCHL-6095	Ground Electronics Maintenance NCO Course	MCB Camp Lejeune, NC	M03DNSG
		MCB Camp Pendleton, CA	M10DNSB
		Okinawa, JP	M22DNS4
SCHL-6096	Formal Learning Center (FLC) Instructor	MCB Camp Lejeune, NC	M03WJBA
		MCB Camp Lejeune, NC	M03WJBM
		MCB Camp Pendleton, CA	M10WJB1
		MCB Camp Pendleton, CA	M10WJBM
		NAS Pensacola, FL	N23X991
SCHL-6097	Mountain Communications Course	Bridgeport, CA	M24CXJ1
SCHL-6098	Electromagnetic Spectrum Management Course	AFB Keesler, MS	F0224L1
SCHL-6099	Aviation Radar Technician Skill Progression Course	29 Palms, CA	M09E321

SCHL-6000 .5 * B * G

Goal. Weapons and Tactics Instructor Course.

Requirement. None.

Performance Standard. None.

Instructor. FLC Instructor.

Prerequisite. 6320, 6321, 8000, 8020, 8040, 8060, 8080.

Reference. None.

SCHL-6020	.5	*	B		*	G

Goal. Link 16 Basics Course (JT-100).

Requirement. None.

Performance Standard. None.

Instructor. FLC Instructor.

Prerequisite. None.

Reference. None.

SCHL-6021	.5	*	B		*	G

Goal. Intro to Multi Tactical Data Link Network Operations Course (JT-101).

Requirement. None.

Performance Standard. None.

Instructor. FLC Instructor.

Prerequisite. None.

Reference. None.

SCHL-6022	.5	*	B		*	G

Goal. Multi Tactical Data Link Advanced Joint Interoperability Course (MAJIC) (JT-102).

Requirement. None.

Performance Standard. None.

Instructor. FLC Instructor.

Prerequisite. None.

Reference. None.

SCHL-6024	.5	*	B		*	G

Goal. Multi Tactical Data Link Planners Course (JT-201).

Requirement. None.

Performance Standard. None.

Instructor. FLC Instructor.

Prerequisite. None.

Reference. None.

SCHL-6025	.5	*	B	*	G

Goal. Link Unit Manager (LUM) Course (JT-220).

Requirement. None.

Performance Standard. None.

Instructor. FLC Instructor.

Prerequisite. None.

Reference. None.

SCHL-6026	.5	*	B	*	G

Goal. Joint Interface Control Officer Course (JT-301).

Requirement. None.

Performance Standard. None.

Instructor. FLC Instructor.

Prerequisite. 6022, 6024.

Reference. None.

SCHL-6027	.5	*	B	*	G

Goal. Advanced Joint Interface Control Cell (JICC) Operator's Course (JT-310).

Requirement. None.

Performance Standard. None.

Instructor. FLC Instructor.

Prerequisite. None.

Reference. None.

SCHL-6030	.5	*	B	*	G

Goal. Marine Air Traffic Control Detachment (MATCD) Work Center Supervisors Course.

Requirement. None.

Performance Standard. None.

Instructor. FLC Instructor.

Prerequisite. None.

Reference. None.

SCHL-6031	.5	*	B	*	G

Goal. Marine Air Traffic Control (MATC) Maintenance Managers Course.

Requirement. None.

Performance Standard. None.

Instructor. FLC Instructor.

Prerequisite. None.

Reference. None.

SCHL-6073	.5	*	B	*	G

Goal. Micro-miniature Electronics Repair Course.

Requirement. None.

Performance Standard. None.

Instructor. FLC Instructor.

Prerequisite. None.

Reference. None.

SCHL-6079	.5	*	B	*	G

Goal. JRE-GW Operators Course.

Requirement. None.

Performance Standard. None.

Instructor. FLC Instructor.

Prerequisite. None.

Reference. None.

SCHL-6093	.5	*	B	*	G

Goal. Micro-Miniature Repair Course.

Requirement. None.

Performance Standard. None.

Instructor. FLC Instructor.

Prerequisite. None.

Reference. None.

SCHL-6094	.5	*	B	*	G

Goal. Advanced Electronics Course.

Requirement. None.

Performance Standard. None.

Instructor. FLC Instructor.

Prerequisite. None.

Reference. None.

SCHL-6095	.5	*	B	*	G

Goal. Ground Electronics Maintenance Non-Commissioned Officer Course.

Requirement. None.

Performance Standard. None.

Instructor. FLC Instructor.

Prerequisite. None.

Reference. None.

SCHL-6096	.5	*	B	*	G

Goal. Formal Learning Center (FLC) Instructor.

Requirement. None.

Performance Standard. None.

Instructor. FLC Instructor.

Prerequisite. None.

Reference. None.

SCHL-6097	.5	*	B	*	G

Goal. Mountain Communications Course.

Requirement. None.

Performance Standard. None.

Instructor. FLC Instructor.

Prerequisite. None.

Reference. None.

SCHL-6098	.5	*	B	*	G

Goal. Electromagnetic Spectrum Management Course.

Requirement. None.

Performance Standard. None.

Instructor. FLC Instructor.

Prerequisite. None.

Reference. None.

SCHL-6099	.5	*	B	*	G

Goal. Aviation Radar Technician Skill Progression Course.

Requirement. None.

Performance Standard. None.

Instructor. FLC Instructor.

Prerequisite. None.

Reference. None.

5.12.6 CYBER SECURITY WORKFORCE (CSWF) STAGE.

5.12.6.1 Purpose. To provide skills in computing and networking that will be used in the performance of assigned duties within the MACCS.

5.12.6.2 General.

Admin Notes. None.

Prerequisite. None.

Crew Requirements. None.

CSWF-6041	2.0	1095	B, R, M	(N)	L

Goal. Perform account management.

Requirement. With the aid of reference, perform the following:

1. Plan user accounts.
2. Create user accounts IAW naming convention.
3. Create groups IAW naming convention.
4. Set account permissions.
5. Manage user accounts.
6. Document as required.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

References.

1. NIST Special Publication 800-__
2. Applicable User's Manuals
3. Current industry-standard curriculum and references

CSWF-6042 4.0 1095 B, R, M (N) G

Goal. Explain risk management involved in operational security.

Requirement. With the aid of reference, perform the following:

1. Explain risk related concepts.
2. Explain appropriate risk mitigation strategies.
3. Explain appropriate incident response procedures.
4. Explain the importance of security related awareness and training.
5. Compare aspects of business continuity.
6. Explain the impact and proper use of environmental controls.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

References.

1. NIST Special Publication 800-__
2. Applicable User's Manuals
3. Current industry-standard curriculum and references

CSWF-6043 4.0 1095 B, R, M (N) G

Goal. Explain computer and network cryptography.

Requirement. With the aid of reference, perform the following:

1. Explain symmetric key rotation techniques.
2. Explain symmetric key concepts.
3. Explain cryptographic security models (e.g. Bell-LaPadula model, Biba integrity model, Clark-Wilson integrity model).
4. Explain the core concepts of Public Key Infrastructure (PKI).

5. Explain the implementation of PKI, certificate management and associated components.
6. Explain the appropriate cryptographic tools and products.

Performance Standard. With the aid of reference, complete the requirements, minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

References.

1. NIST Special Publication 800-__
2. Applicable User's Manuals
3. Current industry-standard curriculum and references

CSWF-6046	4.0	*	B, R	(N)	G

Goal. Explain Network Media and Topologies.

Requirement. With the aid of references, explain the following:

1. Describe different network topologies.
2. Compare different LAN technologies.
3. Identify components of wiring distribution.
4. Explain different methods and rationales for network performance optimization.

Performance Standard. With the aid of reference, complete the requirements, minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

References.

1. NIST Special Publication 800-__
2. Applicable User's Manuals
3. Current industry-standard curriculum and references

CSWF-6047	4.0	*	B, R	(N)	G

Goal. Explain Troubleshooting of Computer and Network equipment.

Requirement. Given the references, Explain the following:

1. Troubleshooting theory.
2. Troubleshooting common problems related to motherboards, RAM, BIOS, CPU and power with appropriate tools.
3. Troubleshooting hard drives and RAID arrays with appropriate tools.
4. Troubleshooting common video and display issues.
5. Troubleshooting wired networks with appropriate tools.
6. Troubleshooting operating system problems with appropriate tools.
7. Troubleshooting common security issues with appropriate tools and best practices.
8. Troubleshooting of common laptop issues while adhering to the appropriate procedures.
9. Troubleshooting of common peripheral devices with appropriate tools.

Performance Standard. With the aid of reference, complete the requirements, minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisites. None.

References.

1. NIST Special Publication 800-__
2. Applicable User's Manuals
3. Current industry-standard curriculum and references

CSWF-6048 4.0 1095 B, R, M (N) L

Goal. Administer data system host security measures.

Requirement. Given a configured network, demonstrate the following:

1. Install current Anti-virus definitions and service packs.
2. Configure firewalls.
3. Troubleshoot system faults.
4. Initiate corrective actions as required.
5. Document changes.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. SI.

Prerequisites. None.

References.

1. NIST Special Publication 800-__
2. Applicable user manuals
3. Current industry-standard curriculum and references

CSWF-6049 4.0 1095 B, R, M (N) L

Goal. Perform network management.

Requirement. Given a LAN, references, and required equipment, perform the following:

1. Monitor the LAN for connectivity.
2. Assist with troubleshooting connectivity issues with external agencies.
3. Troubleshoot Network error(s).
4. Document changes.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. SI.

Prerequisites. None.

References.

1. NIST Special Publication 800-__
2. Applicable user manuals
3. Current industry-standard curriculum and references

CSWF-6050 4.0 1095 B, R, M (N) L

Goal. Design network architecture.

Requirement. Given an operational scenario conduct the following:

1. Identify network requirements.
 - a. External interfaces.
 - b. VLANs.
 - c. IP Class.
2. Assign Internet Protocol (IP) addresses, subnets, and netmasks.
3. Identify notation of domain.
4. Identify asset locations.
5. Assign computer hostnames.
6. Implement security measures.
7. Record network configuration.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. SI.

Prerequisites. None.

References.

1. NIST Special Publication 800-__
2. Applicable user manuals
3. Current industry-standard curriculum and references

5.13 MISSION ESSENTIAL TASK (MET) PHASE (7000).

5.13.1 Purpose. This phase takes CMMR proficient Marines from multiple PMOS, puts them in CMMR representative crews, and trains them as combat effective teams in combined events.

5.13.2 General.

5.13.2.1 Admin Notes.

1. Prerequisites for this phase of training cannot be waived. Multiple events can be trained at the same time as long as separate evaluations are being conducted.

2. MACCS maintenance MOS 5948 are assigned to Air Defense Agencies within the Marine Air Control Squadron.

5.13.2.2 Prerequisite. Marines must either be CMMR crew position or non-aviation PMOS proficient to train in this phase. For those events requiring combat leaders, only Marines currently designated as such can train in this phase.

5.13.2.3 Stages. The following stages are included in the Mission Essential Task (MET) Phase of training.

PAR NO.	STAGE NAME	PAGE NUMBER
5.13.3	TAOC CONDITION (COND)	5-83

5.13.3 CONDITION (COND) STAGE.

5.13.3.1 Purpose. To train unit level teams in executing community specific MET(s) or MET preparatory events.

5.13.3.2 General.

Admin Notes. All events in this stage will require the following administrative/operational documents to be identified or created:

1. Letter of Intent (LOI).
2. Personnel Roster.
3. Bill of Material (BOM).
4. Equipment Density List (EDL).

Prerequisite. If an event requires prerequisites in addition to those listed for the MET Phase, they will be covered in the individual event.

Crew Requirements. This stage requires that all crew members and combat leaders be qualified/designated and proficient (current) in the position they are assigned for the following events. Crews shall be task organized to meet the mission.

COND-7000 16.0 730 B, R, M E (N) L

Goal. Conduct Airspace Surveillance.

Requirement. Given organic C2 systems, radars, and a minimum of two CMMR surveillance crews, perform the following:

1. Plan for the emplacement, setup, operation, and maintenance of TAOC radar(s) and C2 equipment within the MAGTF and/or joint assigned airspace.
2. Extract TDL architecture information from MAGTF and joint documents.
3. Extract required surveillance operations information exchange requirements from source MAGTF and/or joint documents.
4. Plan for TAOC airspace surveillance operations.
5. Conduct the emplacement, setup, operation, and maintenance of TAOC radar(s) and C2 equipment.
6. Detect and track aircraft and missiles within MAGTF and/or joint assigned airspace using organic TAOC radar(s).
7. Conduct combat identification on objects detected and tracked using information extracted from surveillance operations source documents.
8. Disseminate air/ground surveillance information to adjacent, higher, and subordinate agencies and aircraft identified in surveillance operations source documents.
9. Demonstrate proficiency during crew changeover.

Performance Standard. Complete the requirements conducting TAOC operations in support of MAGTF and/or joint exercises or operations.

Instructor. WTI.

Prerequisite. None.

External Syllabus Support. TDSM, RDR, AVRAD, UT. Live execution will require specific T/M/S aviation assets.

Reference. None.

COND-7001 16.0 730 B, R, M E (N) L/S

Goal. Conduct Positive Control.

Requirement. Given organic C2 systems, radars, and a minimum of two CMMR weapons crews, perform the following:

1. Plan for the emplacement, setup, operation, and maintenance of TAOC radar(s) and C2 equipment within the MAGTF and/or joint assigned airspace.
2. Conduct the emplacement, setup, operation, and maintenance of TAOC radar(s) and C2 equipment.
3. Extract airspace control measures within TAOC assigned airspace from MAGTF and/or joint source documents.
4. Conduct airspace management using MEF/MAW sustained sortie generation rates.
5. Conduct airspace control using MEF/MAW sustained sortie generation rates.
6. Conduct positive control using MEF/MAW sustained sortie generation rates.
7. Demonstrate proficiency during crew changeover.

Performance Standard. Complete the requirements conducting TAOC operations in support of MAGTF and/or joint exercises or operations.

Instructor. WTI.

Prerequisite. None.

External Syllabus Support. TDSM, RDR, AVRAD, UT. Live execution will require specific T/M/S aviation assets.

Reference. None.

COND-7002 16.0 730 B, R, M E (N) L/S

Goal. Coordinate Air Defense Actions.

Requirement. Given organic C2 systems, radars, and a minimum of two CMMR weapons crews, perform the following:

1. Plan for the emplacement, setup, operation, and maintenance of TAOC radar(s) and C2 equipment within the MAGTF and/or joint assigned airspace.
2. Conduct the emplacement, setup, operation, and maintenance of TAOC radar(s) and C2 equipment.
3. Extract air defense requirements from MAGTF and/or joint air defense documents.
4. Create a plan for the TAOC to manage and control AAW aircraft engagements, expenditures, and employment using MEF/MAW sortie generation rates.
5. Create a plan for the TAOC to provide management of GBAD engagements, expenditures, and employment.
6. Manage and control AAW aircraft engagements, expenditures, and employment using MEF/MAW sortie generation rates.
7. Provide management of GBAD engagements, expenditures, and employment.
8. Detect potential threat aircraft and/or missiles using TAOC organic radars.
9. Disseminate threat information to higher, adjacent, and subordinate MACCS agencies.
10. Demonstrate proficiency during crew changeover.

Performance Standard. Complete the requirements conducting TAOC operations in support of MAGTF and/or joint exercises or operations.

Instructor. WTI.

Prerequisite. None.

External Syllabus Support. TDSM, RDR, AVRAD, UT. Live execution will require specific T/M/S aviation assets.

Reference. None.

COND-7003 16.0 730 B, R, M E (N) L/S

Goal. Conduct Dual Site Air Defense Operations.

Requirement. Given organic C2 systems, radars, and a minimum of four CMMR air defense crews, perform the following at two geographically disparate sites:

1. Plan for the emplacement, setup, operation, and maintenance of TAOC radar(s) and C2 equipment within the MAGTF and/or joint assigned airspace.
2. Conduct the emplacement, setup, operation, and maintenance of TAOC radar(s) and C2 equipment.
3. Conduct airspace surveillance.
4. Conduct positive control.
5. Coordinate air defense actions.
6. Demonstrate proficiency during crew changeover.

Performance Standard. Complete the requirements conducting TAOC operations in support of MAGTF and/or joint exercises or operations.

Instructor. WTI.

Prerequisite. None.

External Syllabus Support. TDSM, RDR, AVRAD, UT. Live execution will require specific T/M/S aviation assets.

Reference. None.

COND-0104	16.0	730	B, R, M	E	(N)	L/S

Goal. Integrate Operational Air Defense Capabilities.

Requirement. Given organic C2 systems, radars, and a minimum of two core plus proficient SADC crews, perform the following:

1. Plan for the emplacement, setup, operation, and maintenance of TAOC radar(s) and C2 equipment within the MAGTF and/or joint assigned airspace.
2. Conduct the emplacement, setup, operation, and maintenance of TAOC radar(s) and C2 equipment
3. Extract air defense requirements from MAGTF and joint air defense documents.
4. Create a plan for the TAOC to manage air defense operations within MAGTF and/or joint assigned region/sector.
6. Manage air defense operations within the MAGTF and/or joint assigned region/sector.
7. Extract TDL architecture information from MAGTF and joint documents.
8. Create a plan for TAOC to assist the (Joint) Interface Control Officer J/ICO with the management of TDLs.
9. Manage TDLs for the TAOC in support of MAGTF and joint operations.
10. Demonstrate proficiency during crew changeover.

Performance Standard. Complete the requirements conducting TAOC operations in support of MAGTF AAW and/or joint DCA exercises or operations.

Instructor. WTI.

Prerequisite. None.

External Syllabus Support. TDSM, RDR, AVRAD, UT. Live execution will require specific T/M/S aviation assets.

Reference. None.

5.14 AVIATION CAREER PROGRESSION MODEL (8000).

5.14.1 Purpose. To enhance professional understanding of Marine Aviation and the MAGTF, and to ensure individuals possess the requisite skills to fill battle command and battle staff positions in support of the ACE and the MAGTF in a joint environment. The focus of training in the Aviation Career Progression Model (ACPM) is on academic events in the following areas:

Marine Air Command and Control System (MACCS)
Aviation Ground Support
Joint Air Operations
ACE Battle Staff
MAGTF
Seabased Operations
Combatant Commander Organizations

5.14.2 General. The ACPM is intended to be an integrated series of academic events contained within each phase of training. Accordingly, ACPM academic events are like any other academic event in that they serve as pre-requisites to selected flight events or stages. Additionally, several ACPM academic events are integrated as prerequisites for flight leadership syllabi. ACPM events may be conducted in group session with an assigned instructor teaching the period of instruction or they may be accomplished by self-paced instruction. MAWTS-1 is responsible for the update and validity of the ACPM periods of instruction. In the future, courses may be consolidated or revised to meet changing requirements. Refer to the MAWTS-1 ACPM link for the current ACPM program of instruction:

<https://www.intranet.tecom.usmc.mil/sites/mawts1/mawts1%20webpages/Aviation%20Career%20Progression%20Model.aspx?PageView=Shared>

Completed events shall be manually logged and tracked in M-SHARP. ACPM academic events, along with their identifying prerequisite association with other training phases/stages/events, are listed below.

ACPM-8000	1.0	*	B	(N)	G

Goal. Demonstrate an understanding of the MACCS stage.

Requirement. Pass a closed book examination that encompasses all learning objectives contained in the prerequisites.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. SI.

Prerequisite. 8001, 8002, 8003, 8004, 8005, 8006, 8008.

Reference. C3 Course Catalog.

ACPM-8001	4.0	*	B	(N)	G

Goal. Demonstrate an understanding of the Marine Air Command and Control System (MACCS).

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Describe how the control of aircraft and missiles relates to the other five functions of USMC aviation.
2. Define the control of aircraft and missiles and each of its subcomponents.
3. Define the Marine aviation's philosophy of centralized command and decentralized control.
4. Differentiate between Marine aviation philosophy and Joint aviation philosophy.
5. Identify the principle objectives of the MACCS.
6. Recall the primary role of each agency of the MACCS.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 MACCS Agencies, Functions and the Control of Aircraft and Missiles Class
2. MCWP 3-25.3 MACCS Handbook
3. MCWP 3-25 Control of Aircraft and Missiles

ACPM-8002	4.0	*	B	(N)	G

Goal. Demonstrate an understanding of the Tactical Air Command Center (TACC).

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. State the mission of the TACC.
2. Identify the four organizations of the TACC.
3. List the primary responsibilities of Air Combat Intelligence (ACI).
4. List the primary responsibilities of Future Operations (FOPS).
5. List the primary responsibilities of Future Plans (FPLANS).
6. List the primary responsibilities of Current Operations (COPS).
7. List the major end items used by the TACC.
8. List the system limitations of the TACC.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 TACC Class
2. MAWTS-1 MTACS Class
3. MCWP 3-25.4 TACC Handbook

ACPM-8003	4.0	*	B	(N)	G

Goal. Demonstrate an understanding of the Direct Air Support Center (DASC).

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify the role of the DASC.
2. List the structure and task organization of the DASC.
3. Identify the major end items and their characteristics used by the DASC.
4. List the capabilities and limitations of the DASC.
5. Identify how the DASC is doctrinally employed as part of the MACCS.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 DASC Class
2. MCWP 3-25.5 DASC Handbook

ACPM-8004 4.0 * B (N) G

Goal. Demonstrate an understanding of the Tactical Air Operations Center (TAOC).

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Define the mission of the TAOC.
2. Identify the Mission Essential Tasks (METs) for the TAOC.
3. Identify the structure and task organization of the TAOC.
4. Identify the major end items and their characteristics used by the TAOC.
5. Identify the capabilities and limitations of the TAOC.
6. Identify how the TAOC is doctrinally employed as part of the MACCS.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 TAOC Class
2. MCWP 3-25.7 TAOC Handbook

ACPM-8005 4.0 * B (N) G

Goal. Demonstrate an understanding of the Marine Air Traffic Control (MATC).

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify the mission of MATC.
2. Identify the Mission Essential Tasks (METs) for MATC.
3. List the structure and task organization of MATC.
4. Identify the major end items and their characteristics used by MATC.
5. Identify the capabilities and limitations of MATC.
6. Identify how MATC is doctrinally employed as part of the MACCS.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 MATC Class
2. MAWTS-1 MMT Class
3. MCWP 3-25.8 MATC Detachment Handbook

ACPM-8006 4.0 * B (N) G

Goal. Demonstrate an understanding of the Low Altitude Air Defense (LAAD).

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify the mission of the LAAD battalion.
2. Identify the structure and task organization of the LAAD battalion.
3. Identify the primary vehicle and surface-to-air weapon used by the LAAD Battalion.
4. Define the LAAD employed guidelines.
5. List the LAAD weapon applications.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 LAAD Class
2. MCWP 3-25.10 LAAD BN Handbook
3. MCWP 3-25.10A LAAD Gunner's Handbook

ACPM-8008 4.0 * B (N) G

Goal. Demonstrate an understanding of the Marine Wing Communications Squadron (MWCS).

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify the mission of the MWCS.
2. Identify the structure and task organization of the MWCS.
3. Identify the Mission Essential Tasks (METs) for the MWCS.
4. Identify the major end items and their characteristics used by MWCS.
5. Identify the capabilities and limitations of the MWCS.
6. Identify how the MWCS is doctrinally employed as part of the MACCS.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 MWCS Employment Class
2. MCRP 3-30B.2 MAGTF Communications Systems
3. NAVMC 3500.56 Communications Training and Readiness Manual

ACPM-8020 1.0 * B (N) G

Goal. Demonstrate an understanding of the ACE stage of the MACCS ACPM.

Requirement. Pass a closed book examination that encompasses all learning objectives contained in the prerequisites.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. 8021, 8022, 8023, 8024, 8025, 8026, 8027, 8028.

Reference. C3 Course Catalog.

ACPM-8021 4.0 * B (N) G

Goal. Demonstrate an understanding of USMC aviation operations doctrine.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify the six functions of Marine aviation to include all their subsets.
2. Identify the organization and mission of the Marine Aircraft Wing (MAW), to include each type of group and squadron.
3. Define who has operational control of organic MAGTF aviation assets during Joint operations.
4. List the four types of sorties the MAGTF Commander makes available to the Joint Force.
5. Identify the purpose of the Air Tasking Order (ATO).
6. Identify the six phases of the air tasking cycle.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

Reference. MCWP 3-2 Aviation Operations

ACPM-8022 4.0 * B (N) G

Goal. Demonstrate an understanding of USMC doctrine for the control of aircraft and missiles.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify how the control of aircraft and missiles relates to the other five functions of USMC aviation.
2. Identify distinctions between Marine aviation philosophy and that of the other services.
3. Identify the principle objectives of the Marine Air Command and Control System (MACCS).
4. Describe how the COMMARFOR may serve as the Joint Force Air.
5. Component Commander (JFACC), Airspace Control Authority (ACA), and Area Air Defense Commander (AADC).

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 Control of Aircraft and Missiles Class
2. MCWP 3-25 Control of Aircraft and Missiles

ACPM-8023 4.0 * B (N) G

Goal. Demonstrate an understanding of USMC Offensive Air Support (OAS) doctrine.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify the purpose of the MAGTF Commanders Single Battle Concept.
2. Define the subcategories of OAS.
3. Define the requirements for effective OAS.
4. Define the three types of Deep Air Support (DAS).
5. Define the capabilities and limitations of the OAS function.

6. Identify the elements of a Joint Tactical Air Strike Request (JTAR).
7. Identify the three types of control of Close Air Support (CAS).

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 OAS Class
2. MCWP 3-23 Offensive Air Support

ACPM-8024	4.0	*	B	(N)	G

Goal. Demonstrate an understanding of USMC Assault Support doctrine.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Define the types of assault support operations.
2. Identify which aircraft conduct each of the types of assault support operations.
3. Identify the elements of an Assault Support Request (ASR).
4. List assault support capabilities and limitations.
5. Define the role of the air mission commander and the assault force commander during air assault operations.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 Assault Support Class
2. MAWTS-1 Direct Air Support Requests Class

ACPM-8025	4.0	*	B	(N)	G

Goal. Demonstrate an understanding of USMC Air Reconnaissance doctrine.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify the three categories of air reconnaissance.
2. Identify the four principals of air reconnaissance.
3. Identify the five prerequisites for effective air reconnaissance.
4. Identify the current USMC aircraft that have the mission of air reconnaissance.
5. Identify the form used to request air reconnaissance.
6. Identify the five supporting operations for effective air reconnaissance.
7. Identify the capabilities and limitations of air reconnaissance.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

Reference. MCWP 3-26 Air Reconnaissance

ACPM-8026 4.0 * B (N) G

Goal. Demonstrate an understanding of USMC Electronic Warfare (EW) doctrine.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Define radar.
2. List the three basic radar types.
3. Identify the limitations and characteristics of radar systems.
4. Identify the six guidance systems and how they work.
5. List the three subdivisions of Electronic Warfare (EW).

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 (S) Electronic Warfare Class—for additional training only, secret courseware should not to be used for testing purposesMAWTS-1 Direct Air Support Requests Class
2. MCWP 3-40.5 Electronic Warfare

ACPM-8027 4.0 * B (N) G

Goal. Demonstrate an understanding of USMC Antiair Warfare (AAW) doctrine.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Define AAW.
2. Define the two subsets of AAW.
3. Identify the principles of AAW.
4. Identify the types of Offensive Antiair Warfare (OAAW).
5. Identify the active air defense functions.
6. List three examples of passive air defense measures.
7. Define a Joint Engagement Zone (JEZ), Fighter Engagement Zone (FEZ), Missile Engagement Zone (MEZ), and Base Defense Zone (BDZ).
8. Define the air defense warning conditions.
9. Define the weapons control statuses.
10. Identify the responsibilities of the Regional Air Defense Commander (RADC) and the Sector Air Defense Commander (SADC).

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 Air Defense Class
2. MAWTS-1 Air Defense Commanders Class
3. MAWTS-1 Offensive Antiair Warfare Class
4. MCWP 3-22 Antiair Warfare

ACPM-8028 4.0 * B (N) G

Goal. Demonstrate an understanding of USMC Ground Support (AGS) doctrine.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify the organization responsible for providing AGS to the Marine Aircraft Wing (MAW).
2. Identify the 13 functions of AGS.
3. Identify the five activities that the Marine Wing Support Squadron (MWSS) performs for the ACE when deployed.
4. Identify the four basing concepts for MAGTF Forward Operating Bases (FOBs).
5. List the four classifications of FOBs.
6. Differentiate the distinguishing characteristics of FOBs.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 AGS Class
2. MCWP 3-21.1 Aviation Ground Support

ACPM-8040 1.0 * B (N) G

Goal. Demonstrate an understanding of the Threat stage of the MACCS ACPM.

Requirement. Pass a closed book examination that encompasses all learning objectives contained in the prerequisites.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. SI.

Prerequisite. 8041, 8042, 8043, 8044.

Reference. C3 Course Catalog.

ACPM-8041 4.0 * B (N) G

Goal. Demonstrate an understanding of the surface-to-antiair threat to the MAGTF.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Match the system name with the guidance and target aspect for the following Man Portable Air Defense Systems (MANPADS):
 - a. SA-7.
 - b. SA-14.
 - c. SA-16.
 - d. SA-18.
2. Match the system name with the guidance and associated radars for the following Radio Frequency Surface-to-Air Missile Systems (RF SAMS):
 - a. SA-2.
 - b. SA-6.
 - c. SA-8.

- d. SA-10.
 - e. SA-11.
 - f. SA-15.
 - g. SA-20.
 - h. Roland-III.
3. Match the system name with the type and associated radar for the following Air Defense Artillery (AAA):
- a. ZPU 1, 2, 4.
 - b. ZSU-23-4.
 - c. 2S6.
 - d. S-60.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

Reference. MAWTS-1 Marine Aviation Intelligence Reference
(<https://vcepub.tecom.usmc.mil/sites/msc/magtfrc/mawts1/departments1/newc3/default.aspx>)

ACPM-8042 4.0 * B (N) G

Goal. Demonstrate an understanding of the fixed wing threat to the MAGTF.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify the role of the AN-2 Colt.
2. Identify the role of the MIG-23 Flogger.
3. Identify the role of the MIG-29 Fulcrum.
4. Identify the role of the MIG-31 Foxhound.
5. Identify the role of the Su-24 Fencer.
6. Identify the role of the Su-25 Frogfoot.
7. Identify the role of the Su-27 Flanker.
8. Identify the role of the Su-30 Flanker.
9. Identify the role of the Tu-22M Backfire.
10. Identify the role of the Tu-95 Bear.
11. Identify the role of the Tu-160 Blackjack.
12. Identify the role of the J-7 Fishbed.
13. Identify the role of the JH-7 Flounder.
14. Identify the role of the J-8 Finback.
15. Identify the role of the J-10 Firebird.
16. Identify the role of the H-6 Badger.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

Reference. MAWTS-1 Marine Aviation Intelligence Reference
(<https://vcepub.tecom.usmc.mil/sites/msc/magtfrc/mawts1/departments1/newc3/default.aspx>)

ACPM-8043 4.0 * B (N) G

Goal. Demonstrate an understanding of the rotary wing threat to the MAGTF.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify the role of the Mi-24 Hind.
2. Identify the role of the SA 342 Gazelle.
3. Identify the role of the Ka-25 Hormone.
4. Identify the role of the Mi-6 Hook.
5. Identify the role of the Mi-28 Havoc.
6. Identify the role of the Mi-8 Hip.
7. Identify the role of the Ka-50 Kokum.
8. Identify the role of the Ka-29 Helix B.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

Reference. MAWTS-1 Marine Aviation Intelligence Reference
(<https://vcepub.tecom.usmc.mil/sites/msc/magftc/mawts1/departments1/newc3/default.aspx>)

ACPM-8044	4.0	*	B	(N)	G

Goal. Demonstrate an understanding of the missile and Unmanned Aircraft System (UAS) threat to the MAGTF.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Match the system name with the terminal guidance for the following Air-to-Surface Missiles:
 - a. AS-10 Karen.
 - b. AS-11 Kilter.
 - c. AS-12 Kegler.
 - d. AS-14 Kedge.
 - e. AS-17 Krypton.
2. Match the system name with the warhead and guidance for the following Surface-to-Surface Missiles:
 - a. FROG-7.
 - b. SCUD-B.
 - c. SCUD-C.
 - d. Nodong 1.
 - e. C 801.
 - f. C 802.
3. Identify the mission of the following threat UAS:
 - a. Ababil.
 - b. Mohajer.
 - c. Harpy.
 - d. Heron.
 - e. ASN-206.
 - f. Pchela-1T.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 Marine Aviation Intelligence Reference
2. <https://vcepub.tecom.usmc.mil/sites/msc/magtftc/mawts1/departments1/ne>
3. [wc3/default.aspx](https://vcepub.tecom.usmc.mil/sites/msc/magtftc/mawts1/departments1/ne)
4. Marine Corps Intelligence Activity Iran Country Handbook (appendix A)
5. Marine Corps Intelligence Activity North Korea Country Handbook (page 86)
6. Marine Corps Intelligence Activity China Country Handbook (appendix A)
<https://www.intelink.gov/mcia/handbook.htm>
7. MCIA UAV Recognition Guide <https://www.intelink.gov/mcia/index.htm>

ACPM-8060 1.0 * B (N) G

Goal. Demonstrate an understanding of the MAGTF stage of the MACCS ACPM.

Requirement. Pass a closed book examination that encompasses all learning objectives contained in the prerequisites.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. SI.

Prerequisite. 8061, 8062, 8063, 8064, 8065.

Reference. C3 Course Catalog.

ACPM-8061 4.0 * B (N) G

Goal. Demonstrate an understanding of the MAGTF ground combat operations.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify how the Ground Combat Element (GCE) is employed as part of the MAGTF and the capabilities the GCE provides to the MAGTF commander.
2. Define the following items related to command and control of ground combat operations:
 - a. Echelons of the GCE headquarters.
 - b. Battlespace Organization.
 - c. Battlespace Framework.
3. Define the five types of amphibious operations.
4. Identify the following items related to offensive operations:
 - a. Types of offensive operations.
 - b. Types of attack.
 - c. Forms of maneuver.
 - d. Distribution of forces.
5. Identify the following items related to defensive operations:
 - a. Organization of the defense.
 - b. Distribution of forces.
 - c. Types of defensive operations.
 - d. Defensive methods.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MCDP 1-0 Marine Corps Operations
2. MCWP 3-1 Ground Combat Operations

ACPM-8062 4.0 * B (N) G

Goal. Demonstrate an understanding of fire support coordination in the Ground Combat Element (GCE).

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify the four fire support tasks.
2. List the functions of the senior fire support coordination center (FSCC) in the GCE.
3. List the four steps of the MAGTF Targeting Process.
4. Define the purpose of essential fire support tasks (EFST).

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 MAGTF Targeting and Fire Support Planning Class
2. MCWP 3-16 Fire Support Coordination in the GCE

ACPM-8063 4.0 * B (N) G

Goal. Demonstrate an understanding of MAGTF command and control.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify MAGTF command and support relationships.
2. Identify the purpose and role of the command and control centers in the CE, ACE, GCE, and LCE.
3. Identify the purpose and role of the amphibious command and control facilities.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

Reference. MCWP 3-40.1 MAGTF C2

ACPM-8064 4.0 * B (N) G

Goal. Demonstrate an understanding of MAGTF communications.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify the six characteristics of communications and information systems.
2. Identify the mission and organizational structure of the Communications Battalion.
3. Identify the purpose of the Communications-Electronics Operating Instructions (CEOI) and what information is usually included in it.
4. Identify what information can be found in Annex K of an operations order.
5. Identify the purpose of select fires, support, and ACE specific radio nets.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

Reference. MCWP 3-40.3 MAGTF Communications System

ACPM-8065	4.0	*	B	(N)	G

Goal. Demonstrate an understanding of phasing control ashore.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify types of amphibious operations and how command relationships may change during the conduct of each.
2. Identify how disputes among commanders during amphibious operations are resolved.
3. Identify the key commanders and command relationships.
4. Identify the key characteristics of each phase in phasing the MACCS ashore.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 Phasing Control Ashore Class
2. JP 3-02 Joint Doctrine for Amphibious Operations (Ch 2)
3. MCWP 3-25 Control of Aircraft and Missiles (Appendix C)

ACPM-8066	4.0	*	B	(N)	G

Goal. Demonstrate an understanding of information management.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Match the principles of information management with their descriptions.
2. Define each of the classes of information within an information hierarchy.
3. List the characteristics of quality information.
4. Identify the role and responsibilities of an Information Management Officer (IMO).
5. Define C2 support structure and the three steps followed to develop one.
6. Identify the purpose of an information management matrix and the information management plan.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

Reference. MCWP 3-40.2 Information Management

ACPM-8067	4.0	*	B	(N)	G

Goal. Demonstrate an understanding of Unmanned Aircraft Systems in support of MAGTF operations.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify the four types of payloads.
2. Identify the three attributes that determine UAS Groups.
3. Identify the five different UAS Group Categories.
4. Identify the two types of VMU operational employment.
5. Identify the three components of the RQ-7B Communications Relay Package.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 UAS In Support of MAGTF Operations
2. MCRP 3-42.1A
3. NTTP 3-22.3-VMU

ACPM-8080	1.0	*	B	(N)	G

Goal. Demonstrate an understanding of the MAGTF stage of the joint air operations stage of the MACCS ACPM.

Requirement. Pass a closed book examination that encompasses all learning objectives contained in the prerequisites.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. SI.

Prerequisite. 8081, 8082, 8083, 8084, 8085, 8086, 8087, 8088.

Reference. C3 Course Catalog.

ACPM-8081	4.0	*	B	(N)	G

Goal. Demonstrate an understanding of the command and control of joint air operations.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify the definition of joint air operations.
2. Identify the Joint Force Air Component Commander's responsibilities.
3. Identify the five sections that comprise the Joint Air Operations Center.
4. Identify the six phases of the Joint Air Tasking Cycle.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives or pass the DOCNET course listed below with a score of 80% or higher.

Instructor. BI.

Prerequisite. None.

References.

1. DOCNET Course 3-30 (<http://www.dtic.mil/doctrine/docnet/>)
2. MAWTS-1 Joint Air Operations Class

3. JP 3-30 C2 of Joint Air Operations

ACPM-8082 4.0 * B (N) G

Goal. Demonstrate an understanding of the theater air ground system (TAGS).

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. List the primary characteristics of the Theater Air Ground System (TAGS).
2. Identify the elements within the Air Force's Theater Air Control System (TACS) and their primary responsibilities.
3. Identify the aviation command and control elements with the Army Air and Ground System (AAGS) and their primary responsibilities.
4. Identify the aviation elements within the Navy's Composite Warfare Commander (CWC) architecture.
5. Identify the Amphibious Task Force (ATF) construct and its primary responsibilities.
6. Identify the aviation command and control elements within the Special Operations Air-Ground System.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 TAGS ClassMAWTS-1 Joint Air Operations Class
2. ALSA TAGS Pub. (<https://wwwmil.alsa.mil/default.aspx>)

ACPM-8083 4.0 * B (N) G

Goal. Demonstrate an understanding of joint fire support doctrine.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Define joint fires.
2. Define joint fire support.
3. Identify the steps of the joint fire support planning process.
4. List the various elements of the component commander's fires command and control system.
5. Define the various joint control and coordination measures associated with joint fire support.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives or pass the DOCNET course listed below with a score of 80% or higher.

Instructor. BI.

Prerequisite. None.

References.

1. DOCNET Course 3-09 (<http://www.dtic.mil/doctrine/docnet/>)
2. JP 3-09 Joint Fire Support

ACPM-8084 4.0 * B (N) G

Goal. Demonstrate an understanding of close air support (CAS) doctrine.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Explain key roles and responsibilities related to the planning and execution of CAS.
2. Detail key steps in the planning and execution of CAS.
3. Describe various coordination measures used in the planning and conduct of CAS.
4. Describe the manner in which the two types of CAS requests are fulfilled.
5. Identify the goal and purpose of synchronizing CAS with surface fires.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives or pass the DOCNET course listed below with a score of 80% or higher.

Instructor. BI.

Prerequisite. None.

References.

1. DOCNET Course 3-09 (<http://www.dtic.mil/doctrine/docnet/>)
2. MAWTS-1 CAS Class
3. JP 3-09.3 Close Air Support

ACPM-8085 4.0 * B (N) G

Goal. Demonstrate an understanding of joint targeting doctrine.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify types of targets.
2. Identify and describe the six phases of the joint targeting cycle.
3. Identify characteristics of a target.
4. Identify and describe steps in dynamic targeting.
5. Describe roles and responsibilities related to the joint targeting process.
6. Describe key products and processes of the joint targeting cycle.
7. Identify key terms related to the joint targeting process.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives or pass the DOCNET course listed below with a score of 80% or higher.

Instructor. BI.

Prerequisite. None.

References.

1. DOCNET Course 3-09 (<http://www.dtic.mil/doctrine/docnet/>)
2. JP 3-60 Joint Targeting

ACPM-8086 4.0 * B (N) G

Goal. Demonstrate an understanding of the North Atlantic Treaty Organization (NATO).

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify the composition of the NATO alliance.
2. Identify the three key articles of the NATO alliance.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 NATO Class
2. "What is NATO" Brief (http://www.nato.int/welcome/intro_to_NATO_en.ppt)
3. AJP-01(D)

ACPM-8087 4.0 * B (N) G

Goal. Demonstrate an understanding of joint airspace control doctrine.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify the responsibilities of the airspace control authority (ACA).
2. Identify the basic principles for airspace control.
3. Identify the purpose of the airspace control plan (ACP).
4. Identify the purpose of the airspace control order (ACO).
5. Identify the methods of airspace control.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 Airspace Control Authority and Airspace Class
2. JP 3-52 Joint Airspace Control

5.15 T&R SYLLABUS MATRIX.

5948 T&R SYLLABUS MATRIX										
STAGE	CODE	TITLE	POI	DEVICE	COND	PROFICIENCY PERIOD	E-CODE	TIME	PREREQ	CHAIN
CORE INTRODUCTION PHASE (1000)										
5900 COMMONS (59CM) STAGE										
59CM	0001	Describe the characteristics of the Marine Air Command and Control System (MACCS).	B	G	(N)	*	*	0	*	*
59CM	0002	Measure circuit performance.	B	G	(N)	*	*	0	*	*
59CM	0003	Configure MACCS radios for secure RF communications.	B	G	(N)	*	*	0	*	*
59CM	0004	Describe proper handling and storage of classified materials.	B	G	(N)	*	*	0	*	*
59CM	0005	Provide cybersecurity technical support for MACCS specific equipment.	B	G	(N)	*	*	0	*	*
59CM	0006	Repair common cables.	B	G	(N)	*	*	0	*	*
59CM	0007	Demonstrate an earth ground installation.	B	G	(N)	*	*	0	*	*
59CM	0008	Inspect common cables.	B	G	(N)	*	*	0	*	*
TOTAL HOURS 5900 COMMONS (59CM) STAGE			EVENTS	8		HOURS		0		
AIR SCHOOL (AIRS)										
AIRS	1050	Perform corrective maintenance on the AN/TPS-59A(V)3 Radar system to the Line Replaceable Unit (LRU).	B	G	(N)	*	*	0	*	*
AIRS	1051	Perform corrective maintenance on the Digital Interrogator to the Line Replaceable Unit (LRU).	B	G	(N)	*	*	0	*	*
AIRS	1052	Assemble the AN/TPS-59A(V)3 Radar system.	B	G	(N)	*	*	0	*	*
AIRS	1053	Perform post emplacement procedures on the AN/TPS-59A(V)3 Radar system.	B	G	(N)	*	*	0	*	*
AIRS	1055	Operate the AN/TPS-59A(V)3 Radar system.	B	G	(N)	*	*	0	*	*

5948 T&R SYLLABUS MATRIX										
STAGE	CODE	TITLE	POI	DEVICE	COND	PROFICIENCY PERIOD	E-CODE	TIME	PREREQ	CHAIN
AIRS	1056	Perform Condition Based Maintenance (CBM) on Air Defense Surveillance Radar (ADSR GB1).	B	G	(N)	*	*	0	*	*
AIRS	1057	Perform Preventive Maintenance Checks and Services (PMCS) on the ADSR GB1.	B	G	(N)	*	*	0	*	*
AIRS	1058	Perform radar track management for the ADSR GB1.	B	G	(N)	*	*	0	*	*
AIRS	1059	Configure the ADSR GB1.	B	G	(N)	*	*	0	*	*
AIRS	1060	Emplace the ADSR GB1.	B	G	(N)	*	*	0	*	*
AIRS	1061	Prepare the AN/TPS-59A(V)3 Radar for relocation.	B	G	(N)	*	*	0	*	*
AIRS	1062	Displace the AN/TPS-80 ADSR.	B	G	(N)	*	*	0	*	*
AIRS	1063	Install IFF equipment in the AN/TPS-59A(V)3.	B	G	(N)	*	*	0	*	*
AIRS	1065	Perform preventive maintenance on the ANTPS-59A(V)3 Radar system.	B	G	(N)	*	*	0	*	*
TOTAL HOURS AIR SCHOOL (AIRS) STAGE			EVENTS		14	HOURS		0		
CORE PHASE (2000)										
BASIC EQUIPMENT MAINTAINER (BEM) SKILL										
MMCN	2001	State the physical security requirements for classified areas.	B,R	G	(N)	*	*	1	*	*
MMCN	2004	Operate the handheld GPS.	B,R,M	L	(N)	1095	*	2	*	*
MMGT	2070	Complete Maintenance Management Program familiarization.	B,R	G	(N)	*	*	4	*	*
MMGT	2071	Conduct an SL-3 inventory.	B	L	(N)	*	*	2	*	*
IFF	2351	Describe the theory of operation of Identification Friend or Foe (IFF).	B,R	G	(N)	*	*	2	*	*
TDL	2826	State the characteristics of Cooperative Engagement Capability (CEC).	B	G	(N)	*	*	1	2351	*
TOTAL HOURS BASIC EQUIPMENT MAINTAINER (BEM) SKILL			EVENTS	6		HOURS		12		
MEDIUM RANGE RADAR CONFIG AND OPERATION (MRROC) SKILL										

5948 T&R SYLLABUS MATRIX

5948 T&R SYLLABUS MATRIX										
STAGE	CODE	TITLE	POI	DEVICE	COND	PROFICIENCY PERIOD	E-CODE	TIME	PREREQ	CHAIN
RDR	2361	Explain the theory of electronic countermeasure (ECM) and electronic counter-countermeasures (ECCM).	B,R,M	G	(N)	1095	*	2	*	*
MRR	2500	Describe the operation of the System Disk and the purpose of each CSCI (Computer Software Configuration Item).	B,R,M	G	(N)	1095	*	2	*	*
MRR	2503	Configure the AN/TPS-80 ADSR for an operational environment.	B,R	L	(N)	*	*	4	*	*
MRR	2506	Verify connection between the AN/TPS-80 ADSR and a C2 node.	B,R	L	(N)	*	*	4	2503	*
MRR	2508	Describe each GET function of the AN/TPS-80 ADSR.	B	L	(N)	*	*	2	2361	*
MRR	2510	Describe the transmit path of the AN/TPS-80 ADSR.	B	L	(N)	*	*	2	*	*
MRR	2511	Describe the receive path of the AN/TPS-80 ADSR.	B	L	(N)	*	*	2	*	*
MRR	2512	Describe IFF and its components in the AN/TPS-80 ADSR.	B	L	(N)	*	*	2	2351	*
TOTAL HOURS MEDIUM RANGE RADAR CONFIG AND OPERATION (MRROC) SKILL			EVENTS	8		HOURS		20		
BASIC SYSTEM EMPLOYMENT TECHNICIAN (BSET) SKILL										
MMCN	2000	Operate a common fill device.	B,R	L	(N)	*	*	2	*	*
MMCN	2005	Demonstrate an earth ground installation.	B,R,M	L	(N)	365	*	1	*	*
DEPL	2100	Write a packing list.	B	L	(N)	*	*	2	*	*
RDR	2362	Operate the paving breaker.	B	L	(N)	*	*	4	*	*
RDR	2363	Operate the rotary hammer.	B	L	(N)	*	*	2	*	*
TOTAL HOURS BASIC SYSTEM EMPLOYMENT TECHNICIAN (BSET) SKILL			EVENTS	5		HOURS		11		
INTERMEDIATE EQUIPMENT MAINTENANCE (IEM) SKILL										
IFF	2350	Perform corrective maintenance on the Digital Interrogator.	B,R	L	(N)	*	*	2	*	*

5948 T&R SYLLABUS MATRIX										
STAGE	CODE	TITLE	POI	DEVICE	COND	PROFICIENCY PERIOD	E-CODE	TIME	PREREQ	CHAIN
RDR	2365	Conduct preventive maintenance checks and services on radars.	B,R	L	(N)	*	*	2	*	*
MRR	2505	Perform corrective maintenance on the AN/TPS-80 ADSR to the LRU.	B,R,M	L	(N)	730	*	2	*	*
TOTAL HOURS INTERMEDIATE EQUIPMENT MAINTENANCE (IEM) SKILL			EVENTS	3		HOURS		6		
MEDIUM RANGE RADAR EMPLOYMENT TECHNICIAN (MRRET) SKILL										
MRR	2501	Disassemble the AN/TPS-80 ADSR system.	B,R,M	L	(N)	1095	*	2	*	*
MRR	2502	Assemble the AN/TPS-80 ADSR.	B,R,M	L	(N)	1095	*	2	*	*
MRR	2504	Identify AN/TPS-80 ADSR embarkation considerations.	B,R,M	L	(N)	1095	*	2	*	*
MRR	2509	Utilize LINUX functions to verify connectivity and operation of software and hardware within the AN/TPS-80 ADSR.	B	L	(N)	*	*	2	*	*
TOTAL HRS MEDIUM RANGE RADAR EMPLOYMENT TECHNICIAN (MRRET) SKILL			EVENTS	4		HOURS		8		
MISSION PHASE (3000)										
ADVANCED MEDIUM RANGE RADAR EMPLOYMENT TECHNICIAN (AMRRET) SKILL										
MMCN	2002	Extract key material information from COMSEC callout.	B,R	G	(N)	*	*	2	*	*
MMCN	2003	Create a classified area physical security diagram.	B,R	L	(N)	*	*	2	2001	*
DEPL	2103	Identify power requirements.	B,R	G	(N)	*	*	4	*	*
RDR	2364	Identify hazards specific to the radars.	B,R,M	G	(N)	1095	*	2	*	*
MRR	2501	Disassemble the AN/TPS-80 ADSR system.	B,R,M	L	(N)	1095	*	2	*	*
MRR	2502	Assemble the AN/TPS-80 ADSR.	B,R,M	L	(N)	1095	*	2	*	*
MRR	2504	Identify AN/TPS-80 ADSR embarkation considerations.	B,R,M	L	(N)		*	2	*	*
MRR	2509	Utilize LINUX functions to verify connectivity and operation of software and hardware within the AN/TPS-80 ADSR.	B	L	(N)	*	*	2	*	*

5948 T&R SYLLABUS MATRIX

STAGE	CODE	TITLE	POI	DEVICE	COND	PROFICIENCY PERIOD	E-CODE	TIME	PREREQ	CHAIN
MRR	3510	Optimize the configuration of the AN/TPS-80 ADSR for an operational environment.	B,R,M	L	(N)	1095	*	2	2503	*
MMCN	3032	Fill the handheld GPS with the appropriate crypto.	B	L	(N)	*	*	2	2000, 2003	*
TOTAL HOURS MRR EMPLOYMENT TECHNICIAN (AMRRET) SKILL			EVENTS	10		HOURS		22		
ADVANCED EQUIPMENT MAINTAINER (AEM) SKILL										
RDR	2360	Define RF wave propagation.	B,R,M	G	(N)	1095	*	2	*	*
MRR	2507	Verify AN/TPS-80 ADSR system performance.	B,R,M	L	(N)	730	*	2	2503, 2505	*
MRR	3513	Supervise system troubleshooting on the AN/TPS-80 ADSR.	B,R,M	L	(N)	1095	*	8	2505	*
TOTAL HOURS ADVANCED EQUIPMENT MAINTAINER (AEM) SKILL			EVENTS	3		HOURS		12		
MEDIUM RANGE RADAR CREW CHIEF (MRRCC) SKILL										
DEPL	2101	Extract key information from communication planning documents.	B	G	(N)	*	*	2	2003	*
DEPL	2102	Determine supply support requirements.	B,R	G	(N)	*	*	4	*	*
MMCN	2006	Develop an embarkation plan.	B,R,M	L	(N)	1095	*	2	2385	*
DEPL	2104	Describe common agency doctrinal nets.	B	G	(N)	*	*	3	*	*
MMCN	2007	Identify spectrum management procedures.	B,R,M	G	(N)	1095	*	2	*	*
DEPL	2105	Identify communication service requirements.	B	G	(N)	*	*	8	*	*
DEPL	2106	Identify crew requirements.	B	G	(N)	*	*	2	*	*
MMCN	2008	Complete a Bill of Material (BOM) request.	B,R	L	(N)	*	*	4	2102	*
DEPL	3060	Supervise the preparation of an MRR for embarkation.	B,R	L	(N)	*	*	8	2100, 2501	*
DEPL	3061	Identify Operational Requirements.	B,R,M	G	(N)	1095	*	6	2001, 2003, 2100, 2101, 2103, 2006, 2104, 2007, 2105, 2106, 2008	*
MMCN	3031	Conduct a site survey.	B,R,M	L	(N)	1095	*	8	2003, 2103, 2364	*

5948 T&R SYLLABUS MATRIX										
STAGE	CODE	TITLE	POI	DEVICE	COND	PROFICIENCY PERIOD	E-CODE	TIME	PREREQ	CHAIN
MMGT	3050	Conduct QC procedures.	B,R, M	L	(N)	1095	*	6	2070, 2071, 2102, 2103, 2104, 2105, 2108	*
MMCN	3030	Deploy a MACCS capability.	B,R,M	L	(N)	1095	*	8	2006, 2100, 2106, 2008	*
MRR	3511	Supervise the assembly of the AN/TPS-80 ADSR.	B	L	(N)	*	*	8	2502	*
MRR	3512	Deploy an AN/TPS-80 ADSR in support of operations.	B,R,M	L	(N)	1095	*	12	2006, 3510, 3511, 3515	*
MRR	3515	Supervise the disassembly of the AN/TPS-80 ADSR.	B,R,M	L	(N)	1095	*	8	2501	*
MRR	3516	Troubleshoot external interface output on the MRR.	B,R,M	L	(N)	1095	*	4	2506	*
TOTAL HOURS MEDIUM RANGE RADAR CREW CHIEF (MRRCC) SKILL			EVENTS	17		HOURS		95		
CORE PLUS PHASE (4000)										
MAINTENANCE MANAGEMENT SKILL										
MMGT	4250	Assess maintenance shop performance.	B,R,M	L	(N)	1095	*	4	2070	*
MMGT	4251	Assess maintenance section funding requirements.	B,R,M	G	(N)	1095	*	2	2070	*
MMGT	4252	Induct equipment into the maintenance cycle.	B,R,M	L	(N)	1095	*	1	2070	*
MMGT	4253	Create a PMCS schedule.	B	G	(N)	*	*	1	2070	*
MMGT	4254	Submit a Product Quality Deficiency Report (PQDR).	B	L	(N)	*	*	2	2070	*
MMGT	4255	Identify the SECREP management process.	B	G	(N)	*	*	2	2070	*
MMGT	4256	Explain equipment disposition procedures.	B	G	(N)	*	*	4	2070, 2071, 2102	*
MMGT	4257	Reconcile Global Combat Support System (GCSS) -MC reports.	B	G	(N)	*	*	4	2070	*
MMGT	4258	Verify inventory control procedures are implemented.	B	L	(N)	*	*	1	2070, 2102	*
CORE PLUS SKILL			EVENTS	9		HOURS		21		
INSTRUCTOR TRAINING PHASE (5000)										
INSTRUCTOR UNDER TRAINING (IUT) SKILL										
IUT	5000	Introduce principles of instruction.	B	G	(N)	*	*	2	*	*

5948 T&R SYLLABUS MATRIX

5948 T&R SYLLABUS MATRIX										
STAGE	CODE	TITLE	POI	DEVICE	COND	PROFICIENCY PERIOD	E-CODE	TIME	PREREQ	CHAIN
IUT	5010	Describe individual T&R requirements.	B	G	(N)	*	*	2	*	*
IUT	5020	Conduct T&R instruction..	B,R,M	L	(N)	90	*	12	5000, 5010	*
IUT	5100	Describe the Aviation Training and Readiness (T&R) Program.	B	G	(N)	*	*	2	*	*
IUT	5110	Conduct instructor evaluations.	B,R,M	L	(N)	365	*	4	5100	*
IUT	5120	Perform T&R administration.	B	L	(N)	*	*	2	5100, 5110	*
IUT	5130	Develop a training plan.	B	L	(N)	*	*	2	5100, 5110, 5120	*
INSTRUCTOR UNDER TRAINING (IUT)			EVENTS	7		HOURS		26		
CERTIFICATIONS, QUALIFICATIONS, AND DESIGNATIONS (CQD) PHASE (6000)										
CERTIFICATIONS (CERT)										
CERT	6260	CSWF Technical Support Specialist.	B	G	(N)	*	*	1	6041, 6042, 6046, 6049	*
CERT	6261	CSWF IT Specialist.	B	G	(N)	*	*	1	6042, 6043 6046, 6047, 6048, 6049, 6050	*
CERT	6262	CSWF System Administrator.	B	G	(N)	*	*	1	6041, 6042, 6043, 6046, 6047, 6048, 6049, 6050	*
CERTIFICATIONS (CERTS)			EVENTS	3		HOURS		3		
DESIGNATIONS (DESG)										
DESG	6320	Basic Instructor (BI)	B	G	(N)	*	*	0.5	5000, 5010, 5020	*
DESG	6321	Senior Instructor (SI)	B	G	(N)	*	*	0.5	5000, 5010, 5020, 5100, 5110, 5120, 5130	*
DESG	6322	Weapons and Tactics Instructor (WTI)	B	G	(N)	*	*	0.5	6000	*
DESG	6330	Formal Learning Center Instructor (FLCI)	B	G	(N)	*	*	0.5	6096	*
DESIGNATION (DESG)			EVENTS	4		HOURS		2		
SCHOOL (SCHL)										
SCHL	6000	WTI Course.	B	G	(N)	*	*	0.5	6320, 6321, 8000, 8020, 8040, 8060, 8080	*
SCHL	6020	Link 16 Basics Course (JT-100).	B	G	(N)	*	*	0.5	*	*
SCHL	6021	Intro to Multi TDL Network Course (JT-101).	B	G	(N)	*	*	0.5	*	*
SCHL	6022	Multi-TDL Advanced Joint Interoperability Course (MAJIC) (JT-102).	B	G	(N)	*	*	0.5	*	*
SCHL	6024	Multi TDL Planners Course (JT-201).	B	G	(N)	*	*	0.5	*	*

5948 T&R SYLLABUS MATRIX										
STAGE	CODE	TITLE	POI	DEVICE	COND	PROFICIENCY PERIOD	E-CODE	TIME	PREREQ	CHAIN
SCHL	6025	Link 16 Unit Manager (LUM) Course (JT-220).	B	G	(N)	*	*	0.5	*	*
SCHL	6026	Joint Interface Control Officer (JT-301).	B	G	(N)	*	*	0.5	6022, 6024	*
SCHL	6027	Advanced JICC Operator Course (JT-310)	B	G	(N)	*	*	0.5	*	*
SCHL	6030	MATCD Work Center Supervisors Course.	B	G	(N)	*	*	0.5	*	*
SCHL	6031	MATC Maintenance Managers Course.	B	G	(N)	*	*	0.5	*	*
SCHL	6073	Microminiature Electronics Repair Course.	B	G	(N)	*	*	0.5	*	*
SCHL	6079	JRE-GW Operators Course.	B	G	(N)	*	*	0.5	*	*
SCHL	6093	Micro-Miniature Repair Course.	B	G	(N)	*	*	0.5	*	*
SCHL	6094	Advanced Electronics Course.	B	G	(N)	*	*	0.5	*	*
SCHL	6095	Ground Electronics Maintenance NCO Course.	B	G	(N)	*	*	0.5	*	*
SCHL	6096	Formal Learning Center Instructor (FLC) Course.	B	G	(N)	*	*	0.5	*	*
SCHL	6097	Mountain Communications Course.	B	G	(N)	*	*	0.5	*	*
SCHL	6098	Electromagnetic Spectrum Manager Course.	B	G	(N)	*	*	0.5	*	*
SCHL	6099	Aviation Radar Technician Skill Progression Course.	B	G	(N)	*	*	0.5	*	*
SCHOOL (SCHL)			EVENTS	19		HOURS		9.5		
CYBER SECURITY WORKFORCE (CSWF)										
CSWF	6041	Perform account management.	B,R,M	L	(N)	1095	*	2	*	*
CSWF	6042	Explain risk management involved in operational security.	B,R,M	G	(N)	1095	*	4	*	*
CSWF	6043	Explain computer and network cryptography.	B,R,M	G	(N)	1095	*	4	*	*
CSWF	6046	Explain Network Media and Topologies.	B,R	G	(N)	*	*	4	*	*
CSWF	6047	Explain Troubleshooting of Computer and Network equipment.	B,R	G	(N)	*	*	4	*	*
CSWF	6048	Administer data system host security measures.	B,R, M	L	(N)	1095	*	4	*	*
CSWF	6049	Perform network management.	B,R, M	L	(N)	1095	*	4	*	*
CSWF	6050	Design network architecture.	B,R, M	L	(N)	1095	*	4	*	*
CYBER SECURITY WORKFORCE (CSWF)			EVENTS	8		HOURS		30		
MISSION ESSENTIAL TASK PHASE (7000)										

5948 T&R SYLLABUS MATRIX

5948 T&R SYLLABUS MATRIX										
STAGE	CODE	TITLE	POI	DEVICE	COND	PROFICIENCY PERIOD	E-CODE	TIME	PREREQ	CHAIN
TAOC CONDITION (TAOC)										
COND	7100	Conduct Airspace Surveillance.	B,R,M	L	(N)	730	E	16	*	*
COND	7101	Conduct Positive Control.	B,R,M	L/S	(N)	730	E	16	*	*
COND	7102	Coordinate Air Defense Actions.	B,R,M	L/S	(N)	730	E	16	*	*
COND	7103	Conduct Dual Site Air Defense Operations.	B,R,M	L/S	(N)	730	E	16	*	*
COND	7104	Integrate Operational Air Defense Capabilities.	B,R,M	L/S	(N)	730	E	16	*	*
TAOC CONDITION (TAOC)			EVENTS	5		HOURS		80		
AVIATION CAREER PROGRESSION MODEL PHASE (ACPM) (8000)										
AVIATION CAREER PROGRESSION MODEL (ACPM)										
ACPM	8000	MACCS	B	G	(N)	*	*	1	8001, 8002, 8003, 8004, 8005, 8006, 8008	*
ACPM	8001	Marine Air Command and Control System	B	G	(N)	*	*	4	*	*
ACPM	8002	Tactical Air Command Center (TACC)	B	G	(N)	*	*	4	*	*
ACPM	8003	Direct Air Support Center (DASC)	B	G	(N)	*	*	4	*	*
ACPM	8004	Tactical Air Operations Center (TAOC)	B	G	(N)	*	*	4	*	*
ACPM	8005	Marine Air Traffic Control (MATC)	B	G	(N)	*	*	4	*	*
ACPM	8006	Low Altitude Air Defense (LAAD)	B	G	(N)	*	*	4	*	*
ACPM	8008	Marine Wing Communications Squadron (MWCS)	B	G	(N)	*	*	4	*	*
ACPM	8020	ACE	B	G	(N)	*	*	1	8021, 8022, 8023, 8024, 8025, 8026, 8027, 8028	*
ACPM	8021	Aviation Operations	B	G	(N)	*	*	4	*	*
ACPM	8022	Control of Aircraft and Missiles	B	G	(N)	*	*	4	*	*
ACPM	8023	Offensive Air Support (OAS)	B	G	(N)	*	*	4	*	*
ACPM	8024	Assault Support (AS)	B	G	(N)	*	*	4	*	*
ACPM	8025	Air Reconnaissance	B	G	(N)	*	*	4	*	*
ACPM	8026	Electronic Warfare (EW)	B	G	(N)	*	*	1	*	*
ACPM	8027	Anti-Air Warfare (AAW)	B	G	(N)	*	*	4	*	*
ACPM	8028	Aviation Ground Support	B	G	(N)	*	*	4	*	*
ACPM	8040	Threat	B	G	(N)	*	*	1	8041, 8042, 8043, 8044	*
ACPM	8041	Surface to Air threat to the MAGTF	B	G	(N)	*	*	4	*	*
ACPM	8042	Fixed Wing threat to the MAGTF	B	G	(N)	*	*	4	*	*

5948 T&R SYLLABUS MATRIX										
STAGE	CODE	TITLE	POI	DEVICE	COND	PROFICIENCY PERIOD	E-CODE	TIME	PREREQ	CHAIN
ACPM	8043	Rotary Wing threat to the MAGTF	B	G	(N)	*	*	4	*	*
ACPM	8044	Missile and UAS threat to the MAGTF	B	G	(N)	*	*	4	*	*
ACPM	8060	MAGTF	B	G	(N)	*	*	1	8061, 8062, 8063, 8064, 8065, 8066, 8067	*
ACPM	8061	Ground Combat Operations	B	G	(N)	*	*	4	*	*
ACPM	8062	Fire Support Coordination in the GCE	B	G	(N)	*	*	4	*	*
ACPM	8063	MAGTF Command and Control	B	G	(N)	*	*	4	*	*
ACPM	8064	MAGTF Communications	B	G	(N)	*	*	4	*	*
ACPM	8065	Phasing Control Ashore	B	G	(N)	*	*	4	*	*
ACPM	8066	Information Management	B	G	(N)	*	*	4	*	*
ACPM	8067	UAS support of the MAGTF	B	G	(N)	*	*	4	*	*
ACPM	8080	Joint Air Operations	B	G	(N)	*	*	1	8081, 8082, 8083, 8084, 8085, 8086, 8087, 8088	*
ACPM	8081	Command and Control of Joint Air Operations	B	G	(N)	*	*	4	*	*
ACPM	8082	Theater Air Ground System (TAGS)	B	G	(N)	*	*	4	*	*
ACPM	8083	Joint Fire Support	B	G	(N)	*	*	4	*	*
ACPM	8084	Close Air Support (CAS)	B	G	(N)	*	*	4	*	*
ACPM	8085	Joint Targeting	B	G	(N)	*	*	4	*	*
ACPM	8086	North Atlantic Treaty Organization (NATO)	B	G	(N)	*	*	4	*	*
ACPM	8087	Joint Airspace Control	B	G	(N)	*	*	4	*	*
ACPM	8088	Countering Air and Missile Threats	B	G	(N)	*	*	4	*	*
AVIATION CAREER PROGRESSION MODEL (ACPM)			EVENTS	39		HOURS		138		

5.15.1 MIRRORING.

MACCS MAINTENANCE MIRRORING (5948)			
NEW EVENT	TACC	TAOC	DASC
MMCN-2000		SEC-2001	
MMCN-2001		SEC-2002	
MMCN-2002		SEC-2003	
MMCN-2003		SEC-2004	
MMCN-2004		FAM-2022	
MMCN-2005		*	
MMCN-2006		DEPL-2137	
MMCN-2007		DEPL-2140	
MMCN-2008		DEPL-2138	
CSWF-6041		CANT-2041	
CSWF-6042		CANT-2042	
CSWF-6043		CANT-2043	
CSWF-6044		CANT-2044	
CSWF-6046		CANT-2046	
CSWF-6047		*	
MMGT-2070		MMGT-2100	
MMGT-2071		MMGT-2101	
DEPL-2100		DEPL-2130	
DEPL-2101		DEPL-2131	
DEPL-2102		DEPL-2132	
DEPL-2103		DEPL-2133	
DEPL-2104		DEPL-2139	
DEPL-2105		DEPL-2141	
DEPL-2106		DEPL-2142	
IFF-2350		IFF-2352	
IFF-2351		IFF-2353	
RDR-2360		RDR-2361	
RDR-2361		RDR-2362	
RDR-2362		RDR-2365	
RDR-2363		*	
RDR-2364		RDR-2480	
RDR-2365		RDR-2486	
MRR-2500		*	
MRR-2501		MRR-2546	
MRR-2502		MRR-2547	
MRR-2503		MRR-2548	
MRR-2504		MRR-2550	
MRR-2505		MRR-2552	

MACCS MAINTENANCE MIRRORING (5948)			
NEW EVENT	TACC	TAOC	DASC
MRR-2506		MRR-2570	
MRR-2507		MRR-2571	
MRR-2508		*	
MRR-2509		*	
MRR-2510		*	
MRR-2511		*	
MRR-2512		*	
TDL-2826		TDL-2826	
MMCN-3030		DEPL-3040	
MMCN-3031		*	
MMCN-3032		*	
MMGT-3050		MMGT-3020	
DEPL-3060		DEPL-3040	
DEPL-3061		DEPL-3041	
MRR-3510		MRR-3580	
MRR-3511		MRR-3581	
MRR-3512		MRR-3582	
MRR-3513		MRR-3583	
MRR-3515		MRR-3586	
MRR-3516		*	
MMGT-4250		MMGT-4900	
MMGT-4251		MMGT-4901	
MMGT-4252		*	
MMGT-4253		*	
MMGT-4254		*	
MMGT-4255		*	
MMGT-4256		*	
MMGT-4257		*	
MMGT-4258		*	

CHAPTER 6

MARINE AIR TRAFFIC CONTROL SYSTEMS MAINTENANCE OFFICER (MOS 5950)
INDIVIDUAL TRAINING AND READINESS REQUIREMENTS

	<u>PARAGRAPH</u>	<u>PAGE</u>
CREW MEMBER T&R SYLLABUS REQUIREMENTS	6.0	6-3
TRAINING PROGRESSION MODEL	6.1	6-3
PROGRAMS OF INSTRUCTION.....	6.2	6-3
PROFICIENCY AND CURRENCY	6.3	6-4
CERTIFICATION, QUALIFICATION AND DESIGNATION TABLES	6.4	6-5
SYLLABUS NOTES	6.5	6-5
CORE INTRODUCTION PHASE (0000)	6.6	6-6
CORE PHASE (2000).....	6.7	6-10
MISSION PHASE (3000).....	6.8	6-10
CORE PLUS PHASE (4000)	6.9	6-10
MISSION PLUS PHASE (4500)	6.10	6-10
INSTRUCTOR TRAINING PHASE (5000).....	6.11	6-11
CERTIFICATIONS, QUALIFICATIONS, AND DESIGNATIONS (CQD) PHASE (6000)	6.12	6-16
MISSION ESSENTIAL TASK (MET) PHASE (7000)	6.13	6-22
AVIATION CAREER PROGRESSION MODEL (8000).....	6.14	6-26
T&R SYLLABUS MATRICES	6.15	6-43

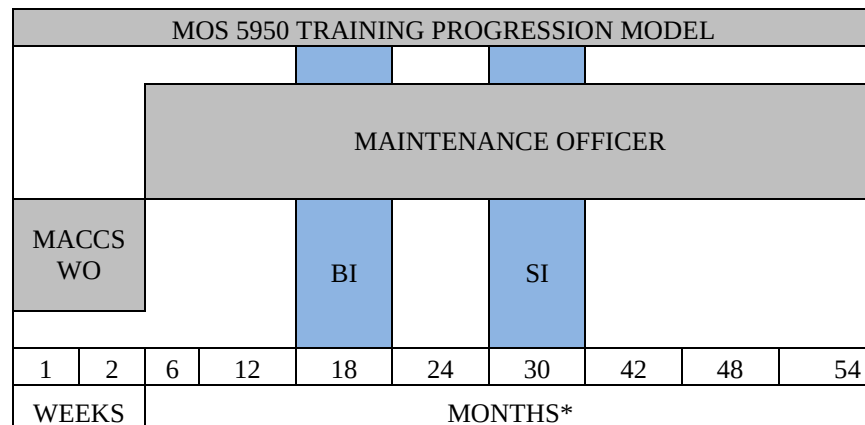
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CHAPTER 6

MARINE AIR TRAFFIC CONTROL SYSTEMS MAINTENANCE OFFICER (MOS 5950) INDIVIDUAL TRAINING AND READINESS REQUIREMENTS

6.0 CREW MEMBER T&R SYLLABUS REQUIREMENTS. This T&R Syllabus is based on specific goals and performance standards designed to ensure individual proficiency in Core Phase and Mission Phase skills. The goal of this chapter is to develop individual and unit warfighting capabilities.

6.1 TRAINING PROGRESSION MODEL. This model represents the recommended average training progression for the Marine Air Traffic Control Systems Maintenance Officer. Units should use the model as a point of departure to generate individual training plans.



*NOTE: TIME IS EXPRESSED IN TRAINING MONTHS

6.2 PROGRAMS OF INSTRUCTION (POI)

6.2.1 General. These tables reflect average time- to-train versus the minimum to maximum time-to-train parameters in the Training Progression Model.

6.2.2 Basic POI.

MATC MAINTENANCE MOS 5950		
BASIC POI		
WEEKS	PHASE OF INSTRUCTION	UNIT RESPONSIBLE
0-25	CORE PHASE	TACTICAL SQUADRON
25-40	MISSION PHASE	TACTICAL SQUADRON
40-52	CORE PLUS PHASE	TACTICAL SQUADRON

6.2.3 Refresher POI.

MATC MAINTENANCE MOS 5950		
REFRESHER POI		
WEEKS	PHASE OF INSTRUCTION	UNIT RESPONSIBLE
VARIES	CORE PHASE	TACTICAL SQUADRON

VARIES	MISSION PHASE	TACTICAL SQUADRON
VARIES	CORE PLUS PHASE	TACTICAL SQUADRON

NOTE: TRAINING DURATIONS VARIES BY POSITION BEING TRAINED. SEE PROGRESSION MODEL FOR NOTIONAL TRAINING TIMES.

6.3 PROFICIENCY AND CURRENCY

6.3.1 Event Proficiency. Event proficiency is defined as successful completion of the performance standard as determined by the instructor or evaluator. Event completion is predicated upon demonstrated proficiency. Once completed, it is logged in M-SHARP by entering the appropriate event code. M-SHARP automatically updates the event proficiency date to reflect the completion date.

6.3.2 Skill Proficiency. Proficiency is a measure of achievement of a specific skill. To attain Individual skill proficiency, an individual must be simultaneously proficient in all events for that skill. Individuals may be attaining proficiency in some skills while maintaining proficiency in others. Refresher training is required once an individual has been absent from a technician billet for 36 months or longer. Upon return, the individual will complete R-coded events.

6.3.2.1 Maintaining Skill Proficiency. Once attained, skill proficiency is maintained by executing those events which have a Proficiency Period (Maintain events). Proficiency Periods establish the maximum time between each event demonstration. Should proficiency be lost in any maintain event, for a specific skill, that skill proficiency is temporarily lost. Skill proficiency can be re-attained by again demonstrating proficiency in the event(s) that are not proficient. For flying communities, an individual shall complete delinquent events with a proficient instructor, crewman/flight lead as delineated by the T/M/S Syllabus Sponsor (see Chapter 3 of the Program Manual on specific instructor requirements for Low Altitude Flight, Night Systems, ACM, DM, DACM, DCM, FAC(A)).

6.3.2.2 Loss of Individual Skill Proficiency. Should an individual lose proficiency in all maintain events in a skill, the individual will be assigned to the Refresher POI for the skill. To regain skill proficiency, the individual must demonstrate proficiency in all R-coded events for the skill.

6.3.2.3 Loss of Unit Skill Proficiency. If an entire unit loses proficiency in an event, unit instructors shall regain proficiency by completing the event with an instructor from a like unit. If not feasible, the instructor shall regain proficiency by completing the event with another instructor. For flying communities, if a unit has only one instructor and cannot complete the event with an instructor from another unit, the instructor shall regain proficiency with another aircraft commander or as designated by the commanding officer.

6.3.2.4 Proficiency Status. Proficiency is a “Yes/No” status by skill assigned to an individual. When an individual attains and maintains Core, Mission, Core Plus, or Mission Plus Phase proficiency the individual may count towards CMMR or CMTS

6.3.3 Skill Currency. Currency is a control measure used to provide an additional margin of safety based on exposure frequency to a particular skill and applies to all MOS's that must comply with NATOPS and OPNAV requirements. It is a measure of time since the last event demanding that specific skill. For example, currency determines minimum altitudes in rules of conduct based upon the most recent low altitude fly date. Specific currency requirements for aircrew individual type mission profiles can be found in Chapter 3.

6.3.3 Skill Currency. Currency is a control measure used to provide an additional margin of safety based on exposure frequency to a particular skill and applies to all MOS's that must comply with NATOPS and OPNAV requirements. It is a measure of time since the last event demanding that specific skill. Specific currency requirements for aircrew individual type mission profiles can be found in Chapter 3.

6.4 CERTIFICATION, QUALIFICATION, AND DESIGNATION TABLES. The tables below delineate T&R events required to be completed to attain proficiency for select designations. In addition to event requirements, all required stage lectures, briefs, squadron training, prerequisites, and other criteria shall be completed prior to completing final events. Designation letters signed by the commanding officer shall be placed in training Performance Records and NATOPS. See Chapter 6 of the Aviation T&R Program Manual on regaining lost qualifications.

6.4.1 INSTRUCTOR DESIGNATIONS.

MOS 5950 INSTRUCTOR DESIGNATIONS	
INSTRUCTOR DESIGNATION	EVENTS
BASIC INSTRUCTOR (BI)	5000, 5010, 5020, 6320
SENIOR INSTRUCTOR (SI)	5000, 5010, 5020, 5100, 5110, 5120, 5130, 6320, 6321
WEAPONS AND TACTICS INSTRUCTOR (WTI)	6000
FORMAL LEARNING CENTER INSTRUCTOR (FLCI)	6096

6.4.2 CERTIFICATIONS, QUALIFICATIONS AND DESIGNATIONS.

MOS 5950 CERTIFICATIONS, QUALIFICATIONS, AND DESIGNATIONS (CQD)	
DESIGNATION	EVENTS
MAINTENANCE OFFICER	6335

6.5 SYLLABUS NOTES

6.5.1 Environmental Conditions Matrix.

ENVIRONMENTAL CONDITIONS	
Code	Meaning
(N)	May be conducted day or night. If at night; may be flown aided or unaided

6.5.2 Device Matrix.

DEVICE	
Symbol	Meaning
L	Event shall be conducted live (conducted in the field/garrison, during an exercise, etc.). Requires live (non-simulated) execution of the event.

L/S	Event performed live preferred/simulator optional.
S/L	Event performed in simulator preferred/live optional.
G	Ground/academic training. May include Distance Learning, CBT, lectures, self-paced.

6.5.6 Program of Instruction Matrix.

PROGRAM OF INSTRUCTION MATRIX		
Program of Instruction (POI)	Symbol	Aviation Ground
Basic	B	Initial MOS Training
Refresher	R	Return to community from non (MOS/Skill) associated tour
Maintain	M	All individuals who have attained CSP/MSP/PPP by initial POI assignment are re- assigned to the M POI to maintain proficiency.

6.5.7 Event Terms.

EVENT TERMS	
TERM	DESCRIPTION
Discuss	An explanation of systems, procedures, or tactics during the brief, exercise, or debrief. Student is responsible for knowledge of procedures.
Demonstrate	The description and performance of a particular event by the instructor, observed by the student. The student is responsible for knowledge of the procedures prior to the demonstration of a required event.
Introduce	The instructor may demonstrate a procedure or event to a student, or may coach the student through the maneuver without demonstration. The student performs the procedures or maneuver with coaching as necessary. The student is responsible for the knowledge of the procedures.
Practice	The performance of a maneuver or procedure by the student that may have been previously introduced in order to attain a specified level of performance.
Review	Demonstrated proficiency of an event by the student.
Evaluate	Any event designed to evaluate team/crew standardization that does not fit another category.

6.6 CORE INTRODUCTION PHASE (0000)

6.6.1 Purpose. To provide entry level instruction to develop the basic skills necessary to become a MOS 5950 Air Traffic Control Systems Maintenance Officer.

6.6.2 General.

6.6.2.1 Prerequisite. Meet the requirement delineated in the MOS Manual.

6.6.2.2 Admin Notes. None.

6.6.2.3 Stages. The following stages are included in the Core Introduction Phase.

PAR NO.	STAGE NAME	PAGE NUMBER
6.6.3	MARINE AIR COMMAND AND CONTROL SYSTEMS (MACCS) MAINTENANCE MANAGERS WARRANT OFFICER COURSE (MMWO)	6-7

6.6.3 MARINE AIR COMMAND AND CONTROL SYSTEMS (MACCS) MAINTENANCE MANAGERS WARRANT OFFICER COURSE (MMWO) STAGE

6.6.3.1 Purpose. This course is designed to provide Marine Air Command and Control Systems Maintenance Officers with the knowledge and skill required to effectively administer maintenance management procedures within the MACCS community.

6.6.3.2 General.

Prerequisite. None.

Admin Notes. This course is required for 5950 Warrant Officers, and is conducted at NATTC Pensacola, FL.
CID/CIN: N23KCN2.

Crew Requirements. None.

MMWO-1000 0 * B (N) G

Goal. Evaluate the Marine Air Traffic Control Detachment Work Centers' attributes, and its integration into the MATCD, and the MACCS, using applicable references.

Requirements.

1. Explain the role, mission and organization of the MACCS.
2. Describe Marine Air Traffic Control Detachment.
3. Describe MATCD Table of Organization and Equipment.
4. Explain the uses of and contents within the User's Logistics Support Summary (ULSS).
5. Describe MATCD Navigational Aids equipment.
6. Describe MATCD Radar equipment.
7. Describe MATCD Communications equipment.
8. Describe MATCD Utilities equipment.
9. Describe MATCD Meteorological and Oceanographic (METOC) equipment.

Performance Standard. Identify and describe the equipment with the MATCD and integration into the MACCS.

Instructor. FLCI.

Prerequisite. None.

References.

1. MCRP 3-20F.7, Marine Air Traffic Control Detachment Handbook
2. MATCALS ALLOWANCE LIST
3. NAVAIR ATC 37-02, User's Logistics Support Summary

7. Identify Repairable Issue Point (RIP) procedures.
8. Identify the RIP customer re-computation procedures.
9. Identify the steps in the Recoverable Item Report (WIR) procedures.

Performance Standard. Pass an exam.

Instructor. FLCI.

Prerequisite. None.

References.

1. MCO P4790.2_, The Marine Corps Integrated Maintenance Management System
2. MCO P4790.1_, Marine Corps Integrated Maintenance Management System
3. UM 4790.5

6.7 CORE PHASE (2000)

6.7.1 Purpose. **RESERVED FOR FUTURE USE.**

6.7.2 General.

6.7.2.1 Admin Notes.

6.7.2.2 Prerequisite.

6.7.2.3 Stages.

6.8 MISSION PHASE (3000)

6.8.1 Purpose. **RESERVED FOR FUTURE USE.**

6.8.2 General.

6.8.2.1 Admin Notes.

6.8.2.2 Prerequisite.

6.8.2.3 Stages. The following stages are included in the Mission Phase.

6.9 CORE PLUS PHASE (4000)

6.9.1 Purpose. **RESERVED FOR FUTURE USE.**

6.9.2 General.

6.9.2.1 Admin Notes.

6.9.2.2 Prerequisite.

6.9.2.3 Stages.

6.10 MISSION PLUS PHASE (4500)

6.10.1 Purpose. **RESERVED FOR FUTURE USE.**

6.10.2 General.

6.10.2.1 Admin Notes.

6.10.2.2 Prerequisite.

6.10.2.3 Stages.

6.11 INSTRUCTOR TRAINING PHASE (5000).

6.11.1 Purpose. To provide technicians the additional skills necessary to instruct, evaluate and approve event Completions. Upon completion of the required training, an individual may be approved for instructor designation by the commanding officer.

6.11.2 General.

6.11.2.1 Prerequisite. None.

6.11.2.2 Admin Notes.

1. The MACCS instructor concept is a means to standardize all instructors across the MACCS in regards to the concepts of managing a WTPP, properly conducting training, performing evaluations, and recommending training plans.

2. There are different instructor designations (listed below). The intent is to train individuals with different levels and areas of experience to instruct personnel. Instructor experience is also gained while progressing through the different instructor designations.

- a. Basic Instructor (BI)
- b. Senior Instructor (SI)
- c. Weapons and Tactics Instructor (WTI)
- d. Formal Learning Center Instructor (FLCI)

3. The MAWTS-1 C3 Course catalog contains the training requirements for the above listed instructors. The catalog is located at the MAWTS-1 website, <https://www.intranet.tecom.usmc.mil/sites/mawts1/default.aspx>.

4. The table below outlines the events that each instructor can train, evaluate, and approve or recommend for approval.

INSTRUCTOR	Event Training, Evaluation and Approval
BI	Core Phase events in which current and proficient.
SI	Core, Mission, and Core Plus Phase events in which current and proficient.
WTI	Mission, Certification, and Qualification events. WTIs: -Evaluate and recommend for qualification -Endorse recommendations for position designations -7000 phase events IAW agency T&R manual

6.11.2.3 Stages. The following stages are included in the Instructor Training Phase:

PAR NO.	STAGE NAME	PAGE NUMBER
6.11.3	INSTRUCTOR UNDER TRAINING (IUT)	6-12

6.11.3 INSTRUCTOR UNDER TRAINING STAGE

6.11.3.1 Purpose. To train Aviation Communication System Technicians in the fundamentals of instructing and training processes.

6.11.3.2 General.

Admin Notes. None.

Prerequisite. None.

Crew Requirements. None.

T&R CODE	EVENT DESCRIPTION	INSTRUCTOR
5000	Introduce principles of instruction	BI
5010	Understand the structure of an event	BI
5020	Conduct a period of instruction on a Core Phase event	BI
5100	Understand the Aviation Training and Readiness (T&R) Program	SI
5110	Understand the applicable community T&R program	SI
5120	Understand T&R administration	SI
5130	Develop a training plan	SI

IUT-5000 2.0 * B (N) L

Goal. Introduce principals of instruction.

Requirement. Given the reference, the BIUT will demonstrate the following with the assistance of a unit instructor:

1. Adult learning principles.
 - a. Pedagogy to andragogy.
 - b. Characteristics of the adult learner.
 - c. Learning styles.
 - d. How adults learn.
 - e. Domains of learning.
 - f. Group dynamics.
 - g. Motivation.
 - h. Constructivist learning environments.
2. Introduce, discuss, and demonstrate instruction techniques.
3. Introduce, discuss, and demonstrate class management techniques.
 - a. How to select teaching resources to accommodate student learning styles.
 - b. How to properly organize the instructional environment for effective learning.

Performance Standard. With the aid of references, the BIUT shall demonstrate principles of instruction. During this session, the instructor shall discuss the event content and question the student throughout the training session to ensure understanding.

Instructor. BI.

Prerequisite. None.

References.

1. Adult Learning section, Systems Approach to Training Manual (2004)
2. NAVMC 3500.14
3. NAVMC 1553.1

IUT-5010 2.0 * B (N) G

Goal. Describe individual T&R requirements.

Requirement. Using the Aviation T&R Program Manual, discuss the purpose of each of the following items with an instructor:

1. Training progression model.
2. Programs of Instruction.
 - a. Basic
 - b. Refresher
 - c. Conversion
 - d. Series Conversion
 - e. Transition
 - f. Maintain
3. T&R attain and maintain tables.
4. Syllabus notes.
5. T&R syllabus structure.
 - a. Phase
 - b. Stage
 - c. Event
 - d. Skill
 - e. Syllabus
6. Event format.
 - a. Header.
 - (1) Event prefix - event code
 - (2) Projected event duration
 - (3) Proficiency period
 - (4) Programs of instruction (POI)
 - (5) Event conditions
 - (6) Device options
 - (7) Device number
 - (8) Device type
 - b. Body.
 - (1) Goal
 - (2) Requirement
 - (3) Performance standard
 - (4) Equipment

Performance Standard. Without the aid of references and during a discussion session, the BIUT shall describe Individual T&R requirements. During this session, the instructor shall discuss the event content and question the student throughout the training session to ensure understanding.

Instructor. BI.

Prerequisite. None.

References.

1. NAVMC 3500.14
2. NAVMC 1553.1

IUT-5020 12.0 90 B, R, M (N) L

Goal. Conduct T&R instruction.

Requirement. The BIUT, under the supervision of an instructor, will conduct three periods of instruction on three different T&R events selected by the instructor and should include as many different methods of instruction as possible (lecture or academic, demonstration, and practical application). The event must be one the BIUT is current and proficient in. The BIUT will complete the following for each of the three events instructed:

1. Prepare to train the event.
 - a. Review a trainee's performance record to identify required training for the event selected.
 - b. Ensure the student has met prerequisites for the event to be trained.
 - c. Gather the resources necessary to conduct the training (i.e., instructional materials, references, and equipment).
 - d. Conduct task analysis on each event to ensure all intended requirements and prerequisite skills, specified or implied, are trained IAW applicable references.
 - e. Schedule the training event (facilities and students).
 - f. Prepare an evaluation form for each student to be evaluated.
2. Conduct training on the event selected:
 - a. Ensure all training resources are properly staged/equipment if set up properly for training.
 - b. Instruct the student in a thorough manner so as to cover all requirements for the event.
 - c. Ensure continuous, objective assessment of the student's progress during training.
3. Assess student performance:
 - a. Assess the student's performance to the performance standard.
 - b. Correct student deficiencies in a timely manner and provide the student feedback.
 - c. Complete the evaluation form on for each student trained.
 - d. Debrief student on the performance and provide corrective action.
4. Route evaluation form as required.

Performance Standard. Complete the requirement items IAW the reference and ensure training is doctrinally and technically current. Instructor shall use the instructor evaluation form from the SAT User's Guide for each class and a mark of satisfactory must be achieved for each of the three classes.

Instructor. BI.

Prerequisite. 5000, 5010.

References.

1. NAVMC 3500.14, Ch 6
2. NAVMC 1553.1
3. MCO 1553.2C, Marine Corps Formal School Management Policy

IUT-5100 2.0 * B (N) G

Goal. Describe the Aviation Training and Readiness (T&R) Program.

Requirement. Using the community T&R manual discuss the following with an instructor:

1. Describe the Weapons and Tactics Training Program (WTTP).
2. Define each element of the Core Model:
 - a. Mission statements
 - b. Core Mission Essential Task List (METL)
 - c. Output standards
 - d. Core Phase skills (How to attain and maintain)
 - e. Mission Phase skills (How to attain and maintain)

- f. Combat Leadership
- 3. Define each of the following elements of unit training:
 - a. Training Exercise Employment Plan (TEEP)
 - b. Core Model Minimum Requirements (CMMR)
 - c. Instructors
 - d. Core Model Training Report (CMTR)
 - e. T&R manual connection to readiness reporting
- 4. Define each of the following elements of training:
 - a. Certification
 - b. Qualification
 - c. Designation
- 5. PERFORMANCE RECORD Explain how changes are made to the Program manual:
 - a. Explain T&R conference procedures.
 - b. Explain correspondence change procedures.

Performance Standard. Complete the requirements IAW the reference. Instructor will question the SIUT to check for thorough understanding of the Aviation T&R Program.

Instructor. SI

Prerequisite. None.

References.

- 1. NAVMC 3500.14
- 2. MCO 3500.109

IUT-5110 4.0 365 B, R, M (N) L

Goal. Conduct instructor evaluations.

Requirement. Using the instructor evaluation checklist from the SAT manual, conduct two evaluations on instructors of equal or lower designation.

- 1. Provide notification of evaluation to the instructor being evaluated.
- 2. Do not interfere with or disrupt the instruction while taking place.
- 3. Thoroughly document observed items on the checklist.
- 4. Ensure student evaluation form is filled out correctly and the appropriate debrief took place.
- 5. Debrief the instructor being evaluated on their preparation, instruction, evaluation, and documentation.
- 6. Have the evaluated instructor complete the instructor improvement plan section and sign.
- 7. File a copy of the completed evaluation form in both the evaluator's and evaluated instructor's performance record.

Performance Standard. Complete the requirements IAW the reference.

Instructor. SI

Prerequisite. 5100.

References.

- 1. NAVMC 3500.14
- 2. Applicable community T&R Manual
- 3. MCO1553.2C, Marine Corps Formal School Management Policy

IUT-5120 2.0 * B (N) L

Goal. Perform T&R administration.

Requirement. Document training to include:

1. Performance records.
2. Ensure MSHARP is updated appropriately.
3. Assemble recommendation package for certifications, qualifications, and designations IAW T&R manual.

Performance Standard. Complete the requirement items IAW the references. Instructor will question the trainee to check for understanding of the administration process.

Instructor. SI

Prerequisite. 5100, 5110.

References.

1. NAVMC 3500.14
2. Local WTPP SOP
3. <http://msharpsupport.com>

IUT-5130	2.0	*	B	(N)	L

Goal. Develop a training plan.

Requirement. Given a deployment scenario develop a training plan to determine individual, and crew training needed to meet CMMR by completing the following:

1. Review Commander's training guidance.
2. Analyze the CMTR to determine training deficiencies and how to achieve CMMR.
3. Identify and schedule T&R training opportunities IAW the TEEP to achieve requirements.
4. Determine instructors required.
5. Determine equipment required.
6. Determine external support required.
7. Deliver a brief to the instructor that shows:
 - a. Crew manning and training requirements.
 - b. Current training status.
 - c. Identify the training deficiencies and resource shortfalls.
 - d. Explain the training plan to correct the training deficiencies.
 - e. Training plan meets commander's guidance.

Performance Standard. Complete the requirement items IAW the references and commander's training guidance. Training plan will ensure adequate time is allocated to include preparation, instruction, assessment, documentation, and remediation.

Instructor. SI

Prerequisite. 5100, 5110, 5120.

References.

1. NAVMC 3500.14
2. Applicable Community T&R manuals

6.12 CERTIFICATIONS, QUALIFICATIONS, AND DESIGNATIONS (CQD) PHASE (6000).

6.12.1 Purpose. This phase provides community standardization for technician qualifications and designations; combat leaders and instructor designations; and tracking of collateral duties (CD) assignments. This syllabus does not contain "one time" certification training requirements.

6.12.2 General.

6.12.2.1 Prerequisite. None.

6.12.2.2 Admin Notes. This section enables units to document and track combat leaders, instructors, technician and CD assignments. All syllabus training and administration requirements must be complete prior to being qualified or designated. A qualification or designation is not effective until all administration is completed. Only once an individual is qualified or designated in writing, the signed letter is filed in the IPR, and all administrative actions are completed, and the event code has been logged in M-SHARP shall the qualification or designation be effective.

6.12.2.3 Stages. The following stages are included in the Instructor Training Phase:

PAR NO.	STAGE NAME	PAGE NUMBER
6.12.3	DESIGNATION (DESG)	6-17
6.12.4	SCHOOL CODES (SCHL)	6-18

6.12.3 DESIGNATIONS (DESG) STAGE

6.12.3.1 Purpose. To provide for designation of combat leaders and instructors. Designations are command specific and expire when an individual transfers out of a command. In order to ensure proficiency is maintained, specific events throughout this syllabus have been R-coded. The gaining command shall review the IPR to ensure prerequisite R-coded events for a designation are current prior to approving that designation. If prerequisite R-coded events are delinquent, the individual shall update those events.

6.12.3.2 General.

Prerequisite. None.

Admin Notes. Policies and rules for attaining and maintaining designations are detailed in the Aviation T&R Program Manual and this Manual.

Crew Requirements. None.

DESG-6320 .5 * B (N) G

Goal. Basic Instructor (BI).

Requirement. Complete the prerequisites required for the designation.

Performance Standard. Be verified by a WTI and designated in writing by the designating official.

Prerequisite. 5000, 5010, 5020.

Reference.

1. NAVMC 3500.14_, Naval Aviation Program Manual

DESG-6321 .5 * B (N) G

Goal. Senior Instructor (SI).

Requirement. Complete the prerequisites required for the designation.

Performance Standard. Be verified by a WTI and designated in writing by the designating official.

Prerequisite. 5000, 5010, 5020, 5100, 5110, 5120, 5130, 6320.

Reference.

1. NAVMC 3500.14, Naval Aviation Program Manual

DESG-6322	.5	*	B	(N)	G

Goal. Weapons and Tactics Instructor (WTI).

Requirement. Be certified by MAWTS-1 as a WTI, designated by the commanding officer in writing.

Performance Standard. N/A

Prerequisite. 6000.

Reference.

1. NAVMC 3500.14, Naval Aviation Program Manual

DESG-6330	.5	*	B	(N)	G

Goal. Formal Learning Center Instructor (FLCI).

Requirement. Complete the formal learning center's instructor requirements, designated by the commanding officer in writing.

Performance Standard. N/A

Prerequisite. 6096.

Reference.

1. NAVMC 3500.14, Naval Aviation Program Manual

DESG-6335	.5	*	B	(N)	G

Goal. Maintenance Officer (MO).

Requirement. Be designated by the commanding officer in writing.

Performance Standard. N/A.

Instructor. WTI.

Prerequisite. None.

Reference.

1. NAVMC 3500.14, Naval Aviation Program Manual

6.12.4 SCHOOL CODES (SCHL) STAGE

6.12.4.1 Purpose. To provide tracking codes for formal schools that are required for the MOS training of the MATCD Warrant Officer.

6.12.4.2 General.

Prerequisite. None.

Admin Notes. None.

Crew Requirements. None.

COURSE NAME	LOCATION	CID/CIN	T&R CODE
Weapons and Tactics Instructor	MCAS Yuma, AZ	M14P2A1	SCHL-6000
Link 16 Basics Course JT-100	Joint Knowledge Online (JKO)	N/A	SCHL-6020
Intro to Multi TDL Network JT-101	Fort Bragg, NC	N/A	SCHL-6021
Multi-TDL Advanced Joint Interoperability Course (MAJIC) JT-102	Fort Bragg, NC	A05L6Z1	SCHL-6022
Multi Tactical Data Link Planners Course JT-201	Fort Bragg, NC	A05KHY1	SCHL-6024
Joint Interface Control Officer (JICO) JT-301	Fort Bragg, NC	A05FH11	SCHL-6026
Advanced JICC Operator Course JT-310	Fort Bragg, NC	N/A	SCHL-6027
MATC Maintenance Managers Course	NATTC, FL	N23KCN2	SCHL-6031
Aeronautical Technical Publication Library Management Course	MCAS Miramar, CA Norfolk, VA MCAS Cherry Point, NC	M176R4 N0262RB N9062R2	SCHL-6060
Microminiature Electronics Repair	San Diego CA San Diego CA Norfolk, VA Oak Harbor, WA	N01A351 N016241 N02A351 N26A352	SCHL-6073
Naval Aviation Maintenance Program Management	NAS Whiting Field, FL	N42P2M2	SCHL-6075

SCHL-6000 .5 * B * G

Goal. Weapons and Tactics Instructor Course.

Requirement. Attend the course.

Performance Standard. Graduate in accordance with course requirements.

Instructor. FLCI.

Prerequisite. None.

Reference. None.

SCHL-6020 .5 * B * G

Goal. Link 16 Basics Course (JT-100).

Requirement. Attend the course.

Performance Standard. Graduate in accordance with course requirements.

Instructor. FLCI.

Prerequisite. None.

Reference. None.

SCHL-6021 .5 * B * G

Goal. Intro to Multi Tactical Data Link Network Operations Course (JT-101).

Requirement. Attend the course.

Performance Standard. Graduate in accordance with course requirements.

Instructor. FLCI.

Prerequisite. None.

Reference. None.

SCHL-6022	.5	*	B	*	G

Goal. Multi Tactical Data Link Advanced Joint Interoperability Course (MAJIC) (JT-102).

Requirement. Attend the course.

Performance Standard. Graduate in accordance with course requirements.

Instructor. FLCI.

Prerequisite. None.

Reference. 6021.

SCHL-6024	.5	*	B	*	G

Goal. Multi Tactical Data Link Planners Course (JT-201).

Requirement. Attend the course.

Performance Standard. Graduate in accordance with course requirements.

Instructor. FLCI.

Prerequisite. None.

Reference. None.

SCHL-6026	.5	*	B	*	G

Goal. Joint Interface Control Officer Course (JT-301).

Requirement. Attend the course.

Performance Standard. Graduate in accordance with course requirements.

Instructor. FLCI.

Prerequisite. 6021, 6022, 6024

Reference. None.

SCHL-6027 .5 * B * G

Goal. Advanced Joint Interface Control Cell (JICC) Operator's Course (JT-310).

Requirement. Attend the course.

Performance Standard. Graduate in accordance with course requirements.

Instructor. FLCI.

Prerequisite. None.

Reference. None.

SCHL-6031 .5 * B * G

Goal. Marine Air Traffic Control (MATC) Maintenance Managers Course.

Requirement. Attend the course.

Performance Standard. Graduate in accordance with course requirements.

Instructor. FLCI.

Prerequisite. None.

Reference. None.

SCHL-6060 .5 * B * G

Goal. Aeronautical Technical Publication Library Management Course.

Requirement. Attend the course.

Performance Standard. Graduate in accordance with course requirements.

Instructor. FLCI.

Prerequisite. None.

Reference. None.

SCHL-6073 .5 * B * G

Goal. Microminiature Electronics Repair Course.

Requirement. Attend the course.

Performance Standard. Graduate in accordance with course requirements.

Instructor. FLCI.

Prerequisite. None.

Reference. None.

SCHL-6075 .5 * B * G

Goal. Naval Aviation Maintenance Program Management.

Requirement. Attend the course.

Performance Standard. Graduate in accordance with course requirements

Instructor. FLCI.

Prerequisite. None.

Reference. None.

6.13 MISSION ESSENTIAL TASK (MET) PHASE (7000)

6.13.1 Purpose. This phase takes CMMR proficient Marines from multiple PMOS, puts them in CMMR representative crews, and trains them as combat effective teams in combined events.

6.13.2 General.

6.13.2.1 Prerequisite. Marines must either be CMMR crew position or non- aviation PMOS proficient to train in this phase. For those events requiring combat leaders, only Marines currently designated as such can train in this phase.

6.13.2.2 Admin Notes. Prerequisites for this phase of training cannot be waived. Multiple events can be trained at the same time as long as separate evaluations are being conducted.

6.13.2.3 Stages. The following stages are included in the Mission Essential Task (MET) Phase of training.

PAR NO.	STAGE NAME	PAGE NUMBER
6.13.3	CONDITION (COND)	6-22

6.13.3 CONDITION (COND) STAGE

6.13.3.1 Purpose. To train unit level teams in executing community specific MET(s) or MET preparatory events.

6.13.3.2 General

Prerequisite. If an event requires prerequisites in addition to those listed for the MET Phase, they will be covered in the individual event.

Admin Notes. All events in this stage will require the following administrative/operational documents to be identified or created:

1. Letter of Intent (LOI)
2. Personnel Roster
3. Bill of Material (BOM)
4. Equipment Density List (EDL)

Crew Requirements. This stage requires that all crew members and combat leaders be qualified/designated and proficient (current) in the position they are assigned for the following events. Crews shall be task organized to meet the mission.

COND-7100 18.0 730 B, R, M (N) E L

Goal. Provide ATC tower services.

Requirement. Given an expeditionary control tower, an FAA certifiable TACAN, and all ancillary equipment, conduct continuous expeditionary control tower operations.

Performance Standard. Perform the following:

1. Emplace an expeditionary control tower, an FAA certifiable TACAN, and ancillary equipment.
2. Establish applicable functional operating positions within 10 hours.
3. Establish two-way communications with aircraft and ground agencies.
4. Provide sustained integration with the MACCS, other military C2 and civilian entities to include FAA and the International Civil Aviation Organization (ICAO).
5. Control the movement of aircraft and/or vehicular traffic.
6. Control aircraft within assigned terminal airspace.
7. Pass a tactical or FAA flight inspection.
8. Provide sustained navigational assistance.
9. Perform a crew relief.

Prerequisite. Two CMMR crews.

Instructor. WTI.

Range Requirement. Airfield

External Resource Requirement. Rotary-wing and/or fixed-wing aircraft, MWSS personnel, NAVFIG, and MHE.

References.

1. MCRP 3-20F.7, Marine Air Traffic Control Detachment Handbook
2. JO 7110.65, Air Traffic Control.
3. NAVAIR 00-80T-114, NATOPS Air Traffic Control Manual.

COND-7200 12.0 730 B, R, M (N) E L

Goal. Provide ATC approach services.

Requirement. Given an airport surveillance radar, a precision approach radar, an FAA certifiable TACAN, and all ancillary equipment; conduct continuous expeditionary radar approach control operations.

Performance Standard. Perform the following:

1. Emplace an airport surveillance radar, a precision approach radar, an FAA certifiable TACAN, and all ancillary equipment.
2. Establish six functional operating positions within eight hours.
3. Have maps available on operating positions.
4. Provide sustained integration with the MACCS, other military C2 and civilian entities to include FAA and ICAO.
5. Establish and maintain communication and radar identification of aircraft within the detachment's airspace.
6. Pass a tactical or FAA flight inspection.
7. Control aircraft within assigned airspace.
8. Provide sustained navigational assistance.
9. Provide sustained radar air surveillance data to the MAGTF or joint force via Tactical Data Link.
10. Perform a crew relief.

Prerequisite. Two CMMR crews.

Instructor. WTI.

Range. Assigned airspace.

External Resource Requirement. Rotary-wing and/or fixed-wing aircraft, MWSS personnel, NAVFIG, and MHE.

References.

1. MCRP 3-20F.7, Marine Air Traffic Control Detachment Handbook
2. JO 7110.65, Air Traffic Control.
3. Applicable technical manuals.

COND-7300 12.0 365 B, R, M (N) E L

Goal. Provide ATC arrival/departure services.

Requirement. Given an AN/TPN-31(V) and all ancillary equipment, conduct continuous expeditionary radar arrival/departure and final control operations.

Performance Standard. Perform the following:

1. Emplace an airport surveillance radar, precision approach radar, FAA certifiable TACAN, and all ancillary equipment.
2. Establish five functional operating positions within six hours.
3. Have maps available on operating positions.
4. Provide sustained integration with the MACCS, other military C2 and civilian entities to include FAA and ICAO.
5. Establish and maintain communication and radar identification of aircraft within the detachment's airspace.
6. Pass a tactical or FAA flight inspection.
7. Control aircraft within assigned airspace.
8. Provide precision/non-precision approaches in a terminal environment.
9. Provide sustained navigational assistance.
10. Provide sustained radar air surveillance data to the MAGTF or joint force via Tactical Data Link.
11. Perform crew relief.

Prerequisite. Two CMMR crews.

Instructor. WTI.

Range. Airfield.

External Resource Requirement. Rotary-wing and/or fixed-wing aircraft, MWSS personnel, NAVFIG, and MHE.

References.

1. MCRP 3-20F.7, Marine Air Traffic Control Detachment Handbook
2. JO 7110.65, Air Traffic Control.
3. Applicable technical manuals.

COND-7400 2.0 730 B, R, M (N) E L

Goal. Conduct Marine air traffic control mobile team (MMT) ALZ operations.

Requirement. Provided a Table of Equipment (T/E) and/or equipment density list (EDL), conduct ALZ operations.

Performance Standard. Perform the following during a minimum operational tempo of three air traffic control operations.

1. Conduct a hasty assault zone survey and assessment.
2. Travel to the landing zone.
3. Within five minutes of arrival at the site, establish visual control capability consisting of radios and/or appropriate signaling devices.
4. Within 30 minutes of arrival at the site, establish appropriate marking of the landing zone and emplace navigational aid.
5. Provide sustained integration with the MACCS and other military C2 agencies.
6. Control aircraft within assigned terminal airspace.
7. Provide sustained navigational assistance.
8. Provide appropriate small unit defense capability and integrate with the defensive force established at the landing zone, if provided.
9. Retrograde from the landing zone with the last available transportation.

Prerequisite. One CMMR MMT.

Instructor. WTI.

Range. Assault landing zone.

External Resource Requirement. ALZ-capable fixed-wing aircraft.

References.

1. MAWTS-1 MMT TACSOP.
2. MCRP 3-20F.7, Marine Air Traffic Control Detachment Handbook

COND-7500 2.0 730 B, R, M (N) E L

Goal. Conduct Marine air traffic control mobile team (MMT) FARP operations.

Requirement. Given a Table of Equipment (T/E) and/or equipment density list (EDL), conduct FARP operations.

Performance Standard. Perform the following during a minimum operational tempo of three air traffic control operations.

1. Conduct a hasty survey and assessment.
2. Travel to the landing zone.
3. Within five minutes of arrival at the site, establish visual control capability consisting of radios and/or appropriate signaling devices.
4. Within 30 minutes of arrival at the site, establish appropriate marking of the landing zone and emplace navigational aid.
5. Provide sustained integration with the MACCS and other military C2 agencies.
6. Control aircraft within assigned terminal airspace.
7. Provide sustained navigational assistance.
8. Provide appropriate small unit defense capability and integrate with the defensive force established at the landing zone, if provided.
9. Retrograde from the landing zone with the last available transportation.

Prerequisite. One CMMR MMT.

Instructor. WTI.

Range. Operational FARP.

External Resource Requirement. Fixed or rotary-wing aircraft.

References.

1. MAWTS-1 MMT TACSOP.
2. MCRP 3-20F.7

6.14 AVIATION CAREER PROGRESSION MODEL STAGE (8000).

6.14.1 Purpose. To enhance professional understanding of Marine Aviation and the MAGTF, and to ensure individuals possess the requisite skills to fill battle command and battle staff positions in support of the ACE and the MAGTF in a joint environment.

6.14.2 General. The ACPM is intended to be an integrated series of academic events contained within each phase of training. Accordingly, ACPM academic events are like any other academic event in that they serve as pre-requisites to selected flight events or stages. Additionally, several ACPM academic events are integrated as prerequisites for flight leadership syllabi. ACPM events may be conducted in group session with an assigned instructor teaching the period of instruction or they may be accomplished by self-paced instruction. MAWTS-1 is responsible for the update and validity of the ACPM periods of instruction. In the future, courses may be consolidated or revised to meet changing requirements. Refer to the MAWTS-1 ACPM link for the current ACPM program of instruction:

<https://www.intranet.tecom.usmc.mil/sites/mawts1/mawts1%20webpages/Aviation%20Career%20Progression%20Model.aspx?PageView=Shared>

Completed events shall be manually logged and tracked in M-SHARP. ACPM academic events, along with their identifying prerequisite association with other training phases/stages/events, are listed below.

ACPM-8000 1.0 * B (N) G

Goal. Demonstrate an understanding of the MACCS stage.

Requirement. Pass a closed book examination that encompasses all learning objectives contained in the prerequisites.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. SI.

Prerequisite. 8001, 8002, 8003, 8004, 8005, 8006, 8008.

Reference. C3 Course Catalog.

ACPM-8001 4.0 * B (N) G

Goal. Demonstrate an understanding of the Marine Air Command and Control System (MACCS).

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Describe how the control of aircraft and missiles relates to the other five functions of USMC aviation.
2. Define the control of aircraft and missiles and each of its subcomponents.
3. Define the Marine aviation's philosophy of centralized command and decentralized control.
4. Differentiate between Marine aviation philosophy and Joint aviation philosophy.
5. Identify the principle objectives of the MACCS.

6. Recall the primary role of each agency of the MACCS.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 MACCS Agencies, Functions and the Control of Aircraft and Missiles Class
2. MCWP 3-25.3 MACCS Handbook
3. MCWP 3-25 Control of Aircraft and Missiles

ACPM-8002 4.0 * B (N) G

Goal. Demonstrate an understanding of the Tactical Air Command Center (TACC).

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. State the mission of the TACC.
2. Identify the four organizations of the TACC.
3. List the primary responsibilities of Air Combat Intelligence (ACI).
4. List the primary responsibilities of Future Operations (FOPS).
5. List the primary responsibilities of Future Plans (FPLANS).
6. List the primary responsibilities of Current Operations (COPS).
7. List the major end items used by the TACC.
8. List the system limitations of the TACC.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 TACC Class
2. MAWTS-1 MTACS Class
3. MCWP 3-25.4 TACC Handbook

ACPM-8003 4.0 * B (N) G

Goal. Demonstrate an understanding of the Direct Air Support Center (DASC).

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify the role of the DASC.
2. List the structure and task organization of the DASC.
3. Identify the major end items and their characteristics used by the DASC.
4. List the capabilities and limitations of the DASC.
5. Identify how the DASC is doctrinally employed as part of the MACCS.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 DASC Class
2. MCWP 3-25.5 DASC Handbook

ACPM-8004 4.0 * B (N) G

Goal. Demonstrate an understanding of the Tactical Air Operations Center (TAOC).

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Define the mission of the TAOC.
2. Identify the Mission Essential Tasks (METs) for the TAOC.
3. Identify the structure and task organization of the TAOC.
4. Identify the major end items and their characteristics used by the TAOC.
5. Identify the capabilities and limitations of the TAOC.
6. Identify how the TAOC is doctrinally employed as part of the MACCS.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 TAOC Class
2. MCWP 3-25.7 TAOC Handbook

ACPM-8005 4.0 * B (N) G

Goal. Demonstrate an understanding of the Marine Air Traffic Control (MATC).

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify the mission of MATC.
2. Identify the Mission Essential Tasks (METs) for MATC.
3. List the structure and task organization of MATC.
4. Identify the major end items and their characteristics used by MATC.
5. Identify the capabilities and limitations of MATC.
6. Identify how MATC is doctrinally employed as part of the MACCS.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 MATC Class
2. MAWTS-1 MMT Class
3. MCWP 3-25.8 MATC Detachment Handbook

ACPM-8006 4.0 * B (N) G

Goal. Demonstrate an understanding of the Low Altitude Air Defense (LAAD).

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify the mission of the LAAD battalion.
2. Identify the structure and task organization of the LAAD battalion.
3. Identify the primary vehicle and surface-to-air weapon used by the LAAD Battalion.
4. Define the LAAD employed guidelines.
5. List the LAAD weapon applications.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 LAAD Class
2. MCWP 3-25.10 LAAD BN Handbook
3. MCWP 3-25.10A LAAD Gunner's Handbook

ACPM-8008 4.0 * B (N) G

Goal. Demonstrate an understanding of the Marine Wing Communications Squadron (MWCS).

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify the mission of the MWCS.
2. Identify the structure and task organization of the MWCS.
3. Identify the Mission Essential Tasks (METs) for the MWCS.
4. Identify the major end items and their characteristics used by MWCS.
5. Identify the capabilities and limitations of the MWCS.
6. Identify how the MWCS is doctrinally employed as part of the MACCS.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 MWCS Employment Class
2. MCRP 3-30B.2 MAGTF Communications Systems
3. NAVMC 3500.56 Communications Training and Readiness Manual

ACPM-8020 1.0 * B (N) G

Goal. Demonstrate an understanding of the ACE stage of the MACCS ACPM.

Requirement. Pass a closed book examination that encompasses all learning objectives contained in the prerequisites.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. 8021, 8022, 8023, 8024, 8025, 8026, 8027, 8028.

Reference. C3 Course Catalog.

ACPM-8021 4.0 * B (N) G

Goal. Demonstrate an understanding of USMC aviation operations doctrine.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify the six functions of Marine aviation to include all their subsets.
2. Identify the organization and mission of the Marine Aircraft Wing (MAW), to include each type of group and squadron.
3. Define who has operational control of organic MAGTF aviation assets during Joint operations.
4. List the four types of sorties the MAGTF Commander makes available to the Joint Force.
5. Identify the purpose of the Air Tasking Order (ATO).
6. Identify the six phases of the air tasking cycle.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

Reference. MCWP 3-2 Aviation Operations

ACPM-8022 4.0 * B (N) G

Goal. Demonstrate an understanding of USMC doctrine for the control of aircraft and missiles.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify how the control of aircraft and missiles relates to the other five functions of USMC aviation.
2. Identify distinctions between Marine aviation philosophy and that of the other services.
3. Identify the principle objectives of the Marine Air Command and Control System (MACCS).
4. Describe how the COMMARFOR may serve as the Joint Force Air
5. Component Commander (JFACC), Airspace Control Authority (ACA), and Area Air Defense Commander (AADC).

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 Control of Aircraft and Missiles Class
2. MCWP 3-25 Control of Aircraft and Missiles

ACPM-8023 4.0 * B (N) G

Goal. Demonstrate an understanding of USMC Offensive Air Support (OAS) doctrine.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify the purpose of the MAGTF Commanders Single Battle Concept.
2. Define the subcategories of OAS.
3. Define the requirements for effective OAS.
4. Define the three types of Deep Air Support (DAS).
5. Define the capabilities and limitations of the OAS function.
6. Identify the elements of a Joint Tactical Air Strike Request (JTAR).
7. Identify the three types of control of Close Air Support (CAS).

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 OAS Class
2. MCWP 3-23 Offensive Air Support

ACPM-8024 4.0 * B (N) G

Goal. Demonstrate an understanding of USMC Assault Support doctrine.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Define the types of assault support operations.
2. Identify which aircraft conduct each of the types of assault support operations.
3. Identify the elements of an Assault Support Request (ASR).
4. List assault support capabilities and limitations.
5. Define the role of the air mission commander and the assault force commander during air assault operations.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 Assault Support Class
2. MAWTS-1 Direct Air Support Requests Class

ACPM-8025 4.0 * B (N) G

Goal. Demonstrate an understanding of USMC Air Reconnaissance doctrine.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify the three categories of air reconnaissance.
2. Identify the four principals of air reconnaissance.
3. Identify the five prerequisites for effective air reconnaissance.
4. Identify the current USMC aircraft that have the mission of air reconnaissance.
5. Identify the form used to request air reconnaissance.
6. Identify the five supporting operations for effective air reconnaissance.
7. Identify the capabilities and limitations of air reconnaissance.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

Reference. MCWP 3-26 Air Reconnaissance

ACPM-8026 4.0 * B (N) G

Goal. Demonstrate an understanding of USMC Electronic Warfare (EW) doctrine.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Define radar.
2. List the three basic radar types.
3. Identify the limitations and characteristics of radar systems.
4. Identify the six guidance systems and how they work.
5. List the three subdivisions of Electronic Warfare (EW).

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 (S) Electronic Warfare Class—for additional training only, secret courseware should not to be used for testing purposesMAWTS-1 Direct Air Support Requests Class
2. MCWP 3-40.5 Electronic Warfare

ACPM-8027 4.0 * B (N) G

Goal. Demonstrate an understanding of USMC Antiair Warfare (AAW) doctrine.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Define AAW.
2. Define the two subsets of AAW.
3. Identify the principles of AAW.
4. Identify the types of Offensive Antiair Warfare (OAAW).
5. Identify the active air defense functions.
6. List three examples of passive air defense measures.
7. Define a Joint Engagement Zone (JEZ), Fighter Engagement Zone (FEZ), Missile Engagement Zone (MEZ), and Base Defense Zone (BDZ).
8. Define the air defense warning conditions.
9. Define the weapons control statuses.
10. Identify the responsibilities of the Regional Air Defense Commander (RADC) and the Sector Air Defense Commander (SADC).

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 Air Defense Class
2. MAWTS-1 Air Defense Commanders Class
3. MAWTS-1 Offensive Antiair Warfare Class
4. MCWP 3-22 Antiair Warfare

ACPM-8028 4.0 * B (N) G

Goal. Demonstrate an understanding of USMC Ground Support (AGS) doctrine.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify the organization responsible for providing AGS to the Marine Aircraft Wing (MAW).
2. Identify the 13 functions of AGS.
3. Identify the five activities that the Marine Wing Support Squadron (MWSS) performs for the ACE when deployed.
4. Identify the four basing concepts for MAGTF Forward Operating Bases (FOBs).
5. List the four classifications of FOBs.
6. Differentiate the distinguishing characteristics of FOBs.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 AGS Class
2. MCWP 3-21.1 Aviation Ground Support

ACPM-8040 1.0 * B (N) G

Goal. Demonstrate an understanding of the Threat stage of the MACCS ACPM

Requirement. Pass a closed book examination that encompasses all learning objectives contained in the prerequisites.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. SI.

Prerequisite. 8041, 8042, 8043, 8044.

Reference. C3 Course Catalog.

ACPM-8041 4.0 * B (N) G

Goal. Demonstrate an understanding of the surface-to-antiair threat to the MAGTF.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Match the system name with the guidance and target aspect for the following Man Portable Air Defense Systems (MANPADS):
 - a. SA-7
 - b. SA-14
 - c. SA-16

- d. SA-18
2. Match the system name with the guidance and associated radars for the following Radio Frequency Surface-to-Air Missile Systems (RF SAMS):
 - a. SA-2
 - b. SA-6
 - c. SA-8
 - d. SA-10
 - e. SA-11
 - f. SA-15
 - g. SA-20
 - h. Roland-III
3. Match the system name with the type and associated radar for the following Air Defense Artillery (AAA):
 - a. ZPU 1, 2, 4
 - b. ZSU-23-4
 - c. 2S6
 - d. S-60

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

Reference. MAWTS-1 Marine Aviation Intelligence Reference
(<https://vcepub.tecom.usmc.mil/sites/msc/magtftc/mawts1/departments1/newc3/default.aspx>)

ACPM-8042 4.0 * B (N) G

Goal. Demonstrate an understanding of the fixed wing threat to the MAGTF.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify the role of the AN-2 Colt.
2. Identify the role of the MIG-23 Flogger.
3. Identify the role of the MIG-29 Fulcrum.
4. Identify the role of the MIG-31 Foxhound.
5. Identify the role of the Su-24 Fencer.
6. Identify the role of the Su-25 Frogfoot.
7. Identify the role of the Su-27 Flanker.
8. Identify the role of the Su-30 Flanker.
9. Identify the role of the Tu-22M Backfire.
10. Identify the role of the Tu-95 Bear.
11. Identify the role of the Tu-160 Blackjack.
12. Identify the role of the J-7 Fishbed.
13. Identify the role of the JH-7 Flounder.
14. Identify the role of the J-8 Finback.
15. Identify the role of the J-10 Firebird.
16. Identify the role of the H-6 Badger.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

Reference. MAWTS-1 Marine Aviation Intelligence Reference
(<https://vcepub.tecom.usmc.mil/sites/msc/magtftc/mawts1/departments1/newc3/default.aspx>)

ACPM-8043 4.0 * B (N) G

Goal. Demonstrate an understanding of the rotary wing threat to the MAGTF.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify the role of the Mi-24 Hind.
2. Identify the role of the SA 342 Gazelle.
3. Identify the role of the Ka-25 Hormone.
4. Identify the role of the Mi-6 Hook.
5. Identify the role of the Mi-28 Havoc.
6. Identify the role of the Mi-8 Hip.
7. Identify the role of the Ka-50 Kokum.
8. Identify the role of the Ka-29 Helix B.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

Reference. MAWTS-1 Marine Aviation Intelligence Reference
(<https://vcepub.tecom.usmc.mil/sites/msc/magtftc/mawts1/departments1/newc3/default.aspx>)

ACPM-8044 4.0 * B (N) G

Goal. Demonstrate an understanding of the missile and Unmanned Aircraft System (UAS) threat to the MAGTF.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Match the system name with the terminal guidance for the following Air-to-Surface Missiles:
 - a. AS-10 Karen
 - b. AS-11 Kilter
 - c. AS-12 Kegler
 - d. AS-14 Kedge
 - e. AS-17 Krypton
2. Match the system name with the warhead and guidance for the following Surface-to-Surface Missiles:
 - a. FROG-7
 - b. SCUD-B
 - c. SCUD-C
 - d. Nodong 1
 - e. C 801
 - f. C 802
3. Identify the mission of the following threat UAS:
 - a. Ababil
 - b. Mohajer
 - c. Harpy
 - d. Heron
 - e. ASN-206
 - f. Pchela-1T

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 Marine Aviation Intelligence Reference
2. <https://vcepub.tecom.usmc.mil/sites/msc/magtftc/mawts1/departments1/ne>
3. [wc3/default.aspx](https://vcepub.tecom.usmc.mil/sites/msc/magtftc/mawts1/departments1/ne/wc3/default.aspx)
4. Marine Corps Intelligence Activity Iran Country Handbook (appendix A)
5. Marine Corps Intelligence Activity North Korea Country Handbook (page 86)
6. Marine Corps Intelligence Activity China Country Handbook (appendix A)
<https://www.intelink.gov/mcia/handbook.htm>
7. MCIA UAV Recognition Guide <https://www.intelink.gov/mcia/index.htm>

ACPM-8060 1.0 * B (N) G

Goal. Demonstrate an understanding of the MAGTF stage of the MACCS ACPM.

Requirement. Pass a closed book examination that encompasses all learning objectives contained in the prerequisites.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. SI.

Prerequisite. 8061, 8062, 8063, 8064, 8065.

Reference. C3 Course Catalog.

ACPM-8061 4.0 * B (N) G

Goal. Demonstrate an understanding of the MAGTF ground combat operations.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify how the Ground Combat Element (GCE) is employed as part of the MAGTF and the capabilities the GCE provides to the MAGTF commander
2. Define the following items related to command and control of ground combat operations:
 - a. Echelons of the GCE headquarters
 - b. Battlespace Organization
 - c. Battlespace Framework
3. Define the five types of amphibious operations.
4. Identify the following items related to offensive operations:
 - a. Types of offensive operations
 - b. Types of attack
 - c. Forms of maneuver
 - d. Distribution of forces
5. Identify the following items related to defensive operations:
 - a. Organization of the defense
 - b. Distribution of forces
 - c. Types of defensive operations
 - d. Defensive methods

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MCDP 1-0 Marine Corps Operations
2. MCWP 3-1 Ground Combat Operations

ACPM-8062 4.0 * B (N) G

Goal. Demonstrate an understanding of fire support coordination in the Ground Combat Element (GCE).

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify the four fire support tasks.
2. List the functions of the senior fire support coordination center (FSCC) in the GCE.
3. List the four steps of the MAGTF Targeting Process.
4. Define the purpose of essential fire support tasks (EFST).

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 MAGTF Targeting and Fire Support Planning Class
2. MCWP 3-16 Fire Support Coordination in the GCE

ACPM-8063 4.0 * B (N) G

Goal. Demonstrate an understanding of MAGTF command and control.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify MAGTF command and support relationships.
2. Identify the purpose and role of the command and control centers in the CE, ACE, GCE, and LCE.
3. Identify the purpose and role of the amphibious command and control facilities.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

Reference. MCWP 3-40.1 MAGTF C2

ACPM-8064 4.0 * B (N) G

Goal. Demonstrate an understanding of MAGTF communications.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify the six characteristics of communications and information systems.
2. Identify the mission and organizational structure of the Communications Battalion.

3. Identify the purpose of the Communications-Electronics Operating Instructions (CEOI) and what information is usually included in it.
4. Identify what information can be found in Annex K of an operations order.
5. Identify the purpose of select fires, support, and ACE specific radio nets.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

Reference. MCWP 3-40.3 MAGTF Communications System

ACPM-8065 4.0 * B (N) G

Goal. Demonstrate an understanding of phasing control ashore.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify types of amphibious operations and how command relationships may change during the conduct of each.
2. Identify how disputes among commanders during amphibious operations are resolved.
3. Identify the key commanders and command relationships.
4. Identify the key characteristics of each phase in phasing the MACCS ashore.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 Phasing Control Ashore Class
2. JP 3-02 Joint Doctrine for Amphibious Operations (Ch 2)
3. MCWP 3-25 Control of Aircraft and Missiles (Appendix C)

ACPM-8066 4.0 * B (N) G

Goal. Demonstrate an understanding of information management.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Match the principles of information management with their descriptions.
2. Define each of the classes of information within an information hierarchy.
3. List the characteristics of quality information.
4. Identify the role and responsibilities of an Information Management Officer (IMO).
5. Define C2 support structure and the three steps followed to develop one.
6. Identify the purpose of an information management matrix and the information management plan.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

Reference. MCWP 3-40.2 Information Management

ACPM-8067 4.0 * B (N) G

Goal. Demonstrate an understanding of Unmanned Aircraft Systems in support of MAGTF operations.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify the four types of payloads.
2. Identify the three attributes that determine UAS Groups.
3. Identify the five different UAS Group Categories.
4. Identify the two types of VMU operational employment.
5. Identify the three components of the RQ-7B Communications Relay Package.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 UAS In Support of MAGTF Operations
2. MCRP 3-42.1A
3. NTTP 3-22.3-VMU

ACPM-8080 1.0 * B (N) G

Goal. Demonstrate an understanding of the MAGTF stage of the joint air operations stage of the MACCS ACPM.

Requirement. Pass a closed book examination that encompasses all learning objectives contained in the prerequisites.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. SI.

Prerequisite. 8081, 8082, 8083, 8084, 8085, 8086, 8087, 8088.

Reference. C3 Course Catalog.

ACPM-8081 4.0 * B (N) G

Goal. Demonstrate an understanding of the command and control of joint air operations.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify the definition of joint air operations.
2. Identify the Joint Force Air Component Commander's responsibilities.
3. Identify the five sections that comprise the Joint Air Operations Center.
4. Identify the six phases of the Joint Air Tasking Cycle.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives or pass the DOCNET course listed below with a score of 80% or higher.

Instructor. BI.

Prerequisite. None.

References.

1. DOCNET Course 3-30 (<http://www.dtic.mil/doctrine/docnet/>)
2. MAWTS-1 Joint Air Operations Class
3. JP 3-30 C2 of Joint Air Operations

ACPM-8082 4.0 * B (N) G

Goal. Demonstrate an understanding of the theater air ground system (TAGS).

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. List the primary characteristics of the Theater Air Ground System (TAGS).
2. Identify the elements within the Air Force's Theater Air Control System (TACS) and their primary responsibilities.
3. Identify the aviation command and control elements with the Army Air and Ground System (AAGS) and their primary responsibilities.
4. Identify the aviation elements within the Navy's Composite Warfare Commander (CWC) architecture.
5. Identify the Amphibious Task Force (ATF) construct and its primary responsibilities.
6. Identify the aviation command and control elements within the Special Operations Air-Ground System.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 TAGS ClassMAWTS-1 Joint Air Operations Class
2. ALSA TAGS Pub. (<https://wwwmil.alsa.mil/default.aspx>)

ACPM-8083 4.0 * B (N) G

Goal. Demonstrate an understanding of joint fire support doctrine.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Define joint fires.
2. Define joint fire support.
3. Identify the steps of the joint fire support planning process.
4. List the various elements of the component commander's fires command and control system.
5. Define the various joint control and coordination measures associated with joint fire support.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives or pass the DOCNET course listed below with a score of 80% or higher.

Instructor. BI.

Prerequisite. None.

References.

1. DOCNET Course 3-09 (<http://www.dtic.mil/doctrine/docnet/>)
2. JP 3-09 Joint Fire Support

ACPM-8084 4.0 * B (N) G

Goal. Demonstrate an understanding of close air support (CAS) doctrine.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Explain key roles and responsibilities related to the planning and execution of CAS.
2. Detail key steps in the planning and execution of CAS.
3. Describe various coordination measures used in the planning and conduct of CAS.
4. Describe the manner in which the two types of CAS requests are fulfilled.
5. Identify the goal and purpose of synchronizing CAS with surface fires.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives or pass the DOCNET course listed below with a score of 80% or higher.

Instructor. BI.

Prerequisite. None.

References.

1. DOCNET Course 3-09 (<http://www.dtic.mil/doctrine/docnet/>)
2. MAWTS-1 CAS Class
3. JP 3-09.3 Close Air Support

ACPM-8085 4.0 * B (N) G

Goal. Demonstrate an understanding of joint targeting doctrine.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify types of targets.
2. Identify and describe the six phases of the joint targeting cycle.
3. Identify characteristics of a target.
4. Identify and describe steps in dynamic targeting.
5. Describe roles and responsibilities related to the joint targeting process.
6. Describe key products and processes of the joint targeting cycle.
7. Identify key terms related to the joint targeting process.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives or pass the DOCNET course listed below with a score of 80% or higher.

Instructor. BI.

Prerequisite. None.

References.

1. DOCNET Course 3-09 (<http://www.dtic.mil/doctrine/docnet/>)
2. JP 3-60 Joint Targeting

ACPM-8086 4.0 * B (N) G

Goal. Demonstrate an understanding of the North Atlantic Treaty Organization (NATO).

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify the composition of the NATO alliance.

2. Identify the three key articles of the NATO alliance.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 NATO Class
2. "What is NATO" Brief (http://www.nato.int/welcome/intro_to_NATO_en.ppt)
3. AJP-01(D)

ACPM-8087 4.0 * B (N) G

Goal. Demonstrate an understanding of joint airspace control doctrine.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify the responsibilities of the airspace control authority (ACA).
2. Identify the basic principles for airspace control.
3. Identify the purpose of the airspace control plan (ACP).
4. Identify the purpose of the airspace control order (ACO).
5. Identify the methods of airspace control.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

Reference.

1. MAWTS-1 Airspace Control Authority and Airspace Class

6.15 T&R SYLLABUS MATRIX

5950 T&R SYLLABUS MATRIX										
STAGE	CODE	TITLE	POI	DEVICE	COND	PROFICIENCY PERIOD	E-CODED	TIME	PREREQ	CHAIN
CORE INTRODUCTION PHASE (1000)										
MARINE AIR COMMAND AND CONTROL SYSTEMS (MACCS) MAINTENANCE MANAGERS WARRANT OFFICER COURSE (MMWO) STAGE										
MMWO	1000	Marine Air Traffic Control Detachment Work Centers' attributes.	B	G	(N)	*	*	0	*	*
MMWO	1004	Develop a Concept of Employment (COE) brief.	B	G	(N)	*	*	0	*	*
MMWO	1007	Identify major funding lines.	B	G	(N)	*	*	0	*	*
MMWO	1008	Identify the Marine Corps Universal Needs Process (MCUNP).	B	G	(N)	*	*	0	*	*
MMWO	1009	Analyze the TO/E.	B	G	(N)	*	*	0	*	*
MMWO	1010	Identify the functions of maintenance management.	B	G	(N)	*	*	0	*	*
(MACCS) (MMWO) STAGE			EVENTS		6	HOURS		0		
INSTRUCTOR TRAINING PHASE (5000)										
INSTRUCTOR UNDER TRAINING (IUT) STAGE										
IUT	5000	Introduce principals of instruction.	B	L	(N)	*	*	2	*	*
IUT	5010	Describe individual T&R requirements.	B	G	(N)	*	*	2	*	*
IUT	5020	Conduct T&R instruction.	B, R, M	L	(N)	90	*	12	5000, 5010	*
IUT	5100	Describe the Aviation Training and Readiness (T&R) Program.	B	G	(N)	*	*	2	*	*
IUT	5110	Conduct instructor evaluations.	B, R, M	L	(N)	365	*	4	5100	*
IUT	5120	Perform T&R administration.	B	L	(N)	*	*	2	5100, 5110	*
IUT	5130	Develop a training plan.	B	L	(N)	*	*	2	5100, 5110, 5120	*
INSTRUCTOR UNDER TRAINING (IUT) STAGE			EVENTS		7	HOURS		26		
CERTIFICATIONS, QUALIFICATIONS, AND DESIGNATIONS (CQD) PHASE (6000)										
DESIGNATION (DESG) STAGE										
DESG	6320	Basic Instructor (BI).	B	G	(N)	*	*	0.5	5000, 5010, 5020	*

5950 T&R SYLLABUS MATRIX										
STAGE	CODE	TITLE	POI	DEVICE	COND	PROFICIENCY PERIOD	E-CODED	TIME	PREREQ	CHAIN
DESG	6321	Senior Instructor (SI).	B	G	(N)	*	*	0.5	5000, 5010, 5020, 5100, 5110, 5120, 5130, 6320	*
DESG	6322	Weapons and Tactics Instructor (WTI).	B	G	(N)	*	*	0.5	6000	*
DESG	6330	Formal Learning Center Instructor (FLCI).	B	G	(N)	*	*	0.5	6096	*
DESG	6335	Maintenance Officer	B	G	(N)	*	*	0.5	*	*
DESIGNATION (DESG) STAGE			EVENTS		4	HOURS		2.5		
SCHOOL (SCHL) STAGE										
SCHL	6000	Weapons and Tactics Instructor.	B	G	*	*		0.5	*	*
SCHL	6020	Link 16 Basics Course (JT-100).	B	G	*	*	*	0.5	*	*
SCHL	6021	Intro to Multi Tactical Data Link Network Operations Course (JT-101).	B	G	*	*	*	0.5	*	*
SCHL	6022	Multi-TDL Advanced Joint Interoperability Course (MAJIC) (JT-102).	B	G	*	*	*	0.5	6021	*
SCHL	6023	Link 16 Joint Interoperability Course (US-109).	B	G	*	*	*	0.5	*	*
SCHL	6024	Multi Tactical Data Link Planners Course (JT-201).	B	G	*	*	*	0.5		*
SCHL	6026	Joint Interface Control Officer (JICO) (JT-301).	B	G	*	*	*	0.5	6021, 6022, 6024	*
SCHL	6027	Advanced JICC Operator Course (JT-310).	B	G	*	*	*	0.5	*	*
SCHL	6031	Marine Air Traffic Control (MATC) Maintenance Managers Course.	B	G	*	*	*	0.5	*	*
SCHL	6060	Aeronautical Technical Publication Library Management Course.	B	G	*	*	*	0.5	*	*

5950 T&R SYLLABUS MATRIX										
STAGE	CODE	TITLE	POI	DEVICE	COND	PROFICIENCY PERIOD	E-CODED	TIME	PREREQ	CHAIN
SCHL	6073	Microminature Electronics Repair Course.	B	G	*	*	*	0.5	*	*
SCHL	6075	Naval Aviation Maintenance Program Management.	B	G	*	*	*	0.5	*	*
SCHOOL (SCHL) STAGE			EVENTS		12	HOURS		6		
MISSION ESSENTIAL TASK (MET) PHASE (7000)										
ATC CONDITION (COND)										
COND	7100	Provide ATC tower services	B,R,M	L	(N)	730	E	18	*	*
COND	7200	Provide ATC approach services	B,R,M	L	(N)	730	E	12	*	*
COND	73000	Provide ATC arrival/departure services	B,R,M	L	(N)	365	E	12	*	*
COND	7400	Conduct Marine air traffic control mobile team (MMT) ALZ operations	B,R,M	L	(N)	730	E	2	*	*
COND	7500	Conduct Marine air traffic control mobile team (MMT) FARP operations	B,R,M	L	(N)	730	E	2	*	*
TOTAL ATC CONDITION (COND)			EVENTS		5	HOURS		46		
AVIATION CAREER PROGRESSION MODEL (ACPM) PHASE (8000)										
AVIATION CAREER PROGRESSION MODEL (ACPM)										
ACPM	8000	MACCS.	B	G	(N)	*	*	1	8001, 8002, 8003, 8004, 8005, 8006, 8008	*
ACPM	8001	Marine Air Command and Control System.	B	G	(N)	*	*	4	*	*
ACPM	8002	Tactical Air Command Center (TACC).	B	G	(N)	*	*	4	*	*
ACPM	8003	Direct Air Support Center (DASC).	B	G	(N)	*	*	4	*	*
ACPM	8004	Tactical Air Operations Center (TAOC).	B	G	(N)	*	*	4	*	*
ACPM	8005	Marine Air Traffic Control (MATC).	B	G	(N)	*	*	4	*	*

5950 T&R SYLLABUS MATRIX										
STAGE	CODE	TITLE	POI	DEVICE	COND	PROFICIENCY PERIOD	E-CODED	TIME	PREREQ	CHAIN
ACPM	8006	Low Altitude Air Defense (LAAD).	B	G	(N)	*	*	4	*	*
ACPM	8008	Marine Wing Communications Squadron (MWCS).	B	G	(N)	*	*	4	*	*
ACPM	8020	ACE.	B	G	(N)	*	*	1	8021, 8022, 8023, 8024, 8025, 8026, 8027, 8028	*
ACPM	8021	Aviation Operations.	B	G	(N)	*	*	4	*	*
ACPM	8022	Control of Aircraft and Missiles.	B	G	(N)	*	*	4	*	*
ACPM	8023	Offensive Air Support (OAS).	B	G	(N)	*	*	4	*	*
ACPM	8024	Assault Support (AS).	B	G	(N)	*	*	4	*	*
ACPM	8025	Air Reconnaissance.	B	G	(N)	*	*	4	*	*
ACPM	8026	Electronic Warfare (EW).	B	G	(N)	*	*	1	*	*
ACPM	8027	Anti-Air Warfare (AAW).	B	G	(N)	*	*	4	*	*
ACPM	8028	Aviation Ground Support.	B	G	(N)	*	*	4	*	*
ACPM	8040	Threat.	B	G	(N)	*	*	1	8041, 8042, 8043, 8044	*
ACPM	8041	Surface to Air threat to the MAGTF.	B	G	(N)	*	*	4	*	*
ACPM	8042	Fixed Wing threat to the MAGTF.	B	G	(N)	*	*	4	*	*
ACPM	8043	Rotary Wing threat to the MAGTF.	B	G	(N)	*	*	4	*	*
ACPM	8044	Missile and UAS threat to the MAGTF.	B	G	(N)	*	*	4	*	*
ACPM	8060	MAGTF.	B	G	(N)	*	*	1	8061, 8062, 8063, 8064, 8065, 8066, 8067	*
ACPM	8061	Ground Combat Operations.	B	G	(N)	*	*	4	*	*
ACPM	8062	Fire Support Coordination in the GCE.	B	G	(N)	*	*	4	*	*
ACPM	8063	MAGTF Command and Control.	B	G	(N)	*	*	4	*	*
ACPM	8064	MAGTF Communications.	B	G	(N)	*	*	4	*	*
ACPM	8065	Phasing Control Ashore.	B	G	(N)	*	*	4	*	*
ACPM	8066	Information Management.	B	G	(N)	*	*	4	*	*
ACPM	8067	UAS support of the MAGTF.	B	G	(N)	*	*	4	*	*

5950 T&R SYLLABUS MATRIX										
STAGE	CODE	TITLE	POI	DEVICE	COND	PROFICIENCY PERIOD	E-CODED	TIME	PREREQ	CHAIN
ACPM	8080	Joint Air Operations.	B	G	(N)	*	*	1	8081, 8082, 8083, 8084, 8085, 8086, 8087, 8088	*
ACPM	8081	Command and Control of Joint Air Operations.	B	G	(N)	*	*	4	*	*
ACPM	8082	Theater Air Ground System (TAGS).	B	G	(N)	*	*	4	*	*
ACPM	8083	Joint Fire Support.	B	G	(N)	*	*	4	*	*
ACPM	8084	Close Air Support (CAS).	B	G	(N)	*	*	4	*	*
ACPM	8085	Joint Targeting.	B	G	(N)	*	*	4	*	*
ACPM	8086	North Atlantic Treaty Organization (NATO).	B	G	(N)	*	*	4	*	*
ACPM	8087	Joint Airspace Control.	B	G	(N)	*	*	4	*	*
ACPM	8088	Countering Air and Missile Threats.	B	G	(N)	*	*	4	*	*
TOTAL HOURS (ACPM) STAGE			EVENTS		39	HOURS		138		
TOTAL ACPM (8000 PHASE)								138		

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CHAPTER 7

METEOROLOGICAL EQUIPMENT TECHNICIAN (MOS 5951) INDIVIDUAL TRAINING AND READINESS REQUIREMENTS

	<u>PARAGRAPH</u>	<u>PAGE</u>
CREWMEMBER T&R SYLLABUS REQUIREMENTS	7.0	7-3
TRAINING PROGRESSION MODEL.....	7.1	7-3
PROGRAMS OF INSTRUCTION	7.2	7-3
PROFICIENCY AND CURRENCY	7.3	7-4
CERTIFICATION, QUALIFICATION, AND DESIGNATION TABLES	7.4	7-4
SYLLABUS NOTES.....	7.5	7-5
CORE INTRODUCTION PHASE (0000).....	7.6	7-6
CORE PHASE (2000).....	7.7	7-11
MISSION PHASE (3000).....	7.8	7-34
CORE PLUS PHASE (4000).....	7.9	7-38
MISSION PLUS PHASE (4500)	7.10	7-47
INSTRUCTOR TRAINING PHASE (5000).....	7.11	7-47
CERTIFICATIONS, QUALIFICATIONS, AND DESIGNATIONS (CQD) PHASE (6000)	7.12	7-52
MISSION ESSENTIAL TASK (MET) PHASE (7000)	7.13	7-69
AVIATION CAREER PROGRESSION MODEL (8000).....	7.14	7-74
T&R SYLLABUS MATRIX.....	7.15	7-91

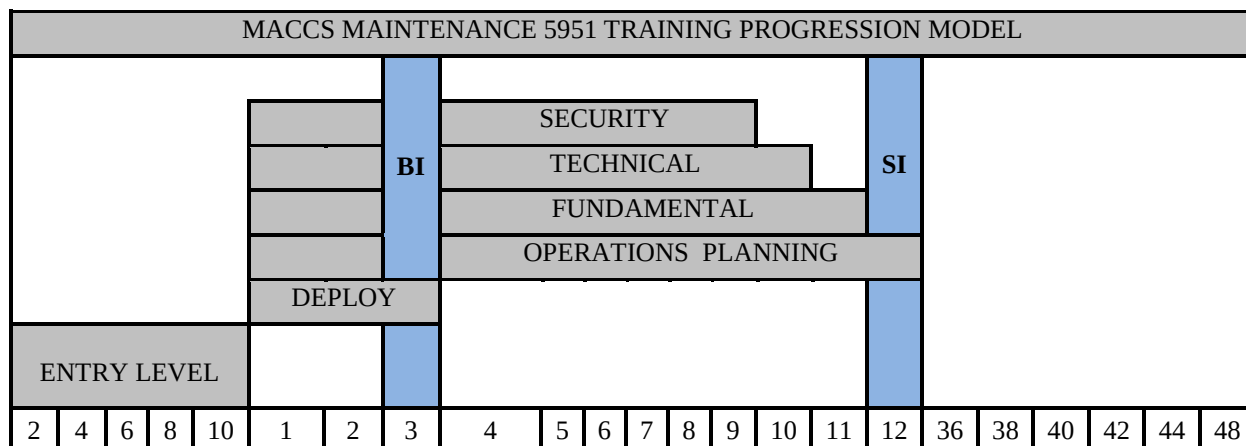
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CHAPTER 7

METEOROLOGICAL EQUIPMENT TECHNICIAN (MOS 5951) INDIVIDUAL TRAINING AND READINESS REQUIREMENTS

7.0 CREWMEMBER T&R SYLLABUS REQUIREMENTS. This T&R syllabus is based on specific goals and performance standards designed to ensure individual proficiency in Core, Mission, and Core Plus phases. The goal of this chapter is to develop individual and unit warfighting capabilities.

7.1 TRAINING PROGRESSION MODEL. This model represents the recommended average training progression for the 5951 crewmember. Units should use the model as a point of departure to generate individual training plans.



7.2 5951 PROGRAMS OF INSTRUCTION (POI). These tables reflect average time-to-train versus the minimum to maximum time-to-train parameters in the Training Progression Model.

7.2.1 Basic POI.

MACCS MAINTENANCE MOS 5951 BASIC POI		
WEEKS	PHASE OF INSTRUCTION	UNIT RESPONSIBLE
0-28	CORE INTRODUCTION PHASE	NATTC PENSACOLA FL
29-52	CORE PHASE	TACTICAL SQUADRON
29- 52	MISSION PHASE	TACTICAL SQUADRON
VARIES	CORE PLUS PHASE	TACTICAL SQUADRON

7.2.2 Refresher POI.

MACCS MAINTENANCE MOS 5951 REFRESHER POI		
WEEKS	PHASE OF INSTRUCTION	UNIT RESPONSIBLE
VARIES	CORE PHASE	TACTICAL SQUADRON
VARIES	MISSION PHASE	TACTICAL SQUADRON
VARIES	CORE PLUS PHASE	TACTICAL SQUADRON

NOTE 1: TRAINING DURATIONS VARY BY POSITION BEING TRAINED. SEE PROGRESSION MODEL FOR NOTIONAL TRAINING TIMES.

7.3 PROFICIENCY AND CURRENCY. See Chapter 2 of the Aviation Training and Readiness Program Manual for amplifying information on POI updating.

7.3.1 Event Proficiency. Event proficiency is defined as successful completion of the performance standard as determined by the instructor or evaluator. Event completion is predicated upon demonstrated proficiency. Once completed, it is logged in M-SHARP by entering the appropriate event code. M-SHARP automatically updates the event proficiency date to reflect the completion date.

7.3.2 Skill Proficiency. Proficiency is a measure of achievement of a specific skill. To attain Individual Skill proficiency, an individual must be simultaneously proficient in all events for that Skill. Individuals may be attaining proficiency in some skills while maintaining proficiency in others. Refresher training is required once an individual has been absent from a technician billet for 36 months or longer. Upon return, the individual will complete R-coded events.

7.3.2.1 Maintaining Skill Proficiency. Once attained, skill proficiency is maintained by executing those events which have a Proficiency Period (Maintain events). Proficiency Periods establish the maximum time between event demonstrations. Should proficiency be lost in any maintain event, for a specific skill, that skill proficiency is temporarily lost. Skill proficiency can be re-attained by again demonstrating proficiency in the event(s) that are not proficient. For flying communities, an individual shall complete delinquent events with a proficient instructor, crewman/flight lead as delineated by the T/M/S Syllabus Sponsor (see Chapter 3 of the Program Manual on specific instructor requirements for Low Altitude Flight, Night Systems, ACM, DM, DACM, DCM, FAC(A)).

7.3.2.2 Loss of Individual Skill Proficiency. Should an individual lose proficiency in all maintain events in a skill, the individual will be assigned to the Refresher POI for the skill. To regain skill proficiency, the individual must demonstrate proficiency in all R-coded events for the skill.

7.3.2.3 Loss of Unit Skill Proficiency. If an entire unit loses proficiency in an event, unit instructors shall regain proficiency by completing the event with an instructor from a like unit. If not feasible, the instructor shall regain proficiency by completing the event with another instructor. For flying communities, if a unit has only one instructor and cannot complete the event with an instructor from another unit, the instructor shall regain proficiency with another aircraft commander or as designated by the commanding officer.

7.3.2.4 Proficiency Status. Proficiency is a “Yes/No” status by skill assigned to an individual. When an individual attains and maintains Core Skill Proficiency (CSP), Mission Skill Proficiency (MSP), Core Plus Skill Proficiency (CPSP), or Mission Plus Skill Proficiency (MPSP), the individual may count towards CMMR or CMTS.

7.3.3 Skill Currency. Currency is a control measure used to provide an additional margin of safety based on exposure frequency to a particular skill and applies to all MOS's that must comply with NATOPS and OPNAV requirements. It is a measure of time since the last event demanding that specific skill. Specific currency requirements for aircrew individual type mission profiles can be found in Chapter 3.

7.4 CERTIFICATION, QUALIFICATION, AND DESIGNATION TABLES. The tables below delineate T&R events required to be completed to attain proficiency for select certifications, qualifications and designations. In addition to event requirements, all required stage lectures, briefs, squadron training, prerequisites, and other criteria shall be completed prior to completing final events. Certification, qualification and designation letters signed by the commanding officer shall be placed in training Performance Records and NATOPS. See Chapter 6 of the Aviation T&R Program Manual on regaining lost qualifications.

7.4.1 INSTRUCTOR DESIGNATIONS.

MOS 5951 INSTRUCTOR DESIGNATIONS	
INSTRUCTOR DESIGNATION	EVENTS
BASIC INSTRUCTOR (BI)	5000, 5010, 5020, 6320
SENIOR INSTRUCTOR (SI)	5000, 5010, 5020, 5100, 5110, 5120, 5130, 6320, 6321

WEAPONS AND TACTICS INSTRUCTOR (WTI)	6320, 6321, 8000, 8020, 8040, 8060, 8080
FORMAL LEARNING CENTER INSTRUCTOR (FLCI)	6096, 6330

7.4.2 CERTIFICATIONS, QUALIFICATIONS, AND DESIGNATIONS.

MOS 5951	
CERTIFICATIONS, QUALIFICATIONS, AND DESIGNATIONS (CQD)	
CERTIFICATIONS	EVENTS
CSWF Tech Support Specialist	6260
CSWF IT Specialist	6261
CSWF System Administrator	6262

7.5 SYLLABUS NOTES.

7.5.1 Environmental Conditions Matrix.

Environmental Conditions	
Code	Meaning
(N)	May be conducted during darkness – If conducted during hours of darkness; may be aided or unaided

7.5.2 Device Matrix.

DEVICE	
Symbol	Meaning
L	Event shall be conducted live (conducted in the field/garrison, during an exercise, etc). Requires live (non-simulated) execution of the event.
G	Ground/academic training. May include Distance Learning, CBT, lectures, self-paced.
S/L	Event performed in simulator preferred/live optional.

7.5.3 Program of Instruction Matrix.

PROGRAM OF INSTRUCTION MATRIX		
Program of Instruction (POI)	Symbol	Aviation Ground

Basic	B	Initial MOS Training
Refresher	R	Return to community from non (MOS/Skill) associated tour
Maintain	M	All individuals who have attained CSP/MSP/PPP by initial POI assignment are re-assigned to the M POI to maintain proficiency.

7.5.4 Event Terms.

EVENT TERMS	
TERM	DESCRIPTION
Discuss	An explanation of systems, procedures, or tactics during the brief, exercise, or debrief. Student is responsible for knowledge of procedures.
Demonstrate	The description and performance of a particular event by the instructor, observed by the student. The student is responsible for knowledge of the procedures prior to the demonstration of a required event.
Introduce	The instructor may demonstrate a procedure or event to a student, or may coach the student through the maneuver without demonstration. The student performs the procedures or maneuver with coaching as necessary. The student is responsible for knowledge of the procedures.
Practice	The performance of a maneuver or procedure by the student that may have been previously introduced in order to attain a specified level of performance.
Review	Demonstrated proficiency of an event by the student.
Evaluate	Any event designed to evaluate team/crew standardization that does not fit another category.

7.6 CORE INTRODUCTION PHASE (0000).

7.6.1 Purpose. To provide entry level instruction to develop the basic skills necessary to become a MOS 5951 Meteorological Equipment Technician (METEM). This training is completed upon graduation from the Meteorological Equipment Technician Course.

7.6.2 General.

7.6.2.1 Admin Notes. None.

7.6.2.2 Prerequisite. Meet the requirement delineated in the MOS Manual (NAVMC 1200.17_).

7.6.2.3 Stages. The following stages are included in the Core Introduction Phase of training.

PAR NO.	STAGE NAME	PAGE NUMBER
7.6.3	CYBER SECURITY WORK FORCE (CSWF)	7-6
7.6.4	MARINE AIR TRAFFIC CONTROL LANDING SYSTEMS (MATCLS)	7-8

7.6.3 CYBER SECURITY WORK FORCE (CSWF) STAGE

7.6.3.1 Purpose. To provide entry-level skills in computing and networking that will be used in the performance of assigned duties within the Marine Air Command and Control System (MACCS).

7.6.3.2 General.

Admin Notes. The following events establish the foundational skills required to be successful in the cyber security workforce.

Prerequisite.

1. Graduate from the Marine Air Traffic Control Technician Common Core (CID: N23XSET);
2. Meet the 5951 requirements delineated in the MOS Manual.

Crew Requirements. None.

CSWF-1005 0 * B (N) G

Goal. Provide cyberwarfare technical support and troubleshooting.

Requirement. Provide the references and appropriate equipment:

1. Install and configure hardware, software, and peripheral equipment.
2. Manage accounts, networks, and access to systems and equipment.
3. Monitor client-level computer system performance.
4. Diagnose and resolve operator reported system incidents.
5. Troubleshoot system hardware and software.
6. Implement disaster recovery continuity of operations plans.

Performance Standard. Pass an exam.

Instructor. FLC instructor.

Prerequisite. None.

References.

1. DOD 8570.01_, Information Assurance Workforce Improvement Program
2. SECNAVINST 5239.20_, Department of the Navy Cyberspace Information Technology and Cybersecurity Workforce Management and Qualification
3. MCO 5239.20_, Marine Corps Cybersecurity
4. National Initiative for Cybersecurity Careers and Studies (NICCS) website

CSWF-1006 0 * B (N) G

Goal. Repair common cables.

Requirement. Provided the appropriate equipment repair:

1. Ethernet/RJ-45 cable.
2. BNC cable.
3. RF cable.
4. Data cable.

Performance Standard. Pass an exam.

Instructor. FLC instructor.

Prerequisite. None.

References.

1. Companion Guide 3rd Edition ISBN-13:978-1-58713-199-8
2. TIA/EIA-568-B.1-2001 ANSI/TIA/EIA-568-B.1-2001
3. Twisted pair cable test set 33-933NV Operator Manual 6510-00-5037
4. User's Manual for cable analyzer, DSP-4300/AN TM 10704B-OI/1
5. Fiber Optics Technician's Manual 3rd Edition
6. Understanding Fiber Optics 5th Edition ISBN 0-13-117429-0
7. Standard Maintenance Practices Miniature/Microminiature (2M) Electronic Assembly Repair

Organizational/Intermediate/Depot Level TM 5895 45/1

7.6.4 MARINE AIR TRAFFIC CONTROL LANDING SYSTEMS (MATCLS) STAGE.

7.6.4.1 Purpose. To provide the Marines assigned to MOS 5951 with the knowledge and skills necessary to install, test, maintain, and repair meteorological equipment used in support of MAGTF operations.

7.6.4.2 General.

Admin Notes. MATC Aviation Meteorological Technician Pipeline (CID: N2358Y2), NATTC, located at NAS Pensacola, FL.

Prerequisites.

1. Graduate from the Marine Air Traffic Control Technician Common Core (CID: N23XSET)
2. Meet the 5951 requirements delineated in the MOS Manual.

Crew Requirements. None.

MATCLS-1100 0 * B (N) G

Goal. Perform corrective maintenance to the LRU for the AN/UMK-4.

Requirement. Given the references and inoperative meteorological sensing equipment, complete the following steps:

1. Adhere to safety requirements.
2. Research applicable technical data pertaining to faulty equipment.
3. Read schematic diagrams.
4. Ensure proper handling of ESD components.
5. Set up test equipment.
6. Connect test equipment.
7. Measure basic circuit performance.
8. Trace signal paths.
9. Trace current/voltage paths.
10. Identify faulty subassembly(s).

Performance Standard. Pass an exam.

Instructor. FLC instructor.

Prerequisite. None.

Reference.

1. EE100-FF-OMI-010 Operation and Maintenance Instruction

MATCLS-1105 0 * B (N) G

Goal. Perform corrective maintenance to the LRU for the AN/TMQ-56.

Requirement. Given the references and inoperative meteorological system, complete the following steps:

1. Adhere to safety requirements.
2. Research applicable technical data pertaining to faulty equipment.
3. Read schematic diagrams.
4. Ensure proper handling of ESD components.
5. Set up test equipment.
6. Connect test equipment.
7. Measure basic circuit performance.

8. Trace signal paths.
9. Trace current/voltage paths.
10. Identify faulty subassembly(s).

Performance Standard. Pass an exam.

Instructor. FLC instructor.

Prerequisite. None.

References.

1. EM000-CY-OMI-010 Operation and Maintenance Instructions
2. 0222840_Interconnect Diagram
3. 7052526_Rev D Wiring Diagram

MATCLS-1110 0 * B (N) G

Goal. Setup the subsystems of the AN/TMQ-56.

Requirement. As a member of a crew, given tools, the reference and AN/TMQ-56, setup each subsystem below:

1. Meteorological Satellite Subsystem.
2. Local Sensor Subsystem.
3. Remote Sensor Subsystems.
4. Upper Air Subsystem.
5. Meteorological Radar Subsystem.

Performance Standard. Pass an exam.

Instructor. FLC instructor.

Prerequisite. None.

Reference.

1. EM000-CD-OMP-01 Operation and Maintenance Manual with Parts List

MATCLS-1115 0 * B (N) G

Goal. Pack the AN/TMQ-56.

Requirement. As a member of a crew, given tools, the reference and AN/TMQ-56, pack the subsystems:

1. Meteorological Satellite Subsystem.
2. Local Sensor Subsystem.
3. Remote Sensor Subsystems.
4. Upper Air Subsystem.
5. Meteorological Radar Subsystem.

Performance Standard. Pass an exam.

Instructor. FLC instructor.

Prerequisite. None.

References.

1. EM000-CD-OMP-01 Operation and Maintenance Manual with Parts List
2. 334-192046 Embarkation Guide

MATCLS-1120 0 * B (N) G

Goal. Setup the subsystems of the AN/UMK-4.

Requirement. Given the reference and AN/UMK-4, setup the system.

Performance Standard. Pass an exam.

Instructor. FLC instructor.

Prerequisite. None.

Reference.

1. EE100-FF-OMI-010 Operation and Maintenance Instruction

MATCLS-1125 0 * B (N) G

Goal. Pack the AN/UMK-4.

Requirement. Given the reference and AN/UMK-4, pack the system.

Performance Standard. Pass an exam.

Instructor. FLC instructor.

Prerequisite. None.

Reference.

1. EE100-FF-OMI-010 Organizational Level Maintenance Instructions

MATCLS-1130 0 * B (N) G

Goal. Configure the data network of the tactical meteorological equipment to communicate with external networks.

Requirement. Given the reference, perform the following:

1. Configure network devices.
2. Configure workstations.

Performance Standard. Pass an exam.

Instructor. FLC instructor.

Prerequisite. None.

References.

1. EM000-CY-SAM-010 Network Administrators Manual
2. 0222562 Network Administration Manual

7.7 CORE PHASE (2000).

7.7.1 Purpose. To develop core skill proficiency for 5951 personnel to be able to perform duties while assigned to the METEM section.

7.7.2 General.

7.7.2.1 Admin Notes.

1. Training in this phase does not preclude simultaneous training in the mission and core plus phases provided applicable prerequisites have been met.

2. Individual core skills are learned and mastered using a varied combination of written exams, scenarios and practical demonstrations of proficiency.

7.7.2.2 Prerequisite. None.

7.7.2.3 Stages. The following stages are included in the Core Phase.

PAR NO.	STAGE NAME	PAGE NUMBER
7.7.3	MACCS MAINTENANCE COMMON (MMCN)	7-11
7.7.4	ORIENTATION (ORNT)	7-17
7.7.5	MAINTENANCE MANAGEMENT (MMGT)	7-18
7.7.6	DEPLOYMENT (DEPL)	7-23
7.7.7	METEOROLOGICAL EQUIPMENT MAINTENANCE (METEM)	7-24

7.7.3 MACCS MAINTENANCE COMMON (MMCN) STAGE

7.7.3.1 Purpose. To provide entry-level skills that are common to all 5900 occupational field technicians that will be used in the performance of assigned duties within the Marine Air Command and Control System (MACCS).

7.7.3.2 General.

Prerequisite.

1. Meet the requirements delineated in the MOS Manual.

Admin Notes. None.

Crew Requirements. None.

MMCN-2000 2.0 * B, R (N) L

Goal. Operate a common fill device.

Requirement. Given two loaded common fill devices and a zeroized cryptographic device, perform the following:

1. Describe the purpose of a common fill device.
2. Define the common fill device loading procedure.
3. Configure the common fill device.
4. Identify common fill device indicators and messages.
5. Transfer key material to Controlled Cryptographic Item (CCI) equipment.
6. Transfer cryptographic information from common fill device to common fill device.
7. Destroy superseded key material within the cryptographic fill device.

Performance Standard. With the aid of reference, load key material into appropriate Communications Security (COMSEC) equipment using a fill device and destroy superseded key material without error.

Instructor. BI.

Prerequisite. None.

Reference.

1. EKMS-1_, Electronic Key Management System

MMCN-2001 1.0 * B, R (N) G

Goal. State the physical security requirements for classified areas.

Requirement. Given a tactical scenario and references, identify the following:

1. Purpose of a guard schedule.
2. Purpose of access control.
3. Purpose of the entry control point.
4. Perimeter barrier requirements.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

Reference.

1. MCO P5530.14_, Marine Corps Physical Security Program Manual

MMCN-2002 2.0 * B, R (N) G

Goal. Extract key material information from COMSEC callout.

Requirement. Given a COMSEC callout and references, perform the following:

1. State the purpose of the COMSEC callout.
2. Identify the five main pieces of key information:
 - a. Short Title.
 - b. Edition.
 - c. Segment.
 - d. Classification.
 - e. Supersession date.
3. Identify segment roll over dates and time.
4. Identify short titles applicable to specific implementations within the unit.

Performance Standard. With the aid of reference, state the purpose and identify the key information on the callout. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

References.

1. EKMS-1_, Electronic Key Management System
2. MCWP 3-40.3, MAGTF Communications System

MMCN-2003 2.0 * B, R (N) L

Goal. Create a classified area physical security diagram.

Requirement. Given a tactical scenario and references, create a diagram that includes the following:

1. Entry control point(s).
2. Perimeter barrier.
3. Communication lines.
4. Storage area locations.

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Performance Standard. With the aid of reference, draw a diagram depicting the information listed in the requirement. Instructor will validate that the diagram supports the scenario. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. 2001.

References.

1. MCO P5530.14, Marine Corps Physical Security Program Manual
2. FM 5-34_, Engineer Field Data

MMCN-2004 2.0 1095 B, R, M (N) L

Goal. Operate the handheld GPS.

Requirement. Perform the following:

1. State the purpose of the handheld GPS.
2. State the characteristics of the handheld GPS.
3. Find current location (coordinates including elevation).
 - a. MGRS.
 - b. LAT/LONG.
 - c. UTM/UPS.
4. Plot a way point.
5. Given coordinates, navigate to a location.

Performance Standard. Given a handheld GPS, complete the requirements without error. Navigation part of requirement will be three points within a one mile radius within one hour

Instructor. BI.

Prerequisite. None.

Reference.

1. TM 11-5820-1172-13, Defense Advanced GPS Receiver (DAGR), AN/PSN-13

MMCN-2005 1.0 365 B,R,M (N) L

Goal. Demonstrate an earth ground installation.

Requirement. Given a grounding kit and the reference:

1. Identify ground tolerances for equipment and personnel.
2. Identify methods of grounding.
3. Identify a method for improving a ground.
4. Identify proper location to test a ground.
5. Install an earth ground.
6. Create grounding pits.
7. Connect grounding braids/cables.
8. Test grounds with TMDE.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

References.

1. TM 9406-15, Ground Procedures Manual

2. MIL-STD-188-125
3. TM 5-690

MMCN-2006 2.0 1095 B, R, M (N) L

Goal. Develop an embarkation plan.

Requirement. Given the references and an operational scenario, perform the following:

1. State the purpose of an embarkation plan.
2. Produce an Equipment Density List (EDL).
3. Produce logistics documents as required.
4. Identify heavy equipment required to move EDL items.
5. Identify the modes of transportation required to move EDL items.

Performance Standard. With the aid of reference, complete the requirement and develop an embarkation plan to support the scenario. Minor corrections by the trainee are acceptable.

Instructor. BI.

Prerequisite. 2014.

References.

1. Applicable TM
2. Unit SOP

MMCN-2007 1.0 1095 B, R, M (N) G

Goal. Identify spectrum management procedures.

Requirement. Given the references and a scenario with operational requirements, perform the following:

1. Identify frequency requirements.
 - a. Identify submission timelines.
 - b. Identify data elements (Freq, Location, Power, Dates).
2. Identify Satellite Access requirements.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

References.

1. MCRP 3-40B, Tactical Level Logistics
2. MCO 2400.2, Marine Corps Management of the Radio Frequency Spectrum

MMCN-2008 4.0 1095 B, R, M (N) L

Goal. Construct and use a field expedient antenna.

Requirement. Given all required materials, construct field expedient antennas using wave propagation techniques by performing the following:

1. Determine frequency.
2. Determine distance and direction of distant station.
3. Determine antenna type and configuration.
4. Erect antenna using recommended construction techniques.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

References.

1. MCRP 3-40B, Tactical Level Logistics
2. MCRP 8-10B.11 Antenna Handbook
3. MCI 2515H Antenna Construction and Propagation of Radio Waves
4. USMC Field Antenna Handbook APK2.5
5. MCRP 8-10B.11 Antenna Handbook
6. Field Antenna Handbook 1999

MMCN-2009 2.0 * B, R (N) L

Goal. Complete a Bill of Material (BOM) request.

Requirement. Given Training Exercise and Employment Plan (TEEP) documents and reference, perform the following:

1. Collect requests from maintenance sections.
2. Consolidate required materials into a BOM request.
3. Verify the request is sufficient to support required operations and for the length of the exercise, validate the content to ensure that it meets sustained operational requirement.
4. Submit a BOM request to the instructor.

Performance Standard. With the aid of reference, perform the requirements. Minor corrections by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

Reference.

1. MCO P4400.150_, Ships' Maintenance and Material Management Manual

MMCN-2011 1.0 * B, R (N) L

Goal. Manage COMSEC/classified material.

Requirement. During a crew change over, perform the following:

1. Conduct classified material inventory.
2. Conduct CCI inventory.
3. Destroy superseded key material as required.

Performance Standard. With the aid of reference, conduct the inventories and destroy key materials without discrepancy.

Instructor. BI.

Prerequisite. None.

References.

1. EKMS-1_, Electronic Key Management System
2. SECNAVINST 5510, DON Information Security Program
3. Local SOP

MMCN-2012 2.0 1095 B, R, M (N) G

Goal. State the organizational destructive weather plan.

Requirement. Given the references, state the following:

1. When to shift from shore power to auxiliary power.
2. Equipment required to be packed and/or stored in order to prevent damage.
3. Locations systems and equipment are to be stored during inclement weather.
4. The precautions to take to prevent damage to equipment.
5. Location of destructive weather prevention materials.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

References.

1. OPNAVINST 3140.24, Adverse and Severe Weather Warnings
2. Unit SOP
3. NAVAIR 00-80T-114, NATOPS ATC Manual

MMCN-2013 1.0 * B (N) G

Goal. Describe the characteristics of unit T/E generators.

Requirement. Identify the following:

1. Frequency.
2. Voltage(s).
3. Load capacity.
4. Fuel consumption.
5. Phases.

Performance Standard. With the aid of reference, complete the requirements, minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

References.

1. Technical Manuals
2. <https://www.marcorsyscom.marines.mil/Portfolios-and-Programs/Logistics-Combat-Element-Systems/Engineer-Systems/Power-Team/Mobile-Power/>

MMCN-2014 1.0 * B, R (N) L

Goal. Produce an Equipment Density List (EDL).

Requirement. Given the references and a 30 day scenario, perform the following:

1. Define the purpose of an EDL.
2. Describe essential EDL contents.
3. Complete an EDL.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

References.

1. MCTP 13-10C Unit Embarkation Handbook
2. Local SOP
3. Applicable TM

7.7.4 ORIENTATION (ORNT) STAGE.

7.7.4.1 Purpose. To provide an overview of local site layout, procedures, equipment, and emergency conditions.

7.7.4.2 General.

Admin Notes. Knowledge in the capabilities of communication systems is essential to conduct maintenance actions and employ the equipment.

Prerequisite. None.

Crew Requirements. Training will be executed as individual training, with appropriate assistance at the crew level as needed, and as dictated by the conditions listed for each event. Crewmember(s) assistance must be restricted to those actions required to support or facilitate individual training so as not to detract from the individual's requirement to demonstrate the performance standard.

ORNT-2031 1.0 * B, R (N) G

Goal. Complete NAMP indoctrination training.

Requirement. Complete the following NAMP Indoctrination training:

1. NAMP Compliance auditing.
2. NAMDRP.
3. Tool Control.
4. Corrosion.
5. Tech Data Management.
6. METCAL.
7. Technical Directives.
8. Logs and Records.
9. Material Control.
10. AMMRL.
12. CDI Periodic.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

Reference.

1. COMNAVAIRFORINST 4790.2_

7.7.5 MAINTENANCE MANAGEMENT (MMGT) STAGE.

7.7.5.1 Purpose. To provide the technician with the basic skills necessary to perform basic and intermediate maintenance shop section functions.

7.7.5.2 General.

Admin Notes. None.

Prerequisite. None.

Crew Requirements. None.

MMGT-2061 1.0 * B, R (N) G

Goal. Identify parts data.

Requirement. Given the reference, perform the following:

1. State sources that can be used to obtain parts data.
2. Research parts.
 - a. Part number.
 - b. Nomenclature.
 - c. NIIN.
3. Identify Source Maintenance and Recoverability (SMR) codes for system components and explain what level of maintenance is authorized.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

References.

1. NAVSUP P-488
2. FEDLOG
3. NAVSUP P-485
4. NAVSUPINST 4423.29
5. NAVSUP P-409 MILSTRIP/MILSTRAP Desktop Guide

MMGT-2062 1.0 * B, R (N) G

Goal. Explain the information contained in the logs and records maintained in production control.

Requirement. Given a system's historical file and reference, explain the following:

1. Custody and maintenance history record.
2. Transfer and acceptance checklist.
3. Shortage records.
4. Inventory record.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

Reference.

1. COMNAVAIRFORINST 4790.2_

MMGT-2063 1.0 * B (N) G

Goal. Determine the readiness status from the Mission Essential Subsystem Matrix (MESM).

Requirement. Given the reference, and a scenario of a subsystem failure, determine the Equipment

Operational Capability using the MESM for the correlating T/M/S:

1. State the purpose of the MESM.
2. Determine the Equipment Operational Capability (EOC).

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

Reference.

1. OPNAVINST 5542.4

MMGT-2064 1.0 * B, R (N) G

Goal. State the information contained in the allowance lists.

Requirement. State the information contained in the following:

1. Users Logistics Support Summary.
2. Table of Basic Allowance.
3. Marine Air Traffic Control and Landing Systems (MATCALs) equipment allowance list.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. 2071.

References.

1. ATC-37-02
2. TM 3125-OI/1
3. Fleet Marine Forces Air Traffic Control (FMFATC) Systems and Marine Air Traffic Control and Landing Systems (MATCALs) Equipment Allowance List
4. EL172-LQ-LSS-010

MMGT-2065 3.0 * B (N) L

Goal. Record equipment readiness using Aviation Management Supply and Readiness Reporting (AMSRR) system.

Requirement. Given user access and a work order, complete the following:

1. Create a maintenance discrepancy.
2. Create a supply discrepancy.
3. Input and update data to the required fields.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

Reference.

1. AMSRR Web 3.01 Software User Manual (SUM)

MMGT-2066 3.0 * B, R (N) G

Goal. Describe the Planned Maintenance System (PMS).

Requirement. State the following:

1. Organizational structure.
 - a. Key billets.
 - b. Responsibilities of key billets.
2. Contents of the Work Center PMS Manual.
 - a. List of Effective Pages (LOEP).
 - b. Maintenance Index Page (MIP).
 - c. Maintenance Requirement Card (MRC).
 - d. SCAT code.
 - e. SPMIG.
 - f. Equipment Guide List (EGL).
 - g. Tagged Guide List (TGL).
 - h. Technical Feedback Reports (TFR) Log.
 - i. Changer Service Accountability Log.
3. Use of PMS scheduling aids and authorized line-outs.
 - a. Procedures if a line-out is not authorized by a scheduling aid.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

Reference.

1. NAVSEAINST 4790.8_

MMGT-2067 1.0 * B, R (N) L

Goal. Document the completion of planned maintenance using the 13-Week Accountability log.

Requirement. Perform the following:

1. State the purpose of the schedules.
 - a. Weekly.
 - b. Quarterly.
 - c. Cycle.
2. State the purpose of the 13-Week Accountability log.
3. Document the completion of PMs on the 13-Week Accountability log.
4. Review situational requirements.
5. Identify PMS discrepancies/issues that require Work Center Supervisor notification.

Performance Standard. Given an example weekly schedule (with at least two pieces of equipment), document the completion of preventive maintenance.

Instructor. BI.

Prerequisite. 2066.

References.

1. NAVSEAINST 4790.8_
2. COMNAVAIRFORINST 4790.2_

MMGT-2068 3.0 * B, R (N) L

Goal. Perform a PMS revision.

Requirement. Perform the following:

1. Force revision.
2. Administrative revision.
3. Advance Change Notice.
4. Verify the accuracy of the TGL and EGL from the Work Center file.
 - a. Identify the location of a TGL and EGL.
 - b. Define the purpose of a TGL and EGL.
 - c. Identify the proper steps to updating the Work Center file from the accuracy of the TGL and EGL.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. 2066, 2067

Reference.

1. NAVSEAINST 4790.8_

MMGT-2069 3.0 * B, R (N) L

Goal. Build a Work Center.

Requirement. Given the SKED program and the current PMS CD perform the following:

1. Build a work center using SKED.
 - a. Verify that all MIPS listed on the LOEP are installed in SKED.
 - b. Add components/equipped systems under the listed MIPS.
 - c. Ensure that the appropriate MRCs are added/deleted under the component in accordance with the scheduling aids.
 - d. Start semiannual and above MRCs in a particular quarter.
 - e. Verify that all MRCs are within the required periodicity range.
 - f. Schedule PMS.
 - (1) Cycle PMS Schedule.
 - (2) Quarterly PMS schedule.
 - (3) Weekly PMS schedule.
 - g. Using the SKED program, generate/update a crew list.
 - h. Finalize the quarter.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. 2066, 2067, 2068.

Reference.

1. NAVSEAINST 4790.8_

MMGT-2070 1.0 * B, R (N) L

Goal. Submit PMS feedback reports.

Requirement. Perform the following:

1. State the purpose of a Feedback reports (FBR).
2. Prepare a Non-technical feedback report.
3. Prepare Technical Feedback report.
4. Submit reports.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. 2066, 2067.

Reference.

1. NAVSEAINST 4790.8_

MMGT-2071 1.0 * B (N) G

Goal. Explain MATCD Supply Functions.

Requirement. Explain the following supply functions in accordance with the references:

1. Operation of the Navy Supply System (i.e. One Touch, SUADPS).
2. Functions of the Aviation Supply Departments (ASD), within a Marine Aviation Logistic Squadron (MALS).
3. Federal Logistic Data (FEDLOG) operations in management of supply support.
4. Military Standard Requisitioning and Issue Procedures (MILSTRIP).
5. Discrepancy reporting through Joint Deficiency Reporting System (JDRS).
6. Supply Discrepancy Reports.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

References.

1. NAVSUP PUB P-485 VOL. I, II, III
2. NAVSUP PUB P-719
3. NAVSUP INSTR-4423.29
4. NAVSUP PUB P-409
5. MCO P4400.177_
6. SPCCINST 4441.170_

MMGT-2072 1.0 * B, R (N) L

Goal. Open a Work Order.

Requirement. Given the reference, perform the following:

1. Select the proper system in which the work order is required.
2. Validate the unit information.
3. Enter equipment data.
4. Enter maintenance data.
5. Enter parts data.
6. Enter man-hour data.

7. Save work order.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

Reference.

1. Applicable TM

MMGT-2073	1.0	*	B, R	(N)	L

Goal. Close a Work Order.

Requirement. Given the reference, perform the following:

1. Verify the accuracy of all data entered.
2. Enter man-hour data and ensure all inputs are signed off.
3. Enter QA verification and sign.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

Reference.

1. Applicable TM

7.7.6 DEPLOYMENT (DEPL) STAGE.

7.7.6.1 Purpose. To teach the trainee to identify equipment and support requirements necessary to support the ATC mission.

7.7.6.2 General.

Admin Notes. None.

Prerequisite. None.

Crew Requirements. None.

DEPL-2237	2.0	1095	B, R, M	(N)	L

Goal. Conduct a site evaluation for a maintenance section.

Requirement. Given the reference, perform the following:

1. Identify terrain requirements.
2. Identify physical blocking obstructions.
3. Identify radio frequency hazards (HERO, HERP, and HERF).
4. Identify utility requirements.
5. Describe environmental consideration.
6. Identify required external equipment.
7. Identify required internal equipment.
8. Identify equipment placement requirements.

Performance Standard. Given a specified location determine the suitability of the site IAW appropriate reference as verified by an instructor.

Instructor. BI.

Prerequisite. None.

References.

1. 00-80T-114
2. Unit SOP
3. Applicable TM
4. MCRP 3-20F.7

DEPL-2238 1.0 * B (N) G

Goal. State the required coordination between maintenance personnel and the ATC watch supervisors and METOC watch supervisor.

Requirement. Perform the following:

1. Describe procedures for an equipment outage.
2. Describe procedures for returning equipment to service.
3. Describe the purpose of a Notice to Airmen (NOTAM).
4. State the timeframe requirements for NOTAM.
5. State the purpose of a Commander's Critical Information Requirements (CCIR).

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

References.

1. 00-80T-114
2. Unit SOP

7.7.7 METEOROLOGICAL EQUIPMENT MAINTENANCE (METEM) STAGE

7.7.7.1 Purpose. To provide the Marines with the knowledge and skills necessary to install, test, maintain, and repair meteorological equipment used in support of MAGTF operations.

7.7.7.2 General.

Admin Notes. None.

Prerequisite. None.

Crew Requirements. None.

METEM-2102 1.0 * B (N) G

Goal. State the capabilities of the AN/TMQ-56.

Requirement. Identify the capabilities of the following:

1. Surface sensing system.
2. Radar system.

3. Meteorological satellite system.
4. Upper air system.
5. Communications system.
6. Product generation and dissemination system.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

Reference.

1. EM000-CD-OMP-01 Operation and Maintenance Manual with Parts List

METEM-2103 1.0 * B (N) G

Goal. State the deployment considerations for the AN/TMQ-56.

Requirement. Given an AN/TMQ-56 deployment scenario, state the following:

1. Embarkation requirements.
2. Frequency requirements.
3. Appropriate site selection criteria.
4. Personnel requirements.
5. Equipment support requirements.
 - a. Power.
 - b. Transport.
6. Security requirements.
7. Network connectivity requirements.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

References.

1. EM000-CD-OMP-01 Operation and Maintenance Manual with Parts List
2. 334-192046 Embarkation Guide

METEM-2104 1.0 * B (N) G

Goal. State the capabilities of the AN/UMK-4.

Requirement. Identify the capabilities of the following:

1. Surface sensing system.
2. Communications system.
3. Product generation and dissemination system.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

following:

1. Apply power.
2. Verify no alarm condition.
3. Align the system.
4. Enter site specific parameters.
5. Set station ID.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. 2106.

References.

1. EM000-CD-OMP-01 Operation and Maintenance Manual with Parts List
2. 0222561 Software User Manual
3. EE100-FF-OMI-010 Organizational Level Maintenance Instructions
4. EM000-CY-SAM-010 Network Administrators Manual

METEM-2108 2.0 * B, R (N) S/L

Goal. Replace an LRU on a meteorological system.

Requirement. Given the reference, a surface meteorological sensing system, demonstrate the following:

1. Identify all tools required for replacement procedures.
2. Perform replacement.
3. Return system to an operational status.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

References.

1. EM000-CD-OMP-01 Operation and Maintenance Manual with Parts List
2. EE100-FF-OMI-010 Organizational Level Maintenance Instructions

METEM-2109 1.0 730 B, R, M (N) L

Goal. Pack the meteorological surface sensing system.

Requirement. Given the reference, an assembled surface meteorological sensing system, perform the following:

1. Inventory equipment and materials.
2. Disassemble the system.
3. Pack the system.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

References.

1. EM000-CD-OMP-01 Operation and Maintenance Manual with Parts List
2. 334-192046 Embarkation Guide
3. EE100-FF-OMI-010 Organizational Level Maintenance Instructions

METEM-2110	2.0	*	B, R	(N)	L

Goal. Setup the Meteorological Radar Subsystem for integrated operation.

Requirement. As a member of a crew, given tools, the reference and a Meteorological Radar Subsystem, complete the following steps:

1. Identify personnel and safety requirements.
2. Unpack the equipment.
3. Setup meteorological radar equipment.
4. Ground the system.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

References.

1. EM000-CD-OMP-01 Operation and Maintenance Manual with Parts List
2. E700XD Doppler Weather Radar Installation Guide and Users Manual

METEM-2111	2.0	*	B, R	(N)	L

Goal. Perform post setup procedures on the Meteorological Radar Subsystem for integrated operation.

Requirement. Given the reference, a setup Meteorological Radar Subsystem, demonstrate the following:

1. Apply power.
2. Verify no alarm condition.
3. Align the system.
4. Enter site specific parameters.
5. Set station ID.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. 2110.

References.

1. EM000-CD-OMP-01 Operation and Maintenance Manual with Parts List
2. 0222561 Software User Manual
3. E700XD Doppler Weather Radar Installation Guide and Users Manual

METEM-2112	2.0	730	B, R, M	(N)	L

Goal. Pack the Meteorological Radar Subsystem.

Requirement. Given the reference, an assembled Meteorological Radar Subsystem, perform the following:

1. Inventory equipment and materials.
2. Disassemble the system.
3. Pack the system.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

References.

1. EM000-CD-OMP-01 Operation and Maintenance Manual with Parts List
2. 334-192046 Embarkation Guide
3. E700XD Doppler Weather Radar Installation Guide and User's Manual

METEM-2113 1.0 * B, R (N) L

Goal. Setup the Meteorological Satellite Subsystem.

Requirement. As a member of a crew, given tools, the reference and a surface meteorological satellite system, complete the following steps:

1. Identify personnel and safety requirements.
2. Unpack the equipment.
3. Setup meteorological satellite equipment.
4. Ground the system.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite.

Reference.

1. EM000-CD-OMP-01 Operation and Maintenance Manual with Parts List

METEM-2114 1.0 * B, R (N) L

Goal. Perform post setup procedures on the Meteorological Satellite Subsystem.

Requirement. Given the reference, a setup Meteorological Satellite Subsystem, demonstrate the following:

1. Apply power.
2. Verify no alarm condition.
3. Align the system.
4. Enter site specific parameters.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. 2113.

Reference.

1. EM000-CD-OMP-01 Operation and Maintenance Manual with Parts List

METEM-2115	1.0	730	B, R, M	(N)	L

Goal. Pack the Meteorological Satellite Subsystem.

Requirement. Given the reference, an assembled Meteorological Satellite Subsystem, perform the following:

1. Inventory equipment and materials.
2. Disassemble the system.
3. Pack the system.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite.

References.

1. EM000-CD-OMP-01 Operation and Maintenance Manual with Parts List
2. 334-192046 Embarkation Guide

METEM-2116	1.0	*	B, R	(N)	L

Goal. Setup the meteorological Upper Air Subsystems for integrated operations.

Requirement. As a member of a crew, given tools, the reference and a meteorological Upper Air Subsystem, complete the following steps:

1. Identify personnel and safety requirements.
2. Unpack the equipment.
3. Setup meteorological upper air equipment.
4. Ground the system.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

Reference.

1. EM000-CD-OMP-01 Operation and Maintenance Manual with Parts List

METEM-2117	1.0	*	B, R	(N)	L

Goal. Perform post setup procedures on the meteorological Upper Air Subsystems for integrated operations.

Requirement. Given the reference, a setup meteorological Upper Air Subsystem, demonstrate the following:

1. Apply power.
2. Verify no alarm condition.
3. Enter site specific parameters.
4. Set station ID.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by

the trainee are acceptable.

Instructor. BI.

Prerequisite. 2116.

References.

1. EM000-CD-OMP-01 Operation and Maintenance Manual with Parts List
2. 0222561 Software User Manual

METEM-2118 1.0 730 B, R, M (N) L

Goal. Pack the meteorological Upper Air Subsystems.

Requirement. Given the reference, an assembled meteorological Upper Air Subsystem, perform the following:

1. Inventory equipment and materials.
2. Disassemble the system.
3. Pack the system.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

References.

1. EM000-CD-OMP-01 Operation and Maintenance Manual with Parts List
2. 334-192046 Embarkation Guide

METEM-2119 1.0 * B, R (N) L

Goal. Setup meteorological communication subsystems.

Requirement. As a member of a crew, given tools, the reference and a meteorological communication subsystem, complete the following steps:

1. Identify personnel and safety requirements.
2. Unpack the equipment.
3. Setup meteorological communication equipment.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

Reference.

1. EM000-CD-OMP-01 Operation and Maintenance Manual with Parts List

METEM-2120 1.0 * B, R (N) L

Goal. Perform post setup procedures on the meteorological communication subsystem.

Requirement. Given the reference, a setup meteorological communication subsystem, demonstrate the

following:

1. Apply power.
2. Verify no alarm condition.
3. Align the system.
4. Enter site specific parameters.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. 2119

References.

1. EM000-CD-OMP-01 Operation and Maintenance Manual with Parts List
2. 0222562 Network Administration Manual
3. 0222561 Software User Manual
4. EE100-FF-OMI-010 Organizational Level Maintenance Instructions
5. EM000-CY-SAM-010 Network Administrators Manual

METEM-2121 1.0 730 B, R, M (N) L

Goal. Pack the meteorological communication subsystem.

Requirement. Given the reference, an assembled meteorological communication subsystem, perform the following:

1. Inventory equipment and materials.
2. Disassemble the system.
3. Pack the system.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

References.

1. EM000-CD-OMP-01 Operation and Maintenance Manual with Parts List
2. 334-192046 Embarkation Guide
3. EE100-FF-OMI-010 Organizational Level Maintenance Instructions

METEM-2122 5.0 * B, R (N) L

Goal. Perform PMS on a meteorological system.

Requirement. Given the reference, a meteorological system, and required equipment, perform planned maintenance IAW with the current MRC.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. 2066, 2067.

Reference.

1. MIP 4941/024

METEM-2123 2.0 * B (N) G

Goal. State the requirements for handling and storage of classified materials.

Requirement. Perform the following:

1. State the different levels of classification.
2. State the marking requirements for each level of classification.
3. State the Two-Person Integrity (TPI) rule.
4. State storage procedures for each level of classification.
5. Identify transportation requirements for classified material.
6. State the purpose of Standards Forms related to the handling and storage of classified materials.
7. Identify the approved security containers for storage.
8. Identify the procedures for handling Controlled Cryptographic Items (CCIs).
9. Review the unit's Emergency Action Plan.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

References.

1. MCO P5510.18_, United States Marine Corps Information and Personnel Security Program (IPSP)
2. EKMS-1_, Electronic Key Management System
3. SECNAVINST 5510 Information Security Program
4. Unit SOP

METEM-2124 3.0 * B, R (N) L

Goal. Ensure classified material handling procedures are followed.

Requirement. Given the references, perform the following:

1. Verify classified material is stored.
2. Verify required Standard Forms are completed.
3. Verify classified material is transported.
4. Verify CCI is stored IAW the reference.

Performance Standard. With the aid of reference, complete the requirements, minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

References.

1. SECNAV M-5510.36
2. MCO 5530.14
3. Unit SOP

7.8 MISSION PHASE (3000).

7.8.1 Purpose. To develop mission phase proficiency for personnel to be able to perform their assigned duties under general or minimal supervision while directly supporting the unit mission essential tasks.

1. MBTs will gain Mission Phase proficiency in day-to-day maintenance work center operations.

2. MATs will gain Mission Phase proficiency in maintenance work center supervisory functions and operational planning and employment.

7.8.2 General.

7.8.2.1 Admin Notes. None.

7.8.2.2 Prerequisite. None. Complete all Core Phase events for the position being trained.

7.8.2.3 Stages. The following stages are included in the Mission Phase of training.

PAR NO.	STAGE NAME	PAGE NUMBER
7.8.3	MACCS MAINTENANCE COMMON (MMCN)	7-34
7.8.4	METEOROLOGICAL EQUIPMENT MAINTENANCE (METEM)	7-36

7.8.4 MACCS MAINTENANCE COMMON (MMCN) STAGE

7.8.4.1 Purpose. To provide mission level skills that are common to all 5900 occupational field technicians that will be used in the performance of assigned duties within the Marine Air Command and Control System (MACCS).

7.8.4.2 General.

Prerequisite.

1. Meet the requirements delineated in the MOS Manual.

Admin Notes. The following events establish the foundational skills required to be successful in the cyber security workforce.

Crew Requirements. None.

MMCN-3030 8.0 1095 B, R, M (N) L

Goal. Deploy a maintenance capability.

Requirement. Given an operational requirement and commander's guidance, conduct the following:

1. Review operational requirements and develop an EDL.
2. Coordinate for support equipment as required.
3. Verify and complete Bill of Materials.
4. Establish float requirements as required.
5. Conduct inspections on listed equipment.
6. Supervise pack-up and securing of equipment and validate EDL accuracy.
7. Create a packing list.
8. Placard/label the shelters for embark.
9. Ensure correct execution of the load plan for equipment handling and safety.
10. Ensure maintenance crews are formed and prepared for deployment.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. SI.

Prerequisite. 2014, 2006, 2009, 2007.

References.

1. MCO 3120.6_, Standard Embarkation Management System
2. Applicable TMs/UMs

MMCN-3031 8.0 1095 B, R, M (N) L

Goal. Conduct a site survey.

Requirement. Given a scenario, applicable references, a TO/E and operational tasking, determine an appropriate site for system emplacement by performing the following:

1. Use planning tools to determine terrain masking and line of sight connectivity.
2. Determine a primary and secondary site location.
3. Identify obstructions and hazards.
4. Determine tactical orientation and equipment emplacement.
 - a. Ensure emitters are emplaced IAW Hazardous Electronic Radiation to Fuels (HERF) regulations.
 - b. Ensure emitters are emplaced IAW Hazardous Electronic Radiation to Ordinance (HERO) regulations.
 - c. Ensure emitters are emplaced IAW Hazardous Electronic Radiation to Personnel (HERP) regulations.
 - d. Ensure emitters are emplaced to support working area.
5. Identify the placement for equipment.
6. Identify the placement for antennas.
7. Identify required internal / external equipment requirements.
8. Determine communications obstacles.
8. Determine system grounding requirements.
9. Identify utility requirements to include power and fuel requirements.
10. Describe environmental considerations.
11. Determine protection from the elements.
11. Determine terrain requirements / masking.
12. Determine operational footprint.
13. Design a site layout and submit to the instructor.
14. Develop a brief that addresses all event requirement items.

Performance Standard. With the aid of reference, complete the requirements, minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. 2237.

References.

1. Technical Manuals
2. Operational Order
3. CMR
4. MCWP 3-25.4
5. MCWP 5-1
6. MCO 5104.2
7. MCO 5104.3B

MMCN-3032 2.0 1095 B, R, M (N) L

Goal. Fill the handheld GPS with the appropriate crypto.

Requirement. Perform the following:

1. Identify the proper crypto load
2. Load crypto into DAGR
3. Verify crypto load

Performance Standard. With the aid of reference, perform the requirements. Minor corrections by the trainee are acceptable.

Instructor. BI.

Prerequisite. 2001.

Reference.

1. TM 11-5820-1172-13, Defense Advanced GPS Receiver (DAGR), AN/PSN-13

MMCN-3033	8.0	1095	B, R, M	(N)	L

Goal. Plan a Local Area Network.

Requirement. Given an operational scenario using TE assets:

1. Identify information technology assets required:
 - a. Number of Clients/Workstations at each geographic location.
 - b. Number of Servers at each geographic location.
 - c. Location of proxy server.
2. Identify asset locations.
3. Identify sub-netting.
4. Verify routes.
5. Record network configuration.
6. Build detailed requirements to provide service provider.
7. Plan quality of service in accordance with device priority.
8. VLAN management.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. SI.

Prerequisite. 6040, 6041, 6042, 6044, 6043, 6046.

References.

1. Site diagram
2. MCWP 3-40.3, MAGTF Communications System
3. Technical Manuals

7.8.5 METEOROLOGICAL EQUIPMENT MAINTENANCE (METEM) STAGE.

7.8.5.1 Purpose. This stage of training will provide mission proficiency in the planning of current and future operations.

7.8.5.2 General.

Admin Notes. None.

Prerequisite. None.

Crew Requirements. None.

METEM-3600	40.0	1095	B, R, M	(N)	L

Goal. Deploy the AN/TMQ-56.

Requirement. Perform the following:

1. Request required frequencies.

2. Create Bill of Materials (BOM).
3. Draw CSP.
4. Identify personnel deploying.
5. Inventory all required equipment.
6. Pack up procedures.
7. Identify support requirements.
8. Determine setup location.
9. Identify support requirements.
10. Unpack procedures.
11. Inventory all METEM equipment.
12. Setup procedures.
13. Perform post setup procedures on the AN/TMQ-56.

Performance Standard. With the aid of reference, perform the requirements. Minor corrections by the trainee are acceptable.

Instructor. SI.

Prerequisite. 2071, 2237, 2102, 2103, 2104, 2106, 2107, 2108, 2109, 2110, 2111, 2112, 2113, 2114, 2115, 2116, 2117, 2118, 2119, 2120, 2121.

References.

1. EM000-CD-OMP-01 Operation and Maintenance Manual with Parts List
2. 0222562 Network Administration Manual
3. 0222561 Software User Manual
4. 334-192046 Embarkation Guide

METEM-3601	8.0	1095	B, R, M	(N)	L

Goal. Provide meteorological maintenance services as a member of a crew.

Requirement. During meteorological operations:

1. Verify site specific parameters.
2. Perform system adjustments in support of operational requirements.
3. Perform physical and system safety checks prior to assuming a crew position.
4. Review crew changeover notes.

Performance Standard. With the aid of reference, perform the requirements without error. Minor corrections by the trainee are acceptable. System requests can be simulated by the instructor.

Instructor. SI.

Prerequisite. 2012, 6040, 6041, 6045, 2005, 2061, 2062, 2063, 2066, 2067, 2238, 2104, 2105, 2106, 2109, 2113, 2115, 2119, 2121, 2122.

References.

1. EE100-FF-OMI-010 Organizational Level Maintenance Instructions
2. EE100-PR-GYD-B1 Software Installation Guide
3. EE100-PR-SAM-B10 System Administration Manual

METEM-3605	8.0	1095	B, R, M	(N)	L

Goal. Deploy the AN/UMK-4.

Requirement. Perform the following:

1. Request required frequencies.
2. Create Bill of Materials (BOM).

3. Draw CSP.
4. Identify personnel deploying.
5. Inventory all required equipment.
6. Pack up procedures.
7. Identify support requirements.
8. Determine setup location.
9. Identify support requirements.
10. Unpack procedures.
11. Inventory all METEM equipment.
12. Setup procedures.
13. Perform post setup procedures on the AN/UMK-4.

Performance Standard. With the aid of reference, perform the requirements without error. Minor corrections by the trainee are acceptable

Instructor. SI.

Prerequisite. 2237, 2104, 2105, 2106, 2107, 2108, 2109, 2119, 2120, 2121.

References.

1. EE100-FF-OMI-010 Organizational Level Maintenance Instructions
2. EE100-PR-GYD-B1 Software Installation Guide
3. EE100-PR-SAM-B10 System Administration Manual

7.9 CORE PLUS PHASE (4000).

7.9.1 Purpose. To provide Core Plus training. A certain number of Core Plus qualified Marines must be maintained to accomplish special missions or tasks, to include supervision and training of a core competent crew. The Marine is exposed to advanced MACCS integration and employment of the TAOC or EW/C within a joint environment.

7.9.2 General.

7.9.2.1 Admin Notes. None.

7.9.2.2 Prerequisite. None.

7.9.2.3 Stages. The following stages are included in the Core Plus Phase of training.

PAR NO.	STAGE NAME	PAGE NUMBER
7.9.3	MAINTENANCE MANAGEMENT (MMGT)	7-38

7.9.3 MAINTENANCE MANAGEMENT (MMGT) STAGE.

7.9.3.1 Purpose. To instruct the trainee how to perform maintenance management functions within the MATCD.

7.9.3.2 General.

Admin Notes. None.

Prerequisite. None.

Crew Requirements. None.

MMGT-4200 2.0 365 B, R, M (N) G

Goal. State the considerations of the Contingency Support Package (CSP).

Requirement. State the following:

1. The purpose of the CSP.
2. Who maintains the CSP.
3. How to pull the CSP for operations.
 - a. The CSP inventory process.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. SI.

Prerequisite. 2071

References.

1. MCTP 3-20A Aviation Logistics
2. Unit COSAL

MMGT-4211	1.0	*	B, R	(N)	L

Goal. Open a Cannibalization Work Order.

Requirement. Given the reference, perform the following:

1. Initiate new work order.
2. Select work order type.
3. Input JCN and MCN.
4. Input system reason.
5. Save work order.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

Reference.

1. OOMA User Guide 5.22

MMGT-4212	1.0	*	B, R	(N)	L

Goal. Open a new query and report.

Requirement. Given the reference, perform the following:

1. Open a new query and report.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

Reference.

1. OOMA User Guide 5.22

MMGT-4213 1.0 * B, R (N) L

Goal. Create an AD HOC query.

Requirement. Given the reference, perform the following:

1. Create a custom query from the application database tables.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

Reference.

1. OOMA User Guide 5.22

MMGT-4214 1.0 * B, R (N) G

Goal. Explain the OOMA server.

Requirement. Given the reference, perform the following:

1. State the purpose of the OOMA server.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

Reference.

1. OOMA User Guide 5.22

MMGT-4215 1.0 * B, R (N) G

Goal. Explain the database management system.

Requirement. Given the reference, perform the following:

1. Define the database management system.
2. Explain the database management system's purpose.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

Reference.

1. OOMA User Guide 5.22

MMGT-4218 1.0 * B, R (N) G

Goal. Describe the purpose of the Configuration Management module in OOMA.

Requirement. Given the reference, perform the following:

1. Describe the purpose of the Configuration Management module.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

Reference.

1. OOMA User Guide 5.22

MMGT-4220	1.0	*	B, R	(N)	L

Goal. Document In-process inspection in OOMA/NALCOMIS.

Requirement. Perform the following:

1. State the purpose of In-process inspection.
2. Add an In-process inspection to a Work Center.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

Reference.

1. OOMA User Guide 5.22

MMGT-4221	1.0	*	B, R	(N)	L

Goal. Activate a new task.

Requirement. Perform the following:

1. Identify different types of tasks:
 - a. Planned maintenance.
 - b. Acceptance/Transfer.
 - c. Technical Directive.
2. Create a new task from the Inventory Explorer view.
3. Change the status.
4. Adjust the deadline date.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

Reference.

1. OOMA User Guide 5.22

MMGT-4222	1.0	*	B, R	(N)	L

Goal. Assign a Work Center to an Inspection Task.

Requirement. Perform the following:

1. Assign a Work Center to an Inspection Task.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. 4221

Reference.

1. OOMA User Guide 5.22

MMGT-4224	1.0	*	B, R	(N)	L

Goal. Delete a Work Order.

Requirement. Perform the following:

1. Delete an erroneous work order

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

Reference.

1. OOMA User Guide 5.22

MMGT-4225	1.0	*	B, R	(N)	L

Goal. Transfer/accept equipment to/from another unit.

Requirement. Perform the following:

1. Locate a unit in the Wide Area Network.
2. Add unit to the Local Address Book.
3. Transfer equipment.
4. Accept equipment into inventory.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

Reference.

1. OOMA User Guide 5.22

MMGT-4226	1.0	*	B, R	(N)	L

Goal. Detach equipment and personnel to be used for OOMA Detachment Kits.

Requirement. Perform the following:

1. Create a detachment.
2. Attach inventory and personnel.
3. Export and upload the file to the OOMA Det. Kit.
4. Perform weekly sweep of OOMA Det. Kit.
5. Upload to main server.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

Reference.

1. OOMA User Guide 5.22

MMGT-4227 1.0 * B, R (N) L

Goal. Add and remove personnel to OOMA.

Requirement. Perform the following:

1. Describe the functions of the following SMQs:
 - a. Maintenance (MAINT).
 - b. Maintenance Collateral Duty Instructor (MNCDI).
 - c. Quality Assurance Rep Signoff (MNQAR).
 - d. Maintenance Supervisor (MNSUP).
 - e. Initiate ADHOC queries (ADHOC).
 - f. Material Control Functions (AK).
 - g. Configuration Management (CM).
 - h. Logs and Records (LR).
 - i. Maintenance/Material Control Officer (MMCO).
 - j. Maintenance/Production Control (MPC).
 - k. SMQ Assignment (SMQ).
 - l. AZ Maintenance (AZMNT).
 - m. Database Administration (DBADM).
 - n. Maintenance Officer's Signature (MNTSO).
 - n. WAN Explorer (WAN).
 - o. Inventory Management (INV).
2. Add personnel to the organization.
3. Assign relevant SMQs to personnel.
4. Describe the functions of the following Work Centers:
 - a. 020 - Maintenance Control.
 - b. 02D - Logs and Records.
 - c. 030 - Maintenance Admin.
 - d. 040 - Quality Assurance.
 - e. 050 - Material Control.
 - f. 05D - Tool Control Center.
 - g. 12C - Corrosion Control.
 - h. 210 - Communications.
 - i. 220 - Navigational Aids.
 - j. 260 - Radar.
5. Assign work centers to personnel.
6. Remove personnel from OOMA.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by

the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

Reference.

1. OOMA User Guide 5.22

MMGT-4228	3.0	*	B	(N)	L

Goal. Perform Critical Maintenance Inspection Requirements.

Requirement. Perform all published critical maintenance inspection requirements and document via in process inspection.

Performance Standard. Ensure all inspection requirements are met without error.

Prerequisite. None.

References.

1. COMNAVAIRFORINST 4790.2_, Naval Aviation Maintenance Program
2. Local SOPs

MMGT-4229	1.0	*	B, R	(N)	G

Goal. Describe the purpose of inspections.

Requirement. Describe the following inspections:

1. Special.
2. Conditional.
3. One Time Inspections.
4. In-process and final inspection requirements.
5. Critical maintenance inspection requirements.

Performance Standard. Complete the requirements without error.

Instructor. BI.

Prerequisite. None.

References.

1. OOMA User Guide 5.22
2. Appropriate TM

MMGT-4230	1.0	*	B, R	(N)	L

Goal. Run an AD HOC query.

Requirement. Given the reference, perform the following:

1. Given the reference, perform the following:
2. Open the Ad Hoc VED.
3. Select Open New Query.
4. Select an Ad Hoc from files.
5. Input search criteria.
6. Run ad hoc.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

Reference.

1. OOMA User Guide 5.22

MMGT-4231 1.0 * B, R (N) L

Goal. Perform CDI Queue functions.

Requirement. Given a Work Order in the CDI Queue, perform the following:

1. Review the Job Status/Worker Hours/TD tab for accuracy and ensure all section are signed.
2. Review the Failed/Required tab to ensure all part orders have been completed.
3. Review the CDI/QAR In-process Inspections tab for accuracy and ensure all inspections are signed.
4. Run Check/Validate on the Basic Work Order Update tab to ensure all data and entries are correct.
5. Enter login information in the Inspected By block.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

Reference.

1. OOMA User Guide 5.22

MMGT-4232 1.0 * B, R (N) L

Goal. Open a Baseline Trouble Report (BTR).

Requirement. Given the reference, perform the following:

1. State the purpose of the BTR being submitted.
2. Verify the accuracy of all equipment data entered into the BTR.
3. Obtain BTR evaluation QA approval.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

Reference.

1. OOMA User Guide 5.22

MMGT-4233 1.0 * B, R (N) L

Goal. Order parts in OOMA/NALCOMIS.

Requirement. Perform the following:

1. Verify the correct WUC was selected.
2. Order a repairable part.
 - a. Select the faulty part information in Material Required screen.
 - b. Verify that the part information matches the tech manual, and the appropriate U/D/P indicator.
 - c. Electronically remove the failed part from the equipment.
 - d. Electronically install the new part into the equipment.
3. Order a consumable part.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

Reference.

- ## 1. OOMA User Guide 5.22

MMGT-4234	1.0	*	B, R	(N)	L

Goal. Perform contingency processing.

Requirement. Perform the following:

1. State the purpose of contingency processing.
2. Document work order on green MAF.
3. Return green MAF to maintenance admin.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

References.

1. OOMA User Guide 5.22
2. COMNAVAIRFORINST 4790.2

MMGT-4235	1.0	*	B, R	(N)	G

Goal. Describe auditing and monitoring techniques and procedures used by Quality Assurance.

Requirement. Perform the following:

1. Describe the processes involved in completing an audit.
 - a. Computerized Self Evaluation Checklist Database.
 - (1) Quarterly update requirements including verifying MATCALS applicable questions.
 - (2) Computerized Self Evaluation Checklist.
 - (3) Input audit data.
 - (4) Discrepancy reports.
 - b. Routing Forms.
 - c. Memorandums.
2. Critical maintenance inspection requirements.
3. Spot Checks.

Performance Standard. With the aid of reference, complete the requirements.

Instructor. BI.

Prerequisite. None.

Reference.

1. COMNAVAIRFORINST 4790.2_
2. MATCALS Share Point
3. Local SOPs

MMGT-4236 1.0 * B, R (N) G

Goal. Pass CDI Periodic Evaluation IAW CSEC.

Requirement. Perform the following:

1. Follow all safety precautions.
2. Document in-process inspection.
3. Perform CDI Queue functions.

Performance Standard. With the aid of reference, complete the requirements.

Instructor. SI.

Prerequisite. 4229, 4231, 4233.

References.

1. COMNAVAIRFORINST 4790.2_
2. Local SOPs

7.10 MISSION PLUS PHASE (4500)

7.10.1 Purpose. **RESERVED FOR FUTURE USE.**

7.10.2 General.

7.10.2.1 Admin Notes.

7.10.2.2 Prerequisites. None.

7.10.2.3 Stages.

7.11 INSTRUCTOR TRAINING PHASE (5000).

7.11.1 Purpose. To provide technicians the additional skills necessary to instruct, evaluate and approve event completions. Upon completion of the required training, an individual may be approved for instructor designation by the commanding officer.

7.11.2 General.

7.11.2.1 Admin Notes.

1. The Aviation Ground instructor concept is a means to standardize all instructors across the aviation ground communities in regards to the concepts of managing a WTTP, properly conducting training, performing evaluations, and recommending training plans.

2. There are different instructor designations (listed below). The intent is to train individuals with different levels and areas of experience to instruct personnel. Instructor experience is also gained while progressing through

the different instructor designations.

- a. Basic Instructor (BI)
- b. Senior Instructor (SI)
- c. Weapons and Tactics Instructor (WTI)

d. The MAWTS-1 C3 Course catalog contains the training requirements for the above listed instructors. The catalog is located at the MAWTS-1 website, <https://www.intranet.tecom.usmc.mil/sites/mawts1/default.aspx>.

e. The table below outlines the events that each instructor can train, evaluate, and approve or recommend for approval.

7.11.2.2 Prerequisite. None.

7.11.2.3 Stages. The following stage is included in the Instructor Training Phase of training.

7.11.3 INSTRUCTOR UNDER TRAINING (IUT) STAGE

7.11.3.1 Purpose. To train Meteorological Equipment Technicians in the fundamentals of instructing and training processes.

7.11.3.2 General.

Admin Notes. None.

Prerequisite. None.

Crew Requirements. None.

IUT-5000	2.0	*	B	(N)	L

Goal. Introduce principals of instruction.

Requirement. Given the reference, the BIUT will demonstrate the following with the assistance of a unit instructor:

1. Adult learning principles.
 - a. Pedagogy to andragogy.
 - b. Characteristics of the adult learner.
 - c. Learning styles.
 - d. How adults learn.
 - e. Domains of learning.
 - f. Group dynamics.
 - g. Motivation.
 - h. Constructivist learning environments.
2. Introduce, discuss, and demonstrate instruction techniques.
3. Introduce, discuss, and demonstrate class management techniques.
 - a. How to select teaching resources to accommodate student learning styles.
 - b. How to properly organize the instructional environment for effective learning.

Performance Standard. With the aid of references, the BIUT shall demonstrate principles of instruction. During this session, the instructor shall discuss the event content and question the student throughout the training session to ensure understanding.

Instructor. SI.

Prerequisite. None.

References.

1. NAVMC 3500.14
2. NAVMC 1553.1

IUT-5010	2.0	*	B	(N)	G

Goal. Describe individual T&R requirements.

Requirement. Using the Aviation T&R Program Manual, discuss the purpose of each of the following items with an instructor:

1. Training progression model.
2. Programs of Instruction.
 - a. Basic.
 - b. Refresher.
 - c. Conversion.
 - d. Series Conversion.
 - e. Transition.
 - f. Maintain.
3. T&R attain and maintain tables.
4. Syllabus notes.
5. T&R syllabus structure.
 - a. Phase.
 - b. Stage.
 - c. Event.
 - d. Skill.
 - e. Syllabus.
6. Event format.
 - a. Header.
 - (1) Event prefix - event code.
 - (2) Projected event duration.
 - (3) Proficiency period.
 - (4) Programs of instruction (POI).
 - (5) Event conditions.
 - (6) Device options.
 - (7) Device number.
 - (8) Device type.
 - b. Body.
 - (1) Goal.
 - (2) Requirement.
 - (3) Performance standard.
 - (4) Equipment.

Performance Standard. Without the aid of references and during a discussion session, the BIUT shall describe Individual T&R requirements. During this session, the instructor shall discuss the event content and question the student throughout the training session to ensure understanding.

Instructor. SI.

Prerequisite. None.

References.

1. NAVMC 3500.14
2. NAVMC 1553.1

IUT-5020 12.0 90 B, R, M (N) L

Goal. Conduct T&R instruction.

Requirement. The BIUT, under the supervision of an instructor, will conduct three periods of instruction on three different T&R events selected by the instructor and should include as many different methods of instruction as possible (lecture or academic, demonstration, and practical application). The event must be one the BIUT is current and proficient in. The BIUT will complete the following for each of the three events instructed:

1. Prepare to train the event.
 - a. Review a trainee's performance record to identify required training for the event selected.
 - b. Ensure the student has met prerequisites for the event to be trained.
 - c. Gather the resources necessary to conduct the training (i.e., instructional materials, references, and equipment).
 - d. Conduct task analysis on each event to ensure all intended requirements and prerequisite skills, specified or implied, are trained IAW applicable references.
 - e. Schedule the training event (facilities and students).
 - f. Prepare an evaluation form for each student to be evaluated.
2. Conduct training on the event selected:
 - a. Ensure all training resources are properly staged/equipment if set up properly for training.
 - b. Instruct the student in a thorough manner so as to cover all requirements for the event.
 - c. Ensure continuous, objective assessment of the student's progress during training.
3. Assess student performance:
 - a. Assess the student's performance to the performance standard.
 - b. Correct student deficiencies in a timely manner and provide the student feedback.
 - c. Complete the evaluation form on for each student trained.
 - d. Debrief student on the performance and provide corrective action.
4. Route evaluation form as required.

Performance Standard. Complete the requirement items IAW the reference and ensure training is doctrinally and technically current. Instructor shall use the instructor evaluation form from the SAT user's guide for each class and a mark of satisfactory must be achieved for each of the three classes.

Instructor. SI.

Prerequisite. 5000, 5010.

References.

1. NAVMC 3500.14, Ch 6
2. NAVMC 1553.1
3. MCO 1553.2B, Appendix O

IUT-5100 2.0 * B (N) G

Goal. Describe the Aviation Training and Readiness (T&R) Program.

Requirement. Using the community T&R manual discuss the following with an instructor:

1. Describe the Weapons and Tactics Training Program (WTPP).
2. Define each element of the Core Model:
 - a. Mission statements.
 - b. Core Mission Essential Task List (METL).
 - c. Output standards.
 - d. Core Skills (How to attain and maintain).
 - e. Mission Skills (How to attain and maintain).
 - f. Combat Leadership.

3. Define each of the following elements of unit training:
 - a. Training Exercise Employment Plan (TEEP).
 - b. Core Model Minimum Requirements (CMMR).
 - c. Instructors.
 - d. Core Model Training Report (CMTR).
 - e. T&R manual connection to readiness reporting.
4. Define each of the following elements of training:
 - a. Certification.
 - b. Qualification.
 - c. Designation.
5. PERFORMANCE RECORD Explain how changes are made to the Program manual:
 - a. Explain T&R conference procedures.
 - b. Explain correspondence change procedures.

Performance Standard. Complete the requirements IAW the reference. Instructor will question the SIUT to check for thorough understanding of the Aviation T&R Program.

Instructor. SI.

Prerequisite. None.

References.

1. NAVMC 3500.14
2. MCO 3500.109

IUT-5110	4.0	365	B, R, M	(N)	L

Goal. Conduct instructor evaluations.

Requirement. Using the instructor evaluation checklist from the SAT manual, conduct two evaluations on instructors of equal or lower designation.

1. Provide notification of evaluation to the instructor being evaluated.
2. Do not interfere with or disrupt the instruction while taking place.
3. Thoroughly document observed items on the checklist.
4. Ensure student evaluation form is filled out correctly and the appropriate debrief took place.
5. Debrief the instructor being evaluated on their preparation, instruction, evaluation, and documentation.
6. Have the evaluated instructor complete the instructor improvement plan section and sign.
7. File a copy of the completed evaluation form in both the evaluator's and evaluated instructor's performance record.

Performance Standard. Complete the requirements IAW the reference.

Instructor. SI.

Prerequisite. 5100.

References.

1. NAVMC 3500.14
2. Applicable community T&R Manual
3. MCO1553.2B, Appendix O

IUT-5120	2.0	*	B	(N)	L

Goal. Perform T&R administration.

Requirement. Document training to include:

1. Performance records.
2. Ensure MSHARP is updated appropriately.
3. Assemble recommendation package for certifications, qualifications, and designations IAW T&R manual.

Performance Standard. Complete the requirement items IAW the references. Instructor will question the trainee to check for understanding of the administration process.

Instructor. SI.

Prerequisite. 5100, 5110.

References.

1. NAVMC 3500.14
2. Local WTPP SOP

IUT-5130	2.0	*	B	(N)	L

Goal. Develop a training plan.

Requirement. Given a deployment scenario develop a training plan to determine individual, and crew training needed to meet CMMR by completing the following:

1. Review Commander's training guidance.
2. Analyze the CMTR to determine training deficiencies and how to achieve CMMR.
3. Identify and schedule T&R training opportunities IAW the TEEP to achieve requirements.
4. Determine instructors required.
5. Determine equipment required.
6. Determine external support required.
7. Deliver a brief to the instructor that shows:
 - a. Crew manning and training requirements.
 - b. Current training status.
 - c. Identify the training deficiencies and resource shortfalls.
 - d. Explain the training plan to correct the training deficiencies.
 - e. Training plan meets commander's guidance.

Performance Standard. Complete the requirement items IAW the references and commander's training guidance. Training plan will ensure adequate time is allocated to include preparation, instruction, assessment, documentation, and remediation.

Instructor. SI.

Prerequisite. 5100, 5110, 5120.

References.

1. NAVMC 3500.14
2. Applicable Community T&R manuals

7.12 CERTIFICATIONS, QUALIFICATIONS, AND DESIGNATIONS (CDQ) PHASE (6000).

7.12.1 Purpose. This phase provides community standardization for technician qualifications and designations; combat leaders and instructor designations; and tracking of collateral duties (CD) assignments. This syllabus does not contain "one time" certification training requirements.

7.12.2 General.

7.12.2.1 Admin Notes.

1. This section enables units to document and track combat leaders, instructors, technicians and CD assignments. All syllabus training and administration requirements must be complete prior to being qualified or designated. A qualification, certification or designation is not effective until all administration is completed.

2. Only when an individual is qualified, certified or designated in writing, the signed letter is filed in the Performance Record, and all administrative actions are completed, and the event code has been logged in M-SHARP shall the qualification, certification or designation be effective.

7.12.2.2 Prerequisite. None.

7.12.2.3 Stages. The following stages are included in the Requirements, Certifications, Qualifications, and Designations Phase of training.

PAR NO.	STAGE NAME	PAGE NUMBER
7.12.3	NAVAL AVIATION MAINTENANCE PROGRAM (NAMP)	7-53
7.12.4	CERTIFICATION (CERT)	7-57
7.12.5	DESIGNATION (DESG)	7-58
7.12.6	SCHOOL CODES (SCHL)	7-61
7.12.7	CYBER SECURITY WORK FORCE (CSWF)	7-64

7.12.3 NAVAL AVIATION MAINTENANCE PROGRAM (NAMP) STAGE.

7.12.3.1 Purpose. To provide training prescribed by governing directives.

7.12.3.2 General.

Admin Notes. None.

Prerequisite. None.

Crew Requirements. None.

NAMP-6370 1.0 * B (N) G

Goal. Familiarization of the NAMP Compliance Audit Program.

Requirement. Complete the prerequisites required IAW the reference.

Performance Standard. Be assigned by the Maintenance Officer via the MMP.

Instructor. BI.

Prerequisite. None.

Reference.

1. COMNAVAIRFORINST 4790.2_

NAMP-6375 1.0 * B (N) G

Goal. Familiarization of the Tech Data Management Program.

Requirement. Complete the prerequisites required IAW the reference.

Performance Standard. Be assigned by the Maintenance Officer via the MMP.

Instructor. BI.

Prerequisite. None.

Reference.

1. COMNAVAIRFORINST 4790.2_

NAMP-6380 1.0 * B (N) G

Goal. Familiarization of the Technical Directive (TD) Compliance Program.

Requirement. Complete the prerequisites required for the designation.

Performance Standard. Be assigned by the Maintenance Officer via the MMP.

Instructor. BI.

Prerequisite. None.

Reference.

1. COMNAVAIRFORINST 4790.2_

NAMP-6385 1.0 * B (N) G

Goal. Familiarization of the Electrostatic Discharge (ESD/EMI) Program.

Requirement. Complete the prerequisites required for the designation.

Performance Standard. Be assigned by the Maintenance Officer via the MMP.

Instructor. BI.

Prerequisite. None.

Reference.

1. COMNAVAIRFORINST 4790.2_

NAMP-6390 1.0 * B (N) G

Goal. Familiarization of the Foreign Object Damage (FOD) Prevention Program.

Requirement. Complete the prerequisites required for the designation.

Performance Standard. Be assigned by the Maintenance Officer via the MMP.

Instructor. BI.

Prerequisite. None.

Reference.

1. COMNAVAIRFORINST 4790.2_

NAMP-6400 1.0 * B (N) G

Goal. Familiarization of the Corrosion Prevention and Control Program.

Requirement. Complete the prerequisites required for the designation.

Performance Standard. Be assigned by the Maintenance Officer via the MMP.

Instructor. BI.

Prerequisite. None.

Reference.

1. COMNAVAIRFORINST 4790.2_

NAMP-6405 1.0 * B (N) G

Goal. Familiarization of the Naval Aviation Metrology and Calibration (METCAL) Program.

Requirement. Complete the prerequisites required for the designation.

Performance Standard. Be assigned by the Maintenance Officer via the MMP.

Instructor. BI.

Prerequisite. None.

Reference.

1. COMNAVAIRFORINST 4790.2_

NAMP-6410 1.0 * B (N) G

Goal. Familiarization of the Maintenance Administration Program.

Requirement. Complete the prerequisites required for the designation.

Performance Standard. Be assigned by the Maintenance Officer via the MMP.

Instructor. BI.

Prerequisite. None.

Reference.

1. COMNAVAIRFORINST 4790.2_

NAMP-6415 1.0 * B (N) G

Goal. Familiarization of the Maintenance Control Program.

Requirement. Complete the prerequisites required for the designation.

Performance Standard. Be assigned by the Maintenance Officer via the MMP.

Instructor. BI.

Prerequisite. None.

Reference.

1. COMNAVAIRFORINST 4790.2_

NAMP-6420 1.0 * B (N) G

Goal. Familiarization of the Naval Aviation Maintenance Discrepancy Reporting (NAMDRP) Program.

Requirement. Complete the prerequisites required for the designation.

Performance Standard. Be assigned by the Maintenance Officer via the MMP.

Instructor. BI.

Prerequisite. None.

Reference.

1. COMNAVAIRFORINST 4790.2_

NAMP-6425 1.0 * B (N) G

Goal. Familiarization of the Aircraft Maintenance Material Readiness List (AMMRL) Program.

Requirement. Complete the prerequisites required for the designation.

Performance Standard. Be assigned by the Maintenance Officer via the MMP.

Instructor. BI.

Prerequisite. None.

Reference.

1. COMNAVAIRFORINST 4790.2_

NAMP-6430 1.0 * B (N) G

Goal. Familiarization of the Maintenance Department/Division Safety Program.

Requirement. Complete the prerequisites required for the designation.

Performance Standard. Be assigned by the Maintenance Officer via the MMP.

Instructor. BI.

Prerequisite. None.

Reference.

1. COMNAVAIRFORINST 4790.2_

NAMP-6435 1.0 * B (N) G

Goal. Familiarization of the Hazardous Material Control and Management Program.

Requirement. Complete the prerequisites required for the designation.

Performance Standard. Be assigned by the Maintenance Officer via the MMP.

Instructor. BI.

Prerequisite. None.

Reference.

1. COMNAVAIRFORINST 4790.2_
2. LCP

NAMP-6440 1.0 * B (N) G

Goal. Familiarization of the Battery Maintenance Safety Program.

Requirement. Complete the prerequisites required for the designation.

Performance Standard. Be assigned by the Maintenance Officer via the MMP.

Instructor. BI.

Prerequisite. None.

Reference.

1. COMNAVAIRFORINST 4790.2_

NAMP-6445 1.0 * B (N) G

Goal. Familiarization of the Tool Control Program.

Requirement. Complete the prerequisites required for the designation.

Performance Standard. Be assigned by the Maintenance Officer via the MMP.

Instructor. BI.

Prerequisite. None.

Reference.

1. COMNAVAIRFORINST 4790.2_

7.12.4 CERTIFICATIONS (CERT) STAGE.

7.12.4.1 Purpose. To provide for basic and advanced technician certifications.

7.12.4.2 General.

Admin Notes. Policies and rules for attaining and maintaining certifications are detailed in the Aviation T&R Program Manual and this Manual.

Prerequisite. None.

Crew Requirements. None.

CERT-6260 4.0 * B (N) G

Goal. CSWF Tech Support Specialist.

Requirement. Complete the prerequisites. Be recommended for certification and approved in writing by the commanding officer.

Performance Standard. Complete requirements in accordance with the reference.

Instructor. SI.

Prerequisite. 6040, 6041, 6042, 6044, 6045, 6046, 6047

Reference.

1. DOD 8570.01_, Information Assurance Workforce Improvement Program

CERT-6261	4.0	*	B	(N)	G

Goal. CSWF IT Specialist.

Requirement. Complete the prerequisites. Be recommended for certification and approved in writing by the commanding officer.

Performance Standard. Complete requirements in accordance with the reference.

Instructor. SI.

Prerequisite. 6040, 6041, 6043, 6044, 6045, 6046, 6047, 3033.

Reference.

1. DOD 8570.01_, Information Assurance Workforce Improvement Program

CERT-6262	4.0	*	B	(N)	G

Goal. CSWF System Administrator.

Requirement. Complete the prerequisites. Be recommended for certification and approved in writing by the commanding officer.

Performance Standard. Complete requirements in accordance with the reference.

Instructor. SI.

Prerequisite. 3033, 6040, 6042, 6043, 6044, 6045, 6046, 6047.

Reference.

1. DOD 8570.01_, Information Assurance Workforce Improvement Program

7.12.5 DESIGNATIONS (DESG) STAGE.

7.12.5.1 Purpose. To provide for designation of combat leaders and instructors. Designations are command specific and expire when an individual transfers out of a command. In order to ensure proficiency is maintained, specific events throughout this syllabus have been R-coded. The gaining command shall review the Performance Record to ensure prerequisite R-coded events for a designation are current prior to approving that designation. If prerequisite R-coded events are delinquent, the individual shall update those events.

7.12.5.2 General.

Admin Notes. Policies and rules for attaining and maintaining designations are detailed in the Aviation T&R Program Manual and this Manual.

Prerequisite. None.

Crew Requirements. None.

DESG-6320 1.0 * B (N) G

Goal. Basic Instructor (BI).

Requirement. Be recommended for designation by a WTI and designated in writing by the commanding officer.

Performance Standard. N/A.

Instructor. SI.

Prerequisite. 5000, 5010, 5020.

Reference.

1. NAVMC 3500.14

DESG-6321 1.0 * B (N) G

Goal. Senior Instructor (SI).

Requirement. Be recommended for designation by a WTI and designated in writing by the commanding officer.

Performance Standard. N/A.

Instructor. WTI.

Prerequisite. 5000, 5010, 5020, 5100, 5110, 5120, 5130.

Reference.

1. NAVMC 3500.14

DESG-6322 1.0 * B (N) G

Goal. Weapons and Tactics Instructor (WTI).

Requirement. Be certified by MAWTS-1 as a WTI, designated by the commanding officer in writing.

Performance Standard. N/A

Instructor. WTI.

Prerequisite. 6000.

Reference.

1. NAVMC 3500.14

DESG-6330 1.0 * B (N) G

Goal. Formal Learning Center Instructor (FLCI).

Requirement. Complete applicable formal learning center instructor's course.

Performance Standard. N/A.

Prerequisite. 6096.

Reference. None.

DESG-6365 1.0 * B (N) G

Goal. METEM Chief.

Requirement. Complete the prerequisites required for the designation.

Performance Standard. Be verified by a WTI and designated in writing by the designating official.

Prerequisite. 2000, 2001, 2002, 2003, 2011, 2013, 2014, 2006, 2009, 2007, 2061, 2063, 2064, 2065, 2068, 2069, 2070, 2071, 2238, 2123, 2124, 3031, 3030, 3600, 3605, 8020.

Reference.

1. COMNAVAIRFORINST 4790.2_

DESG-6446 1.0 * B (N) G

Goal. Collateral Duty Inspector.

Requirement. Complete the prerequisites IAW the reference:

1. Complete Fundamental skillset.
2. Complete Maintenance Admin skillset.
3. Complete required reading IAW local SOP.

Performance Standard. Pass written exams and an oral interview administered by QA and be designated on OPNAV 4790/12.

Prerequisites. 4229, 4231, 4233, 4234, 4228, 6107.

References.

1. COMNAVAIRFORINST 4790.2_, Naval Aviation Maintenance Program
2. Local SOPs

DESG-6447 1.0 * B (N) G

Goal. Quality Assurance Representative.

Requirement. Complete the prerequisites required IAW the reference:

1. Complete Fundamental skillset.
2. Complete Maintenance Admin skillset.
3. Complete required reading IAW local SOP.

Performance Standard. Pass written exams and an oral interview administered by QA and be designated on OPNAV 4790/12.

Prerequisite. 4228, 4229, 4230, 4231, 4232, 4233, 4234, 4235, 4236.

Reference.

1. COMNAVAIRFORINST 4790.2_, Naval Aviation Maintenance Program

DESG-6448 1.0 * B (N) G

Goal. Collateral Duty Quality Assurance Representative.

Requirement. Complete the prerequisites IAW the reference:

1. Complete Fundamental skillset.
2. Complete Maintenance Admin skillset.
3. Complete required reading IAW local SOP.

Performance Standard. Pass written exams and an oral interview administered by QA and be designated on OPNAV 4790/12.

Prerequisites. 4228, 4229, 4230, 4231, 4232, 4233, 4234, 4235, 4236.

References.

1. COMNAVAIRFORINST 4790.2, Naval Aviation Maintenance Program
2. Local SOPs

7.12.6 SCHOOL CODES (SCHL) STAGE

7.12.6.1 Purpose. To provide tracking codes for schools that are pertinent to the training of the 5951 in the skill progression of the Marine.

7.12.6.2 General.

Admin Notes. Policies and prerequisites for attending the listed schools are maintained within MCTIMS.

Prerequisite. None.

Crew Requirements. None.

SCHL-6000	.5	*	B	(N)	G

Goal. WTI Course.

Requirement. Attend the course as a student and complete the requirements outlined in the course curriculum.

Performance Standard. Successfully complete course requirements.

Prerequisite. 6320, 6321, 8000, 8020, 8040, 8060, 8080.

Reference. None.

SCHL-6020	.5	*	B	(N)	G

Goal. Link 16 Basics Course JT-100.

Requirement. Attend the course as a student and complete the requirements outlined in the course curriculum.

Performance Standard. Successfully complete course requirements.

Prerequisite. None.

Reference. None.

SCHL-6021	.5	*	B	(N)	G

Goal. Intro to Multi TDL Network JT-101.

Requirement. Attend the course as a student and complete the requirements outlined in the course curriculum.

Performance Standard. Successfully complete course requirements.

Prerequisite. None.

Reference. None.

SCHL-6022	.5	*	B	(N)	G

Goal. Multi-TDL Advanced Joint Interoperability Course (MAJIC) JT-102.

Requirement. Attend the course as a student and complete the requirements outlined in the course curriculum.

Performance Standard. Successfully complete course requirements.

Prerequisite. None.

Reference. None.

SCHL-6023	.5	*	B	(N)	G

Goal. Link 16 Joint Interoperability Course US-109.

Requirement. Attend the course as a student and complete the requirements outlined in the course curriculum.

Performance Standard. Successfully complete course requirements.

Prerequisite. None.

Reference. None.

SCHL-6030	.5	*	B	(N)	G

Goal. Work Center Supervisor Course.

Requirement. Attend the course as a student and complete the requirements outlined in the course curriculum.

Performance Standard. Successfully complete course requirements.

Prerequisite. 2237, 2238, 3030.

Reference. None.

SCHL-6031	.5	*	B	(N)	G

Goal. MATC Maintenance Manager's Course.

Requirement. Attend the course as a student and complete the requirements outlined in the course curriculum.

curriculum.

Performance Standard. N/A.

Prerequisite. None.

Reference. None.

SCHL-6060 .5 * B (N) G

Goal. Aeronautical Technical Publication Library Management Course.

Requirement. Attend the course as a student and complete the requirements outlined in the course curriculum.

Performance Standard. N/A.

Prerequisite. None.

Reference. None.

SCHL-6073 .5 * B (N) G

Goal. Microminiature Electronic Repair C.

Requirement. Attend the course as a student and complete the requirements outlined in the course curriculum.

Performance Standard. N/A.

Prerequisite. None.

Reference. None.

SCHL-6095 .5 * B (N) G

Goal. Ground Electronics Maintenance NCO Course.

Requirement. Attend the course as a student and complete the requirements outlined in the course curriculum.

Performance Standard. N/A.

Prerequisite. None.

Reference. None.

SCHL-6096 .5 * B (N) G

Goal. Attend respective instructor development course.

Requirement. Attend the course as a student and complete the requirements outlined in the course curriculum.

Performance Standard. N/A.

Prerequisite. None.

Reference. None.

SCHL-6107	1	*	B	(N)	G

Goal. Complete Equipment Grounding Systems (EGS000001A) MarineNet course.

Requirement. Attend the course.

Performance Standard. Successfully complete course requirements.

Prerequisite. None.

Reference.

7.12.7 CYBER SECURITY WORKFORCE (CSWF) STAGE

7.12.7.1 Purpose. To provide entry-level skills in cyber security workforce related tasks that are common to all 5900 occupational field technicians that will be used in the performance of assigned duties within the Marine Air Command and Control System (MACCS).

7.12.7.2 General.

Prerequisite. None.

Admin Notes. None.

Crew Requirements. None.

CSWF-6040	4.0	1095	B, R, M	(N)	G

Goal. Explain Information Security Principles.

Requirement. With the aid of references, perform the following:

1. Explain common threats and vulnerabilities.
 - a. Malware.
 - b. Ransomware.
 - c. Viruses.
 - d. Denial of Service.
 - e. Insider Threats.
2. Explain the function and purpose of authentication services.
3. Explain data and network security tools.
 - a. Firewall.
 - b. Access Control Lists.
 - c. Port Security.
 - d. Anti-Virus.
 - e. Log Files.
 - f. Network monitoring application(s).
4. Describe cyber security, privacy principles, and organizational requirements to provide Confidentiality, Integrity, and Availability (CIA).

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

References.

1. NIST Special Publication 800-__
2. Applicable User's Manuals.
3. Current industry-standard curriculum and references.

CSWF-6041 2.0 1095 B, R, M (N) L

Goal. Perform account management.

Requirement. With the aid of reference, perform the following:

1. Plan user accounts.
2. Create user accounts IAW naming convention.
3. Create groups IAW naming convention.
4. Set account permissions.
5. Manage user accounts.
6. Document as required.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

References.

1. NIST Special Publication 800-__
2. Applicable User's Manuals.
3. Current industry-standard curriculum and references.

CSWF-6042 4.0 1095 B, R, M (N) G

Goal. Explain risk management involved in operational security.

Requirement. With the aid of reference, perform the following:

1. Explain risk related concepts.
2. Explain appropriate risk mitigation strategies.
3. Explain appropriate incident response procedures.
4. Explain the importance of security related awareness and training.
5. Compare aspects of business continuity.
6. Explain the impact and proper use of environmental controls.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

References.

1. NIST Special Publication 800-__
2. Applicable User's Manuals.
3. Current industry-standard curriculum and references.

CSWF-6043 4.0 1095 B, R, M (N) G

Goal. Explain computer and network cryptography.

Requirement. With the aid of reference, perform the following:

1. Explain symmetric key rotation techniques.
2. Explain symmetric key concepts.
3. Explain cryptographic security models (e.g. Bell-LaPadula model, Biba integrity model, Clark-Wilson integrity model).
4. Explain the core concepts of Public Key Infrastructure (PKI).
5. Explain the implementation of PKI, certificate management and associated components.
6. Explain the appropriate cryptographic tools and products.

Performance Standard. With the aid of reference, complete the requirements, minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

References.

1. NIST Special Publication 800-__
2. Applicable User's Manuals.
3. Current industry-standard curriculum and references.

CSWF-6044 4.0 * B, R (N) G

Goal. Explain computer and networking equipment.

Requirement. With the aid of references, perform the following:

1. State the purpose and functions of:
 - a. Network switch.
 - b. Router.
 - c. Server.
 - d. Virtual Machine.
 - e. Workstation.
2. Explain the installation and configuration of peripheral devices.
3. Explain installation and configuration of storage devices and appropriate media.
4. Explain the purpose of connection interfaces and transmission media.

Performance Standard. With the aid of reference, complete the requirements, minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

References.

1. NIST Special Publication 800-__
2. Applicable User's Manuals.
3. Current industry-standard curriculum and references.

CSWF-6045 4.0 * B, R (N) G

Goal. Explain Networking Concepts.

Requirement. With the aid of references, perform the following:

1. Identify types of network cables and connectors.
2. Categorize characteristics of connectors and cabling.
3. Compare the layers of the OSI and TCP/IP models.
4. Classify how applications, devices, and protocols relate to the OSI model layers.
5. Explain the purpose and properties of IP addressing.
6. Explain the purpose and properties of routing and switching.
7. Identify common TCP and UDP default ports.
8. Explain the function of common networking protocols.
9. Summarize DNS concepts and its components.
10. Identify virtual network components.
11. Identify appropriate network monitoring tools.
12. Explain the purpose and properties of DHCP.
13. Explain the purpose and properties of Network Address Translation (NAT).
14. Explain the purpose and properties of Port Address Translation (PAT).

Performance Standard. With the aid of reference, complete the requirements, minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

References.

1. NIST Special Publication 800-__
2. Applicable User's Manuals.
3. Current industry-standard curriculum and references.

CSWF-6046 4.0 * B, R (N) G

Goal. Explain Network Media and Topologies.

Requirement. With the aid of references, explain the following:

1. Describe different network topologies.
2. Compare different LAN technologies.
3. Identify components of wiring distribution.
4. Explain different methods and rationales for network performance optimization.

Performance Standard. With the aid of reference, complete the requirements, minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

References.

1. NIST Special Publication 800-__
2. Applicable User's Manuals.
3. Current industry-standard curriculum and references.

CSWF-6047 4.0 * B, R (N) G

Goal. Explain Troubleshooting of Computer and Network equipment.

Requirement. Given the references, explain the following:

1. Troubleshooting theory.
2. Troubleshooting common problems related to motherboards, RAM, BIOS, CPU and power with appropriate tools.
3. Troubleshooting hard drives and RAID arrays with appropriate tools.
4. Troubleshooting common video and display issues.
5. Troubleshooting wired networks with appropriate tools.
6. Troubleshooting operating system problems with appropriate tools.
7. Troubleshooting common security issues with appropriate tools and best practices.
8. Troubleshooting of common laptop issues while adhering to the appropriate procedures.
9. Troubleshooting of common peripheral devices with appropriate tools.

Performance Standard. With the aid of reference, complete the requirements, minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. 6040, 6041, 6042, 6044, 6045, 6046.

References.

1. NIST Special Publication 800-__
2. Applicable User's Manuals.
3. Current industry-standard curriculum and references.

CSWF-6048	4.0	1095	B, R, M	(N)	L

Goal. Administer data system host security measures.

Requirement. Given a configured network, demonstrate the following:

1. Install current Anti-virus definitions and service packs.
2. Configure firewalls.
3. Troubleshoot system faults.
4. Initiate corrective actions as required.
5. Document changes.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. SI.

Prerequisite. 6040, 6041, 6042, 6043, 6044, 6045, 6046, 6047.

References.

1. NIST Special Publication 800-__
2. Applicable User's Manuals.
3. Current industry-standard curriculum and references.

CSWF-6049	4.0	1095	B, R, M	(N)	L

Goal. Perform network management.

Requirement. Given a LAN, references, and required equipment, perform the following:

1. Monitor the LAN for connectivity.
2. Assist with troubleshooting connectivity issues with external agencies.

3. Troubleshoot Network error(s).
4. Document changes.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. SI.

Prerequisite. 6040, 6041, 6042, 6043, 6044, 6045, 6046, 6047.

References.

1. NIST Special Publication 800-__
2. Applicable User's Manuals.
3. Current industry-standard curriculum and references.

CSWF-6050 4.0 1095 B, R, M (N) L

Goal. Design network architecture.

Requirement. Given an operational scenario conduct the following:

1. Identify network requirements.
 - a. External interfaces.
 - b. VLANs.
 - c. IP Class.
2. Assign Internet Protocol (IP) addresses, subnets, and netmasks.
3. Identify notation of domain.
4. Identify asset locations.
5. Assign computer hostnames.
6. Implement security measures.
7. Record network configuration.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. SI.

Prerequisite. 6040, 6041, 6042, 6043, 6044, 6045, 6046, 6047.

References.

1. NIST Special Publication 800-__
2. Applicable User's Manuals.
3. Current industry-standard curriculum and references.

7.13 MISSION ESSENTIAL TASK (MET) PHASE (7000).

7.13.1 Purpose. This phase takes CMMR proficient Marines from multiple PMOS, puts them in CMMR representative crews, and trains them as combat effective teams in combined events.

7.13.2 General.

7.13.2.1 Admin Notes. Prerequisites for this phase of training cannot be waived. Multiple events can be trained at the same time as long as separate evaluations are being conducted.

7.13.2.2 Prerequisite. Marines must either be CMMR crew position or non-aviation PMOS proficient to train in this phase. For those events requiring combat leaders, only Marines currently designated as such can train in this

phase.

7.13.2.3 Stages. The following stages are included in the Mission Essential Task (MET) Phase of training.

PAR NO.	STAGE NAME	PAGE NUMBER
7.13.3	CONDITION (COND)	7-70

7.13.3 CONDITION (COND) STAGE.

7.13.3.1 Purpose. To train unit level teams in executing community specific MET(s) or MET preparatory events.

7.13.3.2 General.

Admin Notes. All events in this stage will require the following administrative/operational documents to be identified or created:

Prerequisite. If an event requires prerequisites in addition to those listed for the MET Phase, they will be covered in the individual event.

1. Letter Of Intent (LOI).
2. Personnel Roster.
3. Bill of Material (BOM).
4. Equipment Density List (EDL).

Crew Requirements. This stage requires that all crew members and combat leaders be qualified/designated and proficient (current) in the position they are assigned for the following events. Crews shall be task organized to meet the mission.

COND-7800 80.0 545 B, R, M (N) E L

Goal. Conduct Meteorology and Oceanography (METOC) Support.

Requirement. Given the references, a Table of Equipment (T/E) and/or Equipment Density List (EDL), Commander's guidance, and an operation plan's initiating order, conduct METOC support to include the following:

1. Conduct Mission Analysis.
2. Review Operational Planning Documents.
3. Identify required support personnel.
4. Identify Administrative (ADCON) and Tactical Control (TACON).
5. Identify equipment requirements.
6. Conduct a Recon, Selection, and Occupation of Position (RSOP).
7. Identify, create, and finalize administrative documents supporting the operation.
8. Coordinate with external agencies.
9. Conduct embarkation, and retrograde of personnel and equipment.
10. Maintain accountability of personnel.
11. Conduct METOC support operations.
12. Conduct crew evaluations.
13. Compile After-Action items.

Performance Standard. Perform the requirement items listed and conduct METOC support operations during a real world operation or training simulation.

Instructor. WTI.

Prerequisite. None.

Range. Range space capable of supporting METOC equipment.

External Syllabus Support. Representatives from the S-1, S-3, S-4, S-6. Live execution will require specific T/M/S aviation assets or a specific unit to be supported.

References.

1. JP 3-59
2. MCWP 3-35.7, METOC Operations
3. Unit SOP

COND-7801 80.0 545 B, R, M (N) E L

Goal. Conduct METOC Support Team (MST) Services.

Requirement. Given the references, a Table of Equipment (T/E) and/or Equipment Density List (EDL), Commander's guidance, and an operation plan's initiating order, employ a MST during day or night conditions to include the following:

1. Conduct Problem Framing.
2. Review Operational Planning Documents.
3. Identify personnel and equipment requirements.
4. Conduct an RSOP (as required).
5. Coordinate with external agencies.
6. Identify, create and finalize administrative documents supporting the operations.
7. Brief supported personnel (as required).
8. Inspect MST personnel and equipment to be deployed.
9. Coordinate arrival into the landing area appropriate to the plan.
10. Maintain accountability of personnel.
11. Upon arrival at a site, take a weather observation to establish LZ heading.
12. Within one hour of arrival at the site, setup appropriate weather sensing equipment, establishing winds temperature, dew point and pressure capability.
13. Within 1.5 hours of arrival at the site, establish appropriate enhanced weather sensing equipment (if applicable). Enhancements include visibility, present weather, ceilometer and lightening detector.
14. Provide timely coordination with refueling and/or arming personnel for warnings, watches and advisories.
15. As appropriate to the plan, retrograde from the landing zone with the last available transportation.
16. Conduct crew evaluations.
17. Compile After-Action items.

Performance Standard. Perform the requirement items listed and provide METOC analysis operations during a real world operation or training simulation.

Instructor. WTI.

Prerequisite. None.

Range. Range space capable of supporting METOC equipment.

External Syllabus Support. Detachment Commander and representatives from the S-1, S-2, S-3, S-4, S-6. Live execution will require specific T/M/S aviation assets or a specific unit to be supported.

References.

1. JP 3-59
2. MCWP 3-35.7
3. Squadron SOP

COND-7802 80 545 B, R, M (N) E L

Goal. Provide Meteorological Services.

Requirement. Given the references, a Table of Equipment (T/E) and/or Equipment Density List (EDL), Commander's guidance, provide meteorological services to include the following:

1. Identify required support personnel.
2. Identify required equipment.
3. Identify, create, and finalize administrative documents supporting airfield operations.
4. Coordinate with external agencies.
5. Provide augmentation of the Automated Surface Observation System (ASOS).
6. Provide meteorological services.
7. Conduct watch turnover briefs to maintain environmental situational awareness.
8. Conduct crew evaluations.

Performance Standard. Perform the requirement items listed and provide meteorological services to airfield operations.

Instructor. WTI.

Prerequisite. None.

Range. Range space capable of supporting METOC equipment.

External Syllabus Support. Airfield Operations Officer and representatives from the S-1, S-2, S-3, S-4, S-6. Live execution will require specific T/M/S aviation assets or a specific unit to be supported.

References.

1. JP 3-59
2. MCWP 3-35.7
3. Unit SOP

COND-7803 80.0 545 B, R, M (N) E L

Goal. Provide Meteorological/Oceanographic (METOC) Services.

Requirement. Given the references, a Table of Equipment (T/E) and/or Equipment Density List (EDL), Commander's guidance, and an operation plan's initiating order, provide meteorological services to include the following:

1. Conduct Mission Analysis.
2. Review Operational Planning Documents.
3. Identify required support personnel.
4. Identify Administrative (ADCON) and Tactical Control (TACON).
5. Identify equipment requirements.
6. Conduct an RSOP.
7. Identify, create, and finalize administrative documents supporting the operation to include input to the Annexes H, B, and K.
8. Coordinate with external agencies to include communications, heavy equipment, supply, utilities, and Electronic Key Management System (EKMS) personnel.
9. Conduct embarkation, and retrograde of personnel and equipment.
10. Maintain accountability of personnel.
11. Establish appropriate level II security measures.
12. Within 1 hour of arrival at the site, setup the AN/TMQ-56's Local Sensor Subsystem (LSS), the Meteorological Satellite Subsystem (MSS), and take surface observation.
13. Within 3 hours of arrival at the site, setup the AN/TMQ-56's Meteorological Radar Subsystem (MRS), Upper Air Subsystem (UAS), Processing Subsystem (PCS) and the Communication Subsystem (CMS). In addition to the above listed items.
14. Provide METOC services as outlined in the Annex H.
15. Conduct corrective and preventive maintenance as mandated.
16. Conduct crew evaluations.

17. Compile After-Action items.

Performance Standard. Perform the requirement items listed and conduct METOC support operations during a real world operation or training simulation.

Instructor. WTI.

Prerequisite. None.

Range. Range space capable of supporting METOC equipment and weather balloon launch.

External Syllabus Support. Detachment Commander and representatives from the S-1, S-2, S-3, S-4, S-6. Live execution will require specific T/M/S aviation assets or a specific unit to be supported.

References.

1. JP 3-59
2. MCWP 3-35.7
3. Unit SOP

COND-7804 80.0 545 B,R,M (N) L

Goal. Conduct METOC Support Team (MST) Services.

Requirement. Given the references, a Table of Equipment (T/E) and/or Equipment Density List (EDL), Commander's guidance, and an operation plan's initiating order, employ a MST during day or night conditions to include the following:

1. Conduct Problem Framing.
2. Review Operational Planning Documents.
3. Identify personnel and equipment requirements.
4. Conduct an RSOP (as required).
5. Coordinate with external agencies.
6. Identify, create and finalize administrative documents supporting the operations.
7. Brief supported personnel (as required).
8. Inspect MST personnel and equipment to be deployed.
9. Coordinate arrival into the landing area appropriate to the plan.
10. Maintain accountability of personnel.
11. Upon arrival at a site, take a weather observation to establish LZ heading.
12. Within one hour of arrival at the site, setup appropriate weather sensing equipment, establishing winds temperature, dewpoint and pressure capability.
13. Within 1.5 hours of arrival at the site, establish appropriate enhanced weather sensing equipment (if applicable). Enhancements include visibility, present weather, ceilometer and lightening detector.
14. Provide timely coordination with refueling and/or arming personnel for warnings, watches and advisories.
15. As appropriate to the plan, retrograde from the landing zone with the last available transportation.
16. Conduct crew evaluations.
17. Compile After-Action items.

Performance Standard. Perform the requirement items listed and provide METOC analysis operations during a real world operation or training simulation.

Instructor. WTI

Prerequisite. None.

Range. Range space capable of supporting METOC equipment.

External Syllabus Support. Detachment Commander and representatives from the S-1, S-2, S-3,

S-4, S-6. Live execution will require specific T/M/S aviation assets or a specific unit to be supported.

Reference.

1. JP 3-59
2. MCWP 3-35.7
3. Squadron SOP

7.14 AVIATION CAREER PROGRESSION MODEL (8000).

7.14.1 Purpose. To enhance professional understanding of Marine Aviation and the MAGTF, and to ensure individuals possess the requisite skills to fill battle command and battle staff positions in support of the ACE and the MAGTF in a joint environment.

7.14.2 General. The ACPM is intended to be an integrated series of academic events contained within each phase of training. Accordingly, ACPM academic events are like any other academic event in that they serve as prerequisites to selected flight events or stages. Additionally, several ACPM academic events are integrated as prerequisites for flight leadership syllabi. ACPM events may be conducted in group session with an assigned instructor teaching the period of instruction or they may be accomplished by self-paced instruction. MAWTS-1 is responsible for the update and validity of the ACPM periods of instruction. In the future, courses may be consolidated or revised to meet changing requirements. Refer to the MAWTS-1 ACPM link for the current ACPM program of instruction:

<https://mcalms.usmc.mil/>

Completed events shall be manually logged and tracked in M-SHARP. ACPM academic events, along with their identifying prerequisite association with other training phases/stages/events, are listed below.

ACPM-8000	1.0	*	B	(N)	G

Goal. Demonstrate an understanding of the MACCS stage.

Requirement. Pass a closed book examination that encompasses all learning objectives contained in the prerequisites.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. SI.

Prerequisite. 8001, 8002, 8003, 8004, 8005, 8006, 8008.

Reference. C3 Course Catalog.

ACPM-8001	4.0	*	B	(N)	G

Goal. Demonstrate an understanding of the Marine Air Command and Control System (MACCS).

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Describe how the control of aircraft and missiles relates to the other five functions of USMC aviation.
2. Define the control of aircraft and missiles and each of its subcomponents.
3. Define the Marine aviation's philosophy of centralized command and decentralized control.
4. Differentiate between Marine aviation philosophy and Joint aviation philosophy.
5. Identify the principle objectives of the MACCS.
6. Recall the primary role of each agency of the MACCS.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 MACCS Agencies, Functions and the Control of Aircraft and Missiles Class
2. MCWP 3-25.3 MACCS Handbook
3. MCWP 3-25 Control of Aircraft and Missiles

ACPM-8002 4.0 * B (N) G

Goal. Demonstrate an understanding of the Tactical Air Command Center (TACC).

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. State the mission of the TACC.
2. Identify the four organizations of the TACC.
3. List the primary responsibilities of Air Combat Intelligence (ACI).
4. List the primary responsibilities of Future Operations (FOPS).
5. List the primary responsibilities of Future Plans (FPLANS).
6. List the primary responsibilities of Current Operations (COPS).
7. List the major end items used by the TACC.
8. List the system limitations of the TACC.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 TACC Class
2. MAWTS-1 MTACS Class
3. MCWP 3-25.4 TACC Handbook

ACPM-8003 4.0 * B (N) G

Goal. Demonstrate an understanding of the Direct Air Support Center (DASC).

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify the role of the DASC.
2. List the structure and task organization of the DASC.
3. Identify the major end items and their characteristics used by the DASC.
4. List the capabilities and limitations of the DASC.
5. Identify how the DASC is doctrinally employed as part of the MACCS.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 DASC Class

2. MCWP 3-25.5 DASC Handbook

ACPM-8004	4.0	*	B	(N)	G

Goal. Demonstrate an understanding of the Tactical Air Operations Center (TAOC).

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Define the mission of the TAOC.
2. Identify the Mission Essential Tasks (METs) for the TAOC.
3. Identify the structure and task organization of the TAOC.
4. Identify the major end items and their characteristics used by the TAOC.
5. Identify the capabilities and limitations of the TAOC.
6. Identify how the TAOC is doctrinally employed as part of the MACCS.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 TAOC Class
2. MCWP 3-25.7 TAOC Handbook

ACPM-8005	4.0	*	B	(N)	G

Goal. Demonstrate an understanding of the Marine Air Traffic Control (MATC).

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify the mission of MATC.
2. Identify the Mission Essential Tasks (METs) for MATC.
3. List the structure and task organization of MATC.
4. Identify the major end items and their characteristics used by MATC.
5. Identify the capabilities and limitations of MATC.
6. Identify how MATC is doctrinally employed as part of the MACCS.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 MATC Class
2. MAWTS-1 MMT Class
3. MCWP 3-25.8 MATC Detachment Handbook

ACPM-8006	4.0	*	B	(N)	G

Goal. Demonstrate an understanding of the Low Altitude Air Defense (LAAD).

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify the mission of the LAAD battalion.

2. Identify the structure and task organization of the LAAD battalion.
3. Identify the primary vehicle and surface-to-air weapon used by the LAAD Battalion.
4. Define the LAAD employed guidelines.
5. List the LAAD weapon applications.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 LAAD Class
2. MCWP 3-25.10 LAAD BN Handbook
3. MCWP 3-25.10A LAAD Gunner's Handbook

ACPM-8008 4.0 * B (N) G

Goal. Demonstrate an understanding of the Marine Wing Communications Squadron (MWCS).

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify the mission of the MWCS.
2. Identify the structure and task organization of the MWCS.
3. Identify the Mission Essential Tasks (METs) for the MWCS.
4. Identify the major end items and their characteristics used by MWCS.
5. Identify the capabilities and limitations of the MWCS.
6. Identify how the MWCS is doctrinally employed as part of the MACCS.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 MWCS Employment Class
2. MCRP 3-30B.2 MAGTF Communications Systems
3. NAVMC 3500.56 Communications Training and Readiness Manual

ACPM-8020 1.0 * B (N) G

Goal. Demonstrate an understanding of the ACE stage of the MACCS ACPM.

Requirement. Pass a closed book examination that encompasses all learning objectives contained in the prerequisites.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. 8021, 8022, 8023, 8024, 8025, 8026, 8027, 8028.

Reference. C3 Course Catalog.

ACPM-8021 4.0 * B (N) G

Goal. Demonstrate an understanding of USMC aviation operations doctrine.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify the six functions of Marine aviation to include all their subsets.
2. Identify the organization and mission of the Marine Aircraft Wing (MAW), to include each type of group and squadron.
3. Define who has operational control of organic MAGTF aviation assets during Joint operations.
4. List the four types of sorties the MAGTF Commander makes available to the Joint Force.
5. Identify the purpose of the Air Tasking Order (ATO).
6. Identify the six phases of the air tasking cycle.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

Reference. MCWP 3-2 Aviation Operations

ACPM-8022 4.0 * B (N) G

Goal. Demonstrate an understanding of USMC doctrine for the control of aircraft and missiles.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify how the control of aircraft and missiles relates to the other five functions of USMC aviation.
2. Identify distinctions between Marine aviation philosophy and that of the other services.
3. Identify the principle objectives of the Marine Air Command and Control System (MACCS).
4. Describe how the COMMARFOR may serve as the Joint Force Air
5. Component Commander (JFACC), Airspace Control Authority (ACA), and Area Air Defense Commander (AADC).

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 Control of Aircraft and Missiles Class
2. MCWP 3-25 Control of Aircraft and Missiles

ACPM-8023 4.0 * B (N) G

Goal. Demonstrate an understanding of USMC Offensive Air Support (OAS) doctrine.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify the purpose of the MAGTF Commanders Single Battle Concept.
2. Define the subcategories of OAS.
3. Define the requirements for effective OAS.
4. Define the three types of Deep Air Support (DAS).
5. Define the capabilities and limitations of the OAS function.
6. Identify the elements of a Joint Tactical Air Strike Request (JTAR).

7. Identify the three types of control of Close Air Support (CAS).

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 OAS Class
2. MCWP 3-23 Offensive Air Support

ACPM-8024 4.0 * B (N) G

Goal. Demonstrate an understanding of USMC Assault Support doctrine.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Define the types of assault support operations.
2. Identify which aircraft conduct each of the types of assault support operations.
3. Identify the elements of an Assault Support Request (ASR).
4. List assault support capabilities and limitations.
5. Define the role of the air mission commander and the assault force commander during air assault operations.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 Assault Support Class
2. MAWTS-1 Direct Air Support Requests Class

ACPM-8025 4.0 * B (N) G

Goal. Demonstrate an understanding of USMC Air Reconnaissance doctrine.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify the three categories of air reconnaissance.
2. Identify the four principals of air reconnaissance.
3. Identify the five prerequisites for effective air reconnaissance.
4. Identify the current USMC aircraft that have the mission of air reconnaissance.
5. Identify the form used to request air reconnaissance.
6. Identify the five supporting operations for effective air reconnaissance.
7. Identify the capabilities and limitations of air reconnaissance.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

Reference. MCWP 3-26 Air Reconnaissance

ACPM-8026 4.0 * B (N) G

Goal. Demonstrate an understanding of USMC Electronic Warfare (EW) doctrine.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Define radar.
2. List the three basic radar types.
3. Identify the limitations and characteristics of radar systems.
4. Identify the six guidance systems and how they work.
5. List the three subdivisions of Electronic Warfare (EW).

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 (S) Electronic Warfare Class—for additional training only, secret courseware should not to be used for testing purposesMAWTS-1 Direct Air Support Requests Class
2. MCWP 3-40.5 Electronic Warfare

ACPM-8027 4.0 * B (N) G

Goal. Demonstrate an understanding of USMC Antiair Warfare (AAW) doctrine.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Define AAW.
2. Define the two subsets of AAW.
3. Identify the principles of AAW.
4. Identify the types of Offensive Antiair Warfare (OAAW).
5. Identify the active air defense functions.
6. List three examples of passive air defense measures.
7. Define a Joint Engagement Zone (JEZ), Fighter Engagement Zone (FEZ), Missile Engagement Zone (MEZ), and Base Defense Zone (BDZ).
8. Define the air defense warning conditions.
9. Define the weapons control statuses.
10. Identify the responsibilities of the Regional Air Defense Commander (RADC) and the Sector Air Defense Commander (SADC).

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 Air Defense Class
2. MAWTS-1 Air Defense Commanders Class
3. MAWTS-1 Offensive Antiair Warfare Class
4. MCWP 3-22 Antiair Warfare

ACPM-8028 4.0 * B (N) G

Goal. Demonstrate an understanding of USMC Ground Support (AGS) doctrine.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify the organization responsible for providing AGS to the Marine Aircraft Wing (MAW).
2. Identify the 13 functions of AGS.
3. Identify the five activities that the Marine Wing Support Squadron (MWSS) performs for the ACE when deployed.
4. Identify the four basing concepts for MAGTF Forward Operating Bases (FOBs).
5. List the four classifications of FOBs.
6. Differentiate the distinguishing characteristics of FOBs.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 AGS Class
2. MCWP 3-21.1 Aviation Ground Support

ACPM-8040 1.0 * B (N) G

Goal. Demonstrate an understanding of the Threat stage of the MACCS ACPM

Requirement. Pass a closed book examination that encompasses all learning objectives contained in the prerequisites.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. SI.

Prerequisite. 8041, 8042, 8043, 8044.

Reference. C3 Course Catalog.

ACPM-8041 4.0 * B (N) G

Goal. Demonstrate an understanding of the surface-to-air threat to the MAGTF.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Match the system name with the guidance and target aspect for the following Man Portable Air Defense Systems (MANPADS):
 - a. SA-7
 - b. SA-14
 - c. SA-16
 - d. SA-18
2. Match the system name with the guidance and associated radars for the following Radio Frequency Surface-to-Air Missile Systems (RF SAMS):
 - a. SA-2
 - b. SA-6
 - c. SA-8

- d. SA-10
 - e. SA-11
 - f. SA-15
 - g. SA-20
 - h. Roland-III
3. Match the system name with the type and associated radar for the following Air Defense Artillery (AAA):
- a. ZPU 1, 2, 4
 - b. ZSU-23-4
 - c. 2S6
 - d. S-60

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

Reference. MAWTS-1 Marine Aviation Intelligence Reference
(<https://vcepub.tecom.usmc.mil/sites/msc/magtftc/mawts1/departments1/newc3/default.aspx>)

ACPM-8042	4.0	*	B	(N)	G

Goal. Demonstrate an understanding of the fixed wing threat to the MAGTF.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify the role of the AN-2 Colt.
2. Identify the role of the MIG-23 Flogger.
3. Identify the role of the MIG-29 Fulcrum.
4. Identify the role of the MIG-31 Foxhound.
5. Identify the role of the Su-24 Fencer.
6. Identify the role of the Su-25 Frogfoot.
7. Identify the role of the Su-27 Flanker.
8. Identify the role of the Su-30 Flanker.
9. Identify the role of the Tu-22M Backfire.
10. Identify the role of the Tu-95 Bear.
11. Identify the role of the Tu-160 Blackjack.
12. Identify the role of the J-7 Fishbed.
13. Identify the role of the JH-7 Flounder.
14. Identify the role of the J-8 Finback.
15. Identify the role of the J-10 Firebird.
16. Identify the role of the H-6 Badger.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

Reference. MAWTS-1 Marine Aviation Intelligence Reference
(<https://vcepub.tecom.usmc.mil/sites/msc/magtftc/mawts1/departments1/newc3/default.aspx>)

ACPM-8043	4.0	*	B	(N)	G

Goal. Demonstrate an understanding of the rotary wing threat to the MAGTF.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify the role of the Mi-24 Hind.
2. Identify the role of the SA 342 Gazelle.
3. Identify the role of the Ka-25 Hormone.
4. Identify the role of the Mi-6 Hook.
5. Identify the role of the Mi-28 Havoc.
6. Identify the role of the Mi-8 Hip.
7. Identify the role of the Ka-50 Kokum.
8. Identify the role of the Ka-29 Helix B.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

Reference. MAWTS-1 Marine Aviation Intelligence Reference
(<https://vcepub.tecom.usmc.mil/sites/msc/magtftc/mawts1/departments1/newc3/default.aspx>)

ACPM-8044	4.0	*	B	(N)	G

Goal. Demonstrate an understanding of the missile and Unmanned Aircraft System (UAS) threat to the MAGTF.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Match the system name with the terminal guidance for the following Air-to-Surface Missiles:
 - a. AS-10 Karen
 - b. AS-11 Kilter
 - c. AS-12 Kegler
 - d. AS-14 Kedge
 - e. AS-17 Krypton
2. Match the system name with the warhead and guidance for the following Surface-to-Surface Missiles:
 - a. FROG-7
 - b. SCUD-B
 - c. SCUD-C
 - d. Nodong 1
 - e. C 801
 - f. C 802
3. Identify the mission of the following threat UAS:
 - a. Ababil
 - b. Mohajer
 - c. Harpy
 - d. Heron
 - e. ASN-206
 - f. Pchela-1T

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 Marine Aviation Intelligence Reference
2. <https://vcepub.tecom.usmc.mil/sites/msc/magtftc/mawts1/departments1/ne>
3. [wc3/default.aspx](https://vcepub.tecom.usmc.mil/sites/msc/magtftc/mawts1/departments1/ne/wc3/default.aspx)
4. Marine Corps Intelligence Activity Iran Country Handbook (appendix A)
5. Marine Corps Intelligence Activity North Korea Country Handbook (page 86)
6. Marine Corps Intelligence Activity China Country Handbook (appendix A)
<https://www.intelink.gov/mcia/handbook.htm>
7. MCIA UAV Recognition Guide <https://www.intelink.gov/mcia/index.htm>

ACPM-8060 1.0 * B (N) G

Goal. Demonstrate an understanding of the MAGTF stage of the MACCS ACPM.

Requirement. Pass a closed book examination that encompasses all learning objectives contained in the prerequisites.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. SI.

Prerequisite. 8061, 8062, 8063, 8064, 8065.

Reference. C3 Course Catalog.

ACPM-8061 4.0 * B (N) G

Goal. Demonstrate an understanding of the MAGTF ground combat operations.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify how the Ground Combat Element (GCE) is employed as part of the MAGTF and the capabilities the GCE provides to the MAGTF commander
2. Define the following items related to command and control of ground combat operations:
 - a. Echelons of the GCE headquarters
 - b. Battlespace Organization
 - c. Battlespace Framework
3. Define the five types of amphibious operations.
4. Identify the following items related to offensive operations:
 - a. Types of offensive operations
 - b. Types of attack
 - c. Forms of maneuver
 - d. Distribution of forces
5. Identify the following items related to defensive operations:
 - a. Organization of the defense
 - b. Distribution of forces
 - c. Types of defensive operations
 - d. Defensive methods

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MCDP 1-0 Marine Corps Operations
2. MCWP 3-1 Ground Combat Operations

ACPM-8062 4.0 * B (N) G

Goal. Demonstrate an understanding of fire support coordination in the Ground Combat Element (GCE).

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify the four fire support tasks.
2. List the functions of the senior fire support coordination center (FSCC) in the GCE.
3. List the four steps of the MAGTF Targeting Process.
4. Define the purpose of essential fire support tasks (EFST).

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 MAGTF Targeting and Fire Support Planning Class
2. MCWP 3-16 Fire Support Coordination in the GCE

ACPM-8063 4.0 * B (N) G

Goal. Demonstrate an understanding of MAGTF command and control.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify MAGTF command and support relationships.
2. Identify the purpose and role of the command and control centers in the CE, ACE, GCE, and LCE.
3. Identify the purpose and role of the amphibious command and control facilities.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

Reference. MCWP 3-40.1 MAGTF C2

ACPM-8064 4.0 * B (N) G

Goal. Demonstrate an understanding of MAGTF communications.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify the six characteristics of communications and information systems.
2. Identify the mission and organizational structure of the Communications Battalion.
3. Identify the purpose of the Communications-Electronics Operating Instructions (CEOI) and what information is usually included in it.
4. Identify what information can be found in Annex K of an operations order.
5. Identify the purpose of select fires, support, and ACE specific radio nets.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

Reference. MCWP 3-40.3 MAGTF Communications System

ACPM-8065	4.0	*	B	(N)	G

Goal. Demonstrate an understanding of phasing control ashore.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify types of amphibious operations and how command relationships may change during the conduct of each.
2. Identify how disputes among commanders during amphibious operations are resolved.
3. Identify the key commanders and command relationships.
4. Identify the key characteristics of each phase in phasing the MACCS ashore.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 Phasing Control Ashore Class
2. JP 3-02 Joint Doctrine for Amphibious Operations (Ch 2)
3. MCWP 3-25 Control of Aircraft and Missiles (Appendix C)

ACPM-8066	4.0	*	B	(N)	G

Goal. Demonstrate an understanding of information management.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Match the principles of information management with their descriptions.
2. Define each of the classes of information within an information hierarchy.
3. List the characteristics of quality information.
4. Identify the role and responsibilities of an Information Management Officer (IMO).
5. Define C2 support structure and the three steps followed to develop one.
6. Identify the purpose of an information management matrix and the information management plan.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

Reference. MCWP 3-40.2 Information Management

ACPM-8067	4.0	*	B	(N)	G

Goal. Demonstrate an understanding of Unmanned Aircraft Systems in support of MAGTF operations.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify the four types of payloads.
2. Identify the three attributes that determine UAS Groups.
3. Identify the five different UAS Group Categories.
4. Identify the two types of VMU operational employment.
5. Identify the three components of the RQ-7B Communications Relay Package.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 UAS In Support of MAGTF Operations
2. MCRP 3-42.1A
3. NTTP 3-22.3-VMU

ACPM-8080 1.0 * B (N) G

Goal. Demonstrate an understanding of the MAGTF stage of the joint air operations stage of the MACCS ACPM.

Requirement. Pass a closed book examination that encompasses all learning objectives contained in the prerequisites.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. SI.

Prerequisite. 8081, 8082, 8083, 8084, 8085, 8086, 8087, 8088.

Reference. C3 Course Catalog.

ACPM-8081 4.0 * B (N) G

Goal. Demonstrate an understanding of the command and control of joint air operations.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify the definition of joint air operations.
2. Identify the Joint Force Air Component Commander's responsibilities.
3. Identify the five sections that comprise the Joint Air Operations Center.
4. Identify the six phases of the Joint Air Tasking Cycle.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives or pass the DOCNET course listed below with a score of 80% or higher.

Instructor. BI.

Prerequisite. None.

References.

1. DOCNET Course 3-30 (<http://www.dtic.mil/doctrine/docnet/>)
2. MAWTS-1 Joint Air Operations Class

3. JP 3-30 C2 of Joint Air Operations

ACPM-8082 4.0 * B (N) G

Goal. Demonstrate an understanding of the theater air ground system (TAGS).

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. List the primary characteristics of the Theater Air Ground System (TAGS).
2. Identify the elements within the Air Force's Theater Air Control System (TACS) and their primary responsibilities.
3. Identify the aviation command and control elements with the Army Air and Ground System (AAGS) and their primary responsibilities.
4. Identify the aviation elements within the Navy's Composite Warfare Commander (CWC) architecture.
5. Identify the Amphibious Task Force (ATF) construct and its primary responsibilities.
6. Identify the aviation command and control elements within the Special Operations Air-Ground System.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 TAGS ClassMAWTS-1 Joint Air Operations Class
2. ALSA TAGS Pub. (<https://wwwmil.alsa.mil/default.aspx>)

ACPM-8083 4.0 * B (N) G

Goal. Demonstrate an understanding of joint fire support doctrine.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Define joint fires.
2. Define joint fire support.
3. Identify the steps of the joint fire support planning process.
4. List the various elements of the component commander's fires command and control system.
5. Define the various joint control and coordination measures associated with joint fire support.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives or pass the DOCNET course listed below with a score of 80% or higher.

Instructor. BI.

Prerequisite. None.

References.

1. DOCNET Course 3-09 (<http://www.dtic.mil/doctrine/docnet/>)
2. JP 3-09 Joint Fire Support

ACPM-8084 4.0 * B (N) G

Goal. Demonstrate an understanding of close air support (CAS) doctrine.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the

following learning objectives:

1. Explain key roles and responsibilities related to the planning and execution of CAS.
2. Detail key steps in the planning and execution of CAS.
3. Describe various coordination measures used in the planning and conduct of CAS.
4. Describe the manner in which the two types of CAS requests are fulfilled.
5. Identify the goal and purpose of synchronizing CAS with surface fires.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives or pass the DOCNET course listed below with a score of 80% or higher.

Instructor. BI.

Prerequisite. None.

References.

1. DOCNET Course 3-09 (<http://www.dtic.mil/doctrine/docnet/>)
2. MAWTS-1 CAS Class
3. JP 3-09.3 Close Air Support

ACPM-8085	4.0	*	B	(N)	G

Goal. Demonstrate an understanding of joint targeting doctrine.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify types of targets.
2. Identify and describe the six phases of the joint targeting cycle.
3. Identify characteristics of a target.
4. Identify and describe steps in dynamic targeting.
5. Describe roles and responsibilities related to the joint targeting process.
6. Describe key products and processes of the joint targeting cycle.
7. Identify key terms related to the joint targeting process.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives or pass the DOCNET course listed below with a score of 80% or higher.

Instructor. BI.

Prerequisite. None.

References.

1. DOCNET Course 3-09 (<http://www.dtic.mil/doctrine/docnet/>)
2. JP 3-60 Joint Targeting

ACPM-8086	4.0	*	B	(N)	G

Goal. Demonstrate an understanding of the North Atlantic Treaty Organization (NATO).

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify the composition of the NATO alliance.
2. Identify the three key articles of the NATO alliance.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 NATO Class
2. "What is NATO" Brief (http://www.nato.int/welcome/intro_to_NATO_en.ppt)
3. AJP-01(D)

ACPM-8087 4.0 * B (N) G

Goal. Demonstrate an understanding of joint airspace control doctrine.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify the responsibilities of the airspace control authority (ACA).
2. Identify the basic principles for airspace control.
3. Identify the purpose of the airspace control plan (ACP).
4. Identify the purpose of the airspace control order (ACO).
5. Identify the methods of airspace control.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 Airspace Control Authority and Airspace Class
2. JP 3-52 Joint Airspace Control

7.15 T&R SYLLABUS MATRIX.

5951 T&R SYLLABUS MATRIX										
STAGE	CODE	TITLE	POI	DEVICE	COND	PROFICIENCY PERIOD	E-CODED	TIME	PREREQ	CHAIN
CORE INTRODUCTION PHASE (1000)										
CYBER SECURITY WORK FORCE (CSWF)										
CSWF	1005	Provide cyberwarfare technical support and troubleshooting.	B	G	(N)	*	*	0	*	*
CSWF	1006	Repair common cables.	B	G	(N)	*	*	0	*	*
TOTAL HOURS CSWF STAGE			EVENTS		2	HOURS		0		
MARINE AIR TRAFFIC CONTROL LANDING SYSTEMS (MATCLS)										
MATCLS	1100	Perform corrective maintenance to the LRU for the AN/UMK-4.	B	G	(N)	*	*	0	*	*
MATCLS	1105	Perform corrective maintenance to the LRU for the AN/TMQ-56.	B	G	(N)	*	*	0	*	*
MATCLS	1110	Setup the subsystems of the AN/TMQ-56.	B	G	(N)	*	*	0	*	*
MATCLS	1115	Pack the AN/TMQ-56.	B	G	(N)	*	*	0	*	*
MATCLS	1120	Setup the subsystems of the AN/UMK-4.	B	G	(N)	*	*	0	*	*
MATCLS	1125	Pack the AN/UMK-4.	B	G	(N)	*	*	0	*	*
MATCLS	1130	Configure the data network of the tactical meteorological equipment to communicate with external networks.	B	G	(N)	*	*	0	*	*
TOTAL HOURS (MATCLS) STAGE			EVENTS		7	HOURS		0		
TOTAL HOURS CORE INTRODUCTION PHASE (1000)								0		
CORE PHASE (2000)										
FUNDAMENTAL SKILL (FUND)										
MMCN	2012	State the organizational destructive weather plan.	B,R,M	G	(N)	1095	*	2	*	*

5951 T&R SYLLABUS MATRIX										
STAGE	CODE	TITLE	POI	DEVICE	COND	PROFICIENCY PERIOD	E-CODED	TIME	PREREQ	CHAIN
MMCN	2013	Describe the characteristics of unit T/E generators.	B	G	(N)	*	*	1	*	*
ORNT	2031	Complete NAMP indoctrination training.	B,R	G	(N)	*	*	1	*	*
MMCN	2005	Demonstrate an earth ground installation.	B,R,M	L	(N)	365	*	1	*	*
MMCN	2008	Construct and use a field expedient antenna.	B,R,M	L	(N)	1095	*	4	*	*
METEM	2103	State the deployment consideration for the AN/TMQ-56.	B	G	(N)	*	*	1	*	*
METEM	2104	State the capabilities of the AN/UMK-4.	B	G	(N)	*	*	1	*	*
METEM	2105	State the deployment consideration for the AN/UMK-4.	B	G	(N)	*	*	1	*	*
METEM	2106	Setup surface meteorological sensing system.	B,R	L	(N)	*	*	1	*	*
METEM	2109	Pack the meteorological surface sensing system.	B,R,M	L	(N)	730	*	1	*	*
METEM	2110	Setup the meteorological radar subsystem for integrated operation.	B,R	L	(N)	*	*	2	*	*
METEM	2112	Pack the meteorological radar subsystem.	B,R,M	L	(N)	730	*	2	*	*
METEM	2113	Setup the meteorological satellite subsystem.	B,R	L	(N)	*	*	1	*	*
METEM	2115	Pack the meteorological satellite subsystem.	B,R,M	L	(N)	730	*	1	*	*
METEM	2116	Setup the meteorological upper air subsystems for integrated operations.	B,R	L	(N)	*	*	1	*	*
METEM	2118	Pack the meteorological upper air subsystems.	B,R,M	L	(N)	730	*	1	*	*
METEM	2119	Setup meteorological communication subsystems.	B,R	L	(N)	*	*	1	*	*
METEM	2121	Pack the meteorological communication subsystem.	B,R,M	L	(N)	730	*	1	*	*
ACPM	8000	MACCS.	B	G	(N)	*	*	1	8001, 8002, 8003, 8004, 8005, 8006, 8008	*
TOTAL HOURS FUNDAMENTAL SKILL			EVENTS		18	HOURS		26		

5951 T&R SYLLABUS MATRIX										
STAGE	CODE	TITLE	POI	DEVICE	COND	PROFICIENCY PERIOD	E-CODED	TIME	PREREQ	CHAIN
SECURITY SKILL (SEC)										
MMCN	2000	Operate a common fill device	B,R	L	(N)	*	*	2	*	*
MMCN	2001	State the physical security requirements for classified areas	B,R	G	(N)	*	*	1	*	*
MMCN	2002	Extract key material information from COMSEC callout	B,R	G	(N)	*	*	2	*	*
MMCN	2003	Create a classified area physical security diagram	B,R	L	(N)	*	*	2	2001	*
MMCN	2011	Manage COMSEC/classified material.	B,R	L	(N)	*	*	1	*	*
METEM	2123	State the requirements for handling and storage of classified materials	B	G	(N)	*	*	2	*	*
METEM	2124	Ensure classified material handling procedures are followed	B,R	L	(N)	*	*	3	*	*
TOTAL HOURS SECURITY SKILL			EVENTS		7	HOURS		13		
TOTAL HOURS CORE PHASE (2000)								39		
MISSION PHASE (3000)										
DEPLOY SKILL (DEPL)										
DEPL	2237	Conduct a site evaluation for a maintenance section.	B,R,M	L	(N)	1095	*	2	*	*
DEPL	2238	State the required coordination between maintenance personnel and the ATC watch supervisors and METOC watch supervisor.	B	G	(N)	*	*	1	*	*
MMCN	3030	Deploy a maintenance capability	B,R,M	L	(N)	1095	*	8	2014, 2006, 2009, 2007	*
MMCN	3031	Conduct a site survey	B,R,M	L	(N)	1095	*	8	2237	*
MMCN	3032	Fill the handheld GPS with the appropriate crypto.	B,R,M	L	(N)	1095	*	2	2001	*
MMCN	3033	Plan a Local Area Network.	B,R,M	L	(N)	1095	*	8	6040, 6041, 6042, 6044, 6043, 6046	*

5951 T&R SYLLABUS MATRIX										
STAGE	CODE	TITLE	POI	DEVICE	COND	PROFICIENCY PERIOD	E-CODED	TIME	PREREQ	CHAIN
METEM	3600	Deploy the AN/TMQ-56.	B,R,M	L	(N)	1095	*	40	2071, 2237, 2102, 2103, 2104, 2106, 2107, 2108, 2109, 2110, 2111, 2112, 2113, 2114, 2115, 2116, 2117, 2118, 2119, 2120, 2121	*
METEM	3605	Deploy the AN/UMK-4	B,R,M	L	(N)	1095	*	8	2237, 2104, 2105, 2106, 2107, 2108, 2109, 2119, 2120, 2121	*
TOTAL HOURS DEPLOY SKILL			EVENTS		4	HOURS		26		
OPERATIONAL PLANNING SKILL (OPLN)										
MMCN	2014	Produce an Equipment Density List (EDL).	B,R	L	(N)	*	*	1	*	*
MMCN	2006	Develop an embarkation plan.	B,R,M	L	(N)	1095	*	2	2014	*
MMCN	2009	Complete a Bill of Material (BOM) request.	B,R	L	(N)	*	*	2	*	*
MMCN	2007	Identify spectrum management procedures.	B,R,M	G	(N)	1095	*	1	*	*
MMCN	3031	Conduct a site survey.	B,R,M	L	(N)	1095	*	8	*	*
TOTAL HOURS OPLN SKILL			EVENTS		5	HOURS		17		
TECHNICAL SKILL (TECH)										
MMCN	2004	Operate the handheld GPS.	B,R,M	L	(N)	1095	*	2	*	*
MMGT	2061	Identify parts data.	B,R	G	(N)	*	*	1	*	*
MMGT	2062	Explain the information contained in the logs and records maintained in production control.	B,R	G	(N)	*	*	1	*	*
MMGT	2063	Determine the readiness status from the Mission Essential Subsystem Matrix (MESM).	B	G	(N)	*	*	1	*	*

5951 T&R SYLLABUS MATRIX										
STAGE	CODE	TITLE	POI	DEVICE	COND	PROFICIENCY PERIOD	E-CODED	TIME	PREREQ	CHAIN
MMGT	2064	State the information contained in the allowance lists.	B,R	G	(N)	*	*	1	2071	*
MMGT	2065	Record equipment readiness using Aviation Management Supply and Readiness Reporting (AMSRR) system.	B	L	(N)	*	*	3	*	*
MMGT	2066	Describe the Planned Maintenance System (PMS).	B,R	G	(N)	*	*	3	*	*
MMGT	2067	Document the completion of preventive maintenance using the 13-Week Accountability log.	B,R	L	(N)	*	*	1	2066	*
MMGT	2068	Perform a PMS revision.	B,R	L	(N)	*	*	3	2066, 2067	*
MMGT	2069	Build a Work Center.	B,R	L	(N)	*	*	3	2066, 2067, 2068	*
MMGT	2070	Submit PMS feedback reports.	B,R	L	(N)	*	*	1	2066, 2067	*
MMGT	2071	Explain MATCD Supply Functions.	B	G	(N)	*	*	1	*	*
MMGT	2072	Open a Work Order.	B,R	L	(N)	*	*	1	*	*
MMGT	2073	Close a Work Order.	B,R	L	(N)	*	*	1	*	*
METEM	2102	State the capabilities of the AN/TMQ-56.	B	G	(N)	*	*	1	*	*
METEM	2107	Perform post setup procedures on surface meteorological sensing system.	B,R	L	(N)	*	*	2	2106	*
METEM	2108	Replace an LRU on a meteorological system.	B,R	S/L	(N)	*	*	2	*	*
METEM	2111	Perform post setup procedures on the meteorological radar subsystem for integrated operation.	B,R	L	(N)	*	*	2	2110	*
METEM	2114	Perform post setup procedures on the meteorological satellite subsystem.	B,R	L	(N)	*	*	1	2113	*
METEM	2117	Perform post setup procedures on the meteorological upper air subsystems for integrated operations.	B,R	L	(N)	*	*	1	2116	*
METEM	2120	Perform post setup procedures on the meteorological communication subsystem.	B,R	L	(N)	*	*	1	2119	*
METEM	2122	Perform PMS on a meteorological system.	B,R	L	(N)	*	*	5	2066, 2067	*

5951 T&R SYLLABUS MATRIX										
STAGE	CODE	TITLE	POI	DEVICE	COND	PROFICIENCY PERIOD	E-CODED	TIME	PREREQ	CHAIN
MMCN	3032	Fill the handheld GPS with the appropriate crypto.	B, R, M	L	(N)	1095	*	2	2001	*
METEM	3601	Provide meteorological maintenance services as a member of a crew.	B,R,M	L	(N)	1095	*	8	2012, 6040, 6041, 6045, 2005, 2061, 2062, 2063, 2066, 2067, 2238, 2104, 2105, 2106, 2109, 2113, 2115, 2119, 2121, 2122	*
TOTAL HOURS TECHNICAL SKILL (TECH)			EVENTS		13	HOURS		48		
TOTAL HOURS MISSION PHASE (3000)								281		
CORE PLUS PHASE (4000)										
MAINTENANCE MANAGEMENT (MMGT)										
MMGT	4200	State the considerations of the Contingency Support Package (CSP).	B,R,M	G	(N)	365	*	2	2071	*
MMGT	4211	Open a Cannibalization Work Order.	B,R	L	(N)	*	*	1	*	*
MMGT	4212	Open a new query and report.	B,R	L	(N)	*	*	1	*	*
MMGT	4213	Create an AD HOC query.	B,R	L	(N)	*	*	1	*	*
MMGT	4214	Explain the OOMA server.	B,R	G	(N)	*	*	1	*	*
MMGT	4215	Explain the database management system.	B,R	G	(N)	*	*	1	*	*
MMGT	4218	Describe the purpose of the Configuration Management module in OOMA.	B,R	G	(N)	*	*	1	*	*
MMGT	4220	Document In-process inspection in OOMA/NALCOMIS.	B,R	L	(N)	*	*	1	*	*
MMGT	4221	Activate a new task.	B,R	L	(N)	*	*	1	*	*
MMGT	4222	Assign a Work Center to an Inspection Task.	B,R	L	(N)	*	*	1	4221	*

5951 T&R SYLLABUS MATRIX										
STAGE	CODE	TITLE	POI	DEVICE	COND	PROFICIENCY PERIOD	E-CODED	TIME	PREREQ	CHAIN
MMGT	4224	Delete a Work Order.	B,R	L	(N)	*	*	1	*	*
MMGT	4225	Transfer/accept equipment to/from another unit.	B,R	L	(N)	*	*	1	*	*
MMGT	4226	Detach equipment and personnel to be used for OOMA Detachment Kits.	B,R	L	(N)	*	*	1	*	*
MMGT	4227	Add and remove personnel to OOMA.	B,R	L	(N)	*	*	1	*	*
MMGT	4228	Perform Critical Maintenance Inspection Requirements.	B	L	(N)	*	*	3	*	*
MMGT	4229	Describe the purpose of inspections.	B,R	G	(N)	*	*	1	*	*
MMGT	4230	Run an AD HOC query.	B,R	L	(N)	*	*	1	*	*
MMGT	4231	Perform CDI Queue functions.	B,R	L	(N)	*	*	1	*	*
MMGT	4232	Open a Baseline Trouble Report (BTR).	B,R	L	(N)	*	*	1	*	*
MMGT	4233	Order parts in OOMA/NALCOMIS.	B,R	L	(N)	*	*	1	*	*
MMGT	4234	Perform contingency processing.	B,R	L	(N)	*	*	1	*	*
MMGT	4235	Describe auditing and monitoring techniques and procedures used by Quality Assurance.	B,R	G	(N)	*	*	1	*	*
MMGT	4236	Pass CDI Periodic Evaluation IAW CSEC.	B,R	G	(N)	*	*	1	4229, 4231, 4233	*
TOTAL HOURS MAINTENANCE MANAGEMENT (MMGT) STAGE								26		
TOTAL HOURS CORE PLUS PHASE (4000)								26		
INSTRUCTOR TRAINING PHASE (5000)										
INSTRUCTOR TRAINING STAGE										
IUT	5000	Introduce principals of instruction.	B	L	(N)	*	*	2	*	*

5951 T&R SYLLABUS MATRIX										
STAGE	CODE	TITLE	POI	DEVICE	COND	PROFICIENCY PERIOD	E-CODED	TIME	PREREQ	CHAIN
IUT	5010	Describe individual T&R requirements.	B	G	(N)	*	*	2	*	*
IUT	5020	Conduct T&R instruction.	B,R,M	L	(N)	90	*	12	5000, 5010	*
IUT	5100	Describe the Aviation Training and Readiness (T&R) Program.	B	G	(N)	*	*	2	*	*
IUT	5110	Conduct instructor evaluations.	B,R,M	L	(N)	365	*	4	5100	*
IUT	5120	Perform T&R administration.	B	L	(N)	*	*	2	5100, 5110	*
IUT	5130	Develop a training plan.	B	L	(N)	*	*	2	5100, 5110, 5120	*
TOTAL HOURS INSTRUCTOR TRAINING STAGE								28		
TOTAL HOURS INSTRUCTOR TRAINING PHASE (5000)								28		
CERTIFICATIONS, QUALIFICATIONS, AND DESIGNATIONS (CQD) PHASE (6000)										
NAVAL AVIATION MAINTENANCE PROGRAM (NAMP) STAGE										
NAMP	6370	Familiarization of the NAMP Compliance Audit Program.	B	G	(N)	*	*	1	*	*
NAMP	6375	Familiarization of the Tech Data Management Program.	B	G	(N)	*	*	1	*	*
NAMP	6380	Technical Directive (TD) Compliance Program.	B	G	(N)	*	*	1	*	*
NAMP	6385	Familiarization of the Electrostatic Discharge (ESD/EMI) Program.	B	G	(N)	*	*	1	*	*
NAMP	6390	Familiarization of the Foreign Object Damage (FOD) Prevention Program.	B	G	(N)	*	*	1	*	*
NAMP	6400	Familiarization of the Corrosion Prevention and Control Program.	B	G	(N)	*	*	1	*	*
NAMP	6405	Familiarization of the Naval Aviation Metrology and Calibration (METCAL) Program.	B	G	(N)	*	*	1	*	*

5951 T&R SYLLABUS MATRIX										
STAGE	CODE	TITLE	POI	DEVICE	COND	PROFICIENCY PERIOD	E-CODED	TIME	PREREQ	CHAIN
NAMP	6410	Familiarization of the Maintenance Administration Program.	B	G	(N)	*	*	1	*	*
NAMP	6415	Familiarization of the Maintenance Control Program.	B	G	(N)	*	*	1	*	*
NAMP	6420	Familiarization of the Naval Aviation Maintenance Discrepancy Reporting (NAMDRP) Program.	B	G	(N)	*	*	1	*	*
NAMP	6425	Familiarization of the Aircraft Maintenance Material Readiness List (AMMRL) Program.	B	G	(N)	*	*	1	*	*
NAMP	6430	Familiarization of the Maintenance Department/Division Safety Program.	B	G	(N)	*	*	1	*	*
NAMP	6435	Familiarization of the Hazardous Material Control and Management Program.	B	G	(N)	*	*	1	*	*
NAMP	6440	Familiarization of the Battery Maintenance Safety Program.	B	G	(N)	*	*	1	*	*
NAMP	6445	Familiarization of the Tool Control Program.	B	G	(N)	*	*	1	*	*
TOTAL HOURS DESIGNATIONS (NAMP) STAGE			EVENTS		15	HOURS		15		
CERTIFICATIONS (CERT) STAGE										
CERT	6260	CSWF Technical Support Specialist.	B	G	(N)	*	*	4	6040, 6041, 6042, 6044, 6045, 6046, 6047	*
CERT	6261	CSWF IT Specialist.	B	G	(N)	*	*	4	3033, 6040, 6041, 6043, 6044, 6045, 6046, 6047	*
CERT	6262	CSWF System Administrator.	B	G	(N)	*	*	4	3033, 6040, 6042, 6043, 6044, 6045, 6046, 6047	*
TOTAL HOURS CERTIFICATIONS (CERT) STAGE			EVENTS		3	HOURS		12		
DESIGNATIONS (DESG) STAGE										

5951 T&R SYLLABUS MATRIX										
STAGE	CODE	TITLE	POI	DEVICE	COND	PROFICIENCY PERIOD	E-CODED	TIME	PREREQ	CHAIN
DESG	6320	Basic Instructor (BI).	B	G	(N)	*	*	1	5000, 5010, 5020	*
DESG	6321	Senior Instructor (SI).	B	G	(N)	*	*	1	5000, 5010, 5020, 5100, 5110, 5120, 5130	*
DESG	6322	Weapons and Tactics Instructor (WTI).	B	G	(N)	*	*	1	6000	*
DESG	6330	Formal Learning Center Instructor (FLCI).	B	G	(N)	*	*	1	6096	*
DESG	6365	Designation as the METEM Chief.	B	G	(N)	*	*	1	2011, 2013, 2061, 2063, 2064, 2065, 2068, 2069, 2070, 2071, 3600, 8020	*
DESG	6446	Designation as a Collateral Duty Inspector.	B	G	(N)	*	*	1	4229, 4231, 4233, 4234, 4228, 6107	*
DESG	6447	Designation as a Quality Assurance Representative.	B	G	(N)	*	*	1	4228, 4229, 4230, 4231, 4232, 4233, 4234, 4235, 4236	*
DESG	6448	Designation as a Collateral Duty Quality Assurance Representative.	B	G	(N)	*	*	1	4228, 4229, 4230, 4231, 4232, 4233, 4234, 4235, 4236	*
TOTAL HOURS DESIGNATIONS (DESG) STAGE			EVENTS		7	HOURS		7		
SCHOOL (SCHL)										
SCHL	6000	Complete WTI Course	B	G	(N)	*	*	0.5	6320, 6321, 8000, 8020, 8040, 8060, 8080	*
SCHL	6020	Complete Link 16 Basics Course (JT-100)	B	G	(N)	*	*	0.5	*	*
SCHL	6021	Complete Intro to Multi TDL Network (JT-101) Course	B	G	(N)	*	*	0.5	*	*
SCHL	6022	Complete Multi-TDL Advanced Joint Interoperability Course (MAJIC) (JT-102)	B	G	(N)	*	*	0.5	*	*

5951 T&R SYLLABUS MATRIX										
STAGE	CODE	TITLE	POI	DEVICE	COND	PROFICIENCY PERIOD	E-CODED	TIME	PREREQ	CHAIN
SCHL	6023	Complete Link 16 Joint Interoperability Course (US-109)	B	G	(N)	*	*	0.5	*	*
SCHL	6030	Work Center Supervisor’s Course	B	G	(N)	*	*	0.5	2237, 2238, 3030	*
SCHL	6031	MATC Maintenance Manager’s Course	B	G	(N)	*	*	0.5	*	*
SCHL	6060	Aeronautical Technical Publication Library Management Course.	B	G	(N)	*	*	0.5	*	*
SCHL	6073	Micro-miniature Electronic Repair Course	B	G	(N)	*	*	0.5	*	*
SCHL	6095	Ground Electronics Maintenance NCO Course.	B	G	(N)	*	*	0.5	*	*
SCHL	6096	Attend respective instructor development course.	B	G	(N)	*	*	0.5	*	*
SCHL	6107	Equipment Grounding	B	G	(ND)	*	*	0.5	*	*
SCHOOL (SCHL)			EVENTS	12		HOURS		6		
CYBER SECURITY WORK FORCE (CSWF) STAGE										
CSFW	6040	Explain Information Security Principles.	B,R,M	G	(N)	1095	*	4	*	*
CSFW	6041	Perform account management.	B,R,M	L	(N)	1095	*	2	*	*
CSFW	6042	Explain risk management involved in operational security.	B,R,M	G	(N)	1095	*	4	*	*
CSWF	6043	Explain computer and network cryptography.	B,R,M	G	(N)	1095	*	4	*	*
CSWF	6044	Explain computer and networking equipment.	B,R	G	(N)	*	*	4	*	*
CSFW	6045	Explain Networking Concepts.	B,R	G	(N)	*	*	4	*	*
CSWF	6046	Explain Network media and topologies.	B,R	G	(N)	*	*	4	*	*
CSWF	6047	Explain troubleshooting of computer and network equipment.	B,R	G	(N)	*	*	4	6040, 6041, 6042, 6044, 6045, 6046	*
CSWF	6048	Administer data system host security measures.	B,R,M	L	(N)	1095	*	4	6040, 6041, 6042, 6043, 6044, 6045, 6046, 6047	*
CSWF	6049	Perform network management.	B,R,M	L	(N)	1095	*	4	6040, 6041, 6042, 6043, 6044, 6045, 6046, 6047	*
CSWF	6050	Design network architecture.	B,R,M	L	(N)	1095	*	4	6040, 6041, 6042, 6043, 6044, 6045, 6046, 6047	*

5951 T&R SYLLABUS MATRIX											
STAGE	CODE	TITLE	POI	DEVICE	COND	PROFICIENCY PERIOD	E-CODED	TIME	PREREQ	CHAIN	
TOTAL HOURS CYBERSECURITY WORKFORCE (CSWF)			EVENTS		11	HOURS		42			
TOTAL HOURS CQD PHASE (6000)								58			
MISSION ESSENTIAL TASK (MET) PHASE (7000)											
ATC CONDITION (COND)											
COND	7800	Conduct Meteorology and Oceanography (METOC) Support.	B,R,M	L	(N)	545	E	80	*	*	
COND	7801	Conduct METOC Support Team (MST) Services.	B,R,M	L	(N)	545	E	80	*	*	
COND	7802	Provide Meteorological Services.	B,R,M	L	(N)	545	E	80	*	*	
COND	7803	Provide Meteorological/Oceanographic (METOC) Services.	B,R,M	L	(N)	545	E	80	*	*	
COND	7804	Conduct METOC Support Team (MST) Services.	B,R,M	L	(N)	545	E	80			
ATC CONDITION (COND)			EVENTS	5		HOURS		400			
TOTAL HOURS MET PHASE (7000)								400			
AVIATION CAREER PROGRESSION MODEL (ACPM) PHASE (8000)											
AVIATION CAREER PROGRESSION MODEL (ACPM)											
ACPM	8000	MACCS	B	G	(N)	*	*	1	8001, 8002, 8003, 8004, 8005, 8006, 8008	*	
ACPM	8001	Marine Air Command and Control System	B	G	(N)	*	*	4	*	*	
ACPM	8002	Tactical Air Command Center (TACC)	B	G	(N)	*	*	4	*	*	
ACPM	8003	Direct Air Support Center (DASC)	B	G	(N)	*	*	4	*	*	
ACPM	8004	Tactical Air Operations Center (TAOC)	B	G	(N)	*	*	4	*	*	
ACPM	8005	Marine Air Traffic Control (MATC)	B	G	(N)	*	*	4	*	*	
ACPM	8006	Low Altitude Air Defense (LAAD)	B	G	(N)	*	*	4	*	*	
ACPM	8008	Marine Wing Communications Squadron (MWCS)	B	G	(N)	*	*	4	*	*	

5951 T&R SYLLABUS MATRIX										
STAGE	CODE	TITLE	POI	DEVICE	COND	PROFICIENCY PERIOD	E-CODED	TIME	PREREQ	CHAIN
ACPM	8020	ACE	B	G	(N)	*	*	1	8021, 8022, 8023, 8024, 8025, 8026, 8027, 8028	*
ACPM	8021	Aviation Operations	B	G	(N)	*	*	4	*	*
ACPM	8022	Control of Aircraft and Missiles	B	G	(N)	*	*	4	*	*
ACPM	8023	Offensive Air Support (OAS)	B	G	(N)	*	*	4	*	*
ACPM	8024	Assault Support (AS)	B	G	(N)	*	*	4	*	*
ACPM	8025	Air Reconnaissance	B	G	(N)	*	*	4	*	*
ACPM	8026	Electronic Warfare (EW)	B	G	(N)	*	*	1	*	*
ACPM	8027	Anti-Air Warfare (AAW)	B	G	(N)	*	*	4	*	*
ACPM	8028	Aviation Ground Support	B	G	(N)	*	*	4	*	*
ACPM	8040	Threat	B	G	(N)	*	*	1	8041, 8042, 8043, 8044	*
ACPM	8041	Surface to Air threat to the MAGTF	B	G	(N)	*	*	4	*	*
ACPM	8042	Fixed Wing threat to the MAGTF	B	G	(N)	*	*	4	*	*
ACPM	8043	Rotary Wing threat to the MAGTF	B	G	(N)	*	*	4	*	*
ACPM	8044	Missile and UAS threat to the MAGTF	B	G	(N)	*	*	4	*	*
ACPM	8060	MAGTF	B	G	(N)	*	*	1	8061, 8062, 8063, 8064, 8065, 8066, 8067	*
ACPM	8061	Ground Combat Operations	B	G	(N)	*	*	4	*	*
ACPM	8062	Fire Support Coordination in the GCE	B	G	(N)	*	*	4	*	*
ACPM	8063	MAGTF Command and Control	B	G	(N)	*	*	4	*	*
ACPM	8064	MAGTF Communications	B	G	(N)	*	*	4	*	*
ACPM	8065	Phasing Control Ashore	B	G	(N)	*	*	4	*	*
ACPM	8066	Information Management	B	G	(N)	*	*	4	*	*
ACPM	8067	UAS support of the MAGTF	B	G	(N)	*	*	4	*	*
ACPM	8080	Joint Air Operations	B	G	(N)	*	*	1	8081, 8082, 8083, 8084, 8085, 8086, 8087, 8088	*
ACPM	8081	Command and Control of Joint Air Operations	B	G	(N)	*	*	4	*	*
ACPM	8082	Theater Air Ground System (TAGS)	B	G	(N)	*	*	4	*	*

5951 T&R SYLLABUS MATRIX										
STAGE	CODE	TITLE	POI	DEVICE	COND	PROFICIENCY PERIOD	E-CODED	TIME	PREREQ	CHAIN
ACPM	8083	Joint Fire Support	B	G	(N)	*	*	4	*	*
ACPM	8084	Close Air Support (CAS)	B	G	(N)	*	*	4	*	*
ACPM	8085	Joint Targeting	B	G	(N)	*	*	4	*	*
ACPM	8086	North Atlantic Treaty Organization (NATO)	B	G	(N)	*	*	4	*	*
ACPM	8087	Joint Airspace Control	B	G	(N)	*	*	4	*	*
ACPM	8088	Countering Air and Missile Threats	B	G	(N)	*	*	4	*	*
AVIATION CAREER PROGRESSION MODEL (ACPM)			EVENTS	39		HOURS		138		
TOTAL ACPM PHASE (8000)								138		

7.15.1 MIRRORING TABLE.

MACCS MAINTENANCE MIRRORING (5951)	
NEW EVENT	METOC
2000	*
2001	2155
2002	2170
2003	2160
2004	2050
2005	2055
2006	2221
2007	2212
2008	*

MACCS MAINTENANCE MIRRORING (5951)	
NEW EVENT	METOC
2009	2223
2011	*
2012	*
2013	*
2014	2221
2031	*
6040	*
6041	*
6042	*
6043	*
6044	*
6045	*
6046	*
6047	*
2061	2207
2062	2209
2063	2210
2064	2211
2065	2213
2066	2214
2067	2215
2068	2217
2069	2218
2070	2220

MACCS MAINTENANCE MIRRORING (5951)	
NEW EVENT	METOC
2071	2234
2072	*
2073	*
2102	2600
2103	2601
2104	2602
2105	2603
2106	2604
2107	2605
2108	2606
2109	2607
2110	2608
2111	2609
2112	2611
2113	2612
2114	2613
2115	2615
2116	2616
2117	2617
2118	2619
2119	2620
2120	2621
2121	2623
2122	2628

MACCS MAINTENANCE MIRRORING (5951)	
NEW EVENT	METOC
2123	2150
2124	*
3030	3400
3031	*
3032	*
3033	3000
3050	3600
3051	3601
3052	3605

CHAPTER 8

MARINE AIR TRAFFIC CONTROL NAVIGATIONAL AIDS TECHNICIAN (MOS 5952) INDIVIDUAL TRAINING AND READINESS REQUIREMENTS

	<u>PARAGRAPH</u>	<u>PAGE</u>
CREWMEMBER T&R SYLLABUS REQUIREMENTS	8.0	8-3
TRAINING PROGRESSION MODEL.	8.1	8-3
PROGRAMS OF INSTRUCTION	8.2	8-4
PROFICIENCY AND CURRENCY.	8.3	8-4
CERTIFICATION, QUALIFICATION, AND DESIGNATION TABLES	8.4	8-5
SYLLABUS NOTES.	8.5	8-6
CORE INTRODUCTION PHASE (0000).	8.6	8-7
CORE PHASE (2000).	8.7	8-14
MISSION PHASE (3000).	8.8	8-42
CORE PLUS PHASE (4000).	8.9	8-50
MISSION PLUS PHASE (4500)	8.10	8-53
INSTRUCTOR TRAINING PHASE (5000).	8.11	8-53
CERTIFICATIONS, QUALIFICATIONS, AND DESIGNATIONS (CQD) PHASE (6000)	8.12	8-58
MISSION ESSENTIAL TASK (MET) PHASE (7000).	8.13	8-71
AVIATION CAREER PROGRESSION MODEL (8000)	8.14	8-75
T&R SYLLABUS MATRIX	8.15	8-93

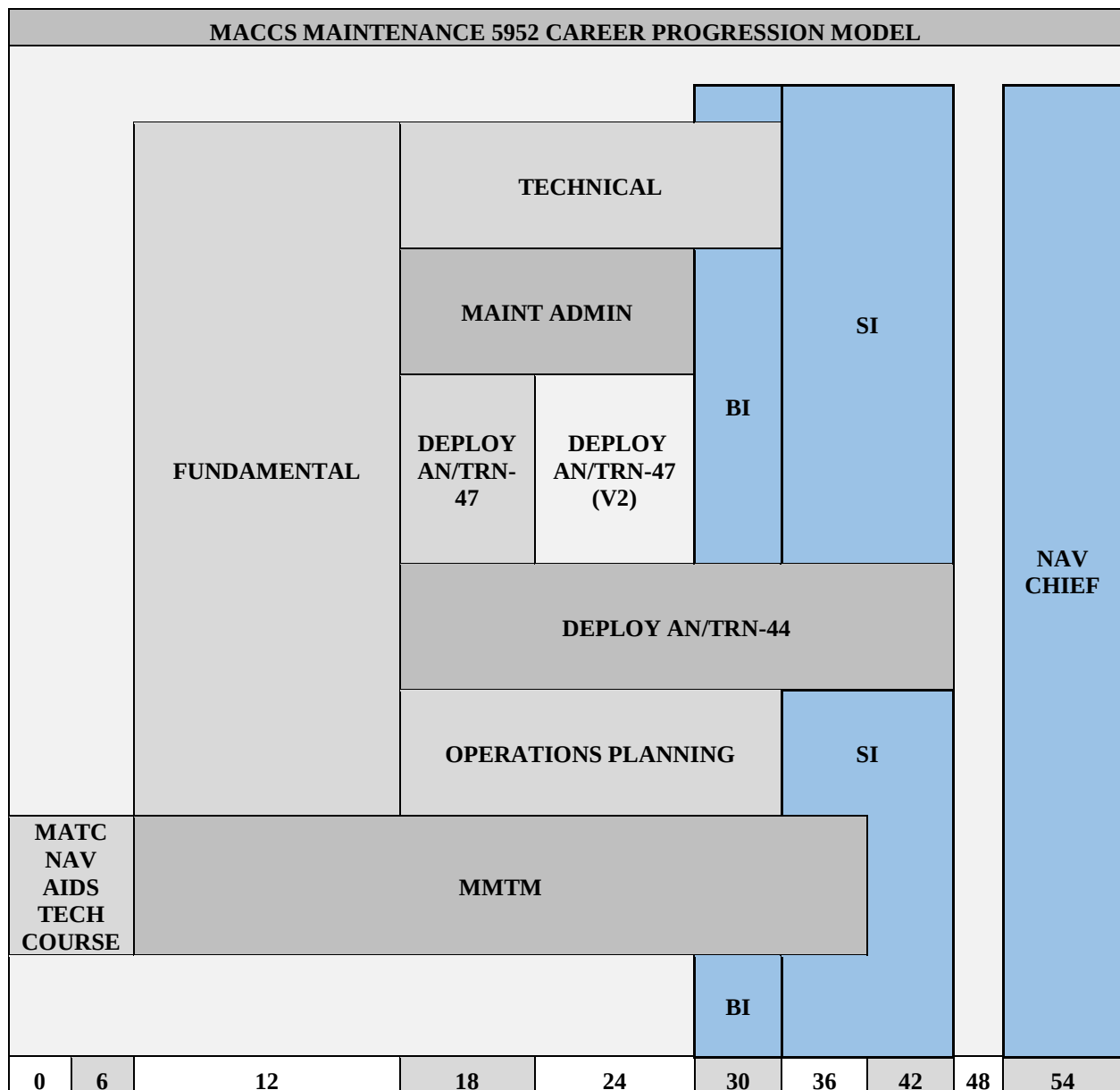
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CHAPTER 8

MARINE AIR TRAFFIC CONTROL NAVIGATIONAL AIDS TECHNICIAN
(MOS 5952) INDIVIDUAL TRAINING AND READINESS REQUIREMENTS

8.0 CREWMEMBER T&R SYLLABUS REQUIREMENTS. This T&R Syllabus is based on specific goals and performance standards designed to ensure individual proficiency in Core and Mission Phase skills. The goal of this chapter is to develop individual and unit warfighting capabilities.

8.1 TRAINING PROGRESSION MODEL. This model represents the recommended average training progression for the Navigational Aids System crewmember. Units should use the model as a point of departure to generate individual training plans.



NOTE: TIME IS EXPRESSED IN TRAINING MONTHS

8.2 PROGRAMS OF INSTRUCTION.

8.2.1 General. These tables reflect average time-to-train versus the minimum to maximum time-to-train parameters in the Training Progression Model.

8.2.2 Basic POI.

MATC MAINTENANCE 5952 BASIC POI		
WEEKS	PHASE OF INSTRUCTION	UNIT RESPONSIBLE
0-12	CORE INTRODUCTION PHASE	NATTC PENSACOLA FL
13-19	CORE PHASE	TACTICAL SQUADRON
23-56	MISSION PHASE	TACTICAL SQUADRON

8.2.3 Refresher POI.

MATC MAINTENANCE MOS 5952 REFRESHER POI		
WEEKS	PHASE OF INSTRUCTION	UNIT RESPONSIBLE
VARIES	CORE PHASE	TACTICAL SQUADRON
VARIES	MISSION PHASE	TACTICAL SQUADRON

NOTE 1: TRAINING DURATIONS VARIES BY POSITION BEING TRAINED. SEE PROGRESSION MODEL FOR NOTIONAL TRAINING TIMES.

8.3 PROFICIENCY AND CURRENCY.

8.3.1 Event Proficiency. Event Proficiency is defined as successful completion of the performance standard as determined by the instructor or evaluator. Event completion is predicated upon demonstrated proficiency. Once completed, it is logged in M-SHARP by entering the appropriate event code. M-SHARP automatically updates the event proficiency date to reflect the completion date.

8.3.2 Skill Proficiency. Proficiency is a measure of achievement of a specific skill. To attain Individual Skill proficiency, an individual must be simultaneously proficient in all events for that Skill. Individuals may be attaining proficiency in some skills while maintaining proficiency in others. Refresher training is required once an individual has been absent from a technician billet for 36 months or longer. Upon return, the individual will complete R-coded events.

8.3.2.1 Maintaining Skill Proficiency. Once attained, skill proficiency is maintained by executing those events which have a Proficiency Period (Maintain events). Proficiency Periods establish the maximum time between each event demonstration. Should proficiency be lost in any maintain event, for a specific skill, that skill proficiency is temporarily lost. Skill proficiency can be re-attained by again demonstrating proficiency in the event(s) that are not proficient. For flying communities, an individual shall complete delinquent events with a proficient instructor,

crewman/flight lead as delineated by the T/M/S Syllabus Sponsor (see Chapter 3 of the Program Manual on specific instructor requirements for Low Altitude Flight, Night Systems, ACM, DM, DACM, DCM, FAC(A)).

8.3.2.2 Loss of Individual Skill Proficiency. Should an individual lose proficiency in all maintain events in a skill, the individual will be assigned to the Refresher POI for the skill. To regain skill proficiency, the individual must demonstrate proficiency in all R-coded events for the skill.

8.3.2.3 Loss of Unit Skill Proficiency. If an entire unit loses proficiency in an event, unit instructors shall regain proficiency by completing the event with an instructor from a like unit. If not feasible, the instructor shall regain proficiency by completing the event with another instructor. For flying communities, if a unit has only one instructor and cannot complete the event with an instructor from another unit, the instructor shall regain proficiency with another aircraft commander or as designated by the commanding officer.

8.3.2.4 Proficiency Status. Proficiency is a “Yes/No” status by skill assigned to an individual. When an individual attains and maintains Core, Mission, Core Plus, or Mission Plus Phase skill, the individual may count towards CMMR or CMTS.

8.3.3 Skill Currency. Currency is a control measure used to provide an additional margin of safety based on exposure frequency to a particular skill and applies to all MOS’s that must comply with NATOPS and OPNAV requirements. It is a measure of time since the last event demanding that specific skill. Specific currency requirements for aircrew individual type mission profiles can be found in Chapter 3.

8.4 CERTIFICATION, QUALIFICATION, AND DESIGNATION TABLES. The tables below delineate T&R events required to be completed to attain proficiency for select certifications, qualifications and designations. In addition to event requirements, all required stage lectures, briefs, squadron training, prerequisites, and other criteria shall be completed prior to completing final events. Certification, qualification and designation letters signed by the commanding officer shall be placed in training Performance Records and NATOPS. See Chapter 6 of the Aviation T&R Program Manual on regaining lost qualifications.

8.4.1 INSTRUCTOR DESIGNATIONS.

MOS 5952 INSTRUCTOR DESIGNATIONS	
INSTRUCTOR DESIGNATION	EVENTS
BASIC INSTRUCTOR (BI)	6320
SENIOR INSTRUCTOR (SI)	6321
WEAPONS AND TACTICS INSTRUCTOR (WTI)	6000
FORMAL LEARNING CENTER INSTRUCTOR (FLCI)	6096

8.4.2 CERTIFICATIONS, QUALIFICATIONS, AND DESIGNATIONS.

MOS 5952	
CERTIFICATIONS, QUALIFICATIONS, AND DESIGNATIONS (CQD)	
CERTIFICATION	EVENTS
CSWF Technical Support Specialist	6220
CSWF IT Specialist	6221
CSWF Systems Administrator	6222

8.5 SYLLABUS NOTES.

8.5.1 Environmental Conditions Matrix.

Environmental Conditions	
Code	Meaning
(N)	May be conducted day or night. If at night, may be aided or unaided.

8.5.2 Device Matrix.

DEVICE	
Symbol	Meaning
L	Event shall be conducted live (conducted in the field/garrison, during an exercise, etc.). Requires live (non-simulated) execution of the event.
L/S	Event performed live preferred/simulator optional.
S/L	Event performed in simulator preferred/live optional.
G	Ground/academic training. May include Distance Learning, CBT, lectures, self-paced.

8.5.3 Program of Instruction Matrix.

PROGRAM OF INSTRUCTION MATRIX		
Program of Instruction (POI)	Symbol	Aviation Ground
Basic	B	Initial MOS Training
Refresher	R	Return to community from none (MOS/Skill) associated tour.
Maintain	M	All individuals who have attained CSP/MSP/PPP by initial POI assignment are re-assigned to the M POI to maintain proficiency.

8.5.4 Event Terms.

EVENT TERMS	
TERM	DESCRIPTION
Discuss	An explanation of systems, procedures, or tactics during the brief, exercise, or debrief. Student is responsible for knowledge of procedures.
Demonstrate	The description and performance of a particular event by the instructor, observed by the student. The student is responsible for knowledge of the procedures prior to the demonstration of a required event.
Introduce	The instructor may demonstrate a procedure or event to a student, or may coach the student through the maneuver without demonstration. The student performs the procedures or maneuver with coaching as necessary. The student is responsible for knowledge of the procedures.
Practice	The performance of a maneuver or procedure by the student that may have been previously introduced in order to attain a specified level of performance.
Review	Demonstrated proficiency of an event by the student.
Evaluate	Any event designed to evaluate team/crew standardization that does not fit another category.

8.6 CORE INTRODUCTION PHASE (0000).

8.6.1 Purpose. To provide entry level instruction to develop the basic skills necessary to become a MOS 5952 Navigational Aids Technician. This training is completed upon graduation from the Navigational Aids Technician Course.

8.6.2 General.

8.6.2.1 Admin Notes. None.

8.6.2.2 Prerequisite.

1. Graduate from the Marine Avionics ATT Course (CID: N23KJ22), NAS Pensacola, Fl.
2. Graduate from the Aviation Warfare Apprentice Training (AWAT) Course (CID: N23E2X2), NAS Pensacola, Fl.
3. Graduate from the Avionics Technician I Level Class A1 Course (CID: N23A952), NAS Pensacola, Fl.
4. Meet the 5952 requirement delineated in the MOS Manual (NAVMC 1200).

8.6.2.3 Stages. The following stages are included in the Core Introduction Phase:

PAR NO.	STAGE NAME	PAGE NUMBER
8.6.2	ACADEMICS (ACAD)	8-7
8.6.3	CYBER SECURITY WORKFORCE (CSWF)	8-9
8.6.4	MARINE AIR TRAFFIC CONTROL LANDING SYSTEM (MATCLS)	8-11

8.6.2 ACADEMIC (ACAD) STAGE.

8.6.2.1 Purpose. To train Marine ATC personnel in ground academic subjects needed to successfully complete Core, Mission and Core Plus training events.

8.6.2.2 General.

Prerequisite. None.

Admin Notes. None.

Crew Requirements. None.

ACAD-0570 1.0 * B (N) G

Goal. Discuss basic knowledge of the MMT.

Requirement. During a guided discussion:

1. Explain the historical background of the MMT
2. Define the mission of the MMT
3. Explain the functions of the MMT
4. Explain the organization of the MMT

Performance Standard. Demonstrate an understanding of the steps in the requirement. Instructor will question and mentor the trainee throughout the discussion.

Instructor. WTI.

Prerequisite. None.

References.

1. MCRP 3-20F.7, Marine Air Traffic Control Detachment Handbook
2. MMT TACSOP
3. MAWTS-1 Course Catalog

ACAD-0571 1.0 * B (N) G

Goal. Discuss tactical communications terms and procedures.

Requirement. During a guided discussion and given the references:

1. Describe the authentication process.
2. Define the term gingerbread.
3. Define the term chattermark.
4. Describe the seven beadwindow codes.
5. Understand lost communication procedures.
6. Define EMCON and explain the procedures.

Performance Standard. Demonstrate an understanding of the steps in the requirement. Instructor will question and mentor the trainee throughout the discussion.

Instructor. WTI.

Prerequisite. None.

References.

1. MCRP 3-40.3B, Radio Operator's Handbook
2. MMT TACSOP

ACAD-0573 1.0 * B (N) G

Goal. Discuss the MEU mission.

Requirement. Given the reference and during a guided discussion:

1. State the MEU(SOC) mission.
2. State the MEU(SOC) mission essential tasks (MET) and the output standards for each.
3. Describe the MEU(SOC) certification policy.

Performance Standard. Demonstrate an understanding of the steps in the requirement. Instructor will

question and mentor the trainee throughout the discussion.

Instructor. WTI.

Prerequisite. None.

Reference.

1. MCO 3120.9B, Policy for Marine Expeditionary Units and Marine Expeditionary Units (Special Operations Capable

ACAD-0574	2.0	*	B	(N)	G

Goal. Discuss forward arming and refueling point (FARP) operations.

Requirement. During a guided discussion:

1. Explain the three types of aviation ground support (AGS) FARPs and NATOPS ground separation criteria associated to each.
2. Explain aviation-delivered ground refueling (ADGR) operations.
3. Explain tactical bulk fuel dispensing system (TBFDS) operations.

Performance Standard. Demonstrate an understanding of the steps in the requirement. Instructor will question and mentor the trainee throughout the discussion.

Instructor. WTI.

Prerequisite. None.

References.

1. MMT TACSOP
2. NAVAIR 00-80T-109, Aircraft Refueling NATOPS Manual
3. ANTPP 3-22.5, RW TACSOP
4. ANTPP 3-22.3, KC-130 TACSOP
5. MAWTS-1 Course Catalog

8.6.3 CYBER SECURITY WORKFORCE (CSWF) STAGE.

8.6.3.1 Purpose. To provide entry-level skills in computing and networking that will be used in the performance of assigned duties within the Marine Air Command and Control System (MACCS).

8.6.3.2 General.

Admin Notes. The following events establish the foundational skills required to be successful in the cyber security workforce. This training is contained in the MATC Technician Common POI (CID: N23XSET), NAS Pensacola, FL.

Prerequisites.

1. Meet the 5952 requirements delineated in the MOS Manual.

Crew Requirements. None.

CSWF-1005	0	*	B	(N)	G

Goal. Provide cyberwarfare technical support and troubleshooting.

Requirement. Provide the references and appropriate equipment:

1. Install and configure hardware, software, and peripheral equipment.
2. Manage accounts, networks, and access to systems and equipment.
3. Monitor client-level computer system performance.

4. Diagnose and resolve operator reported system incidents.
5. Troubleshoot system hardware and software.
6. Implement disaster recovery continuity of operations plans.

Performance Standard. Pass an exam.

Instructor. FLCI.

Prerequisite. None.

References.

1. DoD 8570.01_, Information Assurance Workforce Improvement Program
2. SECNAVINST 5239.20_, DON Cyber IT and CSWF Management and Qualification
3. MCO 5239.20_, Department of the Navy Cyberspace Information Technology and Cybersecurity Workforce Management
4. National Initiative for Cybersecurity Careers and Studies (NICCS) website

CSWF-1006	0	*	B	(N)	G

Goal. Repair common cables.

Requirement. Provided the appropriate equipment repair:

1. Ethernet/RJ-45 cable.
2. BNC cable.
3. RF cable.
4. Data cable.

Performance Standard. Pass an exam.

Instructor. FLCI.

Prerequisite. None.

References.

1. Companion Guide 3rd Edition ISBN-13:978-1-58713-199-8
2. TIA/EIA-568-B.1-2001 ANSI/TIA/EIA-568-B.1-2001
3. Twisted pair cable test set 33-933NV Operator Manual 6510-00-5037
4. User's Manual for cable analyzer, DSP-4300/AN TM 10704B-OI/1
5. Fiber Optics Technician's Manual 3rd Edition
6. Understanding Fiber Optics 5th Edition ISBN 0-13-117429-0
7. Standard Maintenance Practices Miniature/Microminiature (2M) Electronic Assembly Repair Organizational/Intermediate/Depot Level TM 5895 45/1

8.6.4 MARINE AIR TRAFFIC CONTROL LANDING SYSTEM COURSE (MATCLS) STAGE

8.6.4.1 Purpose. To provide entry-level instruction to develop the basic skills necessary to configure and setup navigational aids equipment, conduct planned maintenance and limited technical inspections on assigned equipment. This training phase is complete upon graduation from the Marine Air Traffic Control Navigational Aids Technician Course, when the trainee has been designated with the MOS 5952, Marine Air Traffic Control Navigational Aids Technician.

8.6.4.2 General.

Admin Notes. MATC Navigational Aids Technician Course (CID: N235972) is located at Naval Air Technical Training Center Pensacola, FL.

Prerequisite.

4. EE172-GB-OMI-010, Operation and Maintenance Instructions, Indicator Control Unit, ID-2330/TRN-44

MATCLS-1210 0 * B (N) G

Goal. Perform corrective maintenance on the OE-258A/URN Antenna Group to the LRU.

Requirement. Given the references and an inoperative OE-258A/URN Antenna Group, complete the following steps:

1. Adhere to safety requirements.
2. Research applicable technical data pertaining to faulty equipment.
3. Read schematic diagrams.
4. Ensure proper handling of ESD components.
5. Set up test equipment.
6. Connect test equipment.
7. Measure basic circuit performance.
8. Trace signal paths.
9. Trace current/voltage paths.
10. Identify faulty subassembly(s).

Performance Standard. Pass an exam.

Prerequisite. None.

References.

1. 16-60AB-1302-1, AB-1302/URN TM Tactical Tower Model 73001
2. 16-70OE258/URN-1, Operation Instruction Installation Instructions Maintenance Instructions Organizational Level TACAN Antenna Group OE-258A/URN1
3. EE172-GA-OMI-010, TACAN Navigational System, AN/TRN-44A

MATCLS-1215 0 * B (N) G

Goal. Assemble the AN/TRN-44.

Requirement. As a member of a crew, given tools, the reference and an AN/TRN-44, assemble per the reference, complete the following steps.

1. Inventory.
2. Assemble scaffolding.
3. Raise antenna.
4. Verify guy line tension.

Performance Standard. Pass an exam.

Prerequisite. None.

Reference.

1. 16-60AB-1302-1, Tower Manual

MATCLS-1220	0	*	B	(N)	G

Goal. Disassemble the AN/TRN-44.

Requirement. As a member of a crew, given tools, the reference and an AN/TRN-44, disassemble per the reference, complete the following steps.

1. Lower the antenna.
2. Disassemble scaffolding.
3. Inventory.

Prerequisite. None.

Reference.

1. 16-30TRN47-1, Operational and Organizational Maintenance Instructions Tactical Air Navigation (TACAN) Set Model

8.7 CORE PHASE (2000).

8.7.1 Purpose. To develop Core Phase skill proficiency for 5952 personnel to be able to perform duties while assigned to the Navigational Aids section.

1. NavAids Chiefs will gain core skill proficiency in supervising and managing maintenance section operations to include TACAN systems operations and maintenance, and maintenance management. This training will provide the NavAids Chief the necessary skills to run a Navigational Aids section.

8.7.2 General.

8.7.2.1 Admin Notes.

1. Training in this phase does not preclude simultaneous training in the mission skill and core plus phases provided applicable prerequisites have been met.

2. Individual core skills are learned and mastered using a varied combination of written exams, scenarios and practical demonstrations of proficiency.

8.7.2.2 Stages. The following stages are included in the Core Phase:

PAR NO.	STAGE NAME	PAGE
8.7.3	MACCS MAINTENANCE COMMONS (MMCN)	8-14
8.7.4	ORIENTATION (ORNT)	8-21
8.7.5	MAINTENANCE MANAGEMENT (MMGT)	8-21
8.7.6	DEPLOYMENT (DEPL)	8-28
8.7.7	MARINE AIR TRAFFIC CONTROL MOBILE TEAM MEMBER (MMTM)	8-29
8.7.8	NAVIGATIONAL AIDS (NAV)	8-32
8.7.9	INTEGRATED AIR DEFENSE SYSTEM (IADS)	8-40

8.7.3 MACCS MAINTENANCE COMMON (MMCN) STAGE

8.7.3.1 Purpose. To provide entry-level skills that are common to all 5900 occupational field technicians that will be used in the performance of assigned duties within the Marine Air Command and Control System (MACCS).

8.7.3.2 General.

Prerequisite.

1. Meet the requirements delineated in the MOS Manual.

Admin Notes. The following events establish the foundational skills required to be successful in the cyber security workforce.

Crew Requirements. None

MMCN-2000 1.0 * B, R (N) L

Goal. Operate a common fill device.

Requirement. Given two loaded common fill devices and a zeroized cryptographic device, perform the following:

1. Describe the purpose of a common fill device.
2. Define the common fill device loading procedure.
3. Configure the common fill device.
4. Identify common fill device indicators and messages.
5. Transfer key material to Controlled Cryptographic Item (CCI) equipment.
6. Transfer cryptographic information from common fill device to common fill device.
7. Destroy superseded key material within the cryptographic fill device.

Performance Standard. With the aid of reference, load key material into appropriate COMSEC equipment using a fill device and destroy superseded key material without error.

Instructor. BI.

Prerequisite. None.

Reference.

1. EKMS-1_, Electronic Key Management System

MMCN-2001 1.0 * B, R (N) G

Goal. State the physical security requirements for classified areas.

Requirement. Given a tactical scenario and references, identify the following:

1. Purpose of a guard schedule.
2. Purpose of access control.
3. Purpose of the entry control point.
4. Perimeter barrier requirements.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

Reference.

1. MCO P5530.14_, Marine Corps Physical Security Program Manual

MMCN-2002 1.0 * B, R (N) G

Goal. Extract key material information from COMSEC callout.

Requirement. Given a COMSEC callout and references, perform the following:

1. State the purpose of the COMSEC callout.
2. Identify the five main pieces of key information:
 - a. Short Title.
 - b. Edition.
 - c. Segment.
 - d. Classification.
 - e. Supersession date.
3. Identify segment roll over dates and time.
4. Identify short titles applicable to specific implementations within the unit.

Performance Standard. With the aid of reference, state the purpose and identify the key information on the callout. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

References.

1. EKMS-1_, Electronic Key Management System
2. MCWP 3-40.3, MAGTF Communications System

MMCN-2003 1.0 * B, R (N) L

Goal. Create a classified area physical security diagram.

Requirement. Given a tactical scenario and references, create a diagram that includes the following:

1. Entry control point(s).
2. Perimeter barrier.
3. Communication lines.
4. Storage area locations.

Performance Standard. With the aid of reference, draw a diagram depicting the information listed in the requirement. Instructor will validate that the diagram supports the scenario. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. 2001.

References.

1. MCO P5530.14, Marine Corps Physical Security Program Manual
2. FM 5-34_, Engineer Field Data

MMCN-2004 1.0 1095 B, R, M (N) L

Goal. Operate the handheld GPS.

Requirement. Perform the following:

1. State the purpose of the handheld GPS.
2. State the characteristics of the handheld GPS.
3. Find current location (coordinates including elevation).
 - a. MGRS.
 - b. LAT/LONG.
 - c. UTM/UPS.
4. Plot a way point.
5. Given coordinates, navigate to a location.

Performance Standard. Given a handheld GPS, complete the requirements without error. Navigation part of requirement will be three points within a one mile radius within one hour.

Instructor. BI.

Prerequisite. None.

Reference.

1. TM 11-5820-1172-13, Defense Advanced GPS Receiver (DAGR), AN/PSN-13

MMCN-2005 1.0 365 B, R, M (N) L

Goal. Demonstrate an earth ground installation.

Requirement. Given a grounding kit and the reference:

1. Identify ground tolerances for equipment and personnel.
2. Identify methods of grounding.
3. Identify a method for improving a ground.
4. Identify proper location to test a ground.
5. Install an earth ground.
6. Create grounding pits.
7. Connect grounding braids/cables.
8. Test grounds with TMDE.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

Reference.

1. TM 9406-15, Ground Procedures Manual
2. MIL-STD-188-125
3. TM 5-690

MMCN-2006 2.0 1095 B, R, M (N) L

Goal. Develop an embarkation plan.

Requirement. Given the references and an operational scenario, perform the following:

1. State the purpose of an embarkation plan.
2. Produce an Equipment Density List (EDL).
3. Produce logistics documents as required.
4. Identify heavy equipment required to move EDL items.
5. Identify the modes of transportation required to move EDL items.

Performance Standard. With the aid of reference, complete the requirement and develop an embarkation plan to support the scenario. Minor corrections by the trainee are acceptable.

Instructor. BI.

Prerequisite. 2014.

References.

1. Applicable TM
2. Unit SOP

MMCN-2007 1.0 1095 B, R, M (N) G

Goal. Identify spectrum management procedures.

Requirement. Given the references and a scenario with operational requirements, perform the following:

1. Identify frequency requirements.
 - a. Identify submission timelines.
 - b. Identify data elements (Freq, Location, Power, Dates).

2. Identify Satellite Access requirements.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

References.

1. MCRP 3-40B, Tactical Level Logistics
2. MCO 2400.2, Marine Corps Management of the Radio Frequency Spectrum

MMCN-2008 4.0 1095 B, R, M (N) L

Goal. Construct and use a field expedient antenna.

Requirement. Given all required materials, construct field expedient antennas using wave propagation techniques by performing the following:

1. Determine frequency.
2. Determine distance and direction of distant station.
3. Determine antenna type and configuration.
4. Erect antenna using recommended construction techniques.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

References.

1. MCRP 3-40B, Tactical Level Logistics
2. MCRP 8-10B.11 Antenna Handbook
3. MCI 2515H Antenna Construction and Propagation of Radio Waves
4. USMC Field Antenna Handbook APK2.5
5. MCRP 8-10B.11 Antenna Handbook
6. Field Antenna Handbook 1999

MMCN-2009 2.0 * B, R (N) L

Goal. Complete a Bill of Material (BOM) request.

Requirement. Given Training Exercise and Employment Plan (TEEP) documents and reference, perform the following:

1. Collect requests from maintenance sections.
2. Consolidate required materials into a BOM request.
3. Verify the request is sufficient to support required operations and for the length of the exercise, validate the content to ensure that it meets sustained operational requirement.
4. Submit a BOM request to the instructor.

Performance Standard. With the aid of reference, perform the requirements. Minor corrections by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

References.

1. MCO P4400.150, Ships' Maintenance and Material Management Manual

MMCN-2010	2.0	*	B	(N)	L

Goal. Identify Cryptographic Controlled Item (CCI) devices organic to the section.

Requirement. Perform the Following:

1. Inventory all CCI on the SF-153.
2. State the purpose of each piece of equipment.

Performance Standard. With the aid of reference, complete the requirements, minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

References.

1. Technical Manual
2. CMR

MMCN-2011	1.0	*	B, R	(N)	L

Goal. Manage COMSEC/classified material.

Requirement. During a crew change over, perform the following:

1. Conduct classified material inventory.
2. Conduct CCI inventory.
3. Destroy superseded key material as required.

Performance Standard. With the aid of reference, conduct the inventories and destroy key materials without discrepancy.

Instructor. BI.

Prerequisite. None.

References.

1. EKMS-1_, Electronic Key Management System
2. SECNAVINST 5510, DON Information Security Program
3. Local SOP

MMCN-2012	1.0	1095	B, R, M	(N)	G

Goal. State the organizational destructive weather plan.

Requirement. Given the references, state the following:

1. When to shift from shore power to auxiliary power.
2. Equipment required to be packed and/or stored in order to prevent damage.
3. Locations systems and equipment are to be stored during inclement weather.
4. The precautions to take to prevent damage to equipment.
5. Location of destructive weather prevention materials.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by

the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

References.

1. OPNAVINST 3140.24, Adverse and Severe Weather Warnings
2. Unit SOP
3. NAVAIR 00-80T-114, NATOPS ATC Manual

MMCN-2013 1.0 * B (N) G

Goal. Describe the characteristics of unit T/E generators.

Requirement. Identify the following:

1. Frequency.
2. Voltage(s).
3. Load capacity.
4. Fuel consumption.
5. Phases.

Performance Standard. With the aid of reference, complete the requirements, minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

References.

1. Technical Manuals
2. <http://www.marcorsyscom.marines.mil/ProgramOffices/EPShome/MobileElectricPower.aspx>

MMCN-2014 1.0 * B, R (N) L

Goal. Produce an Equipment Density List (EDL).

Requirement. Given the references and a 30 day scenario, perform the following:

1. Define the purpose of an EDL.
2. Describe essential EDL contents.
3. Complete an EDL.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

References.

1. MCTP 13-10C Unit Embarkation Handbook
2. Local SOP
3. Applicable TM

8.7.4 ORIENTATION (ORNT) STAGE

8.7.4.1 Purpose. To provide an overview of local site layout, procedures, equipment, and emergency conditions.

8.7.4.2 General.

Prerequisite. None.

Admin Notes. None

Crew Requirements. None

ORNT-2031	1.0	*	B, R	(N)	G

Goal. Complete NAMP indoctrination training.

Requirement. Complete the following NAMP Indoctrination training:

1. NAMP Compliance auditing.
2. NAMDRP.
3. Tool Control.
4. Corrosion.
5. Tech Data Management.
6. METCAL.
7. Technical Directives.
8. Logs and Records.
9. Material Control.
10. AMMRL.
11. Data Analysis.
12. CDI Periodic

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

Reference.

1. COMNAVAIRFORINST 4790.2_, Naval Aviation Maintenance Program

8.7.5 MAINTENANCE MANAGEMENT (MMGT) STAGE

8.7.5.1 Purpose. To provide the technician with the basic skills necessary to perform basic and intermediate maintenance shop section functions.

8.7.5.2 General.

Admin Notes. None.

Prerequisite. None.

Crew Requirements. None.

MMGT-2061	1.0	*	B, R	(N)	L/S

Goal. Identify parts data.

Requirement. Given the reference, perform the following:

1. State sources that can be used to obtain parts data.

2. Research parts.
 - a. Part number.
 - b. Nomenclature.
 - c. NIIN.
3. Identify Source Maintenance and Recoverability (SMR) codes for system components and explain what level of maintenance is authorized.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

References.

1. NAVSUP P-488, COSAL Use and Maintenance Manual
2. FEDLOG
3. NAVSUP P-485, Navy Ashore Supply Procedures
4. NAVSUPINST 4423.29, Navy Uniform Source, Maintenance and Recoverability (SM&R) Codes
5. NAVSUP P-409 MILSTRIP/MILSTRAP DESKTOP GUIDE

MMGT-2064 1.0 * B, R (N) G

Goal. State the information contained in the allowance lists.

Requirement. State the information contained in the following:

1. Users Logistics Support Summary.
2. Table of Basic Allowance.
3. Marine Air Traffic Control and Landing Systems (MATCALs) equipment allowance list.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

References.

1. NAVAIR ATC-37-02, Users Logistics Support Summary
2. TM 3125-OI/1, TBA Manual
3. Fleet Marine Forces Air Traffic Control (FMFATC) Systems and Marine Air Traffic Control and Landing Systems (MATCALs) Equipment Allowance List
4. EL172-LQ-LSS-010

MMGT-2065 1.0 * B (N) L

Goal. Record equipment readiness using Aviation Management Supply and Readiness Reporting (AMSRR) system.

Requirement. Given user access and a work order, complete the following:

1. Create a maintenance discrepancy.
2. Create a supply discrepancy.
3. Input and update data to the required fields.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

Reference.

1. AMSRR Web 3.01 Software User Manual (SUM)

MMGT-2071 1.0 * B (N) G

Goal. Explain MATCD Supply Functions.

Requirement. Explain the following supply functions in accordance with the references:

1. Operation of the Navy Supply System (i.e. One Touch, SUADPS).
2. Functions of the Aviation Supply Departments (ASD, within a Marine Aviation Logistic Squadron (MALS)).
3. Federal Logistic Data (FEDLOG) operations in management of supply support.
4. Military Standard Requisitioning and Issue Procedures (MILSTRIP).
5. Discrepancy reporting through Joint Deficiency Reporting System (JDRS).
6. Supply Discrepancy Reports.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

References.

1. NAVSUP PUB P-485 VOL. I, II, III, Navy Ashore Supply Procedures
2. NAVSUP PUB P-719, Guide for the Assignment, Application and Use of Source, Maintenance, and Recoverability Codes
3. NAVSUP INSTR-4423.29, Navy Uniform Source, Maintenance, and Recoverability Codes
4. NAVSUP PUB P-409, MILSTRIP MILSTRAP Desk Guide
5. MCO P4400.177_, Marine Corps Aviation Supply Desktop Procedures with Continuous Process Improvement
6. SPCCINST 4441.170_, COSAL Use and Maintenance Manual

MMGT-2074 1.0 * B, R (N) G

Goal. Explain the information contained in the MATCALS system history and inventory record.

Requirement. Given a system's historical file and reference, explain the following:

1. Custody and maintenance history record.
2. Transfer and acceptance checklist.
3. Shortage records.
4. Inventory record.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

Reference.

1. COMNAVAIRFORINST 4790.2_, Naval Aviation Maintenance Program

MMGT-2075 1.0 * B, R (N) L

Goal. Initiate a Work Order.

Requirement. Given the reference, perform the following:

1. Open the appropriate VED.
2. Select the proper type of work order to initiate.
3. Select EOC in accordance (Only U/D are accessible).
4. Modify the appropriate assembly code if other than the default.
5. Enter serial number.
6. Fill in the remaining required fields and click save.
7. Save work order.
8. Respond to the print prompt accordingly.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

References.

1. OOMA Help Guide 5.22.
2. Applicable TM7. Save work order.

MMGT-2076 1.0 * B, R (N) L

Goal. Update a Work Order.

Requirement. Given the reference, perform the following:

1. Add/Edit a job status.
2. Add/Edit Worker/In Work Time including toolbox.
3. Order a consumable.
4. Order a repairable.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

References.

1. OOMA Help Guide 5.22.
2. Applicable TM

MMGT-2077 1.0 * B, R (N) L

Goal. Close a Work Order.

Requirement. Given the reference, perform the following:

1. On the Active Work Order Query list, choose Update and select Repair.
2. Select appropriate transaction code.
3. Select appropriate action code.

4. Enter appropriate data in fillable boxes.
5. Sign off on the corrected by box.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

References.

1. OOMA Help Guide 5.22.
2. Applicable TM

MMGT-2078 3.0 * B (N) L

Goal. Perform Critical Maintenance Inspection Requirements.

Requirement. Perform all published critical maintenance inspection requirements and document via in process inspection.

Performance Standard. Ensure all inspection requirements are met without error.

Instructor. BI.

Prerequisite. None.

References.

1. OOMA Help Guide 5.22.
2. Applicable TM

MMGT-2079 1.0 * B (N) G

Goal. Describe the purpose of inspections.

Requirement. Describe the following inspections:

1. Special.
2. Conditional.
3. One Time Inspections.
4. In-process and final inspection requirements.
5. Critical maintenance inspection requirements.

Performance Standard. Complete the requirements without error.

Instructor. BI.

Prerequisite. None.

References.

1. OOMA User Guide 5.22

MMGT-2080 1.0 * B, R (N) L

Goal. Run an AD HOC query.

Requirement. Given the reference, perform the following:

1. Open the Ad Hoc VED.
2. Select Open New Query
3. Select an Ad Hoc from files.
4. Input search criteria.
5. Run ad hoc.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

Reference.

1. OOMA User Guide 5.22

MMGT-2081 1.0 * B, R (N) L

Goal. Perform CDI Queue functions.

Requirement. Given a Work Order in the CDI Queue, perform the following:

1. Review the Job Status/Worker Hours/TD tab for accuracy and ensure all section are signed.
2. Review the Failed/Required tab to ensure all part orders have been completed.
3. Review the CDI/QAR In-process Inspections tab for accuracy and ensure all inspections are signed.
4. Run Check/Validate on the Basic Work Order Update tab to ensure all data and entries are correct.
5. Enter login information in the Inspected By block.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

Reference.

1. OOMA User Guide 5.22

MMGT-2082 1.0 * B, R (N) L

Goal. Open a Baseline Trouble Report (BTR).

Requirement. Given the reference, perform the following:

1. State the purpose of the BTR being submitted.
2. Verify the accuracy of all equipment data entered into the BTR.
3. Obtain BTR evaluation QA approval.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

Reference.

1. OOMA User Guide 5.22

MMGT-2083 1.0 * B, R (N) L

Goal. Order parts in OOMA/NALCOMIS.

Requirement. Perform the following:

1. Verify the correct WUC was selected.
2. Order a repairable part.
 - a. Select the faulty part information in Material Required screen.
 - b. Verify that the part information matches the tech manual, and the appropriate U/D/P indicator.
 - c. Electronically remove the failed part from the equipment.
 - d. Electronically install the new part into the equipment.
3. Order a consumable part.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

Reference.

1. OOMA User Guide 5.22

MMGT-2084 1.0 * B, R (N) L

Goal. Perform contingency processing.

Requirement. Perform the following:

1. State the purpose of contingency processing.
2. Document work order on green MAF.
3. Return green MAF to maintenance admin.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. BI

Prerequisite. 2075.

References.

1. OOMA User Guide 5.22
2. COMNAVAIRFORINST 4790.2_

MMGT-2085 1.0 * B, R (N) L

Goal. Describe auditing and monitoring techniques and procedures used by Quality Assurance

Requirement. Describe the processes involved in completing an audit.

1. Computerized Self Evaluation Checklist Database.
 - a. Quarterly update requirements including verifying MATCALs applicable questions.
 - b. Computerized Self Evaluation Checklist.
 - c. Input audit data.
 - d. Discrepancy reports.
2. Routing Forms.
3. Memorandums.

4. Spot Checks.

Performance Standard. With the aid of reference, complete the requirements.

Instructor. BI.

Prerequisite. None.

References.

1. COMNAVAIRFORINST 4790.2_
2. MATCALs Share Point
3. Local SOPs

MMGT-2086 1.0 * B, R (N) L

Goal. Perform PMS on a MATCALs system.

Requirement. Given the reference, a Work Center Workload Report, a MATCALs system, and required equipment, perform planned maintenance IAW with the current MRC deck.

1. Observe all safety requirements.
2. Complete all cards for the scheduled periodicity.
3. Document completion in accordance with local SOP.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

Reference.

1. 16-600_orm PMS on a MATCALs system.

8.7.6 DEPLOYMENT (DEPL) STAGE

8.7.6.1 Purpose. To provide the technician the necessary skills to be able to deploy a navigational aids maintenance section, to include training in understanding OPORDs, crew management, system configuration management, and proper emplacement procedures.

8.7.6.2 General.

Admin Notes. None.

Prerequisite. None.

Crew Requirements. None.

DEPL-2238 1.0 * B (N) G

Goal. State the required coordination between maintenance personnel and the ATC watch supervisors and METOC watch supervisor.

Requirement. Perform the following:

1. Describe procedures for an equipment outage.
2. Describe procedures for returning equipment to service.
3. Describe the purpose of a Notice to Airmen (NOTAM).

4. State the timeframe requirements for NOTAM.
5. State the purpose of a Commander's Critical Information Requirements (CCIR).

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

References.

1. NAVAIR 00-80T-114, NATOPS ATC Manual
2. Unit SOP

DEPL-2239 1.0 * B (N) G

Goal. State the purpose of a Flight Inspection.

Requirement. State the following:

1. Describe the purpose of an FAA flight inspection.
 - a. Commissioning.
 - b. Periodic.
 - c. Special.
 - d. Site-evaluation.
 - e. Surveillance.
2. Describe the role of each work center to include air traffic controllers during an FAA flight inspection.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

References.

1. NAVAIR 16-1-520, United States Flight Inspection Manual
2. NAVAIR 00-80T-114, NATOPS ATC Manual
3. FAAO 8200.1_, US Standard Flight Inspection Manual

8.7.7 MARINE AIR TRAFFIC CONTROL MOBILE TEAM MEMBER (MMTM) STAGE

8.7.7.1 Purpose. To teach the trainee their responsibilities in conducting MMT operations.

8.7.7.2 General.

Admin Notes. None.

Prerequisite. None.

Crew Requirements. None.

MMTM-2226 6.0 1095 B, R, M (N) L

Goal. Conduct MMT Assault Landing Zone (ALZ) Operations.

Requirement. Given the required equipment at a LZ or simulated LZ with a six-member MMT and the references, conduct the following during day and night conditions:

1. Establish and retrograde an airfield marking pattern (AMP)-1.
2. Establish and retrograde an AMP-2.
3. Establish and retrograde an AMP-3.

Performance Standard. Complete the requirement items IAW the references. Rapidly and accurately accomplish the requirement steps while serving in at least three of the six billets associated with the establishment of a C-130 ALZ. Panels or lights were properly aligned and securely fixed to the ground without error.

Instructor. BI.

Prerequisite. 0570, 0571, 0573, 0574.

External Syllabus Support. ATC Enlisted.

References.

1. MMT TACSOP
2. MAWTS-1 Course Catalog

MMTM-2227 4.0 1095 B, R, M (N) L

Goal. Conduct MMT Helicopter Landing Zone (HLZ) Operations.

Requirement. Given the required equipment at an HLZ or simulated HLZ and the references, conduct the following during day and night conditions:

1. Mark the HLZ utilizing Bullet Traps.
2. Mark the HLZ utilizing an Inverted Y.
3. Establish visual Initial Terminal Guidance (ITG) during night operations.

Performance Standard. Complete the requirement items IAW the references. Dimensions of the markings were accurate and the marking of the HLZ met criteria. ITG was established and easily identified from the air.

Instructor. BI.

Prerequisite. 0570, 0571, 0573, 0574.

External Syllabus Support. ATC Enlisted.

Reference.

1. MMT TACSOP

MMTM-2228 12.0 1095 B, R, M (N) L

Goal. Conduct MMT land navigation operations.

Requirement. Given the required equipment in a field environment with a six-member MMT and a list of five MGRS locations, complete a land navigation course.

Performance Standard. Complete the requirement items IAW the references. Accurately locate the MGRS locations while leading a MMT on a patrol.

Instructor. BI

Prerequisite. 2004.

External Syllabus Support. ATC Enlisted.

References.

1. MCWP 3-11.3: Scouting and Patrolling
2. MCRP 8-10B.8: Marine Troop Leader's Guide, Chapter 3: Fire Team

MMTM-2229 1.0 730 B, R, M (N) L

Goal. Program the RT-1694 for Automatic Link Establishment (ALE) operations.

Requirement. Given the reference and an RT-1694 program for ALE operations by completing the following:

1. Place RT is in ALE mode.
2. Place ALE Call.
3. Place an ALE Call to a Non-Programmed Net.
4. Place an ALE Group Call.
5. Program radio for 3G operation.
6. Program radio for 3G+ operation.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

External Syllabus Support. ATC Enlisted.

Reference.

1. TM 10515-0103-4100 AN/PRC 150(C) Advanced Tactical Radio Operators Manual

MMTM-2230 2.0 * B, R (N) L

Goal. Expeditionary power source maintenance familiarization.

Requirement. Given the reference, an expeditionary power system, and required equipment, perform the following:

1. Discuss field troubleshooting techniques.
2. Introduce field PMCS procedures.
3. Clean spark arrestor.
4. Change fuel filter.
5. Change oil filter.
6. Adjust output voltage and current.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

External Syllabus Support. ATC Enlisted.

Reference.

1. TM 9-6115-673-13&P, 2kW Military Tactical Generator Set MEP-531A

8.7.8 NAVIGATIONAL AIDS (NAV) STAGE

8.7.8.1 Purpose. Air Traffic Control Navigational Aids Technicians survey, site, and install air traffic control navigational aids systems; make periodic inspections and perform planned maintenance; tune, adjust, and align systems for proper operation; use proper safety procedures in system maintenance and operation; diagnose and isolate malfunctions to the fault, remove and replace the fault, and verify that the malfunction has been corrected; participate in and provide technical assistance during system flight inspections; maintain tools, support and test equipment; assist in maintaining the Central Technical Publications Library, assist in maintaining accountability of all parts of the system, and in requisitioning supplies. They process and pack system components for storage or shipment; train subordinates or less qualified personnel; maintain necessary records of maintenance and compile data for reports; assist ATC maintenance personnel in MOS 5951, MOS 5953, and MOS 5954.

8.7.8.2 General.

Admin Notes. None.

Prerequisite. None.

Crew Requirements. None.

NAV-2133	1.0	*	B	(N)	G

Goal. State the capabilities of the AN/TRN-44.

Requirement. Identify the following:

1. Azimuth.
2. ID.
3. DME.
4. Squitter.
5. Range.
6. Power out.
7. Remoting.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

Reference.

1. AE172-GA-OMI-010, TACAN Navigational System, AN/TRN-44A

NAV-2134	1.0	*	B	(N)	G

Goal. State the deployment considerations for the AN/TRN-44.

Requirement. Given a simulated AN/TRN-44 deployment scenario, perform the following:

1. Identify embarkation requirements.
2. Identify TACAN channel assignment.
3. Identify appropriate site selection criteria.
4. Identify personnel requirements.
5. Identify equipment support requirements.
 - a. Lift.
 - b. Environmental Control Unit.
 - c. Power.
 - d. Transport.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

Reference.

1. AE172-GA-OMI-010, TACAN Navigational System, AN/TRN-44A

NAV-2135 8.0 * B, R (N) L

Goal. Pack the AN/TRN-44.

Requirement. As a member of a crew, pack the AN/TRN-44 in accordance with the reference:

1. Identify personnel required.
2. Disassemble the AN/TRN-44.
3. Inventory equipment and materials
4. Pack the AN/TRN-44.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

Reference.

1. AE172-GA-OMI-010, TACAN Navigational System, AN/TRN-44A

NAV-2136 8.0 * B, R (N) L

Goal. Setup the AN/TRN-44.

Requirement. Given a crew, tools, the reference and an AN/TRN-44, supervise the following:

1. Identify personnel and safety requirements.
2. Unpack equipment from TACAN shelter.
3. Identify placement of antenna scaffolding in relation to shelter.
4. Erect scaffolding.
5. Hoist the antenna.
6. Cable the system.
7. Ground the system.

Performance Standard. With the aid of reference, complete the requirement without error. AN/TRN-44 must be erected to 3 levels within 5 hours.

Instructor. BI.

Prerequisite. None.

References.

1. AE172-GA-OMI-010, TACAN Navigational System, AN/TRN-44A
2. Local SOP

NAV-2137 2.0 * B, R (N) L

Goal. Perform post setup procedures on the AN/TRN-44.

Requirement. Given an AN/TRN-44 and all applicable technical manuals, demonstrate the following:

1. Apply power.
2. Verify no alarm condition.
3. Align to north.
4. Test appropriate channel.
5. Set station ID.

Performance Standard. With the aid of reference, complete the requirement without error.

Instructor. BI.

Prerequisite. 2136.

Reference.

1. AE172-GA-OMI-010, TACAN Navigational System, AN/TRN-44A

NAV-2138 5.0 730 B, R, M (N) L

Goal. Perform system alignments for the AN/TRN-44.

Requirement. Given an AN/TRN-44 system and applicable technical manuals, perform the following:
AN/URN-25:

1. AC power monitor card (1A1A15A1) alignment.
2. Antenna interface card (1A1A10) alignment.
3. Low voltage power supply (1A1A18PS1) alignment.
4. Trigger control card (1A1A11) alignment.
5. IPA/PA filament voltage adjustment.
6. IPA and PA bias alignment.
7. Low level modulator alignment.
8. High level modulator (1A2A11) alignment.
9. Emergency lower power alignment.
10. Ring alarm alignment.
11. Return system to an operational state C-10363.
12. Ring alarm adjustment.

Performance Standard. With the aid of reference, complete the requirement without error.

Instructor. BI.

Prerequisite. 2133.

Reference.

1. EE172-AB-OMP-010, Navigational Set, TACAN AN/URN-25; Operational and Maintenance Instructions

NAV-2139 4.0 * B, R (N) L

Goal. Perform replacement procedures to the LRU for the AN/TRN-44.

Requirement. Given an AN/TRN-44 system and applicable technical manuals, demonstrate the following:

1. Remove and replace AN/URN-25 select cards and modules.
2. Remove and replace OQ-327 select cards and modules.
3. Remove and replace AS-3184 select cards and modules.

4. Return system to an operational status.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable. Trainee must replace one LRU.

Instructor. BI.

Prerequisite. None.

References.

1. AE172-GA-OMI-010, TACAN Navigational System, AN/TRN-44A
2. EE172-AB-OMP-010, Navigational Set, TACAN AN/URN-25; Operational and Maintenance Instructions
3. 16-70OE258/URN-1, Operation Instruction Installation Instructions Maintenance Instructions

NAV-2140 1.0 * B (N) G

Goal. State the capabilities of the AN/TRN-47.

Requirement. Identify the following:

1. Azimuth.
2. ID.
3. DME.
4. Squitter.
5. Range.
6. Power out.
7. Remote.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

Reference.

1. 16-30TRN47-1, Operational and Organizational Maintenance Instructions

NAV-2141 1.0 * B, R (N) G

Goal. State the deployment considerations for the AN/TRN-47.

Requirement. Given a simulated AN/TRN-47 deployment scenario, perform the following tasks:

1. Discuss embarkation requirements.
2. Discuss TACAN channel assignment.
3. Discuss appropriate site selection criteria.
4. Discuss personnel requirements.
5. Discuss power requirements.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

Reference.

1. 16-30TRN47-1, Operational and Organizational Maintenance Instructions

NAV-2142 1.0 * B, R (N) L

Goal. Setup the AN/TRN-47.

Requirement. With the aid of reference and one other Marine, and tools, setup AN/TRN-47, complete the following steps:

1. Setup the tripod.
2. Emplace the antenna.
3. Cable the system.
4. Ground the system.
5. Setup the system for AC power.
6. Setup the system for DC power.

Performance Standard. With the aid of reference, complete the requirements within 30 minutes. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

Reference.

1. 16-30TRN47-1, Operational and Organizational Maintenance Instructions

NAV-2143 1.0 1095 B, R, M (N) L

Goal. Perform post setup procedures on the AN/TRN-47.

Requirement. Given an AN/TRN-47 and all applicable technical manuals, demonstrate the following:

1. Apply power.
2. Verify no alarm condition.
3. Align to north.
4. Test appropriate channel.
5. Set station ID.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. 2142.

Reference.

1. 16-30TRN47-1, Operational and Organizational Maintenance Instructions

NAV-2144 1.0 1095 B, R (N) L/S

Goal. Troubleshoot the AN/TRN-47.

Requirement. Given the reference, tools, TMDE, and an AN/TRN-47 with a fault complete the following:

1. Perform operational check.
2. Identify symptoms of a fault within the system.
3. Troubleshoot fault to the lowest replaceable unit.

4. Perform corrective maintenance in order to bring the Navaid to an operational state or notify the proper authority if the fault cannot be corrected within 30 minutes.
5. Document as required.

Performance Standard. With the aid of reference, perform the requirement to a proficient level within 30 minutes (correct, efficient and skillful execution of tasks without hesitation requiring minimal input from the instructor). Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

Reference.

1. 16-30TRN47-1, Operational and Organizational Maintenance Instructions

NAV-2145 4.0 * B, R (N) L

Goal. Perform replacement procedures to the LRU for the AN/TRN-47.

Requirement. Given an AN/TRN-47 system and applicable technical manuals, demonstrate the following:

1. Identify all tools required for replacement procedures.
2. Perform replacement.
3. Return system to an operational status.

Performance Standard. With the aid of reference, complete the requirement without error. Trainee must replace one LRU from each subsystem in requirement 1 and replace all systems in requirement 2.

Instructor. BI.

Prerequisite. None.

Reference.

1. 16-30TRN47-1, Operational and Organizational Maintenance Instructions

NAV-2146 4.0 730 B, R, M (N) L

Goal. Perform system alignments for the AN/TRN-47.

Requirement. Given an AN/TRN-47 and applicable technical manual, discuss and demonstrate the following:

1. Peak power adjustment.
2. Peak power alarm adjustment.
3. Reply delay alarm adjustment.
4. 1350 Hz oscillator adjustment.
5. Squitter rate and pulse rate adjustment.
6. YIG tuning adjustment.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. 2140.

Reference.

1. 16-30TRN47-1, Operational and Organizational Maintenance Instructions

NAV-2147 1.0 * B (N) G

Goal. State the capabilities of the AN/TRN-47V2.

Requirement. Identify the following:

1. Azimuth.
2. ID.
3. DME.
4. Squitter.
5. Range.
6. Power out.
7. Remoting.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. BI

Prerequisite. None.

Reference.

1. 16-30TRN47-2, Operational and Organizational Maint Instructions

NAV-2148 1.0 * B (N) G

Goal. State the deployment considerations for the AN/TRN-47V2.

Requirement. Given a simulated AN/TRN-47V2 deployment scenario, perform the following:

1. Identify embarkation requirements.
2. Identify TACAN channel assignment.
3. Identify appropriate site selection criteria.
4. Identify personnel requirements.
5. Identify equipment support requirements.
 - a. Lift.
 - b. Environmental Control Unit.
 - c. Power.
 - d. Transport.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. BI

Prerequisite. None.

Reference.

1. 16-30TRN47-2, Operational and Organizational Maint Instructions

NAV-2149 8.0 * B, R (N) L

Goal. Pack the AN/TRN-47V2.

Requirement. As a member of a crew, pack the AN/TRN-47V2 in accordance with the reference:

- 1.. Identify personnel required.
2. Disassemble the AN/TRN-47V2.
3. Inventory equipment and materials
4. Pack the AN/TRN-47V2.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. BI

Prerequisite. None.

Reference.

1. 16-30TRN47-2, Operational and Organizational Maint Instructions

NAV-2150 8.0 * B, R (N) L

Goal. Setup the AN/TRN-47V2.

Requirement. Given a crew, tools, the reference and an AN/TRN-47V2, supervise the following:

1. Identify personnel and safety requirements.
2. Unpack equipment from TACAN trailer.
3. Identify placement of antenna mast in relation to trailer.
4. Erect antenna.
5. Cable the system.
6. Ground the system.

Performance Standard. With the aid of reference, complete the requirement without error. AN/TRN-47V2 must be erected to 3 levels within 2 hours.

Instructor. BI

Prerequisite. None.

Reference.

1. 16-30TRN47-2, Operational and Organizational Maint Instructions

NAV-2151 2.0 * B, R (N) L

Goal. Perform post setup procedures on the AN/TRN-47V2.

Requirement. Given an AN/TRN-47V2 and all applicable technical manuals, demonstrate the following:

1. Apply power.
2. Verify no alarm condition.
3. Verify north alignment.
4. Test appropriate channel.
5. Set station ID.

Performance Standard. With the aid of reference, complete the requirement without error.

Instructor. BI

Prerequisite. 2150

Reference.

1. 16-30TRN47-2, Operational and Organizational Maint Instructions

NAV-2152	1.0	1095	B, R	(N)	L/S

Goal. Troubleshoot the AN/TRN-47V2.

Requirement. Given the reference, tools, TMDE, and an AN/TRN-47V2 with a fault complete the following:

1. Perform operational check.
2. Identify symptoms of a fault within the system.
3. Troubleshoot fault to the lowest replaceable unit.
4. Perform corrective maintenance in order to bring the Navaid to an operational state or notify the proper authority if the fault cannot be corrected within 30 minutes.
5. Document as required.

Performance Standard. With the aid of reference, perform the requirement to a proficient level within 30 minutes (correct, efficient and skillful execution of tasks without hesitation requiring minimal input from the instructor). Minor errors corrected by the trainee are acceptable.

Instructor. BI

Prerequisite. None.

Reference.

1. 16-30TRN47-2, Operational and Organizational Maint Instructions

NAV-2153	4.0	*	B, R	(N)	L

Goal. Perform replacement procedures to the LRU for the AN/TRN-47V2.

Requirement. Given an AN/TRN-47V2 system and applicable technical manuals, demonstrate the following:

1. Identify all tools required for replacement procedures.
2. Perform replacement.
3. Return system to an operational status.

Performance Standard. With the aid of reference, complete the requirement without error.

Instructor. BI

Prerequisite. None.

Reference.

1. 16-30TRN47-2, Operational and Organizational Maint Instructions

8.7.9 INTEGRATED AIR DEFENSE SYSTEM (IADS) STAGE

8.7.9.1 Purpose. Instruct trainee on the Base Defense Zone.

8.7.9.2 General.

Prerequisite. None.

Admin Notes. None.

Crew Requirements. None.

IADS-2091 1.0 365 B, R, M (N) G

Goal. State the types of Weapons Engagement Zone (WEZ).

Requirement.

1. Identify a WEZ.
2. Identify a Fighter Engagement Zone (FEZ).
3. Identify a Missile Engagement Zone (MEZ).
4. Identify a Joint Engagement Zone (JEZ).
5. Identify a Short Range Air Defense Engagement Zone (SHORADEZ).
6. Identify a Base Defense Zone (BDZ).

Performance Standard. Without the aid of reference, complete the requirement.

Instructor. BI.

Prerequisite. None.

References.

1. MCRP 3-20F.8 Low Altitude Air Defense Battalion Handbook
2. MCRP 8-10B.11 Antenna Handbook
3. MCRP 3-30B.3 Multi-Service Tactics, Techniques, and Procedures for Tactical Radios
4. MCTP 3-20F Control of Aircraft and Missiles
5. MCWP 3-25.8 Marine Air Traffic Control Detachment Handbook
6. MCTP 3-20C Anti-Air Warfare
7. MCWP 3-30 MAGTF Command and Control
8. MCTP-30 Information Management
9. MCRP 3-30B.2 MAGTF Communications Systems
10. MCTP 10-10B Multi-Service Tactics, Techniques, and Procedures for an Integrated Air Defense System (IADS)
11. CJCSM 6120.01 Joint Multi TDL Operating Procedures

IADS-2092 1.0 365 B, R, M (N) G

Goal. State the role of Marine Air Traffic Control Detachments in a BDZ.

Requirement. State the role of Marine Air Traffic Control Detachments in a BDZ:

1. Identify key agencies in a BDZ.
2. Identify key personnel in a BDZ.
3. State the required elements of a BDZ.
4. Identify key Information Exchange Requirements in a BDZ (LAAD/MWSS).
5. Describe a Cartesian Grid Coordinate and its role in a BDZ.
6. Identify equipment necessary for integration of BDZ agencies.

Performance Standard. Without the aid of reference, complete the requirement.

Instructor. BI.

Prerequisite. 2092.

References.

1. MCRP 3-20F.8 Low Altitude Air Defense Battalion Handbook
2. MCRP 8-10B.11 Antenna Handbook
3. MCRP 3-30B.3 Multi-Service Tactics, Techniques, and Procedures for Tactical Radios
4. MCTP 3-20F Control of Aircraft and Missiles
5. MCWP 3-25.8 Marine Air Traffic Control Detachment Handbook

8.8 MISSION PHASE (3000)

8.8.1 Purpose. To provide the requisite advanced skills and working knowledge to support the Mission Essential Tasks of the Marine Air Traffic Control Detachment.

8.8.2 General.

8.8.2.1 Admin Notes.

8.8.2.2 Prerequisite. None.

1. Training in this phase does not preclude simultaneous training in Core and Core Plus phases.
2. Individual Core Phase skills are learned and mastered using a varied combination of written exams, scenarios and practical demonstrations of proficiency.
3. If crew members are required to assist in the conduct of an event, the crew shall be core capable in the role they will play, as applicable. Training will be executed as individual training with appropriate assistance at the crew level as needed and as dictated by the conditions listed for each event. Crew member assistance must be restricted to those actions required to support or facilitate individual training so as not to detract from the individual properly demonstrating the event performance standard.
4. Academic Training. Academic training will be conducted prior to and concurrently with required events. An academic training event, once completed, can be credited as a prerequisite for follow-on training events.
5. Refresher Training. Refresher training is required once an individual has been absent from a technician billet for 36 months or longer. Upon return, the individual will complete R-coded events in the Attain table; else the technician will maintain proficiency by completing the R-coded events in the Maintain table.

8.9.2.3 Stages. The following stages are included in the Mission Phase of training.

PAR NO.	STAGE NAME	PAGE NUMBER
8.8.3	MACCS MAINTENANCE COMMON (MMCN)	8-42
8.8.4	MAINTENANCE MANAGEMENT (MMGT)	8-44
8.8.5	MARINE AIR TRAFFIC CONTROL MOBILE TEAM MEMBER (MMTM)	8-45
8.8.6	NAVIGATIONAL AIDS (NAV)	8-46
8.8.7	INTEGRATED AIR DEFENSE SYSTEM (IADS)	8-49

8.8.3 MACCS MAINTENANCE COMMON (MMCN) STAGE

8.8.3.1 Purpose. To provide Mission Phase skills that are common to all 5900 occupational field technicians that will be used in the performance of assigned duties within the Marine Air Command and Control System (MACCS).

8.8.3.2 General.

Prerequisite.

1. Meet the requirements delineated in the MOS Manual.

Admin Notes. None.

Crew Requirements. None.

MMCN-3030 8.0 1095 B, R, M (N) L

Goal. Deploy a MACCS capability.

Requirement. Given an operational requirement and commander's guidance, conduct the following:

1. Review operational requirements and develop an EDL.
2. Coordinate for support equipment as required.
3. Verify and complete Bill of Materials.
4. Establish float requirements as required.
5. Conduct inspections on listed equipment.
6. Supervise pack-up and securing of equipment and validate EDL accuracy.
7. Create a packing list.
8. Ensure correct placement of placard/label the equipment for embark.
9. Ensure correct execution of the load plan for equipment handling and safety.
10. Ensure maintenance crews are formed and prepared for deployment.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. SI.

Prerequisite. 2006, 2007, 2009, 2014.

References.

1. MCO 3120.6_, Standard Embarkation Management System
2. Applicable TMs/Ums

MMCN-3031 8.0 1095 B, R, M (N) L

Goal. Conduct a site survey.

Requirement. Given a scenario, applicable references, a TO/E and operational tasking, determine an appropriate site for system emplacement by performing the following:

1. Use planning tools to determine terrain masking and line of sight connectivity.
2. Determine a primary and secondary site location.
3. Identify obstructions and hazards.
4. Determine tactical orientation and equipment emplacement.
 - a. Ensure emitters are emplaced IAW Hazardous Electronic Radiation to Fuels (HERF) regulations.
 - b. Ensure emitters are emplaced IAW Hazardous Electronic Radiation to Ordinance (HERO) regulations.
 - c. Ensure emitters are emplaced IAW Hazardous Electronic Radiation to Personnel (HERP) regulations.
 - d. Ensure emitters are emplaced to support working area.
5. Identify the placement for equipment.
6. Identify the placement for antennas.
7. Identify required internal / external equipment requirements.
8. Determine communications obstacles.
8. Determine system grounding requirements.
9. Identify utility requirements to include power and fuel requirements.
10. Describe environmental considerations.
11. Determine protection from the elements.
11. Determine terrain requirements / masking.
12. Determine operational footprint.
13. Design a site layout and submit to the instructor.
14. Develop a brief that addresses all event requirement items.

Performance Standard. With the aid of reference, complete the requirements, minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

References.

1. Technical Manuals
2. Operational Order
3. CMR
4. MCWP 3-25.4
5. MCWP 5-1
6. MCO 5104.2
7. MCO 5104.3B

MMCN-3032 2.0 * B (N) L

Goal. Fill the DAGR with the appropriate crypto.

Requirement. Perform the following:

1. Identify the proper crypto load.
2. Load crypto into DAGR.
3. Verify crypto load.

Performance Standard. With the aid of reference, perform the requirements. Minor corrections by the trainee are acceptable.

Instructor. BI.

Prerequisite. 2000.

Reference.

1. TM 11-5820-1172-13, Defense Advanced GPS Receiver (DAGR), AN/PSN-13

8.8.4 MAINTENANCE MANAGEMENT (MMGT) STAGE

8.8.4.1 Purpose. To instruct the trainee in the management of maintenance tasking's in support of the Mission Essential Tasks (METs).

8.8.4.2 General.

Admin Notes. None.

Prerequisite. None.

Crew Requirements. None.

MMGT-3011 1.0 365 B, R, M (N) L

Goal. Pass CDI Periodic Evaluation IAW CSEC.

Requirement.

1. Follow all safety precautions.
2. Document in-process inspection.
3. Perform CDI Queue functions.

Performance Standard. With the aid of reference, complete the requirements.

Instructor. SI.

Prerequisite. None.

References.

1. COMNAVAIRFORINST 4790.2_
2. Local SOPs

8.8.5 MARINE AIR TRAFFIC CONTROL MOBILE TEAM MEMBER (MMTM) STAGE

8.8.5.1 Purpose. To instruct the trainee on performing as an MMT member for ALZ and FARP operations.

8.8.5.2 General.

Admin Notes. Designation as a MMT leader is not required for MOS 5952 to perform event 3034, this event is for exposure to the MMT Leader position responsibilities only.

Prerequisite. None.

Crew Requirements. None.

MMTM-3034 2.0 1095 B, R, M (N) L

Goal. Perform as a MMT Leader during ALZ operations.

Requirement. During an operation or training exercise, conduct the following:

1. Effectively execute movement to objective.
2. Conduct hasty LZ assessment to ensure required criteria exists.
3. Ensure LZ markings are accurately and rapidly established.
4. Ensure accurate establishment of NAVAIDS.
5. Ensure the effective establishment of the control point.
6. Ensure C2 communications are established and maintained.
7. Effect coordination with adjacent units.
8. Ensure communications with aircraft are established and maintained.
9. Ensure the LZ is sanitized and secure.
10. Ensure that LZ marking repair is accomplished as required.
11. Ensure rapid retrograde of the LZ.
12. Ensure LZ marking repair is accomplished, as required.
13. Ensure the team maintains a tactical posture with regard to security, noise, and light discipline.

Performance Standard. Complete the requirement items IAW the reference. Requirements were thoroughly accomplished in support of the operational requirements.

Instructor. MMTI.

Prerequisite. 0570, 0571, 0573, 0574, 2004, 2226, 2228, 2229, 2230.

Reference.

1. MMT TACSOP

MMTM-3035 2.0 1095 B, R, M (N) L

Goal. Perform as a MMT Member during FARP operations.

Requirement. During an operation or training exercise, conduct the following:

1. Effectively execute movement to objective.
2. Establish and maintain integration with the FARP OIC and/or aircraft commander.
3. Ensure C2 communications are established and maintained.

4. Effect coordination with adjacent units.
5. Ensure communications with aircraft are established and maintained.
6. Ensure accurate establishment of NAVAIDS, as applicable.

Performance Standard. Complete the requirement items proficiently, IAW the reference and with minimal assistance from a qualified MMT Leader. Requirements were accomplished thoroughly and in support of operational requirements.

Instructor. MMTI.

Prerequisite. 0570, 0571, 0573, 0574, 2004, 2226, 2228, 2229, 2230.

External Syllabus Support. FARP

Reference.

1. MMT TACSOP

8.8.6 NAVIGATIONAL AIDS (NAV) STAGE

8.8.6.1 Purpose. Air Traffic Control Navigational Aids Technicians survey, site, and install air traffic control navigational aids systems; make periodic inspections and perform planned maintenance; tune, adjust, and align systems for proper operation; use proper safety procedures in system maintenance and operation; diagnose and isolate malfunctions to the fault, remove and replace the fault, and verify that the malfunction has been corrected; participate in and provide technical assistance during system flight inspections; maintain tools, support and test equipment; assist in maintaining the Central Technical Publications Library, assist in maintaining accountability of all parts of the system, and in requisitioning supplies. They process and pack system components for storage or shipment; train subordinates or less qualified personnel; maintain necessary records of maintenance and compile data for reports; assist ATC maintenance personnel in MOS 5951, MOS 5953, and MOS 5954.

8.8.6.2 General.

Admin Notes. None.

Prerequisite. None.

Crew Requirements. None.

NAV-3056	40.0	1095	B, R, M	(N)	L

Goal. Deploy the AN/TRN-44.

Requirement. Given a live or simulated TACAN deployment scenario, accomplish the following:

1. Pack up procedures.
2. Identify support requirements.
3. Determine setup location.
4. Unpack procedures.
5. Inventory all equipment.
6. Setup procedures.
7. Perform post setup procedures on the AN/TRN-44.
8. Perform flight checks as required.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. SI.

Prerequisite. 2133, 2134, 2135, 2136, 2137, 3059.

References.

1. AE172-GA-OMI-010, TACAN Navigational System, AN/TRN-44A
2. COMNAVAIRFORINST 4790.2_, Naval Aviation Maintenance Program
3. MCO P4400.150_, Consumer Level Supply Policy Manual
4. MCRP 3-40B, Tactical Level Logistics
5. MCO 2400.2, Marine Corps Management of the Radio Frequency Spectrum

NAV-3057 8.0 730 B, R, M (N) L

Goal. Provide navigational services as a member of a crew.

Requirement. During operations:

1. Verify site specific parameters.
2. Perform system adjustments in support of operational requirements.
3. Perform physical and system safety checks prior to assuming a crew position.
4. Review crew changeover notes.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. SI.

Prerequisite. None.

References.

1. AE172-GA-OMI-010, TACAN Navigational System, AN/TRN-44A
2. COMNAVAIRFORINST 4790.2_, Naval Aviation Maintenance Program
3. MCO P4400.150_, Consumer Level Supply Policy Manual
4. MCRP 3-40B, Tactical Level Logistics
5. MCO 2400.2, Marine Corps Management of the Radio Frequency Spectrum
6. 16-30TRN47-1, Operational and Organizational Maintenance Instructions

NAV-3058 4.0 * B, R (N) L

Goal. Deploy the AN/TRN-47.

Requirement. Given a live or simulated TACAN deployment scenario, accomplish the following:

1. Pack up procedures.
2. Identify support requirements.
3. Determine setup location.
4. Unpack procedures.
5. Inventory all equipment.
6. Setup procedures.
7. Perform post setup procedures on the AN/TRN-47.
8. Perform flight checks as required.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. SI.

Prerequisite. 2141, 2142, 2143, 2145, 2146, 3060.

Reference.

1. 16-30TRN47-1, Operational and Organizational Maintenance Instructions

NAV-3059 1.0 * B, R (N) L/S

Goal. Perform north alignment adjustment as a part of the flight check on AN/TRN-44.

Requirement. Given a simulated TACAN deployment scenario, accomplish the following:

1. Communicate with aircraft.
2. Make adjustments in order to fine tune north alignment.

Performance Standard. Given a radio and an AN/TRN-44 TACAN system, conduct a flight check, without error. Aircraft communication can be simulated by the instructor.

Instructor. SI.

Prerequisite. 2136, 2137.

External Syllabus Support. Aircraft and crew (can be simulated by the instructor).

References.

1. FAAO 8200.1_, US Standard Flight Inspection Manual, US Standard Flight Inspection Manual
2. AE-172GA-OMI-010

NAV-3060 1.0 * B (N) L/S

Goal. Perform the north alignment adjustment as part of the flight check on AN/TRN-47.

Requirement. Given a simulated TACAN deployment scenario, accomplish the following:

1. Communicate with aircraft.
2. Make adjustments in order to fine tune north alignment.

Performance Standard. Given a radio and AN/TRN-47 TACAN set, conduct a flight check without error. Aircraft communication can be simulated by the instructor.

Instructor. SI.

Prerequisite. 2142, 2143.

References.

1. TM 10515-0109-4000 AN/PRC-117 Quick Ref Guide
2. FAAO 8200.1_
3. 16-30TRN-47-1

NAV-3061 40.0 1095 B, R, M (N) L

Goal. Deploy the AN/TRN-47V2.

Requirement. Given a live or simulated TACAN deployment scenario, accomplish the following:

1. Pack up procedures.
2. Identify support requirements.
3. Determine setup location.
4. Unpack procedures.
5. Inventory all equipment.
6. Setup procedures.
7. Perform post setup procedures on the AN/TRN-47.
8. Perform flight checks as required.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable. System must be erected and operation check within 2 hours of arrival at setup location.

Instructor. SI

Prerequisite. 2148

Reference.

1. 16-30TRN47-2, Operational and Organizational Maint Instructions

NAV-3062 1.0 * B (N) L/S

Goal. Perform the north alignment adjustment as part of the flight check on AN/TRN-47V2.

Requirement. Given a simulated TACAN deployment scenario, accomplish the following:

1. Communicate with aircraft.
2. Make adjustments in order to fine tune north alignment.

Performance Standard. Given a radio and AN/TRN-47V2 TACAN set, conduct a flight check without Error. Aircraft communication can be simulated by the instructor.

Instructor. SI

Prerequisite. None.

References.

1. TM 10515-0109-4000 AN/PRC-117 Quick Ref Guide
2. FAAO 8200.1
3. 16-30TRN47-2

8.8.7 INTEGRATED AIR DEFENSE SYSTEM (IADS) STAGE

8.8.7.1 Purpose. Instruct trainee to perform as a member of a Marine Air Traffic Control Detachments in a Base Defense Zone (BDZ).

8.8.7.2 General.

Prerequisite. None.

Admin Notes. None.

Crew Requirements. None.

IADS-3040 8.0 1095 B, R, M (N) L

Goal. Perform as a member of a Marine Air Traffic Control Detachments in a Base Defense Zone (BDZ).

Requirement.

1. Establish communication between key agencies in a BDZ.
2. Integrate key personnel within the BDZ.
3. Log key Information Exchanges between key agencies/personnel in a BDZ (LAAD/MWSS).
4. Coordinate with LAAD Section/Platoon Leader to gather details of their Cartesian Grid.
5. Provide a Cartesian Grid Coordinate on the Airport Surveillance Radar for LAAD Section/Platoon Leader.
6. Connect equipment necessary for integration of BDZ agencies.

Performance Standard. Without the aid of reference, complete the requirement.

Instructor. SI.

Prerequisite. 2092.

References.

1. MCRP 3-20F.8 Low Altitude Air Defense Battalion Handbook
2. MCRP 8-10B.11 Antenna Handbook
3. MCRP 3-30B.3 Multi-Service Tactics, Techniques, and Procedures for Tactical Radios
4. MCTP 3-20F Control of Aircraft and Missiles
5. MCWP 3-25.8 Marine Air Traffic Control Detachment Handbook

8.9 CORE PLUS PHASE (4000)

8.9.1 Purpose. To provide the requisite skills and working knowledge in areas that, while may have a low likelihood of occurrence or are theater-dependent, have value to the NAVAID Technician in support of the Marine ATC detachment.

8.9.2 General.

8.9.2.1 Admin Notes.

1. Training in this phase does not preclude simultaneous training in Core and Mission phases.
2. Individual Core Phase skills are learned and mastered using a varied combination of written exams, scenarios and practical demonstrations of proficiency.
3. If crew members are required to assist in the conduct of an event, the crew shall be core capable in the role they will play, as applicable. Training will be executed as individual training with appropriate assistance at the crew level as needed and as dictated by the conditions listed for each event. Crew member assistance must be restricted to those actions required to support or facilitate individual training so as not to detract from the individual properly demonstrating the event performance standard.
4. Academic training will be conducted prior to and concurrently with required events. An academic training event, once completed, can be credited as a prerequisite for follow-on training events.
5. Refresher training is required once an individual has been absent from a technician billet for 36 months or longer. Upon return, the individual will complete R-coded events in the Attain table; else the technician will maintain proficiency by completing the R-coded events in the Maintain table.

8.9.2.2 Prerequisite. None.

8.9.2.3 Stages. The following stages are included in the Mission Phase.

PAR NO.	STAGE NAME	PAGE NUMBER
8.9.3	MAINTENANCE MANAGEMENT (MMGT)	8-51
8.9.4	NAVIGATIONAL AIDS (NAV)	8-51

8.9.3 MAINTENANCE MANAGEMENT (MMGT) STAGE

8.9.3.1 Purpose. To provide the technician with the basic skills necessary to perform basic and intermediate maintenance shop section functions.

8.9.3.2 General.

Admin Notes. None.

Prerequisite. None.

Crew Requirements. None.

MMGT-4200 2.0 B (N) G

Goal. State the considerations of the Contingency Support Package (CSP).

Requirement. State the following:

1. The purpose of the CSP.
2. Who maintains the CSP.
3. How to pull the CSP for operations.
4. The CSP inventory process.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. 2071.

References.

1. MCTP 3-20A Aviation Logistics
2. Unit COSAL

8.9.4 NAVIGATIONAL AIDS (NAV) STAGE

8.9.4.1 Purpose. Air Traffic Control Navigational Aids Technicians survey, site, and install air traffic control navigational aids systems; make periodic inspections and perform planned maintenance; tune, adjust, and align systems for proper operation; use proper safety procedures in system maintenance and operation; diagnose and isolate malfunctions to the fault, remove and replace the fault, and verify that the malfunction has been corrected; participate in and provide technical assistance during system flight inspections; maintain tools, support and test equipment; assist in maintaining the Central Technical Publications Library, assist in maintaining accountability of all parts of the system, and in requisitioning supplies. They process and pack system components for storage or shipment; train subordinates or less qualified personnel; maintain necessary records of maintenance and compile data for reports; assist ATC maintenance personnel in MOS 5951, MOS 5953, and MOS 5954.

8.9.4.2 General.

Admin Notes. None.

Prerequisite. None.

Crew Requirements. None.

NAV-4229 4.0 * B (N) L

Goal. Perform system alignments for the ID-2330.

Requirement. Given an AN/TRN-44 system and applicable technical manuals, perform the following on the ID-2330:

1. Power supply adjustment.
2. Tone oscillator's adjustment.
3. Receiver adjustment.
4. 10 Hz Clock adjustment.

Performance Standard. With the aid of reference, complete the requirement without error.

Instructor. BI.

Prerequisite. None.

Reference.

1. EE172-AB-OMP-010, Navigational Set, TACAN AN/URN-25; Operational and Maint Instructions

NAV-4230 4.0 * B (N) L

Goal. Perform system alignments for the C8534/TRA-45.

Requirement. Given an AN/TRN-44 system and applicable technical manuals, perform the following on the C8534/TRA-45:

1. Power supply adjustment.
2. Receiver adjustments.
3. 7.4-kHz oscillator adjustment.
4. Decoder adjustments.

Performance Standard. With the aid of reference, complete the requirement without error.

Instructor. BI.

Prerequisite. None.

Reference.

1. EE172-AB-OMP-010, Navigational Set, TACAN AN/URN-25; Operational and Maintenance Instructions

NAV-4231 4.0 * B (N) L

Goal. Perform system alignments for the O-1882.

Requirement. Given an AN/TRN-44 system and applicable technical manuals, perform the following on the O-1882:

1. 5.75 VREF adjustment.
2. 1.265 VREF adjustment.
3. North trigger adjustment.
4. Auxiliary trigger adjustment.
5. Tone signal adjustment.
6. Radiated power test level adjustment.

Performance Standard. With the aid of reference, complete the requirement without error.

Instructor. BI.

Prerequisite. None.

Reference.

1. EE172-AB-OMP-010, Navigational Set, TACAN AN/URN-25; Operational and Maintenance Instructions

NAV-4237 3.0 * B, R (N) L

Goal. Configure AN/URN-25 for Emergency Operating Modes.

Requirement. Perform the following tasks:

1. Configure AN/URN-25 for IPA Only Mode of Operation.
2. Configure AN/URN-25 for PA Only Mode of Operation.
3. Configure AN/URN-25 for SSD Only Mode of Operation.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. SI.

Prerequisite. 2238, 2138.

Reference.

1. EE172-AB-OMP-010

8.10 MISSION PLUS PHASE (4500)

8.10.1 Purpose. **RESERVED FOR FUTURE USE.**

8.10.2 General.

8.10.2.1 Admin Notes.

8.10.2.2 Prerequisite. None.

8.11 INSTRUCTOR TRAINING PHASE (5000)

8.11.1 Purpose. To provide technicians the additional skills necessary to instruct, evaluate and approve event completions. Upon completion of the required training, an individual may be approved for instructor designation by the commanding officer.

8.11.2 General.

8.11.2.1 Admin Notes.

1. The MACCS instructor concept is a means to standardize all instructors across the MACCS in regards to the concepts of managing a WTPP, properly conducting training, performing evaluations, and recommending training plans.

2. There are different instructor designations (listed below). The intent is to train individuals with different levels and areas of experience to instruct personnel. Instructor experience is also gained while progressing through the different instructor designations.

a. Basic Instructor (BI)

b. Senior Instructor (SI)

c. The MAWTS-1 C3 Course catalog contains the training requirements for the above listed instructors. The catalog is located at the MAWTS-1 website,
<https://mceits.usmc.mil/sites/mawts1/C3%20WTI%20Resources/C3%20Course%20Catalog%2024%20Aug%202015.pdf>

d. The table below outlines the events that each instructor can train, evaluate, and approve or recommend for approval.

INSTRUCTOR	Event Training, Evaluation and Approval

BI	Core Phase events in which current and proficient.
SI	Core Phase, Mission Phase, and Core Plus Phase events in which current and proficient.

8.11.2.2 Prerequisite. None.

8.11.3 INSTRUCTOR UNDER TRAINING (IUT) STAGE

8.11.3.1 Purpose. To train Navigational Aids Technicians in the fundamentals of instructing and training processes.

8.11.3.2 General.

Admin Notes. None.

Prerequisite. None.

Crew Requirements. None.

IUT-5000 2.0 * B (N) L

Goal. Introduce principals of instruction.

Requirement. Given the reference, the BIUT will demonstrate the following with the assistance of a unit instructor:

1. Adult learning principles.
 - a. Pedagogy to andragogy.
 - b. Characteristics of the adult learner.
 - c. Learning styles.
 - d. How adults learn.
 - e. Domains of learning.
 - f. Group dynamics.
 - g. Motivation.
 - h. Constructivist learning environments.
2. Introduce, discuss, and demonstrate instruction techniques.
3. Introduce, discuss, and demonstrate class management techniques.
 - a. How to select teaching resources to accommodate student learning styles.
 - b. How to properly organize the instructional environment for effective learning.

Performance Standard. With the aid of references, the BIUT shall demonstrate principles of instruction. During this session, the instructor shall discuss the event content and question the student throughout the training session to ensure understanding.

Instructor. BI.

Prerequisite. None.

References.

1. Adult Learning section, Systems Approach to Training Manual (2004)
2. NAVMC 3500.14
3. NAVMC 1553.1

IUT-5010 2.0 * B (N) G

Goal. Describe individual T&R requirements.

Requirement. Using the Aviation T&R Program Manual, discuss the purpose of each of the following

items with an instructor:

1. Training progression model.
2. Programs of Instruction.
 - a. Basic.
 - b. Refresher.
 - c. Conversion.
 - d. Series Conversion.
 - e. Transition.
 - f. Maintain.
3. T&R attain and maintain tables.
4. Syllabus notes.
5. T&R syllabus structure.
 - a. Phase.
 - b. Stage.
 - c. Event.
 - d. Skill.
 - e. Syllabus.
6. Event format.
 - a. Header.
 - (1) Event prefix - event code.
 - (2) Projected event duration.
 - (3) Proficiency period.
 - (4) Programs of instruction (POI).
 - (5) Event conditions.
 - (6) Device options.
 - (7) Device number.
 - (8) Device type.
 - b. Body.
 - (1) Goal.
 - (2) Requirement.
 - (3) Performance standard.
 - (4) Equipment.

Performance Standard. Without the aid of references and during a discussion session, the BIUT shall describe Individual T&R requirements. During this session, the instructor shall discuss the event content and question the student throughout the training session to ensure understanding.

Instructor. BI.

Prerequisite. None.

References.

1. NAVMC 3500.14
2. NAVMC 1553.1

IUT-5020 12.0 90 B, R, M (N) L

Goal. Conduct T&R instruction.

Requirement. The BIUT, under the supervision of an instructor, will conduct three periods of instruction on three different T&R events selected by the instructor and should include as many different methods of instruction as possible (lecture or academic, demonstration, and practical application). The event must be one the BIUT is current and proficient in. The BIUT will complete the following for each of the three events instructed:

1. Prepare to train the event.
 - a. Review a trainee's performance record to identify required training for the event selected.

- b. Ensure the student has met prerequisites for the event to be trained.
 - c. Gather the resources necessary to conduct the training (i.e., instructional materials, references, and equipment).
 - d. Conduct task analysis on each event to ensure all intended requirements and prerequisite skills, specified or implied, are trained IAW applicable references.
 - e. Schedule the training event (facilities and students).
 - f. Prepare an evaluation form for each student to be evaluated.
2. Conduct training on the event selected:
 - a. Ensure all training resources are properly staged/equipment if set up properly for training.
 - b. Instruct the student in a thorough manner so as to cover all requirements for the event.
 - c. Ensure continuous, objective assessment of the student's progress during training.
 3. Assess student performance:
 - a. Assess the student's performance to the performance standard.
 - b. Correct student deficiencies in a timely manner and provide the student feedback.
 - c. Complete the evaluation form on for each student trained.
 - d. Debrief student on the performance and provide corrective action.
 4. Route evaluation form as required.

Performance Standard. Complete the requirement items IAW the reference and ensure training is doctrinally and technically current. Instructor shall use the instructor evaluation form from the SAT User's Guide for each class and a mark of satisfactory must be achieved for each of the three classes.

Instructor. BI.

Prerequisite. 5000, 5010.

References.

1. NAVMC 3500.14, Ch 6
2. NAVMC 1553.1
3. MCO 1553.2B, Appendix O

IUT-5100	2.0	*	B	(N)	G

Goal. Describe the Aviation Training and Readiness (T&R) Program.

Requirement. Using the community T&R manual discuss the following with an instructor:

1. Describe the Weapons and Tactics Training Program (WTPP).
2. Define each element of the Core Model:
 - a. Mission statements.
 - b. Core Mission Essential Task List (METL).
 - c. Output standards.
 - d. Core Phase skills (How to attain and maintain).
 - e. Mission Phase skills (How to attain and maintain).
 - f. Combat Leadership.
3. Define each of the following elements of unit training:
 - a. Training Exercise Employment Plan (TEEP).
 - b. Core Model Minimum Requirements (CMMR).
 - c. Instructors.
 - d. Core Model Training Report (CMTR).
 - e. T&R manual connection to readiness reporting.
4. Define each of the following elements of training:
 - a. Certification.
 - b. Qualification.
 - c. Designation.
5. PERFORMANCE RECORD Explain how changes are made to the Program manual:
 - a. Explain T&R conference procedures.

- b. Explain correspondence change procedures.

Performance Standard. Complete the requirements IAW the reference. Instructor will question the SIUT to check for thorough understanding of the Aviation T&R Program.

Instructor. SI.

Prerequisite. None.

References.

1. NAVMC 3500.14
2. MCO 3500.109

IUT-5110	4.0	365	B, R, M	(N)	L

Goal. Conduct instructor evaluations.

Requirement. Using the instructor evaluation checklist from the SAT manual, conduct two evaluations on instructors of equal or lower designation.

1. Provide notification of evaluation to the instructor being evaluated.
2. Do not interfere with or disrupt the instruction while taking place.
3. Thoroughly document observed items on the checklist.
4. Ensure student evaluation form is filled out correctly and the appropriate debrief took place.
5. Debrief the instructor being evaluated on their preparation, instruction, evaluation, and documentation.
6. Have the evaluated instructor complete the instructor improvement plan section and sign.
7. File a copy of the completed evaluation form in both the evaluator's and evaluated instructor's performance record.

Performance Standard. Complete the requirements IAW the reference.

Instructor. SI.

Prerequisite. 5100.

References.

1. NAVMC 3500.14
2. Applicable community T&R Manual
3. MCO 1553.2B, Appendix O

IUT-5120	2.0	*	B	(N)	L

Goal. Perform T&R administration.

Requirement. Document training to include:

1. Performance records.
2. Ensure MSHARP is updated appropriately.
3. Assemble recommendation package for certifications, qualifications, and designations IAW T&R manual.

Performance Standard. Complete the requirement items IAW the references. Instructor will question the trainee to check for understanding of the administration process.

Instructor. SI.

Prerequisite. 5100, 5110.

References.

1. NAVMC 3500.14
2. Local WTTP SOP
3. <http://msharpsupport.com>

IUT-5130 2.0 * B (N) L

Goal. Develop a training plan.

Requirement. Given a deployment scenario develop a training plan to determine individual, and crew training needed to meet CMMR by completing the following:

1. Review Commander's training guidance.
2. Analyze the CMTR to determine training deficiencies and how to achieve CMMR.
3. Identify and schedule T&R training opportunities IAW the TEEP to achieve requirements.
4. Determine instructors required.
5. Determine equipment required.
6. Determine external support required.
7. Deliver a brief to the instructor that shows:
 - a. Crew manning and training requirements.
 - b. Current training status.
 - c. Identify the training deficiencies and resource shortfalls.
 - d. Explain the training plan to correct the training deficiencies.
 - e. Training plan meets commander's guidance.

Performance Standard. Complete the requirement items IAW the references and commander's training guidance. Training plan will ensure adequate time is allocated to include preparation, instruction, assessment, documentation, and remediation.

Instructor. SI.

Prerequisite. 5100, 5110, 5120.

References.

1. NAVMC 3500.14
2. Applicable Community T&R manuals

8.12 CERTIFICATIONS, QUALIFICATIONS, AND DESIGNATIONS (CQD) PHASE (6000)

8.12.1 Purpose. This phase provides community standardization for technician designations; combat leaders and instructor designations; and tracking of collateral duties assignments. This syllabus does not contain "one time" certification training requirements.

8.12.2 General.

8.12.2.1 Admin Notes.

1. This section enables units to document and track combat leaders, instructors, and technicians. All syllabus training and administration requirements must be complete prior to being designated. A designation is not effective until all administration is completed.

2. Only once an individual is qualified or designated in writing, the signed letter is filed in the IPR, and all administrative actions are completed, and the event code has been logged in M-SHARP shall the designation be effective.

8.12.2.2 Prerequisite. None.

8.12.2.3 Stages. The following stages are included in the Certifications, Qualifications, and Designations (CQD)

Phase of training:

PAR NO.	STAGE NAME	PAGE NUMBER
8.12.3	CERTIFICATION (CERT)	8-59
8.12.4	DESIGNATION (DESG)	8-60
8.12.5	SCHOOL CODES (SCHL)	8-62
8.12.6	CYBER SECURITY WORKFORCE (CSWF)	8-66

8.12.3 CERTIFICATIONS (CERT) STAGE

8.12.3.1 Purpose. To provide guidance on the certification process for the 5952 Navigational Aids technician.

8.12.3.2 General.

Admin Notes. Policies and rules for attaining and maintaining certifications are detailed in the Aviation T&R Program Manual and this Manual.

Prerequisite. None.

Crew Requirements. None.

CERT-6220 4.0 * B (N) L

Goal. CSWF Technical Support Specialist.

Requirement. Complete the prerequisites. Be recommended for certification and approved in writing by the commanding officer.

Performance Standard. Complete requirements in accordance with the reference.

Instructor. SI.

Prerequisite. 6040, 6041, 6042, 6044, 6045, 6046, 6047, 3001.

Reference.

1. DOD 8570.01_, Information Assurance Workforce Improvement Program

CERT-6221 4.0 * B (N) L

Goal. CSWF IT Specialist.

Requirement. Complete the prerequisites. Be recommended for certification and approved in writing by the commanding officer.

Performance Standard. Complete requirements in accordance with the reference.

Instructor. SI.

Prerequisite. 6040, 6042, 6043, 6044, 6045, 6046, 6047.

Reference.

1. DOD 8570.01_, Information Assurance Workforce Improvement Program

CERT-6222 4.0 * B (N) L

Goal. CSWF System Administrator.

Requirement. Complete the prerequisites. Be recommended for certification and approved in writing by the commanding officer.

Performance Standard. Complete requirements in accordance with the reference.

Instructor. SI.

Prerequisite. 6040, 6041, 6042, 6043, 6044, 6045, 6046, 6047.

Reference.

1. DOD 8570.01_, Information Assurance Workforce Improvement Program

8.12.4 DESIGNATION (DESG) STAGE.

8.12.4.1 Purpose. To provide for designation of combat leaders and instructors. Designations are command specific and expire when an individual transfers out of a command. In order to ensure proficiency is maintained, specific events throughout this syllabus have been R-coded. The gaining command shall review the IPR to ensure prerequisite R-coded events for a designation are current prior to approving that designation. If prerequisite R-coded events are delinquent, the individual shall update those events.

8.12.4.2 General.

Admin Notes. Policies and rules for attaining and maintaining designations are detailed in the Aviation T&R Program Manual and this Manual.

Prerequisite. None.

Crew Requirements. None.

DESG-6320	1.0	*	B	(N)	G

Goal. Basic Instructor (BI).

Requirement. Complete the prerequisites required for the designation.

Performance Standard. Be verified by a WTI and designated in writing by the designating official.

Prerequisite. 5000, 5010, 5020.

Reference.

1. NAVMC 3500.14_, Naval Aviation Program Manual

DESG-6321	1.0	*	B	(N)	G

Goal. Senior Instructor (SI).

Requirement. Complete the prerequisites required for the designation.

Performance Standard. Be verified by a WTI and designated in writing by the designating official.

Prerequisite. 5000, 5010, 5020, 5100, 5110, 5120, 5130, 6320.

Reference.

1. NAVMC 3500.14_

DESG-6322	1.0	*	B	(N)	G

Goal. Weapons Tactics Instructor (WTI).

Requirement. Be certified by MAWTS-1 as a WTI, designated by the commanding officer in writing.

Performance Standard. N/A.

Prerequisite. 6000.

Reference.

1. NAVMC 3500.14, Naval Aviation Program Manual

DESG-6322 1.0 * B (N) G

Goal. Formal Learning Center Instructor (FLCI)

Requirement. Complete the formal learning center's instructional requirements, designated by the commanding officer in writing.

Performance Standard. N/A

Prerequisite. 6096.

Reference.

1. NAVMC 3500.14, Naval Aviation Program Manual

DESG-6360 1.0 * B (N) G

Goal. Navigational Aids Chief.

Requirement. Complete the prerequisites required for the designation.

Performance Standard. Be verified by a WTI and designated in writing by the designating official.

Prerequisite. 2000, 2001, 2002, 2003, 2004, 2006, 2007, 2009, 2011, 2014, 2061, 2064, 2065, 2071, 2074, 2075, 2076, 2134, 2135, 2136, 2137, 2138, 2139, 2141, 2144, 2145, 2146, 3030, 3031, 3056, 3058, 3059, 3060, 6105, 8020

Reference.

1. NAVMC 3500.14, Naval Aviation Program Manual

DESG-6104 1.0 * B (N) G

Goal. Collateral Duty Inspector.

Requirement. Complete requirements for Fundamental and Maintenance Admin skillset and local required reading.

Performance Standard. Pass written exams and an oral interview administered by QA and be designated on OPNAV 4790/12.

Prerequisite. 2031, 2079, 2081, 2083, 2084, 3011, 6107.

Reference.

1. COMNAVAIRFORINST 4790.2_, Naval Aviation Maintenance Program

DESG-6105 1.0 * B (N) G

Goal. Collateral Duty Quality Assurance Representative.

Requirement. Complete requirements for Fundamental and Maintenance Admin skillset and local required reading.

Performance Standard. Pass written exams and an oral interview administered by QA and be designated on OPNAV 4790/12.

Prerequisite. 2031, 2078, 2079, 2080, 2081, 2082, 2083, 2084, 2085.

Reference.

1. COMNAVAIRFORINST 4790.2_, Naval Aviation Maintenance Program

DESG-6106 1.0 * B (N) G

Goal. Quality Assurance Representative.

Requirement. Complete requirements for Fundamental and Maintenance Admin skillset and local required reading.

Performance Standard. Pass written exams and an oral interview administered by QA and be designated on OPNAV 4790/12.

Prerequisite. 2031, 2078, 2079, 2080, 2081, 2082, 2083, 2084, 2085.

Reference.

1. COMNAVAIRFORINST 4790.2_, Naval Aviation Maintenance Program

8.12.5 SCHOOL CODES (SCHL) STAGE

8.12.5.1 Purpose. To provide tracking codes for formal schools that are required for the MOS training of the MATC Navigational Aids Technician.

8.12.5.2 General.

Admin Notes. None.

Prerequisite. None.

Crew Requirements. None.

COURSE NAME	LOCATION	CID/CIN	T&R CODE
Weapons and Tactics Instructor	MCAS Yuma, AZ	M14P2A1	SCHL-6000
Link 16 Basics Course JT-100	Joint Knowledge Online (JKO)	N/A	SCHL-6020
Intro to Multi TDL Network JT-101	Fort Bragg, NC	N/A	SCHL-6021
Multi-TDL Advanced Joint Interoperability Course (MAJIC) JT-102	Fort Bragg, NC	A05L6Z1	SCHL-6022
Link 16 Joint Interoperability Course US-109	Joint Knowledge Online (JKO)	N/A	SCHL-6023
Work Center Supervisor's Course	NATTC, FL	N23KCM2	SCHL-6030
MATC Maintenance Manager's Course	NATTC, FL	N23KCN2	SCHL-6031
Aeronautical Technical Publication Library Management Course	NAMTRAGRUDET, MCAS Cherry Point, NC	N9062R2	SCHL-6060

Micro-miniature Electronic Repair	San Diego CA	N01A351	SCHL-6073
	Norfolk, VA	N02A351	
	Oak Harbor, WA	N26A352	
Naval Aviation Maintenance Program Management	NAS Whiting Field, FL	N42P2M2	SCHL-6075
Respective Instructor Development Course.	MCB Camp Lejeune, NC	M03WJBA	SCHL-6096
	MCB Camp Lejeune, NC (MTT)	M03WJBM	
	MCB Camp Pendleton, CA	M10WJB1	
	MCB Camp Pendleton, CA (MTT)	M10WJBM	
	NAS Pensacola, FL	N23X991	

SCHL-6000 .5 * B (N) G

Goal. WTI Course.

Requirement. Attend the course as a student and complete the requirements outlined in the course curriculum.

Performance Standard. Successfully complete course requirements.

Prerequisite. 6320, 6321, 8000, 8020, 8040, 8060, 8080.

Reference. None.

SCHL-6020 .5 * B (N) G

Goal. Link 16 Basics Course JT-100.

Requirement. Attend the course as a student and complete the requirements outlined in the course curriculum.

Performance Standard. Successfully complete course requirements.

Prerequisite. None.

Reference. None.

SCHL-6021 .5 * B (N) G

Goal. Intro to Multi TDL Network JT-101.

Requirement. Attend the course as a student and complete the requirements outlined in the course curriculum.

Performance Standard. Successfully complete course requirements.

Prerequisite. None.

Reference. None.

SCHL-6022 .5 * B (N) G

Goal. Multi-TDL Advanced Joint Interoperability Course (MAJIC) JT-102.

Requirement. Attend the course as a student and complete the requirements outlined in the course curriculum.

Performance Standard. Successfully complete course requirements.

Prerequisite. 6021.

Reference. None.

SCHL-6023	.5	*	B	(N)	G

Goal. Link 16 Joint Interoperability Course US-109.

Requirement. Attend the course as a student and complete the requirements outlined in the course curriculum.

Performance Standard. Successfully complete course requirements.

Prerequisite. None.

Reference. None.

SCHL-6030	.5	*	B	(N)	G

Goal. Work Center Supervisor Course.

Requirement. Attend the course as a student and complete the requirements outlined in the course curriculum.

Performance Standard. Successfully complete course requirements.

Prerequisite. 2237, 2238, 3030.

Reference. None.

SCHL-6031	.5	*	B	(N)	G

Goal. MATC Maintenance Manager's Course.

Requirement. Attend the course as a student and complete the requirements outlined in the course curriculum.

Performance Standard. N/A

Prerequisite. None.

Reference. None.

SCHL-6060	.5	*	B	(N)	G

Goal. Aeronautical Technical Publication Library Management Course.

Requirement. Attend the course as a student and complete the requirements outlined in the course curriculum.

Performance Standard. N/A.

Prerequisite. None.

Reference. None.

SCHL-6073 .5 * B (N) G

Goal. Micro-miniature Electronic Repair Course.

Requirement. Attend the course as a student and complete the requirements outlined in the course curriculum.

Performance Standard. N/A.

Prerequisite. None.

Reference. None.

SCHL-6075 .5 * B (N) G

Goal. Naval Aviation Maintenance Program Management.

Requirement. Attend the course as a student and complete the requirements outlined in the course curriculum.

Performance Standard. N/A

Prerequisite. None.

Reference. None.

SCHL-6096 0.5 * B (N) G

Goal. Attend respective instructor development course.

Requirement. Successfully complete course curriculum.

Performance Standard. N/A.

Instructor. FLCI.

Prerequisite. None.

Reference. None.

SCHL-6107 1 * B (N) G

Goal. Complete Equipment Grounding Systems (EGS000001A) MarineNet course.

Requirement. Attend the course.

Performance Standard. Successfully complete course requirements.

Prerequisite. None.

Reference.

8.12.6 CYBER SECURITY WORKFORCE (CSWF) STAGE

8.12.6.1 Purpose. To provide Mission Plus Phase skills in cyber security workforce related tasks that are common to all 5900 occupational field technicians that will be used in the performance of assigned duties within the Marine Air Command and Control System (MACCS).

8.12.6.2 General.

Admin Notes. None.

Prerequisite. None.

Crew Requirements. None.

CSWF-6040	4.0	1095	B, R, M	(N)	G

Goal. Explain Information Security Principles

Requirement. With the aid of references, perform the following:

1. Explain common threats and vulnerabilities.
 - a. Malware
 - b. Ransomware
 - c. Viruses
 - d. Denial of Service
 - e. Insider Threats
2. Explain the function and purpose of authentication services.
3. Explain data and network security tools.
 - a. Firewall
 - b. Access Control Lists
 - c. Port Security
 - d. Anti-Virus
 - e. Log Files
 - f. Network monitoring application(s)
4. Describe cyber security, privacy principles, and organizational requirements to provide Confidentiality, Integrity, and Availability (CIA).

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

References.

1. NIST Special Publication 800-__
2. Applicable User's Manuals.
3. Current industry-standard curriculum and references.

CSWF-6041	2.0	1095	B, R, M	(N)	L

Goal. Perform account management.

Requirement. With the aid of reference, perform the following:

1. Plan user accounts.
2. Create user accounts IAW naming convention.
3. Create groups IAW naming convention.
4. Set account permissions.
5. Manage user accounts.
6. Document as required.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

References.

1. NIST Special Publication 800-__
2. Applicable User's Manuals.
3. Current industry-standard curriculum and references.

CSWF-6042 4.0 1095 B, R, M (N) G

Goal. Explain risk management involved in operational security

Requirement. With the aid of reference, perform the following:

1. Explain risk related concepts.
2. Explain appropriate risk mitigation strategies.
3. Explain appropriate incident response procedures.
4. Explain the importance of security related awareness and training.
5. Compare aspects of business continuity.
6. Explain the impact and proper use of environmental controls.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

References.

1. NIST Special Publication 800-__
2. Applicable User's Manuals.
3. Current industry-standard curriculum and references.

CSWF-6043 4.0 1095 B, R, M (N) G

Goal. Explain computer and network cryptography.

Requirement. With the aid of reference, perform the following:

1. Explain symmetric key rotation techniques
2. Explain symmetric key concepts.
3. Explain cryptographic security models (e.g. Bell-LaPadula model, Biba integrity model, Clark-Wilson integrity model).
4. Explain the core concepts of Public Key Infrastructure (PKI)

5. Explain the implementation of PKI, certificate management and associated components
6. Explain the appropriate cryptographic tools and products

Performance Standard. With the aid of reference, complete the requirements, minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

References.

1. NIST Special Publication 800-__
2. Applicable User's Manuals.
3. Current industry-standard curriculum and references.

CSWF-6044	4.0	*	B, R	(N)	G

Goal. Explain computer and networking equipment

Requirement. With the aid of references, perform the following:

1. State the purpose and functions of
 - a. Network switch
 - b. Router
 - c. Server
 - d. Virtual Machine
 - e. Workstation
2. Explain the installation and configuration of peripheral devices.
3. Explain installation and configuration of storage devices and appropriate media.
4. Explain the purpose of connection interfaces and transmission media.

Performance Standard. With the aid of reference, complete the requirements, minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

References.

1. NIST Special Publication 800-__
2. Applicable User's Manuals.
3. Current industry-standard curriculum and references.

CSWF-6045	4.0	*	B, R	(N)	G

Goal. Explain Networking Concepts.

Requirement. With the aid of references, perform the following:

1. Identify types of network cables and connectors.
2. Categorize characteristics of connectors and cabling.
3. Compare the layers of the OSI and TCP/IP models.
4. Classify how applications, devices, and protocols relate to the OSI model layers.
5. Explain the purpose and properties of IP addressing.
6. Explain the purpose and properties of routing and switching.
7. Identify common TCP and UDP default ports.
8. Explain the function of common networking protocols.
9. Summarize DNS concepts and its components.

10. Identify virtual network components.
11. Identify appropriate network monitoring tools.
12. Explain the purpose and properties of DHCP.
13. Explain the purpose and properties of Network Address Translation (NAT).
14. Explain the purpose and properties of Port Address Translation (PAT).

Performance Standard. With the aid of reference, complete the requirements, minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

References.

1. NIST Special Publication 800-__
2. Applicable User's Manuals.
3. Current industry-standard curriculum and references.

CSWF-6046	4.0	*	B, R	(N)	G

Goal. Explain Network Media and Topologies.

Requirement. With the aid of references, explain the following:

1. Describe different network topologies.
2. Compare different LAN technologies.
3. Identify components of wiring distribution.
4. Explain different methods and rationales for network performance optimization.

Performance Standard. With the aid of reference, complete the requirements, minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

References.

1. NIST Special Publication 800-__
2. Applicable User's Manuals.
3. Current industry-standard curriculum and references.

CSWF-6047	4.0	*	B, R	(N)	G

Goal. Explain Troubleshooting of Computer and Network equipment.

Requirement. Given the references, Explain the following:

1. Troubleshooting theory.
2. Troubleshooting common problems related to motherboards, RAM, BIOS, CPU and power with appropriate tools.
3. Troubleshooting hard drives and RAID arrays with appropriate tools.
4. Troubleshooting common video and display issues.
5. Troubleshooting wired networks with appropriate tools.
6. Troubleshooting operating system problems with appropriate tools.
7. Troubleshooting common security issues with appropriate tools and best practices.
8. Troubleshooting of common laptop issues while adhering to the appropriate procedures.
9. Troubleshooting of common peripheral devices with appropriate tools.

Performance Standard. With the aid of reference, complete the requirements, minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. 6044, 6045, 6046.

References.

1. NIST Special Publication 800-__
2. Applicable User's Manuals.
3. Current industry-standard curriculum and references.

CSWF-6048	4.0	1095	B, R, M	(N)	L

Goal. Administer data system host security measures.

Requirement. Given a configured network, demonstrate the following:

1. Install current Anti-virus definitions and service packs.
2. Configure firewalls.
3. Troubleshoot system faults.
4. Initiate corrective actions as required.
5. Document changes

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. SI.

Prerequisite. 6040, 6042, 6043, 6044, 6045, 6046, 6047.

References.

1. NIST Special Publication 800-__
2. Applicable User's Manuals.
3. Current industry-standard curriculum and references.

CSWF-6049	4.0	1095	B, R, M	(N)	L

Goal. Perform network management.

Requirement. Given a LAN, references, and required equipment, perform the following:

1. Monitor the LAN for connectivity.
2. Assist with troubleshooting connectivity issues with external agencies.
3. Troubleshoot Network error(s).
4. Document changes

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. SI.

Prerequisite. 6040, 6042, 6044, 6045, 6046, 6047.

References.

1. NIST Special Publication 800-__
2. Applicable User's Manuals.
3. Current industry-standard curriculum and references.

CSWF-6050 4.0 1095 B, R, M (N) L

Goal. Design network architecture.

Requirement. Given an operational scenario conduct the following:

1. Identify network requirements.
 - a. External interfaces.
 - b. VLANs.
 - c. IP Class.
2. Assign Internet Protocol (IP) addresses, subnets, and netmasks.
3. Identify notation of domain.
4. Identify asset locations.
5. Assign computer hostnames.
6. Implement security measures.
7. Record network configuration.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. SI.

Prerequisite. 6040, 6042, 6043, 6044, 6045, 6046, 6047.

References.

1. NIST Special Publication 800-__
2. Applicable User's Manuals.
3. Current industry-standard curriculum and references.

8.13 MISSION ESSENTIAL TASK (MET) PHASE (7000).

8.13.1 Purpose. This phase takes CMMR proficient Marines from multiple PMOS, puts them in CMMR representative crews, and trains them as combat effective teams in combined events.

8.13.2 General.

8.13.2.1 Admin Notes. Prerequisites for this phase of training cannot be waived. Multiple events can be trained at the same time as long as separate evaluations are being conducted.

8.13.2.2 Prerequisite. Marines must either be CMMR crew position or non-aviation PMOS proficient to train in this phase. For those events requiring combat leaders, only Marines currently designated as such can train in this phase.

8.13.2.3 Stages. The following stages are included in the Mission Essential Task (MET) Phase of training.

PAR NO.	STAGE NAME	PAGE NUMBER
8.13.3	CONDITION (COND)	8-72

8.13.3 CONDITION (COND) STAGE.

8.13.3.1 Purpose. To train unit level teams in executing community specific MET(s) or MET preparatory events.

8.13.3.2 General.

Admin Notes. All events in this stage will require the following administrative/operational documents

to be identified or created:

1. Letter of Intent (LOI).
2. Personnel Roster.
3. Bill of Material (BOM).
4. Equipment Density List (EDL).

Prerequisite. If an event requires prerequisites in addition to those listed for the MET Phase, they will be covered in the individual event.

Crew Requirements. This stage requires that all crew members and combat leaders be qualified/designated and proficient (current) in the position they are assigned for the following events. Crews shall be task organized to meet the mission.

COND-7100 18.0 730 B, R, M E (N) L

Goal. Provide ATC tower services.

Requirement. Given an expeditionary control tower, an FAA certifiable TACAN, and all ancillary equipment, conduct continuous expeditionary control tower operations.

Performance Standard. Perform the following:

1. Emplace an expeditionary control tower, an FAA certifiable TACAN, and ancillary equipment.
2. Establish applicable functional operating positions within 10 hours.
3. Establish two-way communications with aircraft and ground agencies.
4. Provide sustained integration with the MACCS, other military C2 and civilian entities to include FAA and the International Civil Aviation Organization (ICAO).
5. Control the movement of aircraft and/or vehicular traffic
6. Control aircraft within assigned terminal airspace.
7. Pass a tactical or FAA flight inspection.
8. Provide sustained navigational assistance.
9. Perform a crew relief.

Prerequisite. Two CMMR crews.

Instructor. WTI.

Range Requirement. Airfield.

External Resource Requirement. Rotary-wing and/or fixed-wing aircraft, MWSS personnel, NAVFIG, and MHE.

References.

1. MCRP 3-20F.7, Marine Air Traffic Control Detachment Handbook
2. JO 7110.65, Air Traffic Control.
3. NAVAIR 00-80T-114, NATOPS Air Traffic Control Manual.

COND-7200 12.0 730 B, R, M E (N) L

Goal. Provide ATC approach services.

Requirement. Given an airport surveillance radar, a precision approach radar, an FAA certifiable TACAN, and all ancillary equipment; conduct continuous expeditionary radar approach control operations.

Performance Standard. Perform the following:

1. Emplace an airport surveillance radar, a precision approach radar, an FAA certifiable TACAN, and all ancillary equipment.
2. Establish six functional operating positions within eight hours.
3. Have maps available on operating positions.
4. Provide sustained integration with the MACCS, other military C2 and civilian entities to include FAA and ICAO.
5. Establish and maintain communication and radar identification of aircraft within the detachment's airspace.
6. Pass a tactical or FAA flight inspection.
7. Control aircraft within assigned airspace.
8. Provide sustained navigational assistance.
9. Provide sustained radar air surveillance data to the MAGTF or joint force via Tactical Data Link.
10. Perform a crew relief.

Prerequisite. Two CMMR crews.

Instructor. WTI.

Range. Assigned airspace.

External Resource Requirement. Rotary-wing and/or fixed-wing aircraft, MWSS personnel, NAVFIG, and MHE.

References.

1. MCRP 3-20F.7, Marine Air Traffic Control Detachment Handbook
2. JO 7110.65, Air Traffic Control.
3. Applicable technical manuals.

COND-7300 12.0 365 B, R, M E (N) L

Goal. Provide ATC arrival/departure services.

Requirement. Given an AN/TPN-31(V) and all ancillary equipment, conduct continuous expeditionary radar arrival/departure and final control operations.

Performance Standard. Perform the following:

1. Emplace an airport surveillance radar, precision approach radar, FAA certifiable TACAN, and all ancillary equipment.
2. Establish five functional operating positions within six hours.
3. Have maps available on operating positions.
4. Provide sustained integration with the MACCS, other military C2 and civilian entities to include FAA and ICAO.
5. Establish and maintain communication and radar identification of aircraft within the detachment's airspace.
6. Pass a tactical or FAA flight inspection.
7. Control aircraft within assigned airspace.
8. Provide precision/non-precision approaches in a terminal environment.
9. Provide sustained navigational assistance.
10. Provide sustained radar air surveillance data to the MAGTF or joint force via Tactical Data Link.
11. Perform crew relief.

Prerequisite. Two CMMR crews.

Instructor. WTI.

Range. Airfield.

External Resource Requirement. Rotary-wing and/or fixed-wing aircraft, MWSS personnel, NAVFIG, and MHE.

References.

1. MCRP 3-20F.7, Marine Air Traffic Control Detachment Handbook
2. JO 7110.65, Air Traffic Control.
3. Applicable technical manuals.

COND-7400 2.0 730 B, R, M E (N) L

Goal. Conduct Marine air traffic control mobile team (MMT) ALZ operations.

Requirement. Provided a Table of Equipment (T/E) and/or equipment density list (EDL), conduct ALZ operations.

Performance Standard. Perform the following during a minimum operational tempo of three air traffic control operations.

1. Conduct a hasty assault zone survey and assessment.
2. Travel to the landing zone.
3. Within five minutes of arrival at the site, establish visual control capability consisting of radios and/or appropriate signaling devices.
4. Within 30 minutes of arrival at the site, establish appropriate marking of the landing zone and emplace navigational aid.
5. Provide sustained integration with the MACCS and other military C2 agencies.
6. Control aircraft within assigned terminal airspace.
7. Provide sustained navigational assistance.
8. Provide appropriate small unit defense capability and integrate with the defensive force established at the landing zone, if provided.
9. Retrograde from the landing zone with the last available transportation.

Prerequisite. One CMMR MMT.

Instructor. WTI.

Range. Assault landing zone.

External Resource Requirement. ALZ-capable fixed-wing aircraft.

References.

1. MAWTS-1 MMT TACSOP.
2. MCRP 3-20F.7, Marine Air Traffic Control Detachment Handbook

COND-7500 2.0 730 B, R, M E (N) L

Goal. Conduct Marine air traffic control mobile team (MMT) FARP operations.

Requirement. Given a Table of Equipment (T/E) and/or equipment density list (EDL), conduct FARP operations.

Performance Standard. Perform the following during a minimum operational tempo of three air traffic control operations.

1. Conduct a hasty survey and assessment.
2. Travel to the landing zone.
3. Within five minutes of arrival at the site, establish visual control capability consisting of radios and/or appropriate signaling devices.

4. Within 30 minutes of arrival at the site, establish appropriate marking of the landing zone and emplace navigational aid.
5. Provide sustained integration with the MACCS and other military C2 agencies.
6. Control aircraft within assigned terminal airspace.
7. Provide sustained navigational assistance.
8. Provide appropriate small unit defense capability and integrate with the defensive force established at the landing zone, if provided.
9. Retrograde from the landing zone with the last available transportation.

Prerequisite. One CMMR MMT.

Instructor. WTI.

Range. Operational FARP.

External Resource Requirement. Fixed or rotary-wing aircraft.

References.

1. MAWTS-1 MMT TACSOP.
2. MCRP 3-20F.7

8.14 AVIATION CAREER PROGRESSION MODEL (8000).

8.14.1 Purpose. To enhance professional understanding of Marine Aviation and the MAGTF, and to ensure individuals possess the requisite skills to fill battle command and battle staff positions in support of the ACE and the MAGTF in a joint environment.

8.14.2 General. The ACPM is intended to be an integrated series of academic events contained within each phase of training. Accordingly, ACPM academic events are like any other academic event in that they serve as prerequisites to selected flight events or stages. Additionally, several ACPM academic events are integrated as prerequisites for flight leadership syllabi. ACPM events may be conducted in group session with an assigned instructor teaching the period of instruction or they may be accomplished by self-paced instruction. MAWTS-1 is responsible for the update and validity of the ACPM periods of instruction. In the future, courses may be consolidated or revised to meet changing requirements. Refer to the MAWTS-1 ACPM link for the current ACPM program of instruction:

<https://vcepub.tecom.usmc.mil/sites/msc/magtftc/mawts1/Aviation%20Career%20Progression%20Model/Forms/AllItems.aspx>

Completed events shall be manually logged and tracked in M-SHARP. ACPM academic events, along with their identifying prerequisite association with other training phases/stages/events, are listed below.

8.14.2.1 General

Prerequisite. None.

Admin Notes. None

Crew Requirements. None.

ACPM-8000	1.0	*	B	(N)	G

Goal. Demonstrate an understanding of the MACCS stage.

Requirement. Pass a closed book examination that encompasses all learning objectives contained in the prerequisites.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. SI.

Prerequisite. 8001, 8002, 8003, 8004, 8005, 8006, 8008.

Reference. C3 Course Catalog.

ACPM-8001 4.0 * B (N) G

Goal. Demonstrate an understanding of the Marine Air Command and Control System (MACCS).

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Describe how the control of aircraft and missiles relates to the other five functions of USMC aviation.
2. Define the control of aircraft and missiles and each of its subcomponents.
3. Define the Marine aviation's philosophy of centralized command and decentralized control.
4. Differentiate between Marine aviation philosophy and Joint aviation philosophy.
5. Identify the principle objectives of the MACCS.
6. Recall the primary role of each agency of the MACCS.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 MACCS Agencies, Functions and the Control of Aircraft and Missiles Class
2. MCWP 3-25.3 MACCS Handbook
3. MCWP 3-25 Control of Aircraft and Missiles

ACPM-8002 4.0 * B (N) G

Goal. Demonstrate an understanding of the Tactical Air Command Center (TACC).

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. State the mission of the TACC.
2. Identify the four organizations of the TACC.
3. List the primary responsibilities of Air Combat Intelligence (ACI).
4. List the primary responsibilities of Future Operations (FOPS).
5. List the primary responsibilities of Future Plans (FPLANS).
6. List the primary responsibilities of Current Operations (COPS).
7. List the major end items used by the TACC.
8. List the system limitations of the TACC.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 TACC Class

2. MAWTS-1 MTACS Class
3. MCWP 3-25.4 TACC Handbook

ACPM-8003 4.0 * B (N) G

Goal. Demonstrate an understanding of the Direct Air Support Center (DASC).

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify the role of the DASC.
2. List the structure and task organization of the DASC.
3. Identify the major end items and their characteristics used by the DASC.
4. List the capabilities and limitations of the DASC.
5. Identify how the DASC is doctrinally employed as part of the MACCS.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

Reference.

1. MAWTS-1 DASC Class
2. MCWP 3-25.5 DASC Handbook

ACPM-8004 4.0 * B (N) G

Goal. Demonstrate an understanding of the Tactical Air Operations Center (TAOC).

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Define the mission of the TAOC.
2. Identify the Mission Essential Tasks (METs) for the TAOC.
3. Identify the structure and task organization of the TAOC.
4. Identify the major end items and their characteristics used by the TAOC.
5. Identify the capabilities and limitations of the TAOC.
6. Identify how the TAOC is doctrinally employed as part of the MACCS.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

Reference.

1. MAWTS-1 TAOC Class
2. MCWP 3-25.7 TAOC Handbook

ACPM-8005 4.0 * B (N) G

Goal. Demonstrate an understanding of the Marine Air Traffic Control (MATC).

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify the mission of MATC.
2. Identify the Mission Essential Tasks (METs) for MATC.

3. List the structure and task organization of MATC.
4. Identify the major end items and their characteristics used by MATC.
5. Identify the capabilities and limitations of MATC.
6. Identify how MATC is doctrinally employed as part of the MACCS.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 MATC Class
2. MAWTS-1 MMT Class
3. MCWP 3-25.8 MATC Detachment Handbook

ACPM-8006 4.0 * B (N) G

Goal. Demonstrate an understanding of the Low Altitude Air Defense (LAAD).

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify the mission of the LAAD battalion.
2. Identify the structure and task organization of the LAAD battalion.
3. Identify the primary vehicle and surface-to-air weapon used by the LAAD Battalion.
4. Define the LAAD employed guidelines.
5. List the LAAD weapon applications.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 LAAD Class
2. MCWP 3-25.10 LAAD BN Handbook
3. MCWP 3-25.10A LAAD Gunner's Handbook

ACPM-8008 4.0 * B (N) G

Goal. Demonstrate an understanding of the Marine Wing Communications Squadron (MWCS).

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify the mission of the MWCS.
2. Identify the structure and task organization of the MWCS.
3. Identify the Mission Essential Tasks (METs) for the MWCS.
4. Identify the major end items and their characteristics used by MWCS.
5. Identify the capabilities and limitations of the MWCS.
6. Identify how the MWCS is doctrinally employed as part of the MACCS.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 MWCS Employment Class
2. MCRP 3-30B.2 MAGTF Communications Systems
3. NAVMC 3500.56 Communications Training and Readiness Manual

ACPM-8020 1.0 * B (N) G

Goal. Demonstrate an understanding of the ACE stage of the MACCS ACPM.

Requirement. Pass a closed book examination that encompasses all learning objectives contained in the prerequisites.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. 8021, 8022, 8023, 8024, 8025, 8026, 8027, 8028.

Reference. C3 Course Catalog.

ACPM-8021 4.0 * B (N) G

Goal. Demonstrate an understanding of USMC aviation operations doctrine.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify the six functions of Marine aviation to include all their subsets.
2. Identify the organization and mission of the Marine Aircraft Wing (MAW), to include each type of group and squadron.
3. Define who has operational control of organic MAGTF aviation assets during Joint operations.
4. List the four types of sorties the MAGTF Commander makes available to the Joint Force.
5. Identify the purpose of the Air Tasking Order (ATO).
6. Identify the six phases of the air tasking cycle.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

Reference. MCWP 3-2 Aviation Operations

ACPM-8022 4.0 * B (N) G

Goal. Demonstrate an understanding of USMC doctrine for the control of aircraft and missiles.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify how the control of aircraft and missiles relates to the other five functions of USMC aviation.
2. Identify distinctions between Marine aviation philosophy and that of the other services.

3. Identify the principle objectives of the Marine Air Command and Control System (MACCS).
4. Describe how the COMMARFOR may serve as the Joint Force Air
5. Component Commander (JFACC), Airspace Control Authority (ACA), and Area Air Defense Commander (AADC).

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 Control of Aircraft and Missiles Class
2. MCWP 3-25 Control of Aircraft and Missiles

ACPM-8023 4.0 * B (N) G

Goal. Demonstrate an understanding of USMC Offensive Air Support (OAS) doctrine.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify the purpose of the MAGTF Commanders Single Battle Concept.
2. Define the subcategories of OAS.
3. Define the requirements for effective OAS.
4. Define the three types of Deep Air Support (DAS).
5. Define the capabilities and limitations of the OAS function.
6. Identify the elements of a Joint Tactical Air Strike Request (JTAR).
7. Identify the three types of control of Close Air Support (CAS).

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 OAS Class
2. MCWP 3-23 Offensive Air Support

ACPM-8024 4.0 * B (N) G

Goal. Demonstrate an understanding of USMC Assault Support doctrine.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Define the types of assault support operations.
2. Identify which aircraft conduct each of the types of assault support operations.
3. Identify the elements of an Assault Support Request (ASR).
4. List assault support capabilities and limitations.
5. Define the role of the air mission commander and the assault force commander during air assault operations.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 Assault Support Class
2. MAWTS-1 Direct Air Support Requests Class

ACPM-8025 4.0 * B (N) G

Goal. Demonstrate an understanding of USMC Air Reconnaissance doctrine.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify the three categories of air reconnaissance.
2. Identify the four principals of air reconnaissance.
3. Identify the five prerequisites for effective air reconnaissance.
4. Identify the current USMC aircraft that have the mission of air reconnaissance.
5. Identify the form used to request air reconnaissance.
6. Identify the five supporting operations for effective air reconnaissance.
7. Identify the capabilities and limitations of air reconnaissance.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

Reference. MCWP 3-26 Air Reconnaissance

ACPM-8026 4.0 * B (N) G

Goal. Demonstrate an understanding of USMC Electronic Warfare (EW) doctrine.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Define radar.
2. List the three basic radar types.
3. Identify the limitations and characteristics of radar systems.
4. Identify the six guidance systems and how they work.
5. List the three subdivisions of Electronic Warfare (EW).

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 (S) Electronic Warfare Class—for additional training only, secret courseware should not to be used for testing purposesMAWTS-1 Direct Air Support Requests Class
2. MCWP 3-40.5 Electronic Warfare

ACPM-8027 4.0 * B (N) G

Goal. Demonstrate an understanding of USMC Antiair Warfare (AAW) doctrine.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Define AAW.
2. Define the two subsets of AAW.
3. Identify the principles of AAW.
4. Identify the types of Offensive Antiair Warfare (OAAW).
5. Identify the active air defense functions.
6. List three examples of passive air defense measures.
7. Define a Joint Engagement Zone (JEZ), Fighter Engagement Zone (FEZ), Missile Engagement Zone (MEZ), and Base Defense Zone (BDZ).
8. Define the air defense warning conditions.
9. Define the weapons control statuses.
10. Identify the responsibilities of the Regional Air Defense Commander (RADC) and the Sector Air Defense Commander (SADC).

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 Air Defense Class
2. MAWTS-1 Air Defense Commanders Class
3. MAWTS-1 Offensive Antiair Warfare Class
4. MCWP 3-22 Antiair Warfare

ACPM-8028 4.0 * B (N) G

Goal. Demonstrate an understanding of USMC Ground Support (AGS) doctrine.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify the organization responsible for providing AGS to the Marine Aircraft Wing (MAW).
2. Identify the 13 functions of AGS.
3. Identify the five activities that the Marine Wing Support Squadron (MWSS) performs for the ACE when deployed.
4. Identify the four basing concepts for MAGTF Forward Operating Bases (FOBs).
5. List the four classifications of FOBs.
6. Differentiate the distinguishing characteristics of FOBs.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 AGS Class
2. MCWP 3-21.1 Aviation Ground Support

ACPM-8040 1.0 * B (N) G

Goal. Demonstrate an understanding of the Threat stage of the MACCS ACPM

Requirement. Pass a closed book examination that encompasses all learning objectives contained in the prerequisites.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. SI.

Prerequisite. 8041, 8042, 8043, 8044.

Reference. C3 Course Catalog.

ACPM-8041	4.0	*	B	(N)	G

Goal. Demonstrate an understanding of the surface-to-air threat to the MAGTF.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Match the system name with the guidance and target aspect for the following Man Portable Air Defense Systems (MANPADS):
 - a. SA-7
 - b. SA-14
 - c. SA-16
 - d. SA-18
2. Match the system name with the guidance and associated radars for the following Radio Frequency Surface-to-Air Missile Systems (RF SAMS):
 - a. SA-2
 - b. SA-6
 - c. SA-8
 - d. SA-10
 - e. SA-11
 - f. SA-15
 - g. SA-20
 - h. Roland-III
3. Match the system name with the type and associated radar for the following Air Defense Artillery (AAA):
 - a. ZPU 1, 2, 4
 - b. ZSU-23-4
 - c. 2S6
 - d. S-60

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

Reference. MAWTS-1 Marine Aviation Intelligence Reference
(<https://vcepub.tecom.usmc.mil/sites/msc/magtftc/mawts1/departments1/newc3/default.aspx>)

ACPM-8042	4.0	*	B	(N)	G

Goal. Demonstrate an understanding of the fixed wing threat to the MAGTF.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify the role of the AN-2 Colt.

2. Identify the role of the MIG-23 Flogger.
3. Identify the role of the MIG-29 Fulcrum.
4. Identify the role of the MIG-31 Foxhound.
5. Identify the role of the Su-24 Fencer.
6. Identify the role of the Su-25 Frogfoot.
7. Identify the role of the Su-27 Flanker.
8. Identify the role of the Su-30 Flanker.
9. Identify the role of the Tu-22M Backfire.
10. Identify the role of the Tu-95 Bear.
11. Identify the role of the Tu-160 Blackjack.
12. Identify the role of the J-7 Fishbed.
13. Identify the role of the JH-7 Flounder.
14. Identify the role of the J-8 Finback.
15. Identify the role of the J-10 Firebird.
16. Identify the role of the H-6 Badger.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

Reference. MAWTS-1 Marine Aviation Intelligence Reference
(<https://vcepub.tecom.usmc.mil/sites/msc/magtftc/mawts1/departments1/newc3/default.aspx>)

ACPM-8043 4.0 * B (N) G

Goal. Demonstrate an understanding of the rotary wing threat to the MAGTF.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify the role of the Mi-24 Hind.
2. Identify the role of the SA 342 Gazelle.
3. Identify the role of the Ka-25 Hormone.
4. Identify the role of the Mi-6 Hook.
5. Identify the role of the Mi-28 Havoc.
6. Identify the role of the Mi-8 Hip.
7. Identify the role of the Ka-50 Kokum.
8. Identify the role of the Ka-29 Helix B.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

Reference. MAWTS-1 Marine Aviation Intelligence Reference
(<https://vcepub.tecom.usmc.mil/sites/msc/magtftc/mawts1/departments1/newc3/default.aspx>)

ACPM-8044 4.0 * B (N) G

Goal. Demonstrate an understanding of the missile and Unmanned Aircraft System (UAS) threat to the MAGTF.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Match the system name with the terminal guidance for the following Air-to-Surface Missiles:
 - a. AS-10 Karen
 - b. AS-11 Kilter
 - c. AS-12 Kegler
 - d. AS-14 Kedge
 - e. AS-17 Krypton
2. Match the system name with the warhead and guidance for the following Surface-to-Surface Missiles:
 - a. FROG-7
 - b. SCUD-B
 - c. SCUD-C
 - d. Nodong 1
 - e. C 801
 - f. C 802
3. Identify the mission of the following threat UAS:
 - a. Ababil
 - b. Mohajer
 - c. Harpy
 - d. Heron
 - e. ASN-206
 - f. Pchela-1T

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 Marine Aviation Intelligence Reference
2. <https://vcepub.tecom.usmc.mil/sites/msc/magtftc/mawts1/departments1/ne>
3. [wc3/default.aspx](https://vcepub.tecom.usmc.mil/sites/msc/magtftc/mawts1/departments1/ne)
4. Marine Corps Intelligence Activity Iran Country Handbook (appendix A)
5. Marine Corps Intelligence Activity North Korea Country Handbook (page 86)
6. Marine Corps Intelligence Activity China Country Handbook (appendix A)
<https://www.intelink.gov/mcia/handbook.htm>
7. MCIA UAV Recognition Guide <https://www.intelink.gov/mcia/index.htm>

ACPM-8060 1.0 * B (N) G

Goal. Demonstrate an understanding of the MAGTF stage of the MACCS ACPM.

Requirement. Pass a closed book examination that encompasses all learning objectives contained in the prerequisites.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. SI.

Prerequisite. 8061, 8062, 8063, 8064, 8065.

Reference. C3 Course Catalog.

ACPM-8061 4.0 * B (N) G

Goal. Demonstrate an understanding of the MAGTF ground combat operations.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify how the Ground Combat Element (GCE) is employed as part of the MAGTF and the capabilities the GCE provides to the MAGTF commander
2. Define the following items related to command and control of ground combat operations:
 - a. Echelons of the GCE headquarters
 - b. Battlespace Organization
 - c. Battlespace Framework
3. Define the five types of amphibious operations.
4. Identify the following items related to offensive operations:
 - a. Types of offensive operations
 - b. Types of attack
 - c. Forms of maneuver
 - d. Distribution of forces
5. Identify the following items related to defensive operations:
 - a. Organization of the defense
 - b. Distribution of forces
 - c. Types of defensive operations
 - d. Defensive methods

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MCDP 1-0 Marine Corps Operations
2. MCWP 3-1 Ground Combat Operations

ACPM-8062	4.0	*	B	(N)	G

Goal. Demonstrate an understanding of fire support coordination in the Ground Combat Element (GCE).

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify the four fire support tasks.
2. List the functions of the senior fire support coordination center (FSCC) in the GCE.
3. List the four steps of the MAGTF Targeting Process.
4. Define the purpose of essential fire support tasks (EFST).

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 MAGTF Targeting and Fire Support Planning Class
2. MCWP 3-16 Fire Support Coordination in the GCE

ACPM-8063	4.0	*	B	(N)	G

Goal. Demonstrate an understanding of MAGTF command and control.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify MAGTF command and support relationships.
2. Identify the purpose and role of the command and control centers in the CE, ACE, GCE, and LCE.
3. Identify the purpose and role of the amphibious command and control facilities.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

Reference. MCWP 3-40.1 MAGTF C2

ACPM-8064 4.0 * B (N) G

Goal. Demonstrate an understanding of MAGTF communications.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify the six characteristics of communications and information systems.
2. Identify the mission and organizational structure of the Communications Battalion.
3. Identify the purpose of the Communications-Electronics Operating Instructions (CEOI) and what information is usually included in it.
4. Identify what information can be found in Annex K of an operations order.
5. Identify the purpose of select fires, support, and ACE specific radio nets.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

Reference. MCWP 3-40.3 MAGTF Communications System

ACPM-8065 4.0 * B (N) G

Goal. Demonstrate an understanding of phasing control ashore.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify types of amphibious operations and how command relationships may change during the conduct of each.
2. Identify how disputes among commanders during amphibious operations are resolved.
3. Identify the key commanders and command relationships.
4. Identify the key characteristics of each phase in phasing the MACCS ashore.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 Phasing Control Ashore Class

2. JP 3-02 Joint Doctrine for Amphibious Operations (Ch 2)
3. MCWP 3-25 Control of Aircraft and Missiles (Appendix C)

ACPM-8066 4.0 * B (N) G

Goal. Demonstrate an understanding of information management.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Match the principles of information management with their descriptions.
2. Define each of the classes of information within an information hierarchy.
3. List the characteristics of quality information.
4. Identify the role and responsibilities of an Information Management Officer (IMO).
5. Define C2 support structure and the three steps followed to develop one.
6. Identify the purpose of an information management matrix and the information management plan.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

Reference. MCWP 3-40.2 Information Management

ACPM-8067 4.0 * B (N) G

Goal. Demonstrate an understanding of Unmanned Aircraft Systems in support of MAGTF operations.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify the four types of payloads.
2. Identify the three attributes that determine UAS Groups.
3. Identify the five different UAS Group Categories.
4. Identify the two types of VMU operational employment.
5. Identify the three components of the RQ-7B Communications Relay Package.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 UAS In Support of MAGTF Operations
2. MCRP 3-42.1A
3. NTTP 3-22.3-VMU

ACPM-8080 1.0 * B (N) G

Goal. Demonstrate an understanding of the MAGTF stage of the joint air operations stage of the MACCS ACPM.

Requirement. Pass a closed book examination that encompasses all learning objectives contained in the prerequisites.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. SI.

Prerequisite. 8081, 8082, 8083, 8084, 8085, 8086, 8087, 8088.

Reference. C3 Course Catalog.

ACPM-8081 4.0 * B (N) G

Goal. Demonstrate an understanding of the command and control of joint air operations.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify the definition of joint air operations.
2. Identify the Joint Force Air Component Commander's responsibilities.
3. Identify the five sections that comprise the Joint Air Operations Center.
4. Identify the six phases of the Joint Air Tasking Cycle.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives or pass the DOCNET course listed below with a score of 80% or higher.

Instructor. BI.

Prerequisite. None.

References.

1. DOCNET Course 3-30 (<http://www.dtic.mil/doctrine/docnet/>)
2. MAWTS-1 Joint Air Operations Class
3. JP 3-30 C2 of Joint Air Operations

ACPM-8082 4.0 * B (N) G

Goal. Demonstrate an understanding of the theater air ground system (TAGS).

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. List the primary characteristics of the Theater Air Ground System (TAGS).
2. Identify the elements within the Air Force's Theater Air Control System (TACS) and their primary responsibilities.
3. Identify the aviation command and control elements with the Army Air and Ground System (AAGS) and their primary responsibilities.
4. Identify the aviation elements within the Navy's Composite Warfare Commander (CWC) architecture.
5. Identify the Amphibious Task Force (ATF) construct and its primary responsibilities.
6. Identify the aviation command and control elements within the Special Operations Air-Ground System.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 TAGS ClassMAWTS-1 Joint Air Operations Class
2. ALSA TAGS Pub. (<https://wwwmil.alsa.mil/default.aspx>)

ACPM-8083 4.0 * B (N) G

Goal. Demonstrate an understanding of joint fire support doctrine.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Define joint fires.
2. Define joint fire support.
3. Identify the steps of the joint fire support planning process.
4. List the various elements of the component commander's fires command and control system.
5. Define the various joint control and coordination measures associated with joint fire support.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives or pass the DOCNET course listed below with a score of 80% or higher.

Instructor. BI.

Prerequisite. None.

References.

1. DOCNET Course 3-09 (<http://www.dtic.mil/doctrine/docnet/>)
2. JP 3-09 Joint Fire Support

ACPM-8084 4.0 * B (N) G

Goal. Demonstrate an understanding of close air support (CAS) doctrine.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Explain key roles and responsibilities related to the planning and execution of CAS.
2. Detail key steps in the planning and execution of CAS.
3. Describe various coordination measures used in the planning and conduct of CAS.
4. Describe the manner in which the two types of CAS requests are fulfilled.
5. Identify the goal and purpose of synchronizing CAS with surface fires.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives or pass the DOCNET course listed below with a score of 80% or higher.

Instructor. BI.

Prerequisite. None.

References.

1. DOCNET Course 3-09 (<http://www.dtic.mil/doctrine/docnet/>)
2. MAWTS-1 CAS Class
3. JP 3-09.3 Close Air Support

ACPM-8085 4.0 * B (N) G

Goal. Demonstrate an understanding of joint targeting doctrine.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify types of targets.
2. Identify and describe the six phases of the joint targeting cycle.
3. Identify characteristics of a target.

4. Identify and describe steps in dynamic targeting.
5. Describe roles and responsibilities related to the joint targeting process.
6. Describe key products and processes of the joint targeting cycle.
7. Identify key terms related to the joint targeting process.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives or pass the DOCNET course listed below with a score of 80% or higher.

Instructor. BI.

Prerequisite. None.

Reference.

1. DOCNET Course 3-09 (<http://www.dtic.mil/doctrine/docnet/>)
2. JP 3-60 Joint Targeting

ACPM-8086 4.0 * B (N) G

Goal. Demonstrate an understanding of the North Atlantic Treaty Organization (NATO).

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify the composition of the NATO alliance.
2. Identify the three key articles of the NATO alliance.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 NATO Class
2. "What is NATO" Brief (http://www.nato.int/welcome/intro_to_NATO_en.ppt)
3. AJP-01(D)

ACPM-8087 4.0 * B (N) G

Goal. Demonstrate an understanding of joint airspace control doctrine.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify the responsibilities of the airspace control authority (ACA).
2. Identify the basic principles for airspace control.
3. Identify the purpose of the airspace control plan (ACP).
4. Identify the purpose of the airspace control order (ACO).
5. Identify the methods of airspace control.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 Airspace Control Authority and Airspace Class

2. JP 3-52 Joint Airspace Control

8.15 T&R SYLLABUS MATRIX

5952 T&R SYLLABUS MATRIX										
STAGE	CODE	TITLE	POI	DEVICE	COND	PROFICIENCY PERIOD	E-CODED	TIME	PREREQ	CHAIN
CORE INTRODUCTION PHASE (0000)										
CYBER SECURITY WORKFORCE (CSWF) STAGE										
CSWF	1005	Provide cyberwarfare technical support and troubleshooting.	B	G	(N)	*	*	0	*	*
CSWF	1006	Repair common cables.	B	G	(N)	*	*	0	*	*
TOTAL HOURS (CSWF) STAGE			EVENTS		2	HOURS		0		
MARINE AIR TRAFFIC CONTROL LANDING SYSTEMS (MATCLS) STAGE										
MATCLS	1200	Perform Corrective maintenance on the AN/URN-25 TACAN Set to the lowest repairable unit (LRU).	B	G	(N)	*	*	0	*	*
MATCLS	1205	Perform corrective maintenance on the OQ-327 Monitor Test Control Group to the lowest repairable unit.	B	G	(N)	*	*	0	*	*
MATCLS	1210	Perform corrective maintenance on the OE-258A/URN Antenna Group to the LRU.	B	G	(N)	*	*	0	*	*
MATCLS	1215	Assemble the AN/TRN-44.	B	G	(N)	*	*	0	*	*
MATCLS	1220	Disassemble the AN/TRN-44.	B	G	(N)	*	*	0	*	*
MATCLS	1225	Perform corrective maintenance on the AN/TRN-47 TACAN set to the lowest repairable unit.	B	G	(N)	*	*	0	*	*
MATCLS	1230	Assemble the AN/TRN-47 TACAN set.	B	G	(N)	*	*	0	*	*
MATCLS	1235	Disassemble the AN/TRN-47 TACAN set.	B	G	(N)	*	*	0	*	*
TOTAL HOURS (MATCLS) STAGE			EVENTS		7	HOURS		0		
TOTAL HOURS CORE INTRODUCTION PHASE (0000)								0		
CORE TRAINING PHASE (2000)										
TECHNICAL SKILL										

5952 T&R SYLLABUS MATRIX										
STAGE	CODE	TITLE	POI	DEVICE	COND	PROFICIENCY PERIOD	E-CODED	TIME	PREREQ	CHAIN
MMGT	2086	Perform PMS on a MATCALs system.	B,R	L	(N)	*	*	1	2215	*
NAV	2138	Perform system alignments for the AN/TRN-44.	B,R,M	L	(N)	730	*	5	2133	*
NAV	2139	Perform replacement procedures to the LRU for the AN/TRN-44.	B,R	L	(N)	*	*	4	*	*
NAV	2144	Troubleshoot the AN/TRN-47.	B,R	L/S	(N)	1095	*	1	*	*
NAV	2145	Perform replacement procedures to the LRU for the AN/TRN-47.	B,R	L	(N)	*	*	4	*	*
NAV	2146	Perform system alignments for the AN/TRN-47.	B,R,M	L	(N)	730	*	4	2140	*
TOTAL HOURS TECHNICAL SKILL			EVENTS		6	HOURS		19		
MAINTENANCE ADMIN SKILL										
MMGT	2061	Identify parts data.	B,R	L/S	(N)	*	*	1	*	*
MMGT	2064	State the information contained in the allowance lists.	B,R	G	(N)	*	*	1	*	*
MMGT	2065	Record equipment readiness using Aviation Management Supply and Readiness Reporting (AMSRR) system.	B	L	(N)	*	*	1	*	*
MMGT	2071	Explain MATCD Supply Functions.	B	G	(N)	*	*	1	*	*
MMGT	2074	Explain the information contained in the MATCALs system history and inventory record.	B,R	G	(N)	*	*	1	*	*
MMGT	2075	Initiate a Work Order.	B,R	L	(N)	*	*	1	*	*
MMGT	2076	Update a Work Order.	B,R	L	(N)	*	*	1	*	*
MMGT	2077	Close a Work Order.	B,R	L	(N)	*	*	1	*	*
TOTAL HOURS MAINTENANCE ADMIN SKILL			EVENTS		7	HOURS		8		
TOTAL HOURS CORE SKILL TRAINING (2000 PHASE)								28		
MISSION SKILL TRAINING (3000 PHASE EVENTS)										
FUNDAMENTAL SKILL										

5952 T&R SYLLABUS MATRIX										
STAGE	CODE	TITLE	POI	DEVICE	COND	PROFICIENCY PERIOD	E-CODED	TIME	PREREQ	CHAIN
MMCN	2012	State the organizational destructive weather plan.	B,R,M	G	(N)	1095	*	1	*	*
ORNT	2031	Complete NAMP indoctrination training.	B,R	G	(N)	*	*	1	*	*
MMCN	2013	Describe the characteristics of unit T/E generators.	B	G	(N)	*	*	1	*	*
DEPL	2238	State the required coordination between maintenance personnel and the ATC watch supervisors and METOC watch supervisor.	B	G	(N)	*	*	1	*	*
DEPL	2239	State the purpose of a Flight Inspection.	B	G	(N)	*	*	1	*	*
NAV	2133	State the capabilities of the AN/TRN-44.	B	G	(N)	*	*	1	*	*
NAV	2140	State the capabilities of the AN/TRN-47.	B	G	(N)	*	*	1	*	*
NAV	3057	Provide navigational services as a member of a crew.	B,R,M	L	(N)	730	*	8	*	*
ACPM	8000	MACCS.	B	G	(N)	*	*	1	8001, 8002, 8003, 8004, 8005, 8006, 8008	*
IADS	2091	State the Types of Weapons Engagement Zone (WEZ).	B,R,M,	G	(N)	365	*	1	*	*
IADS	2092	State the role of Marine Air Traffic Control Detachments in a Base Defense Zone (BDZ).	B,R,M,	G	(N)	365	*	1	2092	*
MMCN	2005	Demonstrate an earth ground installation.	B,R,M	L	(N)	365	*	1	*	*
NAV	2142	Setup the AN/TRN-47.	B,R	L	(N)	*	*	1	*	*
NAV	2143	Perform post setup procedures on the AN/TRN-47.	B,R,M	L	(N)	1095	*	1	2142	*
TOTAL HOURS FUNDAMENTAL SKILL			EVENTS		20	HOURS		45		
MARINE AIR TRAFFIC CONTROL MOBILE TEAM MEMBER (MMTM) SKILL										
MMCN	2005	Demonstrate an earth ground installation.	B,R,M	L	(N)	365	*	1	*	*

5952 T&R SYLLABUS MATRIX										
STAGE	CODE	TITLE	POI	DEVICE	COND	PROFICIENCY PERIOD	E-CODED	TIME	PREREQ	CHAIN
NAV	2142	Setup the AN/TRN-47.	B,R	L	(N)	*	*	1	*	*
NAV	2143	Perform post setup procedures on the AN/TRN-47.	B,R,M	L	(N)	1095	*	1	2142	*
ACAD	0570	Discuss basic knowledge of the MMT.	B	G	(N)	*	*	1	*	*
ACAD	0571	Discuss tactical communications terms and procedures.	B	G	(N)	*	*	1	*	*
ACAD	0573	Discuss the MEU mission.	B	G	(N)	*	*	1	*	*
ACAD	0574	Discuss forward arming and refueling point (FARP) operations.	B	G	(N)	*	*	2	*	*
MMCN	2004	Operate the handheld GPS.	B,R,M	L	(N)	1095	*	1	*	*
MMCN	2008	Construct and use a field expedient antenna.	B,R,M	L	(N)	1095	*	4	*	*
MMCN	2010	Identify Cryptographic Controlled Item (CCI) devices organic to the section.	B	L	(N)	*	*	2	*	*
MMCN	2226	Conduct MMT Assault Landing Zone (ALZ) Operations.	B,R,M	L	(N)	1095	*	6	0570, 0571, 0573, 0574	*
MMCN	2227	Conduct MMT Helicopter Landing Zone (HLZ) Operations.	B,R,M	L	(N)	1095	*	4	0570, 0571, 0573, 0574	*
MMCN	2228	Conduct MMT land navigation operations.	B,R,M	L	(N)	1095	*	12	2004	*
MMTM	2229	Program the RT-1694 for Automatic Link Establishment (ALE) operations.	B,R,M	L	(N)	730	*	1	*	*
MMTM	2230	Expeditionary power source maintenance familiarization.	B,R	L	(N)	*	*	2	*	*
MMCN	3032	Fill the DAGR with the appropriate crypto.	B	L	(N)	*	*	2	2000	*
MMTM	3034	Perform as a MMT Leader during ALZ operations.	B,R,M	L	(N)	1095	*	2	0570, 0571, 0573, 0574, 2004, 2226, 2228, 2229, 2230	*
MMTM	3035	Perform as a MMT Member during FARP operations.	B,R,M	L	(N)	1095	*	2	0570, 0571, 0573, 0574, 2004, 2226, 2228, 2229, 2230	*

5952 T&R SYLLABUS MATRIX										
STAGE	CODE	TITLE	POI	DEVICE	COND	PROFICIENCY PERIOD	E-CODED	TIME	PREREQ	CHAIN
NAV	3058	Deploy the AN/TRN-47.	B,R	L	(N)	*	*	4	2141, 2142, 2143, 2145, 2146, 3060	*
TOTAL HOURS (MMTM) SKILL			EVENTS		19	HOURS		50		
DEPLOY AN/TRN-44 (44) SKILL										
MMCN	2004	Operate the handheld GPS.	B,R,M	L	(N)	1095	*	1	*	*
NAV	2134	State the deployment considerations for the AN/TRN-44.	B	G	(N)	*	*	1	*	*
NAV	2135	Pack the AN/TRN-44.	B,R	L	(N)	*	*	8	*	*
NAV	2136	Setup the AN/TRN-44.	B,R	L	(N)	*	*	8	*	*
NAV	2137	Perform post setup procedures on the AN/TRN-44.	B,R	L	(N)	*	*	2	2136	*
NAV	3056	Deploy the AN/TRN-44.	B,R,M	L	(N)	1095	*	40	2133, 2134, 2135, 2136, 2137, 3059	*
NAV	3059	Perform north alignment adjustment as a part of the flight check on AN/TRN-44.	B,R	L/S	(N)	*	*	1	2136, 2137	*
TOTAL HOURS DEPLOY AN/TRN-44 (44) SKILL			EVENTS		7	HOURS		61		
DEPLOY AN/TRN-47 (47) SKILL										
MMCN	2004	Operate the handheld GPS.	B,R,M	L	(N)	1095	*	1	*	*
NAV	2141	State the deployment considerations for the AN/TRN-47.	B,R	G	(N)	*	*	1	*	*
NAV	3058	Deploy the AN/TRN-47.	B,R	L	(N)	*	*	4	2141, 2142, 2143, 2145, 2146, 3060	*
NAV	3060	Perform the north alignment adjustment as part of the flight check on AN/TRN-47.	B	L/S	(N)	*	*	1	2142, 2143	*
TOTAL HOURS DEPLOY AN/TRN-47 (47) SKILL			EVENTS		4	HOURS		7		
DEPLOY AN/TRN-47V2 (47V2) SKILL										
NAV	2147	State the capabilities of the AN/TRN-47V2.	B	G	(N)	*	*	1	*	*
NAV	2148	State the deployment considerations for the AN/TRN-47V2.	B	G	(N)	*	*	1	*	*

5952 T&R SYLLABUS MATRIX										
STAGE	CODE	TITLE	POI	DEVICE	COND	PROFICIENCY PERIOD	E-CODED	TIME	PREREQ	CHAIN
NAV	2149	Pack the AN/TRN-47V2.	B,R	L	(N)	*	*	8	*	*
NAV	2150	Setup the AN/TRN-47V2.	B,R	L	(N)	*	*	8	*	*
NAV	2151	Perform post setup procedures on the AN/TRN-47V2.	B,R	L	(N)	*	*	2	2150	*
NAV	2152	Troubleshoot the AN/TRN-47V2.	B,R	L/S	(N)	1095	*	1	*	*
NAV	2153	Perform replacement procedures to the LRU for the AN/TRN-47V2.	B,R	L	(N)	*	*	4	*	*
NAV	3061	Deploy the AN/TRN-47V2.	B,R,M	L	(N)	1095	*	40	2148	*
NAV	3062	Perform the north alignment adjustment as part of the flight check on AN/TRN-47V2.	B	L/S	(N)	*	*	1	*	*
TOTAL HOURS DEPLOY AN/TRN-47V2 (47V2) SKILL			EVENTS		4	HOURS		7		
OPERATIONAL PLANNING SKILL (OPLN)										
MMCN	2014	Produce an Equipment Density List (EDL).	B,R	L	(N)	*	*	1	*	*
MMCN	2006	Develop an embarkation plan.	B,R,M	L	(N)	1095	*	2	2014	*
MMCN	2009	Complete a Bill of Material (BOM) request.	B,R	L	(N)	*	*	2	*	*
MMCN	2007	Identify spectrum management procedures.	B,R,M	G	(N)	1095	*	1	*	*
MMCN	3031	Conduct a site survey.	B,R,M	L	(N)	1095	*	8	*	*
MMCN	3030	Deploy a MACCS capability.	B,R,M	L	(N)	1095	*	8	2006, 2007, 2009, 2014	*
MMGT	4200	State the considerations of the Contingency Support Package (CSP).		G	(N)	*	*	2	2071	*
TOTAL HOURS OPERATIONAL PLANNING SKILL (OPLN)			EVENTS		7	HOURS		24		
MAINTENANCE MANAGEMENT (MMGT) SKILL										
MMGT	2078	Perform Critical Maintenance Inspection Requirements.	B	L	(N)	*	*	3	*	*
MMGT	2079	Describe the purpose of inspections.	B	G	(N)	*	*	1	*	*

5952 T&R SYLLABUS MATRIX										
STAGE	CODE	TITLE	POI	DEVICE	COND	PROFICIENCY PERIOD	E-CODED	TIME	PREREQ	CHAIN
MMGT	2080	Run an AD HOC query.	B, R	L	(N)	*	*	1	*	*
MMGT	2081	Perform CDI Queue functions.	B, R	L	(N)	*	*	1	*	*
MMGT	2082	Open a Baseline Trouble Report (BTR).	B, R	L	(N)	*	*	1	*	*
MMGT	2083	Order parts in OOMA/NALCOMIS.	B, R	L	(N)	*	*	1	*	*
MMGT	2084	Perform contingency processing.	B, R	L	(N)	*	*	1	2075	*
MMGT	2085	Describe auditing and monitoring techniques and procedures used by Quality Assurance.	B, R	L	(N)	*	*	1	*	*
MMGT	3011	Pass CDI Periodic Evaluation IAW CSEC.	B, R, M	L	(N)	365	*	1	2112, 2114, 2116	*
TOTAL HOURS MAINTENANCE MANAGEMENT (MMGT) SKILL			EVENTS		12	HOURS		35		
NAVIGATIONAL AIDS CHIEF (NAV CHIEF) SKILL										
MMCN	2000	Operate a common fill device.	B, R	L	(N)	*	*	1	*	*
MMCN	2001	State the physical security requirements for classified areas.	B, R	G	(N)	*	*	1	*	*
MMCN	2002	Extract key material information from COMSEC callout.	B, R	G	(N)	*	*	1	*	*
MMCN	2003	Create a classified area physical security diagram.	B, R	L	(N)	*	*	1	2001	*
MMCN	2011	Manage COMSEC/classified material.	B, R	L	(N)	*	*	1	*	*
DESG	6360	Designation as the Navigational Aids Chief.	B	G	(N)	*	*	1	2000, 2001, 2002, 2003, 2011, 2004, 2014, 2006, 2009, 2007, 2061, 2064, 2065, 2071, 2074, 2075, 2076, 2134, 2135, 2136, 2137, 2138, 2139, 2141, 2144, 2145, 2146, 2715, 3031, 3030, 3056, 3058, 3059, 3060, 6105, 8020	*

5952 T&R SYLLABUS MATRIX										
STAGE	CODE	TITLE	POI	DEVICE	COND	PROFICIENCY PERIOD	E-CODED	TIME	PREREQ	CHAIN
ACPM	8020	ACE.	B	G	(N)	*	*	1	8021, 8022, 8023, 8024, 8025, 8026, 8027, 8028	*
ACPM	8021	Aviation Operations.	B	G	(N)	*	*	4	*	*
ACPM	8022	Control of Aircraft and Missiles.	B	G	(N)	*	*	4	*	*
ACPM	8023	Offensive Air Support (OAS).	B	G	(N)	*	*	4	*	*
ACPM	8024	Assault Support (AS).	B	G	(N)	*	*	4	*	*
ACPM	8025	Air Reconnaissance.	B	G	(N)	*	*	4	*	*
ACPM	8026	Electronic Warfare (EW).	B	G	(N)	*	*	1	*	*
ACPM	8027	Anti-Air Warfare (AAW).	B	G	(N)	*	*	4	*	*
ACPM	8028	Aviation Ground Support.	B	G	(N)	*	*	4	*	*
IADS	3040	Perform as a member of a Marine Air Traffic Control Detachments in a Base Defense Zone (BDZ).	B,R,M	L	(N)	1095	*	8	2092	*
TOTAL HOURS (NAV CHIEF) SKILL			EVENTS		16	HOURS		44		
TOTAL HOURS MISSION PHASE (3000)								273		
CORE PLUS PHASE (4000)										
MAINTENANCE MANAGEMENT (MMGT) STAGE										
MMGT	4200	State the considerations of the Contingency Support Package (CSP).	B	G	(N)	*	*	2	2071	*
TOTAL HOURS MMGT STAGE			EVENTS		1	HOURS		2		
NAVIGATIONAL AIDS (NAV) STAGE										
NAV	4229	Perform system alignments for the ID-2330.	B	L	(N)	*	*	4	*	*
NAV	4230	Perform system alignments for the C8534/TRA-45.	B	L	(N)	*	*	4	*	*
NAV	4231	Perform system alignments for the O-1882.	B	L	(N)	*	*	4	*	*
NAV	4237	Configure AN/URN-25 for Emergency Operating Modes.	B,R	L	(N)	*	*	3	2238, 2138	*

5952 T&R SYLLABUS MATRIX										
STAGE	CODE	TITLE	POI	DEVICE	COND	PROFICIENCY PERIOD	E-CODED	TIME	PREREQ	CHAIN
TOTAL HOURS NAVIGATIONAL AIDS (NAV) STAGE			EVENTS		4	HOURS		15		
TOTAL HOURS CORE PLUS PHASE (4000)								17		
INSTRUCTOR TRAINING PHASE (5000)										
INSTRUCTOR UNDER TRAINING (IUT) STAGE										
IUT	5000	Introduce principals of instruction.	B	G	(N)	*	*	2	*	*
IUT	5010	Describe individual T&R requirements.	B	G	(N)	*	*	2	*	*
IUT	5020	Conduct T&R instruction.	B,R,M	L	(N)	90	*	12	5000, 5010	*
IUT	5100	Describe the Aviation Training and Readiness (T&R) Program.	B	G	(N)	*	*	2	*	*
IUT	5110	Conduct instructor evaluations.	B,R,M	L	(N)	365	*	4	5100	*
IUT	5120	Perform T&R administration.	B	L	(N)	*	*	2	5100, 5110	*
IUT	5130	Develop a training plan.	B	L	(N)	*	*	2	5100, 5110, 5120	*
TOTAL HOURS INSTRUCTOR UNDER TRAINING (IUT) STAGE			EVENTS		7	HOURS		26		
TOTAL HOURS INSTRUCTOR TRAINING PHASE (5000)								26		
CERTIFICATIONS, QUALIFICATIONS, AND DESIGNATIONS (CQD) PHASE (6000)										
CERTIFICATIONS (CERT) STAGE										
CERT	6220	CSWF Technical Support Specialist.	B	L	(N)	*	*	1	3001, 6040, 6041, 6042, 6044, 6045, 6046, 6047	*
CERT	6221	CSWF IT Specialist.	B	L	(N)	*	*	1	6040, 6042, 6043, 6044, 6045, 6046, 6047, 3000, 3001, 3002	*
CERT	6222	CSWF System Administrator.	B	L	(N)	*	*	1	6040, 6041, 6042, 6043, 6044, 6045, 6046, 6047, 3000, 3001, 3002	*
TOTAL HOURS CERTIFICATIONS (CERT) STAGE			EVENTS		3	HOURS		3		
DESIGNATIONS (DESG) STAGE										

5952 T&R SYLLABUS MATRIX										
STAGE	CODE	TITLE	POI	DEVICE	COND	PROFICIENCY PERIOD	E-CODED	TIME	PREREQ	CHAIN
DESG	6320	Basic Instructor (BI).	B	G	(N)	*	*	1	5000, 5010, 5020	*
DESG	6321	Senior Instructor (SI).	B	G	(N)	*	*	1	5000, 5010, 5020, 5100, 5110, 5120, 5130, 6320	*
DESG	6322	Weapons and Tactics Instructor (WTI).	B	G	(N)	*	*	1	6000	*
DESG	6330	Formal Learning Center Instructor (FLCI).	B	G	(N)	*	*	1	6096	*
DESG	6360	Navigational Aids Chief.	B	G	(N)	*	*	1	2000, 2001, 2002, 2003, 2011, 2004, 2014, 2006, 2009, 2007, 2061, 2064, 2065, 2071, 2074, 2075, 2076, 2134, 2135, 2136, 2137, 2138, 2139, 2141, 2144, 2145, 2146, 2715, 3031, 3030, 3056, 3058, 3059, 3060, 6105, 8020	*
DESG	6104	Collateral Duty Inspector.	B	G	(N)	*	*	1	2031, 2079, 2081, 2083, 2084, 3011, 6107	*
DESG	6105	Collateral Duty Quality Assurance Representative.	B	G	(N)	*	*	1	2031, 2078, 2079, 2080, 2081, 2082, 2083, 2084, 2085	*
DESG	6106	Quality Assurance Representative.	B	G	(N)	*	*	1	2031, 2078, 2079, 2080, 2081, 2082, 2083, 2084, 2085	*
TOTAL HOURS DESIGNATIONS (DESG) STAGE			EVENTS		8	HOURS		8		
SCHOOL (SCHL) STAGE										
SCHL	6000	WTI Course.	B	G	(N)	*	*	0.5	6320, 6321, 8000, 8020, 8040, 8060, 8080	*
SCHL	6020	Link 16 Basics Course (JT-100).	B	G	(N)	*	*	0.5	*	*
SCHL	6021	Intro to Multi TDL Network (JT-101).	B	G	(N)	*	*	0.5	*	*
SCHL	6022	Multi-TDL Advanced Joint Interoperability Course (MAJIC) (JT-102).	B	G	(N)	*	*	0.5	6021	*
SCHL	6023	Link 16 Joint Interoperability Course (US-109).	B	G	(N)	*	*	0.5	*	*
SCHL	6030	Work Center Supervisor's Course.	B	G	(N)	*	*	0.5	*	*
SCHL	6031	MATC Maintenance Manager's Course.	B	G	(N)	*	*	0.5	*	*

5952 T&R SYLLABUS MATRIX										
STAGE	CODE	TITLE	POI	DEVICE	COND	PROFICIENCY PERIOD	E-CODED	TIME	PREREQ	CHAIN
SCHL	6060	Aeronautical Technical Publication Library Management Course.	B	G	(N)	*	*	0.5	*	*
SCHL	6073	Micro-Miniature Electronics Repair Course.	B	G	(N)	*	*	0.5	*	*
SCHL	6075	Naval Aviation Maintenance Program Management.	B	G	(N)	*	*	0.5	*	*
SCHL	6107	Equipment Grounding	B	G	(N)	*	*	0.5	*	*
TOTAL HOURS SCHOOL (SCHL) STAGE			EVENTS		11	HOURS		5.5		
CYBERSECURITY WORKFORCE (CSWF)										
CSFW	6040	Explain Information Security Principles.	B,R,M	G	(N)	1095	*	4	*	*
CSFW	6041	Perform account management.	B,R,M	L	(N)	1095	*	2	*	*
CSFW	6042	Explain risk management involved in operational security.	B,R,M	G	(N)	1095	*	4	*	*
CSWF	6043	Explain computer and network cryptography.	B,R,M	G	(N)	1095	*	4	*	*
CSWF	6044	Explain computer and networking equipment.	B,R	G	(N)	*	*	4	*	*
CSFW	6045	Explain Networking Concepts.	B,R	G	(N)	*	*	4	*	*
CSWF	6046	Explain Network media and topologies.	B,R	G	(N)	*	*	4	*	*
CSWF	6047	Explain troubleshooting of computer and network equipment.	B,R	G	(N)	*	*	4	6044, 6045, 6046	*
CSWF	6048	Administer data system host security measures.	B,R,M	L	(N)	1095	*	4	6040, 6042, 6043, 6044, 6045, 6046, 6047	*
CSWF	6049	Perform network management.	B,R,M	L	(N)	1095	*	4	6040, 6042, 6044, 6045, 6046, 6047	*
CSWF	6050	Design network architecture.	B,R,M	L	(N)	1095	*	4	6040, 6042, 6043, 6044, 6045, 6046,6047	*
TOTAL HOURS CYBERSECURITY WORKFORCE (CSWF)			EVENTS		11	HOURS		42		
TOTAL HOURS CQD PHASE (6000)								81		

5952 T&R SYLLABUS MATRIX										
STAGE	CODE	TITLE	POI	DEVICE	COND	PROFICIENCY PERIOD	E-CODED	TIME	PREREQ	CHAIN
MISSION ESSENTIAL TASK (MET) PHASE (7000)										
ATC CONDITION (COND) STAGE										
COND	7100	Provide ATC tower services.	B,R,M	L	(N)	730	E	18	*	*
COND	7200	Provide ATC approach services.	B,R,M	L	(N)	730	E	12	*	*
COND	7300	Provide ATC arrival/departure services.	B,R,M	L	(N)	365	E	12	*	*
COND	7400	Conduct Marine air traffic control mobile team (MMT) ALZ operations.	B,R,M	L	(N)	730	E	2	*	*
COND	7500	Conduct Marine air traffic control mobile team (MMT) FARP operations.	B,R,M	L	(N)	730	E	2	*	*
TOTAL HOURS ATC CONDITION (COND) STAGE			EVENTS		5	HOURS		46		
TOTAL HOURS MISSION ESSENTIAL TASK (MET) PHASE (7000)								46		
AVIATION CAREER PROGRESSION MODEL PHASE (ACPM) (8000)										
AVIATION CAREER PROGRESSION MODEL (ACPM)										
ACPM	8000	MACCS.	B	G	(N)	*	*	1	8001, 8002, 8003, 8004, 8005, 8006, 8008	*
ACPM	8001	Marine Air Command and Control System.	B	G	(N)	*	*	4	*	*
ACPM	8002	Tactical Air Command Center (TACC).	B	G	(N)	*	*	4	*	*
ACPM	8003	Direct Air Support Center (DASC).	B	G	(N)	*	*	4	*	*
ACPM	8004	Tactical Air Operations Center (TAOC).	B	G	(N)	*	*	4	*	*
ACPM	8005	Marine Air Traffic Control (MATC).	B	G	(N)	*	*	4	*	*
ACPM	8006	Low Altitude Air Defense (LAAD).	B	G	(N)	*	*	4	*	*
ACPM	8008	Marine Wing Communications Squadron (MWCS).	B	G	(N)	*	*	4	*	*
ACPM	8020	ACE.	B	G	(N)	*	*	1	8021, 8022, 8023, 8024, 8025, 8026, 8027, 8028	*
ACPM	8021	Aviation Operations.	B	G	(N)	*	*	4	*	*
ACPM	8022	Control of Aircraft and Missiles.	B	G	(N)	*	*	4	*	*

5952 T&R SYLLABUS MATRIX										
STAGE	CODE	TITLE	POI	DEVICE	COND	PROFICIENCY PERIOD	E-CODED	TIME	PREREQ	CHAIN
ACPM	8023	Offensive Air Support (OAS).	B	G	(N)	*	*	4	*	*
ACPM	8024	Assault Support (AS).	B	G	(N)	*	*	4	*	*
ACPM	8025	Air Reconnaissance.	B	G	(N)	*	*	4	*	*
ACPM	8026	Electronic Warfare (EW).	B	G	(N)	*	*	1	*	*
ACPM	8027	Anti-Air Warfare (AAW).	B	G	(N)	*	*	4	*	*
ACPM	8028	Aviation Ground Support.	B	G	(N)	*	*	4	*	*
ACPM	8040	Threat.	B	G	(N)	*	*	1	8041, 8042, 8043, 8044	*
ACPM	8041	Surface to Air threat to the MAGTF.	B	G	(N)	*	*	4	*	*
ACPM	8042	Fixed Wing threat to the MAGTF.	B	G	(N)	*	*	4	*	*
ACPM	8043	Rotary Wing threat to the MAGTF.	B	G	(N)	*	*	4	*	*
ACPM	8044	Missile and UAS threat to the MAGTF.	B	G	(N)	*	*	4	*	*
ACPM	8060	MAGTF.	B	G	(N)	*	*	1	8061, 8062, 8063, 8064, 8065, 8066, 8067	*
ACPM	8061	Ground Combat Operations.	B	G	(N)	*	*	4	*	*
ACPM	8062	Fire Support Coordination in the GCE.	B	G	(N)	*	*	4	*	*
ACPM	8063	MAGTF Command and Control.	B	G	(N)	*	*	4	*	*
ACPM	8064	MAGTF Communications.	B	G	(N)	*	*	4	*	*
ACPM	8065	Phasing Control Ashore.	B	G	(N)	*	*	4	*	*
ACPM	8066	Information Management.	B	G	(N)	*	*	4	*	*
ACPM	8067	UAS support of the MAGTF.	B	G	(N)	*	*	4	*	*
ACPM	8080	Joint Air Operations.	B	G	(N)	*	*	1	8081, 8082, 8083, 8084, 8085, 8086, 8087, 8088	*
ACPM	8081	Command and Control of Joint Air Operations.	B	G	(N)	*	*	4	*	*
ACPM	8082	Theater Air Ground System (TAGS).	B	G	(N)	*	*	4	*	*
ACPM	8083	Joint Fire Support.	B	G	(N)	*	*	4	*	*
ACPM	8084	Close Air Support (CAS).	B	G	(N)	*	*	4	*	*
ACPM	8085	Joint Targeting.	B	G	(N)	*	*	4	*	*
ACPM	8086	North Atlantic Treaty Organization (NATO).	B	G	(N)	*	*	4	*	*
ACPM	8087	Joint Airspace Control.	B	G	(N)	*	*	4	*	*

5952 T&R SYLLABUS MATRIX										
STAGE	CODE	TITLE	POI	DEVICE	COND	PROFICIENCY PERIOD	E-CODED	TIME	PREREQ	CHAIN
ACPM	8088	Countering Air and Missile Threats.	B	G	(N)	*	*	4	*	*
TOTAL HOURS (ACPM) STAGE			EVENTS		39	HOURS		138		
TOTAL ACPM PHASE (8000)								138		

8.16 MIRRORING TABLE.

MACCS MAINTENANCE MIRRORING (5952)		
NEW EVENT		MATC
CSWF - 1005		*
CSWF - 1006		*
MATCLS - 1200		MATCLS-1200
MATCLS - 1205		MATCLS-1205
MATCLS - 1210		MATCLS-1210
MATCLS - 1215		MATCLS-1215
MATCLS - 1220		MATCLS-1220
MATCLS - 1225		MATCLS-1225
MATCLS - 1230		MATCLS-1230
MATCLS - 1235		MATCLS-1235
MMCN - 2000		SEC-2175
MMCN - 2001		SEC-2155
MMCN - 2002		SEC-2170
MMCN - 2003		SEC-2160
MMCN - 2004		EQPT-2050
MMCN - 2005		EQPT-2055
MMCN - 2006		MMGT-2221
MMCN - 2007		MMGT-2212
MMCN - 2008		*

MACCS MAINTENANCE MIRRORING (5952)		
NEW EVENT		MATC
MMCN - 2009		MMGT-2223
MMCN - 2010		*
MMCN - 2011		SEC-2165
MMCN - 2012		*
MMCN - 2013		*
MMCN - 2014		MMGT-2221
ORNT - 2031		*
MMGT - 2061		MMGT-2207
MMGT - 2064		MMGT-2211
MMGT - 2065		MMGT-2213
MMGT - 2071		MMGT-2234
MMGT - 2074		MMGT-2209
MMGT - 2075		*
MMGT - 2076		*
MMGT - 2077		*
MMGT - 2078		*
MMGT - 2079		*
MMGT - 2080		*
MMGT - 2081		*
MMGT - 2082		*
MMGT - 2083		*
MMGT - 2084		*
MMGT - 2085		*
MMGT - 2086		*
IADS - 2091		*
IADS - 2092		*
NAV - 2133		NAV-2700
NAV - 2134		NAV-2701
NAV - 2135		NAV-2702
NAV - 2136		NAV-2703
NAV - 2137		NAV-2704
NAV - 2138		NAV-2705
NAV - 2139		NAV-2706
NAV - 2140		NAV-2707
NAV - 2141		NAV-2708

MACCS MAINTENANCE MIRRORING (5952)		
NEW EVENT		MATC
NAV - 2142		NAV-2709
NAV - 2143		NAV-2710
NAV - 2144		*
NAV - 2145		NAV-2711
NAV - 2146		NAV-2712
NAV - 2147		*
NAV - 2148		*
NAV - 2149		*
NAV - 2150		*
NAV - 2151		*
NAV - 2152		*
NAV - 2153		*
MMTN - 2226		MMTM-2500
MMTN - 2227		MMTM-2505
MMTN - 2228		MMTM-2510
MMTN - 2229		*
MMTN - 2230		*
DEPL - 2238		DEPL-2405
DEPL - 2239		DEPL-2410
MMCN - 3030		DEPL-3400
MMCN - 3031		*
MMCN - 3032		*
MMTM - 3034		MMTM-3505
MMTM - 3035		MMTM-3510
IADS - 3040		*
NAV - 3056		NAV-3700
NAV - 3057		*
NAV - 3058		NAV-3705
NAV - 3059		NAV-3710
NAV - 3060		NAV-3715
NAV - 3061		
NAV - 3062		
MMGT - 3011		*
MMGT - 4200		*
NAV - 4229		*

MACCS MAINTENANCE MIRRORING (5952)		
NEW EVENT		MATC
NAV - 4230		*
NAV - 4231		*
NAV - 4237		*
IUT - 5000		IUT - 5000
IUT - 5010		IUT - 5010
IUT - 5020		IUT - 5020
IUT - 5100		IUT - 5100
IUT - 5110		IUT - 5110
IUT - 5120		IUT - 5120
IUT - 5130		IUT - 5130
SCHL - 6000		*
SCHL - 6020		*
SCHL - 6021		*
SCHL - 6022		*
SCHL - 6023		*
SCHL - 6030		*
SCHL - 6031		*
CSFW - 6040		*
CSFW - 6041		*
CSFW - 6042		*
CSFW - 6043		*
CSFW - 6044		*
CSFW - 6045		*
CSFW - 6046		*
CSFW - 6047		*
CSFW - 6048		*
CSFW - 6049		*
CSFW - 6050		*
SCHL - 6060		*
SCHL - 6073		*
SCHL - 6075		*
DESG - 6104		*
DESG - 6105		*
CERT - 6220		*
CERT - 6221		*

MACCS MAINTENANCE MIRRORING (5952)		
NEW EVENT		MATC
CERT - 6222		*
DESG - 6320		DESG - 6320
DESG - 6321		DESG - 6321
DESG - 6322		DESG - 6322
DESG - 6330		*
DESG - 6360		DESG - 6360
COND - 7100		*
COND - 7200		*
COND - 7300		*
COND - 7400		*
COND - 7500		*

CHAPTER 9

MARINE AIR TRAFFIC CONTROL RADAR TECHNICIAN/MOS 5953
INDIVIDUAL TRAINING AND READINESS REQUIREMENTS

	<u>PARAGRAPH</u>	<u>PAGE</u>
CREWMEMBER T&R SYLLABUS REQUIREMENTS.	9.0	9-3
TRAINING PROGRESSION MODEL.	9.1	9-3
PROGRAMS OF INSTRUCTION (POI).	9.2	9-3
PROFICIENCY AND CURRENCY.	9.3	9-4
CERTIFICATION, QUALIFICATION, AND DESIGNATION TABLES	9.4	9-5
SYLLABUS NOTES.	9.5	9-6
CORE INTRODUCTION PHASE (1000).	9.6	9-7
CORE PHASE (2000)	9.7	9-12
MISSION PHASE (3000).	9.8	9-42
CORE PLUS PHASE (4000).	9.9	9-50
MISSION PLUS PHASE (4500)	9.10	9-52
INSTRUCTOR TRAINING PHASE (5000).	9.11	9-52
CERTIFICATIONS, QUALIFICATIONS, AND DESIGNATIONS (CQD) PHASE (6000)	9.12	9-57
MISSION ESSENTIAL TASK PHASE (MET) (7000).	9.13	9-65
AVIATION CAREER PROGRESSION MODEL (8000).	9.14	9-69
T&R SYLLABUS MATRIX.	9.15	9-86

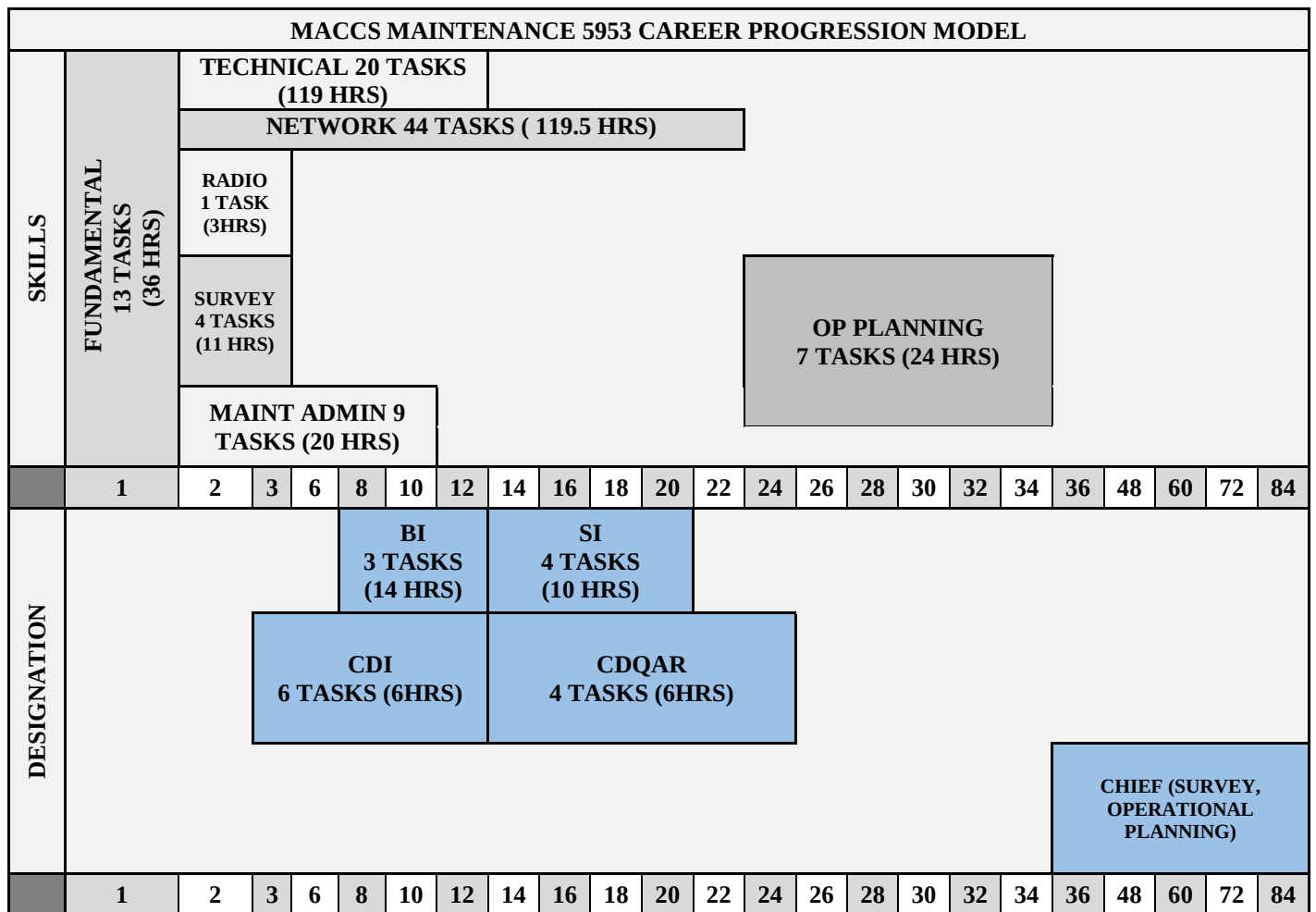
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CHAPTER 9

MARINE AIR TRAFFIC CONTROL RADAR TECHNICIAN/MOS 5953 INDIVIDUAL TRAINING AND READINESS REQUIREMENTS

9.0 CREWMEMBER T&R SYLLABUS REQUIREMENTS. This T&R Syllabus is based on specific goals and performance standards designed to ensure individual proficiency in Core Phase and Mission Phase skills. The goal of this chapter is to develop individual and unit warfighting capabilities.

9.1 TRAINING PROGRESSION MODEL. This model represents the recommended average training progression for the Aviation Radar Technician crewmember. Units should use the model as a point of departure to generate individual training plans. Marines that have completed the WCS syllabus for MOS 5951, 5952, 5953, 5954 are authorized to begin training within the 5959 Maintenance Chief syllabus and obtain the Maintenance Chief designation.



NOTE: TIME IS EXPRESSED IN TRAINING MONTHS

9.2 PROGRAMS OF INSTRUCTION (POI). These tables reflect average time- to-train versus the minimum to maximum time-to-train parameters in the Training Progression Model.

9.2.1 Basic POI.

MATC MAINTENANCE MOS 5953 BASIC POI		
WEEKS	PHASE OF INSTRUCTION	UNIT RESPONSIBLE
0-9	CORE INTRODUCTION PHASE	NATTC PENSACOLA, FL
12-22	CORE PHASE	TACTICAL SQUADRON
24-29	MISSION PHASE	TACTICAL SQUADRON

9.2.2 Refresher POI.

MATC MAINTENANCE MOS 5953 REFRESHER POI		
WEEKS	PHASE OF INSTRUCTION	UNIT RESPONSIBLE
VARIES	CORE PHASE	TACTICAL SQUADRON
VARIES	MISSION PHASE	TACTICAL SQUADRON
VARIES	CORE PLUS	TACTICAL SQUADRON

NOTE 1: TRAINING DURATIONS VARIES BY POSITION BEING TRAINED. SEE PROGRESSION MODEL FOR NOTIONAL TRAINING TIMES.

9.3 PROFICIENCY AND CURRENCY.

9.3.1 Event Proficiency. Event proficiency is defined as successful completion of the performance standard as determined by the instructor or evaluator. Event completion is predicated upon demonstrated proficiency. Once completed, it is logged in M-SHARP by entering the appropriate event code. M-SHARP automatically updates the event proficiency date to reflect the completion date.

9.3.2 Skill Proficiency. Proficiency is a measure of achievement of a specific skill. To attain individual skill proficiency, an individual must be simultaneously proficient in all events for that skill. Individuals may be attaining proficiency in some skills while maintaining proficiency in others. Refresher training is required once an individual has been absent from a technician billet for 36 months or longer. Upon return, the individual will complete R-coded events.

9.3.2.1 Maintaining Skill Proficiency. Once attained, skill proficiency is maintained by executing those events which have a Proficiency Period (Maintain events). Proficiency Periods establish the maximum time between event demonstrations. Should proficiency be lost in any maintain event, for a specific skill, that skill proficiency is temporarily lost. Skill proficiency can be re-attained by again demonstrating proficiency in the event(s) that are not proficient. For flying communities, an individual shall complete delinquent events with a proficient instructor, crewman/flight lead as delineated by the T/M/S Syllabus Sponsor (see Chapter 3 of the Program Manual on specific instructor requirements for Low Altitude Flight, Night Systems, ACM, DM, DACM, DCM, FAC(A)).

9.3.2.2 Loss of Individual Skill Proficiency. Should an individual lose proficiency in all maintain events in a skill, the individual will be assigned to the Refresher POI for the skill. To regain skill proficiency, the individual must demonstrate proficiency in all R-coded events for the skill.

9.3.2.3 Loss of Unit Skill Proficiency. If an entire unit loses proficiency in an event, unit instructors shall regain proficiency by completing the event with an instructor from a like unit. If not feasible, the instructor shall regain proficiency by completing the event with another instructor. For flying communities, if a unit has only one instructor and cannot complete the event with an instructor from another unit, the instructor shall regain proficiency with another aircraft commander or as designated by the commanding officer.

9.3.2.4 Proficiency Status. Proficiency is a “Yes/No” status by skill assigned to an individual. When an individual attains and maintains Core, Mission, Core Plus, or Mission Plus Phase skills, the individual may count towards CMMR or CMTS.

9.3.3 Skill Currency. Currency is a control measure used to provide an additional margin of safety based on exposure frequency to a particular skill and applies to all MOS’s that must comply with NATOPS and OPNAV requirements. It is a measure of time since the last event demanding that specific skill. Specific currency requirements for aircrew individual type mission profiles can be found in Chapter 3.

9.4 CERTIFICATION, QUALIFICATION AND DESIGNATION TABLES. The tables below delineate T&R events required to be completed to attain proficiency for select certifications, qualifications and designations. In addition to event requirements, all required stage lectures, briefs, squadron training, prerequisites, and other criteria shall be completed prior to completing final events. Certification, qualification and designation letters signed by the commanding officer shall be placed in training Performance Records and NATOPS. See Chapter 6 of the Aviation T&R Program Manual on regaining lost qualifications.

9.4.1 INSTRUCTOR DESIGNATIONS.

MOS 5953 INSTRUCTOR DESIGNATIONS	
DESIGNATION	EVENTS
BASIC INSTRUCTOR (BI)	5000, 5010, 5020, 6320
SENIOR INSTRUCTOR (SI)	5000, 5010, 5020, 5100, 5110, 5120, 5130, 6320, 6321
WEAPONS AND TACTICS INSTRUCTOR (WTI)	6000
FORMAL LEARNING CENTER INSTRUCTOR (FLCI)	6096

9.4.2 CERTIFICATIONS, QUALIFICATIONS, AND DESIGNATIONS.

MOS 5953	
CERTIFICATIONS, QUALIFICATIONS, AND DESIGNATIONS (CQD)	
CERTIFICATIONS	EVENTS
CSWF Technical Support Specialist	6260
CSWF IT Specialist	6261
CSWF System Administrator	6262

9.5 SYLLABUS NOTES.

9.5.1 All Events, to include simulators, shall begin with a comprehensive brief with emphasis on administrative procedures, CRM, mission performance standards and aircrew expectations.

9.5.2 All flights shall terminate with a comprehensive debrief with emphasis on aircrew performance utilizing all evaluation techniques available.

9.5.3 An ATF is required for any initial event completed by a Basic or Refresher pilot, or as recommended by the squadron Standardization Board. If the commanding officer has waived/deferred a syllabus sortie, the squadron training officer shall place a waiver/deferral letter in section 3 of the APR.

9.5.4 Event Conditions. Refer to the following table for required event conditions.

Environmental Conditions	
Code	Meaning
(N)	May be conducted day or night – If at night, aided or unaided

9.5.5 Device Matrix.

Device	
Symbol	Meaning
L	Conducted using Unit T/E equipment.
L/S	Live Preferred/Simulator Optional.
G	Ground/academic training. May include Distance Learning, CBT, lectures, self-paced.

9.5.6 Program of Instruction Matrix.

PROGRAM OF INSTRUCTION MATRIX		
Program of Instruction (POI)	Symbol	Aviation Ground
Basic	B	Initial MOS Training
Refresher	R	Return to community from non (MOS/Skill) associated tour
Maintain	M	All individuals who have attained CSP/MSP/PPP by initial POI assignment are re- assigned to the M POI to maintain proficiency.

9.5.7 Event Terms.

EVENT TERMS	
TERM	DESCRIPTION

Discuss	An explanation of systems, procedures, or tactics during the brief, exercise, or debrief. Student is responsible for knowledge of procedures.
Demonstrate	The description and performance of a particular event by the instructor, observed by the student. The student is responsible for knowledge of the procedures prior to the demonstration of a required event.
Introduce	The instructor may demonstrate a procedure or event to a student, or may coach the student through the maneuver without demonstration. The student performs the procedures or maneuver with coaching as necessary. The student is responsible for knowledge of the procedures.
Practice	The performance of a maneuver or procedure by the student that may have been previously introduced in order to attain a specified level of performance.
Review	Demonstrated proficiency of an event by the student.
Evaluate	Any event designed to evaluate team/crew standardization that does not fit another category.

9.6 CORE INTRODUCTION PHASE (1000).

9.6.1 Purpose. To provide entry level instruction to develop the basic skills necessary to become a MOS 5953 Air Traffic Control Radar Technician. This training is completed upon graduation from the Marine Air Traffic Control Radar Technician course.

9.6.2 General.

9.6.2.1 Admin Notes. None.

9.6.2.2 Prerequisite. Meet the requirement delineated in the MOS Manual (MCBul 1200).

9.6.2.3 Stages. The following stages are included in the Core Introduction Phase of training:

PAR NO.	STAGE NAME	PAGE NUMBER
9.6.3	CYBER SECURITY WORKFORCE (CSWF)	9-7
9.6.4	MARINE AIR TRAFFIC CONTROL LANDING SYSTEM (MATCLS)	9-8

9.6.3 CYBER SECURITY WORKFORCE (CSWF) STAGE

9.6.3.1 Purpose. To provide entry-level skills in computing and networking that will be used in the performance of assigned duties within the Marine Air Command and Control System (MACCS).

9.6.3.2 General.

Admin Notes. The following events establish the foundational skills required to be successful in the cyber security workforce.

Prerequisites.

1. Graduate from the Marine Avionics ATT Course (N23KJ22), NAS Pensacola, FL.
2. Graduate from the Aviation Warfare Apprentice Training (AWAT) Course (N23E2X2), NAS Pensacola, FL.
3. Graduate from the Avionics Technician I Level Class A1 (N23A952), NAS Pensacola, FL.
4. Meet the 5953 requirements delineated in the MOS Manual (MCBul 1200).

Crew Requirements. None.

CSWF-1005 0 * B (N) G

Goal. Provide cyberwarfare technical support and troubleshooting.

Requirement. Provided the references and appropriate equipment:

1. Install and configure hardware, software, and peripheral equipment.
2. Manage accounts, networks, and access to systems and equipment.
3. Monitor client-level computer system performance.
4. Diagnose and resolve operator reported system incidents
5. Troubleshoot system hardware and software.
6. Implement disaster recovery continuity of operations plans.

Performance Standard. Pass an exam.

Instructor. FLCI.

Prerequisite. None.

References.

1. DoD 8570.01_, Information Assurance Workforce Improvement Program
2. SECNAVINST 5239.20_, DON Cyber IT and CSWF Management and Qualification
3. MCO 5239.20_, Department of the Navy Cyberspace Information Technology and Cybersecurity Workforce Management
4. National Initiative for Cybersecurity Careers and Studies (NICCS) website

CSWF-1006	0	*	B	(N)	G

Goal. Repair common cables.

Requirement. Provided the appropriate equipment repair:

1. Ethernet/RJ-45 cable.
2. BNC cable.
3. RF cable.
4. Data cable.

Performance Standard. Pass an exam.

Instructor. FLCI.

Prerequisite. None.

References.

1. Companion Guide 3rd Edition ISBN-13:978-1-58713-199-8
2. TIA/EIA-568-B.1-2001 ANSI/TIA/EIA-568-B.1-2001
3. Twisted pair cable test set 33-933NV Operator Manual 6510-00-5037
4. User's Manual for cable analyzer, DSP-4300/AN TM 10704B-OI/1
5. Fiber Optics Technician's Manual 3rd Edition
6. Understanding Fiber Optics 5th Edition ISBN 0-13-117429-0
7. Standard Maintenance Practices Miniature/Microminiature (2M) Electronic Assembly Repair Organizational/Intermediate/Depot Level TM 5895 45/1

9.6.4 MARINE AIR TRAFFIC CONTROL LANDING SYSTEM (MATCLS) STAGE

9.6.4.1 Purpose. To provide entry-level instruction to develop the basic skills necessary to configure and setup communications equipment, conduct preventive maintenance and limited technical inspections on assigned equipment.

This training phase is complete upon graduation from the Marine Air Traffic Control Radar Technician Course when the trainee is designated MOS 5953, Air Traffic Control Radar Technician.

9.6.4.2 General.

Admin Notes. Marine Air Traffic Control Radar Technician Course (CID: N2359L2), NATTC, is located in Pensacola, FL.

Prerequisite.

1. Graduate from the Marine Air Traffic Control Technician Common Core (CID: N23XSET);
2. Meet the 5953 requirements delineated in the MOS Manual.

Crew Requirements. None

MATCLS-1300 0 * B (N) G

Goal. Perform corrective maintenance on the AN/TPN-31 to the lowest repairable unit (LRU).

Requirement. Given the references and an inoperative AN/TPN-31, complete the following steps:

1. Adhere to safety requirements.
2. Research applicable technical data pertaining to faulty equipment.
3. Read schematic diagrams.
4. Ensure proper handling of ESD components.
5. Set up test equipment.
6. Connect test equipment.
7. Measure basic circuit performance.
8. Trace signal paths.
9. Trace current/voltage paths.
10. Identify faulty subassembly(s).

Performance Standard. Pass an exam.

Instructor. FLCI.

Prerequisite. None.

References.

1. NAVAIR 16-60TPN31_, Operator Manual Air Traffic Navigation, Integration, and Coordination System
2. NAVAIR 16-60TSQ263_, Operation and Organizational Maint Instructions Tactical Terminal Control System

MATCLS-1305 0 * B (N) G

Goal. Setup the AN/TPN-31 with AN/TSQ-263 on an airfield.

Requirement. As a member of a crew, given space on an airfield, references, tools, and an AN/TPN-31 with AN/TSQ-263, setup the radar on the airfield by completing the follow:

1. Perform a site survey for the AN/TPN-31.
2. Inventory the system.
3. Raise the array.
4. Assist with setup of the operations shelter.
5. Assist with the setup of the AN/TSQ-263.
6. Ground the system.

Performance Standard. Pass an exam.

Instructor. FLCI.

Prerequisite. None.

References.

1. NAVAIR 16-60TPN31_, Operator Manual Air Traffic Navigation, Integration, and Coordination System
2. NAVAIR 16-60TSQ263_, Operation and Organizational Maint Instructions Tactical Terminal Control System

MATCLS-1310 0 * B (N) G

Goal. Disassemble the AN/TPN-31 with the AN/TSQ-263.

Requirement. As a member of a crew, given the reference, tools, and an AN/TPN-31 with AN/TSQ-263, disassemble the radar by completing the follow:

1. Lower the array.
2. Assist in disassembly of the AN/TSQ-263.
3. Assist with disassembly of the operations shelter.
4. Inventory the system.
5. Pack the system.

Performance Standard. Pass an exam.

Instructor. FLCI.

Prerequisite. None.

References.

1. NAVAIR 16-60TPN31_, Operator Manual Air Traffic Navigation, Integration, and Coordination System
2. NAVAIR 16-60TSQ263_, Operation and Organizational Maint Instructions Tactical Terminal Control System

MATCLS-1315 0 * B (N) G

Goal. Perform post emplacement procedures on the AN/TPN-31 and AN/TSQ-263.

Requirement. As a member of a crew, given the references, and an AN/TPN-31, perform the post emplacement procedures on the radar by completing the following:

1. Perform system energizing procedure.
2. Build the environment for the system.

Performance Standard. Pass an exam.

Instructor. FLCI.

Prerequisite. None.

References.

1. NAVAIR 16-60TPN31_, Operator Manual Air Traffic Navigation, Integration, and Coordination System
2. NAVAIR 16-60TSQ263_, Operation and Organizational Maint Instructions Tactical Terminal Control System

MATCLS-1320 0 * B (N) G

Goal. Perform Corrective maintenance on the AN/TSQ-263 to the lowest repairable unit (LRU).

Requirement. Given the references and an inoperative AN/TSQ-263, complete the following:

1. Adhere to safety requirements.
2. Research applicable technical data pertaining to faulty equipment.
3. Read schematic diagrams.
4. Ensure proper handling of ESD components.
5. Measure basic circuit performance.
6. Trace signal paths.
7. Trace current/voltage paths.
8. Identify faulty subassembly(s).

Performance Standard. Pass an exam.

Instructor. FLCI.

Prerequisite. None.

Reference.

1. NAVAIR 16-60TSQ263_, Operation and Organizational Maint Instructions Tactical Terminal Control System

MATCLS-1321 0 * B (N) G

Goal. Perform corrective maintenance on the AN/TYQ-164 to the lowest repairable unit (LRU).

Requirement. Given the references and an inoperative AN/TYQ-164, complete the following steps:

1. Adhere to safety requirements.
2. Research applicable technical data pertaining to faulty equipment.
3. Read schematic diagrams.
4. Ensure proper handling of ESD components.
5. Set up test equipment.
6. Connect test equipment.
7. Measure basic circuit performance.
8. Trace signal paths.
9. Trace current/voltage paths.
10. Identify faulty subassembly(s).

Performance Standard. Pass an exam.

Instructor. FLCI.

Prerequisite. None.

References.

1. NAVAIR 16-60TPN31_, Operator Manual Air Traffic Navigation, Integration, and Coordination System
2. NAVAIR 16-60TSQ263_, Operation and Organizational Maint Instructions Tactical Terminal Control System

MATCLS-1322 0 * B (N) G

Goal. Setup the AN/TYQ-164.

Requirement. As a member of a crew, given space on an airfield, references, tools, and an AN/TYQ-164, setup AN/TYQ-164:

1. Inventory the system.
2. Set Up Tactical Workstation.
3. Set Up Range Guardian.
4. Set Up Monitor.

5. Connect Monitor to Tactical Workstation, connect Tactical Workstation to Range Guardian.
6. Install Software.

Performance Standard. Pass an exam.

Instructor. FLCI.

Prerequisite. None.

References.

1. NAVAIR 16-60TPN31_, Operator Manual Air Traffic Navigation, Integration, and Coordination System
2. NAVAIR 16-60TSQ263_, Operation and Organizational Maint Instructions Tactical Terminal Control System

MATCLS-1323 0 * B (N) G

Goal. Disassemble the AN/TYQ-164.

Requirement. As a member of a crew, given the reference, tools, and an AN/TYQ-164, disassemble the AN/TYQ-164 by completing the follow:

1. Disconnect cables.
2. Take down monitor.
3. Take down range guardian.
4. Take down tactical workstation.
5. Inventory the system.
6. Pack the system.

Performance Standard. Pass an exam.

Instructor. FLCI.

Prerequisite. None.

References.

1. NAVAIR 16-60TPN31_, Operator Manual Air Traffic Navigation, Integration, and Coordination System
2. NAVAIR 16-60TSQ263_, Operation and Organizational Maint Instructions Tactical Terminal Control System

9.7 CORE PHASE (2000)

9.7.1 Purpose. Instruct trainee to survey, site, install and operate precision approach and surveillance radar systems to include planned and corrective maintenance.

1. Radar Chiefs will gain Core Phase skill proficiency in supervising and managing maintenance section operations to include Radar operations and maintenance, and maintenance management. This training will provide the Radar Chief the necessary skills to run a Radar section.

9.7.2 General.

9.7.2.1 Admin Notes.

1. Training in this phase does not preclude simultaneous training in the Mission and Core Plus Phases provided applicable prerequisites have been met.
2. Individual Core Phase skills are learned and mastered using a varied combination of written exams, scenarios and practical demonstrations of proficiency.

9.7.2.2 Prerequisite. None.

9.7.2.3 Stages. The following stages are included in the Core Phase:

PAR NO.	STAGE NAME	PAGE NUMBER
9.7.3	MACCS MAINTENANCE COMMON (MMCN)	9-13
9.7.4	ORIENTATION (ORNT)	9-18
9.7.5	MAINTENANCE MANAGEMENT (MMGT)	9-19
9.7.6	DEPLOYMENT (DEPL)	9-26
9.7.7	RADAR (RADAR)	9-27
9.7.8	COMMUNICATION (COMM)	9-34
9.7.9	CYBER SECURITY WORKFORCE (CSWF)	9-35
9.7.10	INTEGRATED AIR DEFENSE SYSTEMS (IADS)	9-39
9.7.11	TACTICAL DATA LINKS (TDL)	9-40

9.7.3 MACCS MAINTENANCE COMMON (MMCN) STAGE

9.7.3.1 Purpose. To provide entry-level skills that are common to all 5900 occupational field technicians that will be used in the performance of assigned duties within the Marine Air Command and Control System (MACCS).

9.7.3.2 General.

Prerequisite.

1. Meet the requirements delineated in the MOS Manual.

Admin Notes. None.

Crew Requirements. None.

MMCN-2000 1.0 * B, R (N) L

Goal. Operate a common fill device.

Requirement. Given two loaded common fill devices and a zeroized cryptographic device, perform the following:

1. Describe the purpose of a common fill device.
2. Define the common fill device loading procedure.
3. Configure the common fill device.
4. Identify common fill device indicators and messages.
5. Transfer key material to Controlled Cryptographic Item (CCI) equipment.
6. Transfer cryptographic information from common fill device to common fill device.
7. Destroy superseded key material within the cryptographic fill device.

Performance Standard. With the aid of reference, load key material into appropriate COMSEC equipment using a fill device and destroy superseded key material without error.

Instructor. BI.

Prerequisite. None.

Reference.

1. EKMS-1_, Electronic Key Management System

MMCN-2001 1.0 * B, R (N) G

Goal. State the physical security requirements for classified areas.

Requirement. Given a tactical scenario and references, identify the following:

1. Purpose of a guard schedule.
2. Purpose of access control.
3. Purpose of the entry control point.
4. Perimeter barrier requirements.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

Reference.

1. MCO P5530.14_, Marine Corps Physical Security Program Manual

MMCN-2002 1.0 * B, R (N) G

Goal. Extract key material information from COMSEC callout.

Requirement. Given a COMSEC callout and references, perform the following:

1. State the purpose of the COMSEC callout.
2. Identify the five main pieces of key information:
 - a. Short Title.
 - b. Edition.
 - c. Segment.
 - d. Classification.
 - e. Supersession date.
3. Identify segment roll over dates and time.
4. Identify short titles applicable to specific implementations within the unit.

Performance Standard. With the aid of reference, state the purpose and identify the key information on the callout. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

References.

1. EKMS-1_, Electronic Key Management System
2. MCWP 3-40.3, MAGTF Communications System

MMCN-2003 1.0 * B, R (N) L

Goal. Create a classified area physical security diagram.

Requirement. Given a tactical scenario and references, create a diagram that includes the following:

1. Entry control point(s).
2. Perimeter barrier.
3. Communication lines.
4. Storage area locations.

Performance Standard. With the aid of reference, draw a diagram depicting the information listed in the requirement. Instructor will validate that the diagram supports the scenario. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. 2001.

References.

1. MCO P5530.14, Marine Corps Physical Security Program Manual
2. FM 5-34, Engineer Field Data

MMCN-2004 1.0 1095 B, R, M (N) L

Goal. Operate the handheld GPS.

Requirement. Perform the following:

1. State the purpose of the handheld GPS.
2. State the characteristics of the handheld GPS.
3. Find current location (coordinates including elevation).
 - a. MGRS.
 - b. LAT/LONG.
 - c. UTM/UPS.
4. Plot a way point.
5. Given coordinates, navigate to a location.

Performance Standard. Given a handheld GPS, complete the requirements without error. Navigation part of requirement will be three points within a one mile radius within one hour.

Instructor. BI.

Prerequisite. None.

Reference.

1. TM 11-5820-1172-13, Defense Advanced GPS Receiver (DAGR), AN/PSN-13

MMCN-2005 1.0 365 B, R, M (N) L

Goal. Demonstrate an earth ground installation.

Requirement. Given a grounding kit and the reference:

1. Identify ground tolerances for equipment and personnel.
2. Identify methods of grounding.
3. Identify a method for improving a ground.
4. Identify proper location to test a ground.
5. Install an earth ground.
6. Create grounding pits.
7. Connect grounding braids/cables.
8. Test grounds with TMDE.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

Reference.

1. TM 9406-15, Ground Procedures Manual
2. MIL-STD-188-125
3. TM 5-690

MMCN-2006 2.0 1095 B, R, M (N) L

Goal. Develop an embarkation plan.

Requirement. Given the references and an operational scenario, perform the following:

1. State the purpose of an embarkation plan.
2. Produce an Equipment Density List (EDL).
3. Produce logistics documents as required.
4. Identify heavy equipment required to move EDL items.
5. Identify the modes of transportation required to move EDL items.

Performance Standard. With the aid of reference, complete the requirement and develop an embarkation plan to support the scenario. Minor corrections by the trainee are acceptable.

Instructor. BI.

Prerequisite. 2014.

References.

1. Applicable TM
2. Unit SOP

MMCN-2007 1.0 1095 B, R, M (N) G

Goal. Identify spectrum management procedures.

Requirement. Given the references and a scenario with operational requirements, perform the following:

1. Identify frequency requirements.
 - a. Identify submission timelines.
 - b. Identify data elements (frequency, location, power, dates).
2. Identify Satellite Access requirements.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

References.

1. MCRP 3-40B, Tactical Level Logistics
2. MCO 2400.2, Marine Corps Management of the Radio Frequency Spectrum

MMCN-2009 2.0 * B, R (N) L

Goal. Complete a Bill of Material (BOM) request.

Requirement. Given Training Exercise and Employment Plan (TEEP) documents and reference, perform the following:

1. Collect requests from maintenance sections.
2. Consolidate required materials into a BOM request.
3. Verify the request is sufficient to support required operations and for the length of the exercise, validate the content to ensure that it meets sustained operational requirement.
4. Submit a BOM request to the instructor.

Performance Standard. With the aid of reference, perform the requirements. Minor corrections by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

Reference.

1. MCO P4400.150_, Ships' Maintenance and Material Management Manual

MMCN-2010 2.0 * B (N) G

Goal. Identify Cryptographic Controlled Item (CCI) devices organic to the section.

Requirement. Perform the Following:

1. Inventory all CCI on the SF-153.
2. State the purpose of each piece of equipment.

Performance Standard. With the aid of reference, complete the requirements, minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

References.

1. Technical Manual
2. CMR

MMCN-2011 1.0 * B, R (N) L

Goal. Manage COMSEC/classified material.

Requirement. During a crew change over, perform the following:

1. Conduct classified material inventory.
2. Conduct CCI inventory.
3. Destroy superseded key material as required.

Performance Standard. With the aid of reference, conduct the inventories and destroy key materials without discrepancy.

Instructor. BI.

Prerequisite. None.

References.

1. EKMS-1_, Electronic Key Management System
2. SECNAVINST 5510, DON Information Security Program
3. Local SOP

MMCN-2012 1.0 1095 B, R, M (N) G

Goal. State the organizational destructive weather plan.

Requirement. Given the references, state the following:

1. When to shift from shore power to auxiliary power.
2. Equipment required to be packed and/or stored in order to prevent damage.
3. Locations systems and equipment are to be stored during inclement weather.
4. The precautions to take to prevent damage to equipment.
5. Location of destructive weather prevention materials.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

References.

1. OPNAVINST 3140.24, Adverse and Severe Weather Warnings
2. Unit SOP
3. NAVAIR 00-80T-114, NATOPS ATC Manual

MMCN-2013 1.0 * B (N) G

Goal. Describe the characteristics of unit T/E generators.

Requirement. Identify the following:

1. Frequency.
2. Voltage(s).
3. Load capacity.
4. Fuel consumption.
5. Phases.

Performance Standard. With the aid of reference, complete the requirements, minor errors corrected by the trainee are acceptable.

Instructor. BI

Prerequisite. None.

References.

1. Technical Manuals
2. <http://www.marcorsyscom.marines.mil/ProgramOffices/EPShome/MobileElectricPower.aspx>

MMCN-2014 1.0 * B, R (N) L

Goal. Produce an Equipment Density List (EDL).

Requirement. Given the references and a 30 day scenario, perform the following:

1. Define the purpose of an EDL.
2. Describe essential EDL contents.
3. Complete an EDL.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. BI

Prerequisite. None.

References.

1. MCTP 13-10C Unit Embarkation Handbook
2. Local SOP
3. Applicable TM

9.7.4 ORIENTATION (ORNT) STAGE

9.7.4.1 Purpose. To provide an overview of the Naval Aviation Maintenance Program.

9.7.4.2 General.

Admin Notes. None.

Prerequisites. None.

Crew Requirements. None.

ORNT-2031 1.0 * B, R (N) G

Goal. Complete NAMP indoctrination training.

Requirement. Complete the following NAMP Indoctrination training:

1. NAMP Compliance auditing.
2. NAMDRP.
3. Tool Control.
4. Corrosion.
5. Tech Data Management.
6. METCAL.
7. Technical Directives.
8. Logs and Records.
9. Material Control.
10. AMMRL.
11. Data Analysis.
12. CDI Periodic.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

Reference.

1. COMNAVAIRFORINST 4790.2, Naval Aviation Maintenance Program

9.7.5 MAINTENANCE MANAGEMENT (MMGT) STAGE

9.7.5.1 Purpose. To instruct trainee how to perform MATC maintenance management functions.

9.7.5.2 General.

Admin Notes. None.

Prerequisite. None.

Crew Requirements. None.

MMGT-2061 1.0 * B, R (N) L/S

Goal. Identify parts data.

Requirement. Given the reference, perform the following:

1. State sources that can be used to obtain parts data.
2. Research parts.
 - a. Part number.
 - b. Nomenclature.
 - c. NIIN.
3. Identify Source Maintenance and Recoverability (SMR) codes for system components and explain what level of maintenance is authorized.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

References.

1. NAVSUP P-488, COSAL Use and Maintenance Manual
2. FEDLOG
3. NAVSUP P-485, Navy Ashore Supply Procedures
4. NAVSUPINST 4423.29, Navy Uniform Source, Maintenance and Recoverability (SM&R) Codes
5. NAVSUP P-409 MILSTRIP/MILSTRAP DESKTOP GUIDE

MMGT-2064 1.0 * B, R (N) G

Goal. State the information contained in the allowance lists.

Requirement. State the information contained in the following:

1. Users Logistics Support Summary.
2. Table of Basic Allowance.
3. Marine Air Traffic Control and Landing Systems (MATCALS) equipment allowance list.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

References.

1. NAVAIR ATC-37-02, Users Logistics Support Summary
2. TM 3125-OI/1, TBA Manual
3. Fleet Marine Forces Air Traffic Control (FMFATC) Systems and Marine Air Traffic Control and Landing Systems (MATCALS) Equipment Allowance List
4. EL172-LQ-LSS-010

MMGT-2065 1.0 * B (N) L

Goal. Record equipment readiness using Aviation Management Supply and Readiness Reporting (AMSRR) system.

Requirement. Given user access and a work order, complete the following:

1. Create a maintenance discrepancy.
2. Create a supply discrepancy.
3. Input and update data to the required fields.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

Reference.

1. AMSRR Web 3.01 Software User Manual (SUM)

MMGT-2071 1.0 * B (N) L

Goal. State the purpose of the following MATCD Supply Functions.

Requirement. State the purpose of the following supply functions in accordance with the references:

1. Operation of the Navy Supply System (i.e. One Touch, SUADPS).
2. Functions of the Aviation Supply Departments (ASD, within a Marine Aviation Logistic Squadron (MALS).
3. Federal Logistic Data (FEDLOG) operations in management of supply support.
4. Military Standard Requisitioning and Issue Procedures (MILSTRIP).
5. Discrepancy reporting through Joint Deficiency Reporting System (JDRS).
6. Supply Discrepancy Reports.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

References.

1. NAVSUP PUB P-485 VOL. I, II, III, Navy Ashore Supply Procedures
2. NAVSUP PUB P-719, Guide for the Assignment, Application and Use of Source, Maintenance, and Recoverability Codes
3. NAVSUP INSTR-4423.29, Navy Uniform Source, Maintenance, and Recoverability Codes
4. NAVSUP PUB P-409, MILSTRIP MILSTRAP Desk Guide
5. MCO P4400.177_, Marine Corps Aviation Supply Desktop Procedures with Continuous Process Improvement
6. SPCCINST 4441.170_, COSAL Use and Maintenance Manual

MMGT-2074 1.0 * B, R (N) L

Goal. State the purpose of the MATCALs system history and inventory record.

Requirement. Given a system's historical file and reference, state the purpose of the following:

1. Custody and maintenance history record.
2. Transfer and acceptance checklist.
3. Shortage records.
4. Inventory record.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

Reference.

1. COMNAVAIRFORINST 4790.2_, Naval Aviation Maintenance Program

MMGT-2075 1.0 * B, R (N) L

Goal. Initiate a Work Order.

Requirement. Given the reference, perform the following:

1. Open the appropriate VED.
2. Select the proper type of work order to initiate.
3. Select EOC in accordance (Only U/D are accessible)
4. Modify the appropriate assembly code if other than the default.
5. Enter serial number.
6. Fill in the remaining required fields and click **Save**.
7. Save work order.

8. Respond to the print prompt accordingly.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

References.

1. OOMA Help Guide 5.22.
2. Applicable TM

MMGT-2076 1.0 * B, R (N) L

Goal. Update a Work Order.

Requirement. Given the reference, perform the following:

1. Add/Edit a job status.
2. Add/Edit Worker/In Work Time including toolbox.
3. Order a consumable.
4. Order a repairable.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

References.

1. OOMA Help Guide 5.22.
2. Applicable TM

MMGT-2077 1.0 * B, R (N) L

Goal. Close a Work Order.

Requirement. Given the reference, perform the following:

1. On the Active Work Order Query list, choose Update and select Repair.
2. Select appropriate transaction code.
3. Select appropriate action code.
4. Enter appropriate data in fillable boxes.
5. Sign off on the corrected by box.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

References.

1. OOMA Help Guide 5.22.
2. Applicable TM

MMGT-2078 3.0 * B (N) L

Goal. Perform Critical Maintenance Inspection Requirements.

Requirement. Perform all published critical maintenance inspection requirements and document via in process inspection.

Performance Standard. Ensure all inspection requirements are met without error.

Instructor. BI.

Prerequisite. None.

References.

1. OOMA Help Guide 5.22.
2. Applicable TM

MMGT-2079 1.0 * B (N) G

Goal. Describe the purpose of inspections..

Requirement. Describe the following inspections:

1. Special.
2. Conditional.
3. One time inspections.
4. In-process and final inspection requirements.
5. Critical maintenance inspection requirements.

Performance Standard. Complete the requirements without error.

Instructor. BI.

Prerequisite. None.

Reference.

1. OOMA User Guide 5.22

MMGT-2080 1.0 * B, R (N) L

Goal. Run an AD HOC query.

Requirement. Given the reference, perform the following:

1. Open the Ad Hoc VED.
2. Select Open New Query
3. Select an Ad Hoc from files.
4. Input search criteria.
5. Run ad hoc.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

Reference.

1. OOMA User Guide 5.22

MMGT-2081 1.0 * B, R (N) L

Goal. Perform CDI Queue functions.

Requirement. Given a Work Order in the CDI Queue, perform the following:

1. Review the Job Status/Worker Hours/TD tab for accuracy and ensure all section are signed.
2. Review the Failed/Required tab to ensure all part orders have been completed.
3. Review the CDI/QAR In-process Inspections tab for accuracy and ensure all inspections are signed.
4. Run Check/Validate on the Basic Work Order Update tab to ensure all data and entries are correct.
5. Enter login information in the Inspected By block.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

Reference.

1. OOMA User Guide 5.22

MMGT-2082 1.0 * B, R (N) L

Goal. Open a Baseline Trouble Report (BTR).

Requirement. Given the reference, perform the following:

1. State the purpose of the BTR being submitted.
2. Verify the accuracy of all equipment data entered into the BTR.
3. Obtain BTR evaluation QA approval.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

Reference.

1. OOMA User Guide 5.22

MMGT-2083 1.0 * B, R (N) L

Goal. Order parts in OOMA/NALCOMIS.

Requirement. Perform the following:

1. Verify the correct WUC was selected.
2. Order a repairable part.
 - a. Select the faulty part information in Material Required screen.
 - b. Verify that the part information matches the tech manual, and the appropriate U/D/P indicator.
 - c. Electronically remove the failed part from the equipment.
 - d. Electronically install the new part into the equipment.
3. Order a consumable part.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

Reference.

1. OOMA User Guide 5.22

MMGT-2084 1.0 * B, R (N) L

Goal. Perform contingency processing.

Requirement. Perform the following:

1. State the purpose of contingency processing.
2. Document work order on green MAF.
3. Return green MAF to maintenance admin.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. 2075.

References.

1. OOMA User Guide 5.22
2. COMNAVAIRFORINST 4790.2_

MMGT-2085 1.0 * B, R (N) G

Goal. Describe auditing and monitoring techniques and procedures used by Quality Assurance.

Requirement. Describe the processes involved in completing an audit.

1. Computerized Self Evaluation Checklist Database.
 - a. Quarterly update requirements including verifying MATCALS applicable questions.
 - b. Computerized Self Evaluation Checklist.
 - c. Input audit data.
 - d. Discrepancy reports.
2. Routing Forms.
3. Memorandums.
4. Spot Checks.

Performance Standard. With the aid of reference, complete the requirements.

Instructor. BI.

Prerequisite. None.

References.

1. COMNAVAIRFORINST 4790.2_
2. MATCALS Share Point
3. Local SOPs

MMGT-2086 1.0 * B, R (N) L

Goal. Perform PMS on a MATCALS system.

Requirement. Given the reference, a Work Center Workload Report, a MATCALs system, and required equipment, perform planned maintenance IAW with the current MRC deck.

1. Observe all safety requirements.
2. Complete all cards for the scheduled periodicity.
3. Document completion in accordance with local SOP.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

Reference.

1. 16-600_

MMGT-2087 1.0 365 B, R, M (N) G

Goal. State the handling and storage requirements of voice/data recordings.

Requirement. Given the reference, state the following:

1. Requirement for archived recording of an incident.
 - a. Requirements for labeling.
 - b. Requirements for chain of custody.
 - c. Requirements for providing media to investigating agency.
 - d. Requirements for storage.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

References.

1. NAVAIR 00-80T-114, NATOPS ATC Manual
2. Applicable technical manual
3. Unit SOP

9.7.6 DEPLOYMENT (DEPL) STAGE

9.7.6.1 Purpose. To train the individual in skills required for the Marine ATC RADAR section to perform in a deployed capacity. These skills are specific and differ from actions and skills required to operate the MATC RADAR in garrison.

9.7.6.2 General.

Admin Notes. None.

Prerequisite. None.

Crew Requirements. None.

DEPL-2238 1.0 * B (N) G

Goal. State the required coordination between maintenance personnel and the ATC watch supervisors and METOC watch supervisor.

Requirement. Perform the following:

1. Describe procedures for an equipment outage.
2. Describe procedures for returning equipment to service.
3. Describe the purpose of a Notice to Airmen (NOTAM).
4. State the timeframe requirements for NOTAM.
5. State the purpose of a Commander's Critical Information Requirements (CCIR).

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

References.

1. NAVAIR 00-80T-114, NATOPS ATC Manual
2. Unit SOP

DEPL-2239 1.0 * B (N) G

Goal. State the purpose of a Flight Inspection.

Requirement. State the following:

1. Describe the purpose of an FAA flight inspection.
 - a. Commissioning.
 - b. Periodic.
 - c. Special.
 - d. Site-evaluation.
 - e. Surveillance.
2. Describe the role of each work center to include air traffic controllers during an FAA flight inspection.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

References.

1. NAVAIR 16-1-520, United States Flight Inspection Manual
2. NAVAIR 00-80T-114, NATOPS ATC Manual
3. FAAO 8200.1_, US Standard Flight Inspection Manual

9.7.7 RADAR (RADAR) STAGE

9.7.7.1 Purpose. Instruct trainee to survey, site, install and operate precision approach and surveillance radar systems to include planned and corrective maintenance.

9.7.7.2 General.

Prerequisite. None.

Admin Notes. None.

Crew Requirements. None.

RADAR-2164 2.0 * B, R (N) L

Goal. Install system software load on the AN/TPN-31.

Requirement. With the aid of reference, perform the following:

1. Restore operating system from clone/backup/system image.
2. Update to current software release.
3. Configure operating system as required.
4. Document changes to system configuration.
5. Return system to operational state.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

Reference.

1. NAVAIR 16-60TPN31_, Operator Manual Air Traffic Navigation, Integration, and Coordination System

RADAR-2165	1.0	*	B, R	(N)	L

Goal. Perform replacement procedures to the LRU for the AN/TPN-31.

Requirement. Given an AN/TPN-31 system and applicable technical manuals, demonstrate the following:

1. Remove and replace cards/modules from:
 - a. ASR.
 - b. PAR.
 - c. Operations shelter.

Performance Standard. With the aid of reference, complete the requirement without error. Trainee must replace one LRU.

Instructor. BI.

Prerequisite. None.

Reference.

1. NAVAIR 16-60TPN31_, Operator Manual Air Traffic Navigation, Integration, and Coordination System

RADAR-2166	2.0	730	B, R, M	(N)	L

Goal. Manage environments for the AN/TPN-31.

Requirement. Given a system and reference, perform the following:

1. Open DMS spreadsheet to verify accurate airport information.
2. Enter the database management software and input DMS information.
3. Generate adaption data IAW applicable technical manuals.
4. Install data onto the ingress server.
5. Ensure corner reflector is present on a work station if applicable.
6. Destroy an environment.
 - a. Identify when to perform procedure.
 - b. State the importance of procedure.
 - c. Explain where the environments are located.
 - d. Properly identify FY version.
 - e. Destroy environment.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

Reference.

1. NAVAIR 16-60TPN31_, Operator Manual Air Traffic Navigation, Integration, and Coordination System

RADAR-2167	6.0	*	B, R	(N)	L

Goal. Setup the AN/TPN-31.

Requirement. As a member of a crew, given the reference, tools, and an AN/TPN-31, setup the radar by completing the following:

1. Inventory the system.
2. Raise the arrays.
3. Assist with assembly of the operations shelter.
4. Ground the system.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

Reference.

1. NAVAIR 16-60TPN31_, Operator Manual Air Traffic Navigation, Integration, and Coordination System

RADAR-2168	4.0	*	B	(N)	L

Goal. Setup the AN/TSQ-263.

Requirement. Given a crew, tools, the reference, an AN/TPN-31 and an AN/TSQ-263, perform the following:

1. Inventory the system.
2. Setup the expansion network.
3. Ground the system.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

Reference.

1. NAVAIR 16-60TPN31_, Operator Manual Air Traffic Navigation, Integration, and Coordination System

RADAR-2169	4.0	*	B	(N)	L

Goal. Disassemble the AN/TSQ-263.

Requirement. Given a crew, tools, the reference and an AN/TSQ-263, supervise the following:

1. Disassemble the expansion network.
2. Inventory the system.
3. Pack the system.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

Reference.

1. NAVAIR 16-60TPN31_, Operator Manual Air Traffic Navigation, Integration, and Coordination System

RADAR-2170	6.0	*	B, R	(N)	L

Goal. Disassemble the AN/TPN-31.

Requirement. As a member of a crew, given the reference, tools, and an AN/TPN-31, disassemble the radar by completing the following:

1. Lower the arrays.
2. Assist with disassembly of the operations shelter.
3. Inventory the system.
4. Pack the system.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

Reference.

1. NAVAIR 16-60TPN31_, Operator Manual Air Traffic Navigation, Integration, and Coordination System

RADAR-2171	1.0	730	B, R, M	(N)	L

Goal. Perform troubleshooting with the Control and Monitoring test terminal.

Requirement. Given a system and reference, perform the following:

1. ASR.
 - a. Access CM test terminal.
 - b. Select an ASR automatic fault isolation test within the CM.
 - c. Run selected ASR automatic fault isolation test.
2. PAR.
 - a. Access CM test terminal.
 - b. Select a PAR automatic fault isolation test within the PAR CM.
 - c. Run selected PAR automatic fault isolation test.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

Reference.

1. NAVAIR 16-60TPN31_, Operator Manual Air Traffic Navigation, Integration, and Coordination System

RADAR-2172 1.0 * B, R (N) L

Goal. Perform the following within the Control and Monitoring Display (CMD).

Requirement. Given the reference, an operational AN/TPN-31, perform the following:

1. Login to each of the following levels:
 - a. Technical Supervisor.
 - b. Operational Supervisor.
 - c. Technical/Operational Supervisor.
 - d. Assistant.
2. Explain the difference in privileges of each level.
3. Transfer from a higher level to a lower level without logging out.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

Reference.

1. NAVAIR 16-60TPN31_, Operator Manual Air Traffic Navigation, Integration, and Coordination System

RADAR-2173 1.0 730 B, R, M (N) L

Goal. Capture system start-up log.

Requirement. Given an operational system, set up and capture start-up logs for one of the main processor units by performing the following:

1. Identify the correct equipment to be used.
2. Identify the correct software to be used.
3. Start-up the processor and capture log.
4. Save log appropriately with date and name.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

Reference.

1. NAVAIR 16-60TPN31_, Operator Manual Air Traffic Navigation, Integration, and Coordination System

RADAR-2174 1.0 730 B, R, M (N) G

Goal. Describe the corrupt FTAB correction procedure.

Requirement. Given proper equipment and technical manuals, describe the corrupt FTAB correction procedure:

1. State the appropriate user level for log in.
2. Identify differences in system start-up states.
3. Explain when to perform the procedure.
4. Explain what is being done when conducting the procedure.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

Reference.

1. NAVAIR 16-60TPN31_, Operator Manual Air Traffic Navigation, Integration, and Coordination System

RADAR-2175 2.0 365 B, R, M (N) L

Goal. Perform video playback.

Requirement. Given the reference and an AN/TPN-31 perform the following:

1. Login to the proper CMD authorization level.
2. Explain the different states of the Data Recording Facility (DRF).
3. Identify which tape is currently recording.
4. Pull and log the tape for specified time period.
5. Playback a video.
 - a. Verify tape is write protected.
 - b. Explain importance of video playback.
 - c. Designate which screen will be used for playback.
 - d. Properly change state of DRF.
 - e. Playback the specified period of time.
 - f. Make a copy of the specified period of time.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

Reference.

1. NAVAIR 16-60TPN31, Operator Manual Air Traffic Navigation, Integration, and Coordination System

RADAR-2177 1.0 730 B, R, M (N) L

Goal. Perform a remote tape load.

Requirement. Given the reference, AN/TPN-31, perform the following:

1. Identify necessary equipment.
2. Identify all required logins.
3. Conduct remote tape load procedure.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by

the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

Reference.

1. NAVAIR 16-60TPN31, Operator Manual Air Traffic Navigation, Integration, and Coordination System

RADAR-2178 8.0 730 B, R, M (N) L

Goal. Perform AN/TPN-31 site survey.

Requirement. Given the reference, runway, AN/TPN-31, and theodolite, perform the following:

1. Identify restrictions for placement.
2. Determine minimum and maximum distances.
3. Establish a centerline reference point.
4. Establish touchdown, threshold and elevation reference points.
5. Position corner reflectors.
6. Position AN/TPN-31.
7. Complete measurements required for system setup.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

Reference.

1. NAVAIR 16-60TPN31_, Operator Manual Air Traffic Navigation, Integration, and Coordination System

RADAR-2179 1.0 365 B, R, M (N) L

Goal. Perform post setup procedures on the AN/TPN-31.

Requirement. Given the references and an AN/TPN-31, perform the following:

1. Apply power.
2. Verify DMS data.
3. Configure blanking sectors IAW Radio Frequency Authorization and/or mission.
4. Set time and date.
 - a. System.
 - b. Overhead clock.
5. Install cryptographic device.
6. Perform ASR certification.
7. Perform PAR certification.
8. Build basic maps within the system.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. 2167.

Reference.

1. NAVAIR 16-60TPN31_, Operator Manual Air Traffic Navigation, Integration, and Coordination System

RADAR-2180 1.0 730 B, R, M (N) L/S

Goal. Adjust the Airport Surveillance Radar Tunable Local Oscillator frequencies.

Requirement. Given the references, an AN/TPN-31, and radio frequency authorization perform the following:

1. Remove Tunable Local Oscillator module.
2. Determine/adjust frequency settings of thumbwheel switches.
3. Replace Tunable Local Oscillator module.
4. Calculate the filter dial settings for both filters using the Tunable Filters module calibration charts and the Tunable Filter Module Worksheet.
5. Set each filter to the calculated values.
6. Secure the dials.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

Reference.

1. NAVAIR 16-60TPN31_, Operator Manual Air Traffic Navigation, Integration, and Coordination System

9.7.8 COMMUNICATION (COMM) STAGE

9.7.8.1 Purpose. Instruct trainee to survey, site, install, and operate communication systems to include planned and corrective maintenance.

9.7.8.2 General.

Prerequisite. None.

Admin Notes. None.

Crew Requirements. None.

COMM-2202 3.0 * B (N) L/S

Goal. Configure RT-1796 for SATCOM operations.

Requirement. Given the radios, references, satellite access authorization letter, and common fill device with keying material, perform the following:

1. Configure 5 KHz NB (dedicated) channel.
2. Configure 25 KHz WB (dedicated) channel.
3. Configure DAMA Channel.
4. Configure Integrated Waveform (IW).
5. Conduct a radio check.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

References.

1. TM 10597A-OR/4 Manpack Radio Operation Manual AN/PRC-117F(V)1(C)Radio Set
2. Harris Premier Account
3. RF-5850-PS001 Operator's Manual

9.7.9 CYBER SECURITY WORKFORCE (CSWF) STAGE

9.7.9.1 Purpose. To provide entry-level skills in cyber security workforce related tasks that are common to all 5900 occupational field technicians that will be used in the performance of assigned duties within the Marine Air Command and Control System (MACCS).

9.7.9.2 General.

Admin Notes. None.

Prerequisite. None.

Crew Requirements. None.

CSWF-2040 4.0 1095 B, R, M (N) G

Goal. Explain Information Security Principles.

Requirement. With the aid of references, perform the following:

1. Explain common threats and vulnerabilities.
 - a. Malware.
 - b. Ransomware.
 - c. Viruses.
 - d. Denial of Service.
 - e. Insider Threats.
2. Explain the function and purpose of authentication services.
3. Explain data and network security tools.
 - a. Firewall.
 - b. Access Control Lists.
 - c. Port Security.
 - d. Anti-Virus.
 - e. Log Files.
 - f. Network monitoring application(s).
4. Describe cyber security, privacy principles, and organizational requirements to provide Confidentiality, Integrity, and Availability (CIA).

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

References.

1. NIST Special Publication 800-__
2. Applicable User's Manuals.
3. Current industry-standard curriculum and references.

CSWF-2041 2.0 1095 B, R, M (N) L

Goal. Perform account management.

Requirement. With the aid of reference, perform the following:

1. Plan user accounts.
2. Create user accounts IAW naming convention.
3. Create groups IAW naming convention.
4. Set account permissions.
5. Manage user accounts.
6. Document as required.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

References.

1. NIST Special Publication 800-__
2. Applicable User's Manuals.
3. Current industry-standard curriculum and references.

CSWF-2042 4.0 1095 B, R, M (N) G

Goal. Explain risk management involved in operational security.

Requirement. With the aid of reference, perform the following:

1. Explain risk related concepts.
2. Explain appropriate risk mitigation strategies.
3. Explain appropriate incident response procedures.
4. Explain the importance of security related awareness and training.
5. Compare aspects of business continuity.
6. Explain the impact and proper use of environmental controls.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

References.

1. NIST Special Publication 800-__
2. Applicable User's Manuals.
3. Current industry-standard curriculum and references.

CSWF-2043 4.0 1095 B, R, M (N) G

Goal. Explain computer and network cryptography.

Requirement. With the aid of reference, perform the following:

1. Explain symmetric key rotation techniques.
2. Explain symmetric key concepts.
3. Explain cryptographic security models (e.g. Bell-LaPadula model, Biba integrity model, Clark-Wilson integrity model).
4. Explain the core concepts of Public Key Infrastructure (PKI).
5. Explain the implementation of PKI, certificate management and associated components.
6. Explain the appropriate cryptographic tools and products.

Performance Standard. With the aid of reference, complete the requirements, minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

References.

1. NIST Special Publication 800-__
2. Applicable User's Manuals.
3. Current industry-standard curriculum and references.

CSWF-2044	4.0	1095	B, R, M	(N)	G

Goal. Explain computer and networking equipment.

Requirement. With the aid of references, perform the following:

1. State the purpose and functions of:
 - a. Network switch.
 - b. Router.
 - c. Server.
 - d. Virtual Machine.
 - e. Workstation.
2. Explain the installation and configuration of peripheral devices.
3. Explain installation and configuration of storage devices and appropriate media.
4. Explain the purpose of connection interfaces and transmission media.

Performance Standard. With the aid of reference, complete the requirements, minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

References.

1. NIST Special Publication 800-__
2. Applicable User's Manuals.
3. Current industry-standard curriculum and references.

CSWF-2045	4.0	*	B, R	(N)	G

Goal. Explain Networking Concepts.

Requirement. With the aid of references, perform the following:

1. Identify types of network cables and connectors.
2. Categorize characteristics of connectors and cabling.
3. Compare the layers of the OSI and TCP/IP models.
4. Classify how applications, devices, and protocols relate to the OSI model layers.
5. Explain the purpose and properties of IP addressing.
6. Explain the purpose and properties of routing and switching.
7. Identify common TCP and UDP default ports.
8. Explain the function of common networking protocols.
9. Summarize DNS concepts and its components.
10. Identify virtual network components.
11. Identify appropriate network monitoring tools.
12. Explain the purpose and properties of DHCP.

13. Explain the purpose and properties of Network Address Translation (NAT).
14. Explain the purpose and properties of Port Address Translation (PAT).

Performance Standard. With the aid of reference, complete the requirements, minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

References.

1. NIST Special Publication 800-__
2. Applicable User's Manuals.
3. Current industry-standard curriculum and references.

CSWF-2046	4.0	*	B, R	(N)	G

Goal. Explain Network Media and Topologies.

Requirement. With the aid of references, explain the following:

1. Describe different network topologies.
2. Compare different LAN technologies.
3. Identify components of wiring distribution.
4. Explain different methods and rationales for network performance optimization.

Performance Standard. With the aid of reference, complete the requirements, minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

References.

1. NIST Special Publication 800-__
2. Applicable User's Manuals.
3. Current industry-standard curriculum and references.

CSWF-2047	4.0	*	B, R	(N)	G

Goal. Explain Troubleshooting of Computer and Network equipment.

Requirement. Given the references, Explain the following:

1. Troubleshooting theory.
2. Troubleshooting common problems related to motherboards, RAM, BIOS, CPU and power with appropriate tools.
3. Troubleshooting hard drives and RAID arrays with appropriate tools.
4. Troubleshooting common video and display issues.
5. Troubleshooting wired networks with appropriate tools.
6. Troubleshooting operating system problems with appropriate tools.
7. Troubleshooting common security issues with appropriate tools and best practices.
8. Troubleshooting of common laptop issues while adhering to the appropriate procedures.
9. Troubleshooting of common peripheral devices with appropriate tools.

Performance Standard. With the aid of reference, complete the requirements, minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. 2044, 2045, 2046.

References.

1. NIST Special Publication 800-__
2. Applicable User's Manuals.
3. Current industry-standard curriculum and references.

9.7.10 INTEGRATED AIR DEFENSE SYSTEM (IADS) STAGE

9.7.10.1 Purpose. Instruct trainee on the Base Defense Zone

9.7.10.2 General.

Prerequisite. None.

Admin Notes. None.

Crew Requirements. None.

IADS-2091 1.0 365 B, R, M (N) G

Goal. State the Types of Weapons Engagement Zone (WEZ).

Requirement.

1. Identify a WEZ.
2. Identify a Fighter Engagement Zone (FEZ).
3. Identify a Missile Engagement Zone (MEZ).
4. Identify a Joint Engagement Zone (JEZ).
5. Identify a Short Range Air Defense Engagement Zone (SHORADEZ).
6. Identify a Base Defense Zone (BDZ).

Performance Standard. Without the aid of reference, complete the requirement.

Instructor. BI.

Prerequisite. None.

References.

1. MCRP 3-20F.8 Low Altitude Air Defense Battalion Handbook
2. MCRP 8-10B.11 Antenna Handbook
3. MCRP 3-30B.3 Multi-Service Tactics, Techniques, and Procedures for Tactical Radios
4. MCTP 3-20F Control of Aircraft and Missiles
5. MCWP 3-25.8 Marine Air Traffic Control Detachment Handbook
6. MCTP 3-20C Anti-Air Warfare
7. MCWP 3-30 MAGTF Command and Control
8. MCTP-30 Information Management
9. MCRP 3-30B.2 MAGTF Communications Systems
10. MCTP 10-10B Multi-Service Tactics, Techniques, and Procedures for an Integrated Air Defense System (IADS)
11. CJCSM 6120.01 Joint Multi TDL Operating Procedures

IADS-2092 1.0 365 B, R, M (N) G

Goal. State the role of Marine Air Traffic Control Detachments in a Base Defense Zone (BDZ).

Requirement. State the role of Marine Air Traffic Control Detachments in a Base Defense Zone (BDZ):

1. Identify key agencies in a BDZ.
2. Identify key personnel in a BDZ.
3. State the required elements of a BDZ.
4. Identify key Information Exchange Requirements in a BDZ (LAAD/MWSS).
5. Describe a Cartesian Grid Coordinate and its role in a BDZ.
6. Identify equipment necessary for integration of BDZ agencies.

Performance Standard. Without the aid of reference, complete the requirement.

Instructor. BI.

Prerequisite. 2091.

References.

1. MCRP 3-20F.8 Low Altitude Air Defense Battalion Handbook
2. MCRP 8-10B.11 Antenna Handbook
3. MCRP 3-30B.3 Multi-Service Tactics, Techniques, and Procedures for Tactical Radios
4. MCTP 3-20F Control of Aircraft and Missiles
5. MCWP 3-25.8 Marine Air Traffic Control Detachment Handbook

9.7.11 TACTICAL DATA LINKS (TDL) STAGE.

9.7.11.1 Purpose. These events will instruct MACCS agency watch standers on TDL. To provide the core TDL skills necessary for operations, maintenance, and management to support mission objectives using current tactical data systems and standardized TDLs.

9.7.11.2 General.

Admin Notes. None.

Prerequisites. None.

Crew Requirements. None.

TDL-2809	2.0	*	B	(N)	G

Goal. Describe the Multi-Tactical Data Link (TDL) Interface.

Requirement.

1. State the concept and information exchange of the Multi-TDL Interface.
2. State the technical functions of the Multi-TDL Interface.
3. List the three elements of the Multi-TDL Interface.
4. Define the Basic Interface and list its three data links.
5. Identify the characteristics of Link 11.
6. Identify the characteristics of Link 11B.
7. Identify the characteristics of Link 16.
8. Define the Extended Interface.
9. Identify the purpose of the Joint Range Extension Application Protocol (JREAP).
10. Define the following interface voice coordination nets:
 - a. Air Defense Command and Control Net (ADCCN)
 - b. Engagement Control Net (ECN)
 - c. Datalink Coordination Net (DCN)
 - d. Track Supervision Net (TSN)
 - e. Voice Product Net (VPN)
11. Describe the delegation of responsibilities for the conduct of the Multi-TDL operations at the Joint Task Force (JTF) level and below.

12. State the two Interface Control Officer (ICO) execution functions.
13. State the responsibilities of the Link 16 Manager.
14. State the responsibilities of the Link 11/11B Manager.
15. State the responsibilities of the Track Data Coordinator (TDC).
16. List the minimum requirements for Services that operate the Multi-TDL Interface.

Performance Standard. Without the aid of reference, state (verbally or written) the required items. Minor errors corrected by the trainee are acceptable.

Instructor. BI

Prerequisite. None

Reference

1. CJCSM 6120.01_, Joint Multi-TDL Operating Procedures (JMTOP)
2. MIL-STD-6011_, Department of Defense Interface Standard, Tactical Data Link (TDL) 11/11B
3. MIL-STD-6016_, Department of Defense Interface Standard, Tactical Data Link (TDL) 16
4. MIL-STD-3011, JREAP Interface Standard

TDL-2819 2.0 * B (N) G

Goal. State the characteristics of the Joint Range Extension Application Protocol (JREAP).

Requirement.

1. Describe JREAP A
2. Select the data rates of JREAP A
3. Describe JREAP A roles
4. Describe the JREAP A Transmission Sequence List (TSL)
5. Explain the difference between JREAP A and Satellite J
6. Describe JREAP B
7. Describe JREAP B modes of operation
8. Select JREAP B data rates
9. Describe JREAP C
10. Describe JREAP C modes of operation
11. Define the following terms associated with JREAP:
 - a. Common Time Reference
 - b. Demand Assigned Multiple Access (DAMA)
 - c. Joint Range Extension (JRE)
 - d. JRE Network Controller
 - e. JRE Source Track Number
 - f. Link 16 Zone
 - g. Multicast
 - h. Packet
 - i. Port
 - j. Secondary Track Number
 - k. Token Passing
 - l. Unicast

Performance Standard. With the aid of reference, state (verbally or written) the required items. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

References.

1. CJCSM 6120.01_, Joint Multi-TDL Operating Procedures (JMTOP)
2. MIL-STD-3011_, JREAP Interface Standard

9.8 MISSION PHASE (3000)

9.8.1 Purpose. To provide the requisite advanced skills and working knowledge to employ the Marine Air Traffic Control Detachment RADAR Section and ancillary equipment in order to accomplish the Marine Air Control Squadron missions.

9.8.2 General.

9.8.2.1 Admin Notes. None.

1. Training in this phase does not preclude simultaneous training in Core and Core Plus phases.
2. Individual Core Phase skills are learned and mastered using a varied combination of written exams, scenarios and practical demonstrations of proficiency.
3. If crew members are required to assist in the conduct of an event, the crew shall be core capable in the role they will play, as applicable. Training will be executed as individual training with appropriate assistance at the crew level as needed and as dictated by the conditions listed for each event. Crew member assistance must be restricted to those actions required to support or facilitate individual training so as not to detract from the individual properly demonstrating the event performance standard.
4. Academic Training. Academic training will be conducted prior to and concurrently with required events. An academic training event, once completed, can be credited as a prerequisite for follow-on training events.
5. Refresher Training. Refresher training is required once an individual has been absent from a technician billet for 36 months or longer. Upon return, the individual will complete R-coded events in the Attain table; else the technician will maintain proficiency by completing the R-coded events in the Maintain table.

9.8.2.2 Prerequisite. None.

9.8.2.3 Stages. The following stages are included in the Mission Phase of training:

PAR NO.	STAGE NAME	PAGE NUMBER
9.8.3	MACCS MAINTENANCE COMMON (MMCN)	9-42
9.8.4	MAINTENANCE MANAGEMENT (MMGT)	9-44
9.8.5	RADAR (RADAR)	9-45
9.8.6	CYBER SECURITY WORK FORCE (CSWF)	9-46
9.8.7	TACTICAL DATA LINKS (TDL)	9-48

9.8.3 MACCS MAINTENANCE COMMON (MMCN) STAGE

9.8.3.1 Purpose. To provide Mission Phase skills that are common to all 5900 occupational field technicians that will be used in the performance of assigned duties within the Marine Air Command and Control System (MACCS).

9.8.3.2 General.

Prerequisite.

1. Meet the requirements delineated in the MOS Manual.

Admin Notes. The following events establish the foundational skills required to be successful in the cyber security workforce.

Crew Requirements. None.

MMCN-3030 8.0 1095 B, R, M (N) L

Goal. Deploy a MACCS capability.

Requirement. Given an operational requirement and commander's guidance, conduct the following:

1. Review operational requirements and develop an EDL.
2. Coordinate for support equipment as required.
3. Verify and complete Bill of Materials.
4. Establish float requirements as required.
5. Conduct inspections on listed equipment.
6. Supervise pack-up and securing of equipment and validate EDL accuracy.
7. Create a packing list.
8. Ensure correct placement of placard/label the equipment for embark.
9. Ensure correct execution of the load plan for equipment handling and safety.
10. Ensure maintenance crews are formed and prepared for deployment.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. SI.

Prerequisite. 2006, 2007, 2009, 2014.

References.

1. MCO 3120.6_, Standard Embarkation Management System
2. Applicable TMs/Ums

MMCN-3031 8.0 1095 B, R, M (N) L

Goal. Conduct a site survey.

Requirement. Given a scenario, applicable references, a TO/E and operational tasking, determine an appropriate site for system emplacement by performing the following:

1. Use planning tools to determine terrain masking and line of sight connectivity.
2. Determine a primary and secondary site location.
3. Identify obstructions and hazards.
4. Determine tactical orientation and equipment emplacement.
 - a. Ensure emitters are emplaced IAW Hazardous Electronic Radiation to Fuels (HERF) regulations.
 - b. Ensure emitters are emplaced IAW Hazardous Electronic Radiation to Ordinance (HERO) regulations.
 - c. Ensure emitters are emplaced IAW Hazardous Electronic Radiation to Personnel (HERP) regulations.
 - d. Ensure emitters are emplaced to support working area.
5. Identify the placement for equipment.
6. Identify the placement for antennas.
7. Identify required internal / external equipment requirements.
8. Determine communications obstacles.
8. Determine system grounding requirements.
9. Identify utility requirements to include power and fuel requirements.
10. Describe environmental considerations.
11. Determine protection from the elements.
11. Determine terrain requirements / masking.
12. Determine operational footprint.

13. Design a site layout and submit to the instructor.
14. Develop a brief that addresses all event requirement items.

Performance Standard. With the aid of reference, complete the requirements, minor errors corrected by the trainee are acceptable.

Instructor. SI.

Prerequisite. None.

References.

1. Technical Manuals
2. Operational Order
3. CMR
4. MCWP 3-25.4
5. MCWP 5-1
6. MCO 5104.2
7. MCO 5104.3B

MMCN-3032 2.0 * B _____ (N) L

Goal. Fill the hand held GPS with the appropriate crypto.

Requirement. Perform the following:

1. Identify the proper crypto load.
2. Load crypto into hand held GPS device.
3. Verify crypto load.

Performance Standard. With the aid of reference, perform the requirements. Minor corrections by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

Reference.

1. TM 11-5820-1172-13, Defense Advanced GPS Receiver (DAGR), AN/PSN-13

9.8.4 MAINTENANCE MANAGEMENT (MMGT) STAGE

9.8.4.1 Purpose. To instruct the trainee in the management of maintenance taskings in support of the Mission Essential Tasks (METs).

9.8.4.2 General.

Admin Notes. None.

Prerequisite. None.

Crew Requirements.

MMGT-3011 1.0 365 B, R, M _____ (N) L

Goal. Pass CDI Periodic Evaluation IAW CSEC.

Requirement.

1. Follow all safety precautions.
2. Document in-process inspection.
3. Perform CDI Queue functions.

Performance Standard. With the aid of reference, complete the requirements.

Instructor. SI.

Prerequisite. None.

References.

1. COMNAVAIRFORINST 4790.2_
2. Local SOPs

9.8.5 RADAR (RADAR) STAGE

9.8.5.1 Purpose. To instruct the trainee to deploy, setup, and maintain a RADAR in a deployed or garrison setting.

9.8.5.2 General.

Admin Notes. None.

Prerequisite. None.

Crew Requirements. None.

RADAR-3067 8.0 730 B, R, M (N) L

Goal. Provide radar services as a member of a crew.

Requirement. During radar operations:

1. Verify site specific parameters.
2. Perform system adjustments in support of operational requirements.
3. Perform physical and system safety checks prior to assuming a crew position.
4. Review crew changeover notes.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable. System requests can be simulated by the instructor.

Instructor. SI.

Prerequisite. 2005, 2010, 2012, 2061, 2175, 2179, 2164, 2165, 2167, 2168, 2169, 2170, 2171, 2172, 2173, 2177, 2238, 2239.

Reference.

1. NAVAIR 16-60TPN31_, Operator Manual Air Traffic Navigation, Integration, and Coordination System

RADAR-3068 40.0 1095 B, R, M (N) L

Goal. Deploy the AN/TPN-31 with the AN/TSQ-263.

Requirement. Given the reference, an AN/TPN-31, and AN/TSQ-263 perform the following:

1. Pack up procedures.
2. Identify support requirements.
3. Determine setup location.
4. Unpack procedures.
5. Inventory all Equipment.
6. Setup equipment.
7. Perform post setup procedures.
8. Perform glide slope adjustment as part of the flight check as applicable.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. SI.

Prerequisite. 2071, 2167, 2168, 2169, 2170, 2178, 2179.

References.

1. NAVAIR 16-60TSQ263_, Operation and Organizational Maint Instructions Tactical Terminal Control System
2. NAVAIR 16-60TPN31_, Operator Manual Air Traffic Navigation, Integration, and Coordination System

RADAR-3070 1.0 730 B, R, M (N) L

Goal. Load IFF cryptographic device.

Requirement. Perform the following:

1. Identify the proper crypto load.
2. Load crypto into cryptographic device.
3. Verify crypto load.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. SI.

Prerequisite. 2000, 2001, 2002, 2004, 2005, 2175.

Reference.

1. NAVAIR 16-60TPN31_, Operator Manual Air Traffic Navigation, Integration, and Coordination System

9.8.6 CYBER SECURITY WORK FORCE (CSWF)

9.8.6.1 Purpose. To provide Mission Phase skills in computing and networking that will be used in the performance of assigned duties within the Marine Air Command and Control System (MACCS).

9.8.6.2 General.

Admin Notes. None.

Prerequisite. None.

Crew Requirements. None.

CSWF-3000 4.0 1095 B, R, M (N) L

Goal. Administer data system host security measures.

Requirement. Given a configured network, demonstrate the following:

1. Install current Anti-virus definitions and service packs.
2. Configure firewalls.
3. Troubleshoot system faults.
4. Initiate corrective actions as required.

5. Document changes

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. SI.

Prerequisite. 2040, 2042, 2043, 2044, 2045, 2046, 2047.

References.

1. NIST Special Publication 800-__
2. Applicable User's Manuals.
3. Current industry-standard curriculum and references.

CSWF-3001 4.0 1095 B, R, M (N) L

Goal. Perform network management.

Requirement. Given a LAN, references, and required equipment, perform the following:

1. Monitor the LAN for connectivity.
2. Assist with troubleshooting connectivity issues with external agencies.
3. Troubleshoot Network error(s).
4. Document changes

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. SI.

Prerequisite. 2040, 2042, 2044, 2045, 2046, 2047.

References.

1. NIST Special Publication 800-__
2. Applicable User's Manuals.
3. Current industry-standard curriculum and references.

CSWF-3002 4.0 1095 B, R, M (N) L

Goal. Design network architecture.

Requirement. Given an operational scenario conduct the following:

1. Identify network requirements
 - a. External interfaces.
 - b. VLANs.
 - c. IP Class.
2. Assign Internet Protocol (IP) addresses, subnets, and netmasks.
3. Identify notation of domain.
4. Identify asset locations
5. Assign computer hostnames.
6. Implement security measures.
7. Record network configuration.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. SI.

Prerequisite. 2040, 2042, 2043, 2044, 2045, 2046, 2047.

References.

1. NIST Special Publication 800-__
2. Applicable User's Manuals.
3. Current industry-standard curriculum and references.

9.8.7 TACTICAL DATA LINKS (TDL) STAGE.

9.8.7.1 Purpose. These events will instruct MACCS agency watch standers on TDL. To provide the Mission Phase TDL skills necessary for operations, maintenance, and management to support mission objectives using current tactical data systems and standardized TDLs.

9.8.7.2 General.

Admin Notes. None.

Prerequisites. None.

Crew Requirements. None.

TDL-3800	1.0	*	B	(N)	G

Goal. Identify the purpose of documents that enable Tactical Data Link (TDL) operations.

Requirement. Given the documents below, identify their purpose:

1. Guard Chart.
2. Communication Electronic Operating Instruction (CEOI).
3. Operations Order Annex K.
4. Operations Order Annex U.
5. Link 16 Network Description Document.
6. Communications Security (COMSEC) Callout.
7. Operational Tasking Data Link (OPTASK LINK).
8. Satellite Access Authorization (SAA).
9. Joint Multi-TDL Operating Procedures (JMTOP).

Performance Standard. With the aid of references, complete the required items IAW the reference. Minimal self-corrected errors allowed.

Instructor. BI

Prerequisite. None

References.

1. MCWP 5-1, Marine Corps Planning Process
2. MCWP 3-40.3, MAGTF Communications Systems
3. CJCSM 6120.01_, Joint Multi-TDL Operating Procedures (JMTOP)

TDL- 3801	1.0	*	B	(N)	G

Goal. Identify TACC voice and data communications equipment.

Requirement. Given the references, identify the following:

1. Radio systems

2. Data link systems
3. C2 Systems

Performance Standard. Without the aid of reference, state (verbally or written) the required items. Minor errors corrected by the trainee are acceptable.

Instructor. BI

Prerequisite. None

References.

1. MCRP 5-12D, Organization of Marine Corps Forces
2. MCWP 3-25.4, Tactical Air Command Center Handbook
3. Approved Core METL applicable to the unit
4. MCBUL 3000, Marine Corps Readiness Reportable Ground Equipment

TDL- 3802 1.0 * B (N) G

Goal. Identify TAOC and EW/C voice and data communications equipment.

Requirement. Given the references, identify the following:

1. Radio systems
2. Data link systems
3. C2 Systems

Performance Standard. Without the aid of reference, state (verbally or written) the required items. Minor errors corrected by the trainee are acceptable.

Instructor. BI

Prerequisite. None

References.

1. MCRP 5-12D, Organization of Marine Corps Forces
2. MCWP 3-25.7, Tactical Air Operations Center Handbook
3. Approved Core METL applicable to the unit
4. MCBUL 3000, Marine Corps Readiness Reportable Ground Equipment

TDL-3803 1.0 * B (N) G

Goal. Identify DASC voice and data communications equipment.

Requirement. Given the references, identify the following:

1. Radio systems.
2. Data link systems.
3. C2 Systems.

Performance Standard. Without the aid of reference, state (verbally or written) the required items. Minor errors corrected by the trainee are acceptable.

Instructor. BI

Prerequisite. None

References.

1. MCRP 5-12D, Organization of Marine Corps Forces

2. MCWP 3-25.5, Direct Air Support Center Handbook
3. Approved Core METL applicable to the unit
4. MCBUL 3000, Marine Corps Readiness Reportable Ground Equipment

TDL-3805 1.0 * B (N) G

Goal. Identify LAAD voice and data communications equipment.

Requirement. Given the references, identify the following:

1. Radio systems
2. Data link systems
3. C2 Systems

Performance Standard. Without the aid of reference, state (verbally or written) the required items. Minor errors corrected by the trainee are acceptable.

Instructor. BI

Prerequisite. None

References.

1. MCRP 5-12D, Organization of Marine Corps Forces
2. MCWP 3-25.10, Low Altitude Air Defense Battalion Handbook
3. Approved Core METL applicable to the unit
4. MCBUL 3000, Marine Corps Readiness Reportable Ground Equipment

9.9 CORE PLUS PHASE (4000)

9.9.1 Purpose. To provide the requisite skills and working knowledge in areas that, while may have a low likelihood of occurrence or are theater dependent, have value to the RADAR Technician in support of the Marine ATC detachment.

9.9.2 General.

9.9.2.1 Admin Notes.

1. Training in this phase does not preclude simultaneous training in Core and Mission phases.
2. Individual Core Phase skills are learned and mastered using a varied combination of written exams, scenarios and practical demonstrations of proficiency.
3. If crew members are required to assist in the conduct of an event, the crew shall be core capable in the role they will play, as applicable. Training will be executed as individual training with appropriate assistance at the crew level as needed and as dictated by the conditions listed for each event. Crew member assistance must be restricted to those actions required to support or facilitate individual training so as not to detract from the individual properly demonstrating the event performance standard.
4. Academic training will be conducted prior to and concurrently with required events. An academic training event, once completed, can be credited as a prerequisite for follow-on training events.
5. Refresher training is required once an individual has been absent from a technician billet for 36 months or longer. Upon return, the individual will complete R-coded events in the Attain table; else the technician will maintain proficiency by completing the R-coded events in the Maintain table.

9.9.2.2 Prerequisite. None.

9.9.2.3 Stages. The following stages are included in the Mission Phase of training.

PAR NO.	STAGE NAME	PAGE NUMBER
9.9.3	INTEGRATED AIR DEFENSE SYSTEM (IADS)	9-51
9.9.4	MAINTENANCE MANAGEMENT (MMGT)	9-51

9.9.3 INTEGRATED AIR DEFENSE SYSTEM (IADS) STAGE

9.9.3.1 Purpose. Instruct trainee to perform as a member of a Marine Air Traffic Control Detachments in a Base Defense Zone (BDZ).

9.9.3.2 General.

Prerequisite. None.

Admin Notes. None.

Crew Requirements. None.

IADS-4040 8.0 1095 B, R, M (N) L

Goal. Perform as a member of a Marine Air Traffic Control Detachments in a Base Defense Zone (BDZ).

Requirement.

1. Establish communication between key agencies in a BDZ.
2. Integrate key personnel within the BDZ.
3. Log key Information Exchanges between key agencies/personnel in a BDZ (LAAD/MWSS).
4. Coordinate with LAAD Section/Platoon Leader to gather details of their Cartesian Grid.
5. Provide a Cartesian Grid Coordinate on the Airport Surveillance Radar for LAAD Section/Platoon Leader.
6. Connect equipment necessary for integration of BDZ agencies.

Performance Standard. Without the aid of reference, complete the requirement.

Instructor. SI.

Prerequisite. 2091, 2092.

External Syllabus Support. None.

Reference.

1. MCRP 3-20F.8 Low Altitude Air Defense Battalion Handbook
2. MCRP 8-10B.11 Antenna Handbook
3. MCRP 3-30B.3 Multi-Service Tactics, Techniques, and Procedures for Tactical Radios
4. MCTP 3-20F Control of Aircraft and Missiles
5. MCWP 3-25.8 Marine Air Traffic Control Detachment Handbook

9.9.4 MAINTENANCE MANAGEMENT (MMGT) STAGE

9.9.4.1 Purpose. To instruct trainee how to perform MATC maintenance management functions directly associated with MET accomplishment of the ATC Detachment.

9.9.4.2 General.

Prerequisite. None.

Admin Notes. None.

Crew Requirements. Core minimum crew.

MMGT-4200 2.0 365 B, R, M (N) G

Goal. State the considerations of the Contingency Support Package (CSP).

Requirement. State the following:

1. The purpose of the CSP.
2. Who maintains the CSP.
3. How to pull the CSP for operations.
 - a. The CSP inventory process.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. SI.

Prerequisite. 2071.

References.

1. MCTP 3-20A Aviation Logistics
2. Unit COSAL

9.10 MISSION PLUS PHASE (4500)

9.10.1 Purpose. **RESERVED FOR FUTURE USE.**

9.10.2 General.

9.10.2.1 Admin Notes.

9.11 INSTRUCTOR TRAINING PHASE (5000)

9.11.1 Purpose. To provide technicians the additional skills necessary to instruct, evaluate and approve event completions. Upon completion of the required training, an individual may be approved for instructor designation by the commanding officer.

9.11.2 General.

9.11.2.1 Prerequisite. None.

9.11.2.2 Admin Notes.

1. The MACCS instructor concept is a means to standardize all instructors across the MACCS in regards to the concepts of managing a WTP, properly conducting training, performing evaluations, and recommending training plans.

2. There are different instructor designations (listed below). The intent is to train individuals with different levels and areas of experience to instruct personnel. Instructor experience is also gained while progressing through the different instructor designations.

a. Basic Instructor (BI)

b. Senior Instructor (SI)

c. The MAWTS-1 C3 Course catalog contains the training requirements for the above listed instructors. The catalog is located at the MAWTS-1 website, <https://mceits.usmc.mil/sites/mawts1/default.aspx>

9.11.2.3 Stages. The following stages are included in the Instructor Training Phase:

PAR NO.	STAGE NAME	PAGE NUMBER
9.11.3	INSTRUCTOR UNDER TRAINING (IUT)	9-53

9.11.3 INSTRUCTOR UNDER TRAINING (IUT) STAGE

9.11.3.1 Purpose. To train Air Traffic Control RADAR Technicians in the fundamentals of instructing and training processes.

9.11.3.2 General.

Prerequisite. None.

Admin Notes. None.

Crew Requirements. None.

IUT-5000 2.0 * B (N) L

Goal. Introduce principals of instruction.

Requirement. Given the reference, the BIUT will demonstrate the following with the assistance of a unit instructor:

1. Adult learning principles.
 - a. Pedagogy to andragogy.
 - b. Characteristics of the adult learner.
 - c. Learning styles.
 - d. How adults learn.
 - e. Domains of learning.
 - f. Group dynamics.
 - g. Motivation.
 - h. Constructivist learning environments.
2. Introduce, discuss, and demonstrate instruction techniques.
3. Introduce, discuss, and demonstrate class management techniques.
 - a. How to select teaching resources to accommodate student learning styles.
 - b. How to properly organize the instructional environment for effective learning.

Performance Standard. With the aid of references, the BIUT shall demonstrate principles of instruction. During this session, the instructor shall discuss the event content and question the student throughout the training session to ensure understanding.

Instructor. BI.

Prerequisite. None.

References.

1. Adult Learning section, Systems Approach to Training Manual (2004)
2. NAVMC 3500.14
3. NAVMC 1553.1

IUT-5010 2.0 * B (N) G

Goal. Describe individual T&R requirements.

Requirement. Using the Aviation T&R Program Manual, discuss the purpose of each of the following items with an instructor:

1. Training progression model.
2. Programs of Instruction.
 - a. Basic.
 - b. Refresher.
 - c. Conversion.
 - d. Series Conversion.
 - e. Transition.
 - f. Maintain.
3. T&R attain and maintain tables.
4. Syllabus notes.
5. T&R syllabus structure.
 - a. Phase.
 - b. Stage.
 - c. Event.
 - d. Skill.
 - e. Syllabus.
6. Event format.
 - a. Header.
 - (1) Event prefix - event code.
 - (2) Projected event duration.
 - (3) Proficiency period.
 - (4) Programs of instruction (POI).
 - (5) Event conditions.
 - (6) Device options.
 - (7) Device number.
 - (8) Device type.
 - b. Body.
 - (1) Goal.
 - (2) Requirement.
 - (3) Performance standard.
 - (4) Equipment.

Performance Standard. Without the aid of references and during a discussion session, the BIUT shall describe Individual T&R requirements. During this session, the instructor shall discuss the event content and question the student throughout the training session to ensure understanding.

Instructor. BI.

Prerequisite. None.

References.

1. NAVMC 3500.14
2. NAVMC 1553.1

IUT-5020	12.0	90	B, R, M	(N)	L

Goal. Conduct T&R instruction.

Requirement. The BIUT, under the supervision of an instructor, will conduct three periods of instruction on three different T&R events selected by the instructor and should include as many different methods of instruction as possible (lecture or academic, demonstration, and practical application). The event must be one the BIUT is current and proficient in. The BIUT will complete the following for each of the three events instructed:

1. Prepare to train the event.
 - a. Review a trainee's performance record to identify required training for the event selected.
 - b. Ensure the student has met prerequisites for the event to be trained.
 - c. Gather the resources necessary to conduct the training (i.e., instructional materials, references, and equipment).
 - d. Conduct task analysis on each event to ensure all intended requirements and prerequisite skills, specified or implied, are trained IAW applicable references.
 - e. Schedule the training event (facilities and students).
 - f. Prepare an evaluation form for each student to be evaluated.
2. Conduct training on the event selected:
 - a. Ensure all training resources are properly staged/equipment if set up properly for training.
 - b. Instruct the student in a thorough manner so as to cover all requirements for the event.
 - c. Ensure continuous, objective assessment of the student's progress during training.
3. Assess student performance:
 - a. Assess the student's performance to the performance standard.
 - b. Correct student deficiencies in a timely manner and provide the student feedback.
 - c. Complete the evaluation form on for each student trained.
 - d. Debrief student on the performance and provide corrective action.
4. Route evaluation form as required.

Performance Standard. Complete the requirement items IAW the reference and ensure training is doctrinally and technically current. Instructor shall use the instructor evaluation form from the SAT User's Guide for each class and a mark of satisfactory must be achieved for each of the three classes.

Instructor. BI.

Prerequisite. 5000, 5010.

References.

1. NAVMC 3500.14, Ch 6
2. NAVMC 1553.1
3. MCO 1553.2B, Appendix O

IUT-5100 2.0 * B (N) G

Goal. Describe the Aviation Training and Readiness (T&R) Program.

Requirement. Using the community T&R manual discuss the following with an instructor:

1. Describe the Weapons and Tactics Training Program (WTPP).
2. Define each element of the Core Model:
 - a. Mission statements.
 - b. Core Mission Essential Task List (METL).
 - c. Output standards.
 - d. Core Phase skills (How to attain and maintain).
 - e. Mission Phase skills (How to attain and maintain).
 - f. Combat Leadership.
3. Define each of the following elements of unit training:
 - a. Training Exercise Employment Plan (TEEP).
 - b. Core Model Minimum Requirements (CMMR).
 - c. Instructors.
 - d. Core Model Training Report (CMTR).
 - e. T&R manual connection to readiness reporting.
4. Define each of the following elements of training:
 - a. Certification.
 - b. Qualification.
 - c. Designation.

5. PERFORMANCE RECORD Explain how changes are made to the Program manual:
- Explain T&R conference procedures.
 - Explain correspondence change procedures.

Performance Standard. Complete the requirements IAW the reference. Instructor will question the SIUT to check for thorough understanding of the Aviation T&R Program.

Instructor. SI.

Prerequisite. None.

References.

- NAVMC 3500.14
- MCO 3500.109

IUT-5110 4.0 365 B, R, M (N) L

Goal. Conduct instructor evaluations.

Requirement. Using the instructor evaluation checklist from the SAT manual, conduct two evaluations on instructors of equal or lower designation.

- Provide notification of evaluation to the instructor being evaluated.
- Do not interfere with or disrupt the instruction while taking place.
- Thoroughly document observed items on the checklist.
- Ensure student evaluation form is filled out correctly and the appropriate debrief took place.
- Debrief the instructor being evaluated on their preparation, instruction, evaluation, and documentation.
- Have the evaluated instructor complete the instructor improvement plan section and sign.
- File a copy of the completed evaluation form in both the evaluator's and evaluated instructor's performance record.

Performance Standard. Complete the requirements IAW the reference.

Instructor. SI.

Prerequisite. 5100.

References.

- NAVMC 3500.14
- Applicable community T&R Manual
- MCO1553.2B, Appendix O

IUT-5120 2.0 * B (N) L

Goal. Perform T&R administration.

Requirement. Document training to include:

- Performance records.
- Ensure MSHARP is updated appropriately.
- Assemble recommendation package for certifications, qualifications, and designations IAW T&R manual.

Performance Standard. Complete the requirement items IAW the references. Instructor will question the trainee to check for understanding of the administration process.

Instructor. SI.

Prerequisite. 5100, 5110.

References.

1. NAVMC 3500.14
2. Local WTPP SOP
3. <http://msharpsupport.com>

IUT-5130 2.0 * B (N) L

Goal. Develop a training plan.

Requirement. Given a deployment scenario develop a training plan to determine individual, and crew training needed to meet CMMR by completing the following:

1. Review Commander's training guidance.
2. Analyze the CMTR to determine training deficiencies and how to achieve CMMR.
3. Identify and schedule T&R training opportunities IAW the TEEP to achieve requirements.
4. Determine instructors required.
5. Determine equipment required.
6. Determine external support required.
7. Deliver a brief to the instructor that shows:
 - a. Crew manning and training requirements.
 - b. Current training status.
 - c. Identify the training deficiencies and resource shortfalls.
 - d. Explain the training plan to correct the training deficiencies.
 - e. Training plan meets commander's guidance.

Performance Standard. Complete the requirement items IAW the references and commander's training guidance. Training plan will ensure adequate time is allocated to include preparation, instruction, assessment, documentation, and remediation.

Instructor. SI.

Prerequisite. 5100, 5110, 5120.

References.

1. NAVMC 3500.14
2. Applicable Community T&R manuals

9.12 CERTIFICATION, QUALIFICATIONS, AND DESIGNATION (CQD) (6000)

9.12.1 Purpose. This phase provides community standardization for technician qualifications and designations, combat leaders and instructor designations, and tracking of collateral duties (CD) assignments. This syllabus does not contain "one-time" certification training requirements.

9.12.2 General.

9.12.2.1 Prerequisite. None.

9.12.2.2 Admin Notes.

1. This section enables units to document and track combat leaders, instructors, technician and CD assignments. All syllabus training and administration requirements must be complete prior to being qualified or designated. A qualification or designation is not effective until all administration is completed.

2. Only once an individual is qualified or designated in writing, the signed letter is filed in the IPR, and all administrative actions are completed, and the event code has been logged in M-SHARP shall the qualification or

designation be effective.

9.12.2.3 Stages. The following stages are included in the Certifications, Qualifications, and Designations Phase of training:

PAR NO.	STAGE NAME	PAGE NUMBER
9.12.4	CERTIFICATION (CERT)	9-58
9.12.5	DESIGNATION (DESG)	9-59
9.12.6	SCHOOL CODES (SCHL)	9-61

9.12.4 CERTIFICATION (CERT) STAGE

9.12.4.1 Purpose. To provide for tracking of certifications for the MATC RADAR technicians.

9.12.4.2 General.

Admin Notes. Policies and rules for attaining and maintaining certifications are detailed in the Aviation T&R Program Manual and this Manual.

Prerequisite. None.

Crew Requirements. None

CERT-6260 .5 * B (N) G

Goal. CSWF Technical Support Specialist.

Requirement. Complete the prerequisites. Be recommended for certification and approved in writing by the commanding officer.

Performance Standard. Complete requirements in accordance with the reference.

Instructor. SI.

Prerequisite. 2040, 2041, 2042, 2044, 2045, 2046, 2047, 3001.

Reference.

1. DOD 8570.01_, Information Assurance Workforce Improvement Program

CERT-6261 .5 * B (N) G

Goal. CSWF IT Specialist.

Requirement. Complete the prerequisites. Be recommended for certification and approved in writing by the commanding officer.

Performance Standard. Complete requirements in accordance with the reference.

Instructor. SI.

Prerequisite. 2040, 2042, 2043, 2044, 2045, 2046, 2047, 3000, 3001, 3002.

Reference.

1. DOD 8570.01_, Information Assurance Workforce Improvement Program

CERT-6262 .5 * B (N) G

Goal. CSWF System Administrator.

Requirement. Complete the prerequisites. Be recommended for certification and approved in writing by the commanding officer.

Performance Standard. Complete requirements in accordance with the reference.

Instructor. SI.

Prerequisite. 2040, 2041, 2042, 2043, 2044, 2045, 2046, 2047, 3000, 3001, 3002.

Reference.

1. DOD 8570.01_, Information Assurance Workforce Improvement Program

9.12.5 DESIGNATION (DESG) STAGE

9.12.5.1 Purpose. To provide for designation of combat leaders and instructors. Designations are command specific and expire when an individual transfers out of a command

9.12.5.2 General.

Admin Notes. Policies and rules for attaining and maintaining designations are detailed in the Aviation T&R Program Manual and this Manual.

Prerequisite. None.

Crew Requirements. None.

DESG-6104 .5 * B (N) G

Goal. Collateral Duty Inspector.

Requirement. Complete the prerequisites IAW the reference:

1. Complete Fundamental skillset.
2. Complete Maintenance Admin skillset.
3. Complete required reading IAW local SOP.

Performance Standard. Pass written exams and an oral interview administered by QA and be designated on OPNAV 4790/12.

Instructor. SI.

Prerequisite. 2031, 2079, 2081, 2083, 2084, 3011, 6107.

References.

1. COMNAVAIRFORINST 4790.2_, Naval Aviation Maintenance Program
2. Local SOPs

DESG-6105 .5 * B (N) G

Goal. Collateral Duty Quality Assurance Representative.

Requirement. Complete the prerequisites IAW the reference:

1. Complete Fundamental skillset
2. Complete Maintenance Admin skillset
3. Complete required reading IAW local SOP.

Performance Standard. Pass written exams and an oral interview administered by QA and be designated on OPNAV 4790/12.

Instructor. SI.

Prerequisite. 2031, 2078, 2079, 2080, 2081, 2082, 2083, 2084, 2085.

References.

1. COMNAVAIRFORINST 4790.2_, Naval Aviation Maintenance Program
2. Local SOPs

DESG-6106 .5 * B (N) G

Goal. Quality Assurance Representative.

Requirement. Complete the prerequisites IAW the reference:

1. Complete Fundamental skillset.
2. Complete Maintenance Admin skillset.
3. Complete required reading IAW local SOP.

Performance Standard. Pass written exams and an oral interview administered by QA and be designated on OPNAV 4790/12.

Instructor. SI.

Prerequisite. 2031, 2078, 2079, 2080, 2081, 2082, 2083, 2084, 2085.

References.

1. COMNAVAIRFORINST 4790.2_, Naval Aviation Maintenance Program
2. Local SOPs

DESG-6200 .5 * B (N) G

Goal. Radar Chief.

Requirement. Complete the prerequisites required for the designation.

Performance Standard. Be verified by a WTI and designated in writing by the designating official.

Prerequisite. 2000, 2001, 2002, 2003, 2004, 2005, 2006, 2007, 2010, 2011, 2012, 2013, 2014, 2045, 2061, 2064, 2065, 2009, 2087, 2071, 2074, 2075, 2077, 2238, 2239, 2164, 2165, 2166, 2167, 2168, 2169, 2170, 2171, 2172, 2173, 2174, 2175, 2177, 2178, 2179, 3000, 3001, 3002, 3030, 3031, 3067, 3068, 3800, 3801, 3805, 6105, 6200, 8000, 8020.

Reference.

1. COMNAVAIRFORINST 4790.2_, Naval Aviation Maintenance Program

DESG-6320 .5 * B (N) G

Goal. Basic Instructor (BI).

Requirement. Complete the prerequisites required for the designation.

Performance Standard. Be verified by a WTI and designated in writing by the designating official.

Prerequisite. 5000, 5010, 5020.

Reference.

1. NAVMC 3500.14_, Naval Aviation Program Manual

DESG-6321 .5 * B (N) G

Goal. Senior Instructor (SI).

Requirement. Complete the prerequisites required for the designation.

Performance Standard. Be verified by a WTI and designated in writing by the designating official.

Prerequisite. 5000, 5010, 5020, 5100, 5110, 5120, 5130, 6320.

Reference.

1. NAVMC 3500.14_, Naval Aviation Program Manual

DESG-6322 .5 * B (N) G

Goal. WTI.

Requirement. Be certified by MAWTS-1 as a WTI, designated by the commanding officer in writing.

Performance Standard. N/A.

Instructor. WTI.

Prerequisite. 6000.

Reference.

1. NAVMC 3500.14_, Naval Aviation Program Manual

DESG-6330 .5 * B (N) G

Goal. Formal Learning Center Instructor.

Requirement. Complete the formal learning center's instructor requirements, designated by the commanding officer in writing.

Performance Standard. N/A.

Instructor. WTI.

Prerequisite. 6096.

Reference.

1. NAVMC 3500.14, Naval Aviation Program Manual

9.12.6 SCHOOL CODES (SCHL) STAGE

9.12.6.1 Purpose. To provide tracking codes for formal schools that are required for the MOS training of the MATCD Warrant Officer.

9.12.6.2 General.

Prerequisite. None.

Admin Notes. None.

Crew Requirements. None.

COURSE NAME	LOCATION	CID/CIN	T&R CODE
Weapons and Tactics Instructor	MCAS Yuma, AZ	M14P2A1	SCHL-6000
Link 16 Basics Course JT-100	Joint Knowledge Online (JKO)	N/A	SCHL-6020
Intro to Multi TDL Network JT-101	Fort Bragg, NC	N/A	SCHL-6021
Multi-TDL Advanced Joint Interoperability Course (MAJIC) JT-102	Fort Bragg, NC	A36L6Z1	SCHL-6022
Joint Interface Control Officer (JICO) (JT-301)	Fort Bragg, NC	A05FH21	SCHL-6026
Advanced JICC Operator (JT-310)	Fort Bragg, NC	A05FH21	SCHL-6027
Work Center Supervisor's Course	NATTC, FL	N23KCM2	SCHL-6030
MATC Maintenance Manager's Course	NATTC, FL	N23KCN2	SCHL-6031
Aeronautical Technical Publication Library Management Course	NAMTRAGRUDET, MCAS Cherry Point, NC	N9062R2	SCHL-6060
Microminiature Electronic Repair	San Diego CA Norfolk, VA Oak Harbor, WA	N01A351 N02A351 N26A352	SCHL-6073
Naval Aviation Maintenance Program Management	NAS Whiting Field, FL	N42P2M2	SCHL-6075
Ground Electronics Maintenance NCO Course.	N/A	N/A	N/A
Attend respective instructor development course.	N/A	N/A	N/A

SCHL-6000 .5 * B (N) G

Goal. WTI Course.

Requirement. Attend the course as a student and complete the requirements outlined in the course curriculum.

Performance Standard. Successfully complete course requirements.

Prerequisite. 6320, 6321, 8000, 8020, 8040, 8060, 8080.

Reference. None.

SCHL-6020 .5 * B (N) G

Goal. Link 16 Basics Course JT-100.

Requirement. Attend the course as a student and complete the requirements outlined in the course curriculum.

Performance Standard. Successfully complete course requirements.

Prerequisite. None.

Reference. None.

SCHL-6021 .5 * B (N) G

Goal. Intro to Multi TDL Network JT-101.

Requirement. Attend the course as a student and complete the requirements outlined in the course curriculum.

Performance Standard. Successfully complete course requirements.

Prerequisite. None.

Reference. None.

SCHL-6022 .5 * B (N) G

Goal. Multi-TDL Advanced Joint Interoperability Course (MAJIC) JT-102.

Requirement. Attend the course as a student and complete the requirements outlined in the course curriculum.

Performance Standard. Successfully complete course requirements.

Prerequisite. 6021.

Reference. None.

SCHL-6026 .5 * B (N) G

Goal. Joint Interface Control Officer Course (JICO) (JT-301).

Requirement. Attend the course as a student and complete the requirements outlined in the course curriculum.

Performance Standard. Successfully complete course requirements.

Prerequisite. None.

Reference. None.

SCHL-6027 .5 * B (N) G

Goal. Advanced JICC Operator Course (JT-310).

Requirement. Attend the course as a student and complete the requirements outlined in the course curriculum.

Performance Standard. Successfully complete course requirements.

Prerequisite. None.

Reference. None.

SCHL-6030 .5 * B (N) G

Goal. Work Center Supervisor Course.

Requirement. Attend the course as a student and complete the requirements outlined in the course curriculum.

Performance Standard. Successfully complete course requirements.

Prerequisite. 2238, 3030.

Reference. None.

SCHL-6031 .5 * B (N) G

Goal. MATC Maintenance Manager's Course.

Requirement. Attend the course as a student and complete the requirements outlined in the course curriculum.

Performance Standard. N/A

Prerequisite. None.

Reference. None.

SCHL-6060 .5 * B (N) G

Goal. Aeronautical Technical Publication Library Management Course.

Requirement. Attend the course as a student and complete the requirements outlined in the course curriculum.

Performance Standard. N/A.

Prerequisite. None.

Reference. None.

SCHL-6073 .5 * B (N) G

Goal. Microminiature Electronic Repair.

Requirement. Attend the course as a student and complete the requirements outlined in the course curriculum.

Performance Standard. N/A.

Prerequisite. None.

Reference. None.

SCHL-6075 .5 * B (N) G

Goal. Naval Aviation Maintenance Program Management.

Requirement. Attend the course as a student and complete the requirements outlined in the course curriculum.

Performance Standard. N/A

Prerequisite. None.

Reference. None.

SCHL-6095 .5 * B (N) G

Goal. Ground Electronics Maintenance NCO Course.

Requirement. Attend the course as a student and complete the requirements outlined in the course curriculum.

Performance Standard. N/A

Prerequisite. None.

Reference. None.

SCHL-6096 .5 * B (N) G

Goal. Attend respective instructor development course.

Requirement. Attend the course as a student and complete the requirements outlined in the course curriculum.

Performance Standard. N/A

Prerequisite. None.

Reference. None.

SCHL-6107 .5 * B (N) G

Goal. Complete Equipment Grounding Systems (EGS000001A) MarineNet course.

Requirement. Attend the course.

Performance Standard. Successfully complete course requirements.

Prerequisite. None.

Reference. None

9.13 MISSION ESSENTIAL TASK (MET) PHASE (7000)

9.13.1 Purpose. This phase takes CMMR proficient Marines from multiple PMOS, puts them in CMMR representative crews, and trains them as combat effective teams in combined events.

9.13.2 General.

9.13.2.1 Prerequisite. Marines must either be CMMR crew position or non- aviation PMOS proficient to train in this phase. For those events requiring combat leaders, only Marines currently designated as such can train in this phase.

9.13.2.2 Admin Notes. Prerequisites for this phase of training cannot be waived. Multiple events can be trained at the same time as long as separate evaluations are being conducted.

9.13.2.3 Stages. The following stages are included in the Mission Essential Task (MET) Phase of training:

PAR NO.	STAGE NAME	PAGE NUMBER
9.13.3	CONDITION (COND)	9-66

9.13.3 CONDITION (COND) STAGE

9.13.3.1 Purpose. To train unit level teams in executing community specific MET(s) or MET preparatory events.

9.13.3.2 General.

Admin Notes. All events in this stage will require the following administrative/operational documents to be identified or created:

1. Letter of Intent (LOI).
2. Personnel Roster.
3. Bill of Material (BOM).
4. Equipment Density List (EDL).

Prerequisite. If an event requires prerequisites in addition to those listed for the MET Phase, they will be covered in the individual event.

Crew Requirements. This stage requires that all crew members and combat leaders be qualified/designated and proficient (current) in the position they are assigned for the following events. Crews shall be task organized to meet the mission.

COND-7100 18.0 730 B, R, M E (N) L

Goal. Provide ATC tower services.

Requirement. Given an expeditionary control tower, an FAA certifiable TACAN, and all ancillary equipment, conduct continuous expeditionary control tower operations.

Performance Standard. Perform the following:

1. Emplace an expeditionary control tower, an FAA certifiable TACAN, and ancillary equipment.
2. Establish applicable functional operating positions within 10 hours.
3. Establish two-way communications with aircraft and ground agencies.
4. Provide sustained integration with the MACCS, other military C2 and civilian entities to include FAA and the International Civil Aviation Organization (ICAO).
5. Control the movement of aircraft and/or vehicular traffic.
6. Control aircraft within assigned terminal airspace.
7. Pass a tactical or FAA flight inspection.
8. Provide sustained navigational assistance.
9. Perform a crew relief.

Prerequisite. Two CMMR crews.

Instructor. WTI.

Range Requirement. Airfield.

External Resource Requirement. Rotary-wing and/or fixed-wing aircraft, MWSS personnel, NAVFIG, and MHE.

References.

1. MCRP 3-20F.7, Marine Air Traffic Control Detachment Handbook
2. JO 7110.65, Air Traffic Control
3. NAVAIR 00-80T-114, NATOPS Air Traffic Control Manual

COND-7200 12.0 730 B, R, M E (N) L

Goal. Provide ATC approach services.

Requirement. Given an airport surveillance radar, a precision approach radar, an FAA certifiable TACAN,

and all ancillary equipment; conduct continuous expeditionary radar approach control operations.

Performance Standard. Perform the following:

1. Emplace an airport surveillance radar, a precision approach radar, an FAA certifiable TACAN, and all ancillary equipment.
2. Establish six functional operating positions within eight hours.
3. Have maps available on operating positions.
4. Provide sustained integration with the MACCS, other military C2 and civilian entities to include FAA and ICAO.
5. Establish and maintain communication and radar identification of aircraft within the detachment's airspace.
6. Pass a tactical or FAA flight inspection.
7. Control aircraft within assigned airspace.
8. Provide sustained navigational assistance.
9. Provide sustained radar air surveillance data to the MAGTF or joint force via Tactical Data Link.
10. Perform a crew relief.

Prerequisite. Two CMMR crews

Instructor. WTI.

Range. Assigned airspace.

External Resource Requirement. Rotary-wing and/or fixed-wing aircraft, MWSS personnel, NAVFIG, and MHE.

References.

1. MCRP 3-20F.7, Marine Air Traffic Control Detachment Handbook
2. JO 7110.65, Air Traffic Control
3. Applicable technical manuals

COND-7300 12.0 365 B, R, M E (N) L

Goal. Provide ATC arrival/departure services.

Requirement. Given an AN/TPN-31(V) and all ancillary equipment, conduct continuous expeditionary radar arrival/departure and final control operations.

Performance Standard. Perform the following:

1. Emplace an airport surveillance radar, precision approach radar, FAA certifiable TACAN, and all ancillary equipment.
2. Establish five functional operating positions within six hours.
3. Have maps available on operating positions.
4. Provide sustained integration with the MACCS, other military C2 and civilian entities to include FAA and ICAO.
5. Establish and maintain communication and radar identification of aircraft within the detachment's airspace.
6. Pass a tactical or FAA flight inspection.
7. Control aircraft within assigned airspace.
8. Provide precision/non-precision approaches in a terminal environment.
9. Provide sustained navigational assistance.
10. Provide sustained radar air surveillance data to the MAGTF or joint force via Tactical Data Link.
11. Perform crew relief.

Prerequisite. Two CMMR crews.

Instructor. WTI.

Range. Airfield.

External Resource Requirement. Rotary-wing and/or fixed-wing aircraft, MWSS personnel, NAVFIG, and MHE.

References.

1. MCRP 3-20F.7, Marine Air Traffic Control Detachment Handbook
2. JO 7110.65, Air Traffic Control
3. Applicable technical manuals

COND-7400 2.0 730 B, R, M E (N) L

Goal. Conduct Marine air traffic control mobile team (MMT) ALZ operations.

Requirement. Provided a Table of Equipment (T/E) and/or equipment density list (EDL), conduct ALZ operations.

Performance Standard. Perform the following during a minimum operational tempo of three air traffic control operations.

1. Conduct a hasty assault zone survey and assessment.
2. Travel to the landing zone.
3. Within five minutes of arrival at the site, establish visual control capability consisting of radios and/or appropriate signaling devices.
4. Within 30 minutes of arrival at the site, establish appropriate marking of the landing zone and emplace navigational aid.
5. Provide sustained integration with the MACCS and other military C2 agencies.
6. Control aircraft within assigned terminal airspace.
7. Provide sustained navigational assistance.
8. Provide appropriate small unit defense capability and integrate with the defensive force established at the landing zone, if provided.
9. Retrograde from the landing zone with the last available transportation.

Prerequisite. One CMMR MMT.

Instructor. WTI.

Range. Assault landing zone.

External Resource Requirement. ALZ-capable fixed-wing aircraft.

Reference.

1. MAWTS-1 MMT TACSOP
2. MCRP 3-20F.7, Marine Air Traffic Control Detachment Handbook

COND-7500 2.0 730 B, R, M E (N) L

Goal. Conduct Marine air traffic control mobile team (MMT) FARP operations.

Requirement. Given a Table of Equipment (T/E) and/or equipment density list (EDL), conduct FARP operations.

Performance Standard. Perform the following during a minimum operational tempo of three air traffic control operations.

1. Conduct a hasty survey and assessment.
2. Travel to the landing zone.

3. Within five minutes of arrival at the site, establish visual control capability consisting of radios and/or appropriate signaling devices.
4. Within 30 minutes of arrival at the site, establish appropriate marking of the landing zone and emplace navigational aid.
5. Provide sustained integration with the MACCS and other military C2 agencies.
6. Control aircraft within assigned terminal airspace.
7. Provide sustained navigational assistance.
8. Provide appropriate small unit defense capability and integrate with the defensive force established at the landing zone, if provided.
9. Retrograde from the landing zone with the last available transportation.

Prerequisite. One CMMR MMT.

Instructor. WTI.

Range. Operational FARP.

External Resource Requirement. Fixed or rotary-wing aircraft.

References.

1. MAWTS-1 MMT TACSOP
2. MCRP 3-20F.7, Marine Air Traffic Control Detachment Handbook

9.14 AVIATION CAREER PROGRESSION MODEL (8000)

9.14.1 Purpose. To enhance professional understanding of Marine Aviation and the MAGTF, and to ensure individuals possess the requisite skills to fill battle command and battle staff positions in support of the ACE and the MAGTF in a joint environment. The focus of training in the Aviation Career Progression Model (ACPM) is on academic events in the following areas:

Marine Air Command and Control System (MACCS)
Aviation Ground Support
Joint Air Operations
ACE Battle Staff MAGTF
Seabased Operations
Combatant Commander Organizations

9.14.2 General. The ACPM is intended to be an integrated series of academic events contained within each phase of training. Accordingly, ACPM academic events are like any other academic event in that they serve as pre-requisites to selected flight events or stages. Additionally, several ACPM academic events are integrated as prerequisites for flight leadership syllabi. ACPM events may be conducted in group session with an assigned instructor teaching the period of instruction or they may be accomplished by self-paced instruction. MAWTS-1 is responsible for the update and validity of the ACPM periods of instruction. In the future, courses may be consolidated or revised to meet changing requirements. Refer to the MAWTS-1 ACPM link for the current ACPM program of instruction:
<https://www.intranet.tecom.usmc.mil/sites/mawts1/mawts1%20webpages/Aviation%20Career%20Progression%20Model.aspx?PageView=Shared>

Completed events shall be manually logged and tracked in M-SHARP. ACPM academic events, along with their identifying prerequisite association with other training phases/stages/events, are listed below.

ACPM-8000	1.0	*	B	(N)	G

Goal. Demonstrate an understanding of the MACCS stage.

Requirement. Pass a closed book examination that encompasses all learning objectives contained in the prerequisites.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. SI.

Prerequisite. 8001, 8002, 8003, 8004, 8005, 8006, 8008.

Reference. C3 Course Catalog.

ACPM-8001 4.0 * B (N) G

Goal. Demonstrate an understanding of the Marine Air Command and Control System (MACCS).

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Describe how the control of aircraft and missiles relates to the other five functions of USMC aviation.
2. Define the control of aircraft and missiles and each of its subcomponents.
3. Define the Marine aviation's philosophy of centralized command and decentralized control.
4. Differentiate between Marine aviation philosophy and Joint aviation philosophy.
5. Identify the principle objectives of the MACCS.
6. Recall the primary role of each agency of the MACCS.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 MACCS Agencies, Functions and the Control of Aircraft and Missiles Class
2. MCWP 3-25.3 MACCS Handbook
3. MCWP 3-25 Control of Aircraft and Missiles

ACPM-8002 4.0 * B (N) G

Goal. Demonstrate an understanding of the Tactical Air Command Center (TACC).

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. State the mission of the TACC.
2. Identify the four organizations of the TACC.
3. List the primary responsibilities of Air Combat Intelligence (ACI).
4. List the primary responsibilities of Future Operations (FOPS).
5. List the primary responsibilities of Future Plans (FPLANS).
6. List the primary responsibilities of Current Operations (COPS).
7. List the major end items used by the TACC.
8. List the system limitations of the TACC.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 TACC Class
2. MAWTS-1 MTACS Class
3. MCWP 3-25.4 TACC Handbook

ACPM-8003 4.0 * B (N) G

Goal. Demonstrate an understanding of the Direct Air Support Center (DASC).

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify the role of the DASC.
2. List the structure and task organization of the DASC.
3. Identify the major end items and their characteristics used by the DASC.
4. List the capabilities and limitations of the DASC.
5. Identify how the DASC is doctrinally employed as part of the MACCS.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 DASC Class
2. MCWP 3-25.5 DASC Handbook

ACPM-8004 4.0 * B (N) G

Goal. Demonstrate an understanding of the Tactical Air Operations Center (TAOC).

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Define the mission of the TAOC.
2. Identify the Mission Essential Tasks (METs) for the TAOC.
3. Identify the structure and task organization of the TAOC.
4. Identify the major end items and their characteristics used by the TAOC.
5. Identify the capabilities and limitations of the TAOC.
6. Identify how the TAOC is doctrinally employed as part of the MACCS.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 TAOC Class
2. MCWP 3-25.7 TAOC Handbook

ACPM-8005 4.0 * B (N) G

Goal. Demonstrate an understanding of the Marine Air Traffic Control (MATC).

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify the mission of MATC.
2. Identify the Mission Essential Tasks (METs) for MATC.
3. List the structure and task organization of MATC.
4. Identify the major end items and their characteristics used by MATC.
5. Identify the capabilities and limitations of MATC.
6. Identify how MATC is doctrinally employed as part of the MACCS.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 MATC Class
2. MAWTS-1 MMT Class
3. MCWP 3-25.8 MATC Detachment Handbook

ACPM-8006	4.0	*	B	(N)	G

Goal. Demonstrate an understanding of the Low Altitude Air Defense (LAAD).

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify the mission of the LAAD battalion.
2. Identify the structure and task organization of the LAAD battalion.
3. Identify the primary vehicle and surface-to-air weapon used by the LAAD Battalion.
4. Define the LAAD employed guidelines.
5. List the LAAD weapon applications.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 LAAD Class
2. MCWP 3-25.10 LAAD BN Handbook
3. MCWP 3-25.10A LAAD Gunner's Handbook

ACPM-8008	4.0	*	B	(N)	G

Goal. Demonstrate an understanding of the Marine Wing Communications Squadron (MWCS).

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify the mission of the MWCS.
2. Identify the structure and task organization of the MWCS.
3. Identify the Mission Essential Tasks (METs) for the MWCS.
4. Identify the major end items and their characteristics used by MWCS.
5. Identify the capabilities and limitations of the MWCS.
6. Identify how the MWCS is doctrinally employed as part of the MACCS.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 MWCS Employment Class
2. MCRP 3-30B.2 MAGTF Communications Systems

3. NAVMC 3500.56 Communications Training and Readiness Manual

ACPM-8020 1.0 * B (N) G

Goal. Demonstrate an understanding of the ACE stage of the MACCS ACPM.

Requirement. Pass a closed book examination that encompasses all learning objectives contained in the prerequisites.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. 8021, 8022, 8023, 8024, 8025, 8026, 8027, 8028.

Reference. C3 Course Catalog.

ACPM-8021 4.0 * B (N) G

Goal. Demonstrate an understanding of USMC aviation operations doctrine.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify the six functions of Marine aviation to include all their subsets.
2. Identify the organization and mission of the Marine Aircraft Wing (MAW), to include each type of group and squadron.
3. Define who has operational control of organic MAGTF aviation assets during Joint operations.
4. List the four types of sorties the MAGTF Commander makes available to the Joint Force.
5. Identify the purpose of the Air Tasking Order (ATO).
6. Identify the six phases of the air tasking cycle.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

Reference. MCWP 3-2 Aviation Operations

ACPM-8022 4.0 * B (N) G

Goal. Demonstrate an understanding of USMC doctrine for the control of aircraft and missiles.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify how the control of aircraft and missiles relates to the other five functions of USMC aviation.
2. Identify distinctions between Marine aviation philosophy and that of the other services.
3. Identify the principle objectives of the Marine Air Command and Control System (MACCS).
4. Describe how the COMMARFOR may serve as the Joint Force Air
5. Component Commander (JFACC), Airspace Control Authority (ACA), and Area Air Defense Commander (AADC).

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 Control of Aircraft and Missiles Class
2. MCWP 3-25 Control of Aircraft and Missiles

ACPM-8023 4.0 * B (N) G

Goal. Demonstrate an understanding of USMC Offensive Air Support (OAS) doctrine.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify the purpose of the MAGTF Commanders Single Battle Concept.
2. Define the subcategories of OAS.
3. Define the requirements for effective OAS.
4. Define the three types of Deep Air Support (DAS).
5. Define the capabilities and limitations of the OAS function.
6. Identify the elements of a Joint Tactical Air Strike Request (JTAR).
7. Identify the three types of control of Close Air Support (CAS).

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 OAS Class
2. MCWP 3-23 Offensive Air Support

ACPM-8024 4.0 * B (N) G

Goal. Demonstrate an understanding of USMC Assault Support doctrine.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Define the types of assault support operations.
2. Identify which aircraft conduct each of the types of assault support operations.
3. Identify the elements of an Assault Support Request (ASR).
4. List assault support capabilities and limitations.
5. Define the role of the air mission commander and the assault force commander during air assault operations.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 Assault Support Class
2. MAWTS-1 Direct Air Support Requests Class

ACPM-8025 4.0 * B (N) G

Goal. Demonstrate an understanding of USMC Air Reconnaissance doctrine.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the

following learning objectives:

1. Identify the three categories of air reconnaissance.
2. Identify the four principals of air reconnaissance.
3. Identify the five prerequisites for effective air reconnaissance.
4. Identify the current USMC aircraft that have the mission of air reconnaissance.
5. Identify the form used to request air reconnaissance.
6. Identify the five supporting operations for effective air reconnaissance.
7. Identify the capabilities and limitations of air reconnaissance.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

Reference. MCWP 3-26 Air Reconnaissance

ACPM-8026 4.0 * B (N) G

Goal. Demonstrate an understanding of USMC Electronic Warfare (EW) doctrine.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Define radar.
2. List the three basic radar types.
3. Identify the limitations and characteristics of radar systems.
4. Identify the six guidance systems and how they work.
5. List the three subdivisions of Electronic Warfare (EW).

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 (S) Electronic Warfare Class—for additional training only, secret courseware should not to be used for testing purposesMAWTS-1 Direct Air Support Requests Class
2. MCWP 3-40.5 Electronic Warfare

ACPM-8027 4.0 * B (N) G

Goal. Demonstrate an understanding of USMC Antiair Warfare (AAW) doctrine.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Define AAW.
2. Define the two subsets of AAW.
3. Identify the principles of AAW.
4. Identify the types of Offensive Antiair Warfare (OAAW).
5. Identify the active air defense functions.
6. List three examples of passive air defense measures.
7. Define a Joint Engagement Zone (JEZ), Fighter Engagement Zone (FEZ), Missile Engagement Zone (MEZ), and Base Defense Zone (BDZ).
8. Define the air defense warning conditions.
9. Define the weapons control statuses.

10. Identify the responsibilities of the Regional Air Defense Commander (RADC) and the Sector Air Defense Commander (SADC).

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 Air Defense Class
2. MAWTS-1 Air Defense Commanders Class
3. MAWTS-1 Offensive Antiair Warfare Class
4. MCWP 3-22 Antiair Warfare

ACPM-8028 4.0 * B (N) G

Goal. Demonstrate an understanding of USMC Ground Support (AGS) doctrine.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify the organization responsible for providing AGS to the Marine Aircraft Wing (MAW).
2. Identify the 13 functions of AGS.
3. Identify the five activities that the Marine Wing Support Squadron (MWSS) performs for the ACE when deployed.
4. Identify the four basing concepts for MAGTF Forward Operating Bases (FOBs).
5. List the four classifications of FOBs.
6. Differentiate the distinguishing characteristics of FOBs.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 AGS Class
2. MCWP 3-21.1 Aviation Ground Support

ACPM-8040 1.0 * B (N) G

Goal. Demonstrate an understanding of the Threat stage of the MACCS ACPM

Requirement. Pass a closed book examination that encompasses all learning objectives contained in the prerequisites.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. SI.

Prerequisite. 8041, 8042, 8043, 8044.

Reference. C3 Course Catalog.

ACPM-8041 4.0 * B (N) G

Goal. Demonstrate an understanding of the surface-to-air threat to the MAGTF.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Match the system name with the guidance and target aspect for the following Man Portable Air Defense Systems (MANPADS):
 - a. SA-7
 - b. SA-14
 - c. SA-16
 - d. SA-18
2. Match the system name with the guidance and associated radars for the following Radio Frequency Surface-to-Air Missile Systems (RF SAMS):
 - a. SA-2
 - b. SA-6
 - c. SA-8
 - d. SA-10
 - e. SA-11
 - f. SA-15
 - g. SA-20
 - h. Roland-III
3. Match the system name with the type and associated radar for the following Air Defense Artillery (AAA):
 - a. ZPU 1, 2, 4
 - b. ZSU-23-4
 - c. 2S6
 - d. S-60

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

Reference. MAWTS-1 Marine Aviation Intelligence Reference
(<https://vcepub.tecom.usmc.mil/sites/msc/magtftc/mawts1/departments1/newc3/default.aspx>)

ACPM-8042 4.0 * B (N) G

Goal. Demonstrate an understanding of the fixed wing threat to the MAGTF.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify the role of the AN-2 Colt.
2. Identify the role of the MIG-23 Flogger.
3. Identify the role of the MIG-29 Fulcrum.
4. Identify the role of the MIG-31 Foxhound.
5. Identify the role of the Su-24 Fencer.
6. Identify the role of the Su-25 Frogfoot.
7. Identify the role of the Su-27 Flanker.
8. Identify the role of the Su-30 Flanker.
9. Identify the role of the Tu-22M Backfire.
10. Identify the role of the Tu-95 Bear.
11. Identify the role of the Tu-160 Blackjack.
12. Identify the role of the J-7 Fishbed.
13. Identify the role of the JH-7 Flounder.
14. Identify the role of the J-8 Finback.
15. Identify the role of the J-10 Firebird.

16. Identify the role of the H-6 Badger.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

Reference. MAWTS-1 Marine Aviation Intelligence Reference
(<https://vcepub.tecom.usmc.mil/sites/msc/magtftc/mawts1/departments1/newc3/default.aspx>)

ACPM-8043 4.0 * B (N) G

Goal. Demonstrate an understanding of the rotary wing threat to the MAGTF.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify the role of the Mi-24 Hind.
2. Identify the role of the SA 342 Gazelle.
3. Identify the role of the Ka-25 Hormone.
4. Identify the role of the Mi-6 Hook.
5. Identify the role of the Mi-28 Havoc.
6. Identify the role of the Mi-8 Hip.
7. Identify the role of the Ka-50 Kokum.
8. Identify the role of the Ka-29 Helix B.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

Reference. MAWTS-1 Marine Aviation Intelligence Reference
(<https://vcepub.tecom.usmc.mil/sites/msc/magtftc/mawts1/departments1/newc3/default.aspx>)

ACPM-8044 4.0 * B (N) G

Goal. Demonstrate an understanding of the missile and Unmanned Aircraft System (UAS) threat to the MAGTF.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Match the system name with the terminal guidance for the following Air-to-Surface Missiles:
 - a. AS-10 Karen
 - b. AS-11 Kilter
 - c. AS-12 Kegler
 - d. AS-14 Kedge
 - e. AS-17 Krypton
2. Match the system name with the warhead and guidance for the following Surface-to-Surface Missiles:
 - a. FROG-7
 - b. SCUD-B
 - c. SCUD-C
 - d. Nodong 1
 - e. C 801
 - f. C 802
3. Identify the mission of the following threat UAS:
 - a. Ababil

- b. Mohajer
- c. Harpy
- d. Heron
- e. ASN-206
- f. Pchela-1T

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 Marine Aviation Intelligence Reference
2. <https://vcepub.tecom.usmc.mil/sites/msc/magtftc/mawts1/departments1/ne>
3. [wc3/default.aspx](https://vcepub.tecom.usmc.mil/sites/msc/magtftc/mawts1/departments1/ne)
4. Marine Corps Intelligence Activity Iran Country Handbook (appendix A)
5. Marine Corps Intelligence Activity North Korea Country Handbook (page 86)
6. Marine Corps Intelligence Activity China Country Handbook (appendix A)
<https://www.intelink.gov/mcia/handbook.htm>
7. MCIA UAV Recognition Guide <https://www.intelink.gov/mcia/index.htm>

ACPM-8060 1.0 * B (N) G

Goal. Demonstrate an understanding of the MAGTF stage of the MACCS ACPM.

Requirement. Pass a closed book examination that encompasses all learning objectives contained in the prerequisites.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. SI.

Prerequisite. 8061, 8062, 8063, 8064, 8065.

Reference. C3 Course Catalog.

ACPM-8061 4.0 * B (N) G

Goal. Demonstrate an understanding of the MAGTF ground combat operations.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify how the Ground Combat Element (GCE) is employed as part of the MAGTF and the capabilities the GCE provides to the MAGTF commander
2. Define the following items related to command and control of ground combat operations:
 - a. Echelons of the GCE headquarters
 - b. Battlespace Organization
 - c. Battlespace Framework
3. Define the five types of amphibious operations.
4. Identify the following items related to offensive operations:
 - a. Types of offensive operations
 - b. Types of attack
 - c. Forms of maneuver
 - d. Distribution of forces
5. Identify the following items related to defensive operations:

- a. Organization of the defense
- b. Distribution of forces
- c. Types of defensive operations
- d. Defensive methods

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MCDP 1-0 Marine Corps Operations
2. MCWP 3-1 Ground Combat Operations

ACPM-8062 4.0 * B (N) G

Goal. Demonstrate an understanding of fire support coordination in the Ground Combat Element (GCE).

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify the four fire support tasks.
2. List the functions of the senior fire support coordination center (FSCC) in the GCE.
3. List the four steps of the MAGTF Targeting Process.
4. Define the purpose of essential fire support tasks (EFST).

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 MAGTF Targeting and Fire Support Planning Class
2. MCWP 3-16 Fire Support Coordination in the GCE

ACPM-8063 4.0 * B (N) G

Goal. Demonstrate an understanding of MAGTF command and control.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify MAGTF command and support relationships.
2. Identify the purpose and role of the command and control centers in the CE, ACE, GCE, and LCE.
3. Identify the purpose and role of the amphibious command and control facilities.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

Reference. MCWP 3-40.1 MAGTF C2

ACPM-8064 4.0 * B (N) G

Goal. Demonstrate an understanding of MAGTF communications.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify the six characteristics of communications and information systems.
2. Identify the mission and organizational structure of the Communications Battalion.
3. Identify the purpose of the Communications-Electronics Operating Instructions (CEOI) and what information is usually included in it.
4. Identify what information can be found in Annex K of an operations order.
5. Identify the purpose of select fires, support, and ACE specific radio nets.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

Reference. MCWP 3-40.3 MAGTF Communications System

ACPM-8065 4.0 * B (N) G

Goal. Demonstrate an understanding of phasing control ashore.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify types of amphibious operations and how command relationships may change during the conduct of each.
2. Identify how disputes among commanders during amphibious operations are resolved.
3. Identify the key commanders and command relationships.
4. Identify the key characteristics of each phase in phasing the MACCS ashore.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 Phasing Control Ashore Class
2. JP 3-02 Joint Doctrine for Amphibious Operations (Ch 2)
3. MCWP 3-25 Control of Aircraft and Missiles (Appendix C)

ACPM-8066 4.0 * B (N) G

Goal. Demonstrate an understanding of information management.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Match the principles of information management with their descriptions.
2. Define each of the classes of information within an information hierarchy.
3. List the characteristics of quality information.
4. Identify the role and responsibilities of an Information Management Officer (IMO).
5. Define C2 support structure and the three steps followed to develop one.
6. Identify the purpose of an information management matrix and the information management plan.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

Reference. MCWP 3-40.2 Information Management

ACPM-8067 4.0 * B (N) G

Goal. Demonstrate an understanding of Unmanned Aircraft Systems in support of MAGTF operations.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify the four types of payloads.
2. Identify the three attributes that determine UAS Groups.
3. Identify the five different UAS Group Categories.
4. Identify the two types of VMU operational employment.
5. Identify the three components of the RQ-7B Communications Relay Package.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 UAS In Support of MAGTF Operations
2. MCRP 3-42.1A
3. NTTP 3-22.3-VMU

ACPM-8080 1.0 * B (N) G

Goal. Demonstrate an understanding of the MAGTF stage of the joint air operations stage of the MACCS ACPM.

Requirement. Pass a closed book examination that encompasses all learning objectives contained in the prerequisites.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. SI.

Prerequisite. 8081, 8082, 8083, 8084, 8085, 8086, 8087, 8088.

Reference. C3 Course Catalog.

ACPM-8081 4.0 * B (N) G

Goal. Demonstrate an understanding of the command and control of joint air operations.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify the definition of joint air operations.
2. Identify the Joint Force Air Component Commander's responsibilities.
3. Identify the five sections that comprise the Joint Air Operations Center.
4. Identify the six phases of the Joint Air Tasking Cycle.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives or pass

the DOCNET course listed below with a score of 80% or higher.

Instructor. BI.

Prerequisite. None.

References.

1. DOCNET Course 3-30 (<http://www.dtic.mil/doctrine/docnet/>)
2. MAWTS-1 Joint Air Operations Class
3. JP 3-30 C2 of Joint Air Operations

ACPM-8082 4.0 * B (N) G

Goal. Demonstrate an understanding of the theater air ground system (TAGS).

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. List the primary characteristics of the Theater Air Ground System (TAGS).
2. Identify the elements within the Air Force's Theater Air Control System (TACS) and their primary responsibilities.
3. Identify the aviation command and control elements with the Army Air and Ground System (AAGS) and their primary responsibilities.
4. Identify the aviation elements within the Navy's Composite Warfare Commander (CWC) architecture.
5. Identify the Amphibious Task Force (ATF) construct and its primary responsibilities.
6. Identify the aviation command and control elements within the Special Operations Air-Ground System.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 TAGS ClassMAWTS-1 Joint Air Operations Class
2. ALSA TAGS Pub. (<https://wwwmil.alsa.mil/default.aspx>)

ACPM-8083 4.0 * B (N) G

Goal. Demonstrate an understanding of joint fire support doctrine.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Define joint fires.
2. Define joint fire support.
3. Identify the steps of the joint fire support planning process.
4. List the various elements of the component commander's fires command and control system.
5. Define the various joint control and coordination measures associated with joint fire support.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives or pass the DOCNET course listed below with a score of 80% or higher.

Instructor. BI.

Prerequisite. None.

References.

1. DOCNET Course 3-09 (<http://www.dtic.mil/doctrine/docnet/>)

2. JP 3-09 Joint Fire Support

ACPM-8084 4.0 * B (N) G

Goal. Demonstrate an understanding of close air support (CAS) doctrine.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Explain key roles and responsibilities related to the planning and execution of CAS.
2. Detail key steps in the planning and execution of CAS.
3. Describe various coordination measures used in the planning and conduct of CAS.
4. Describe the manner in which the two types of CAS requests are fulfilled.
5. Identify the goal and purpose of synchronizing CAS with surface fires.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives or pass the DOCNET course listed below with a score of 80% or higher.

Instructor. BI.

Prerequisite. None.

References.

1. DOCNET Course 3-09 (<http://www.dtic.mil/doctrine/docnet/>)
2. MAWTS-1 CAS Class
3. JP 3-09.3 Close Air Support

ACPM-8085 4.0 * B (N) G

Goal. Demonstrate an understanding of joint targeting doctrine.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify types of targets.
2. Identify and describe the six phases of the joint targeting cycle.
3. Identify characteristics of a target.
4. Identify and describe steps in dynamic targeting.
5. Describe roles and responsibilities related to the joint targeting process.
6. Describe key products and processes of the joint targeting cycle.
7. Identify key terms related to the joint targeting process.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives or pass the DOCNET course listed below with a score of 80% or higher.

Instructor. BI.

Prerequisite. None.

References.

1. DOCNET Course 3-09 (<http://www.dtic.mil/doctrine/docnet/>)
2. JP 3-60 Joint Targeting

ACPM-8086 4.0 * B (N) G

Goal. Demonstrate an understanding of the North Atlantic Treaty Organization (NATO).

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify the composition of the NATO alliance.
2. Identify the three key articles of the NATO alliance.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 NATO Class
2. "What is NATO" Brief (http://www.nato.int/welcome/intro_to_NATO_en.ppt)
3. AJP-01(D)

ACPM-8087 4.0 * B (N) G

Goal. Demonstrate an understanding of joint airspace control doctrine.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify the responsibilities of the airspace control authority (ACA).
2. Identify the basic principles for airspace control.
3. Identify the purpose of the airspace control plan (ACP).
4. Identify the purpose of the airspace control order (ACO).
5. Identify the methods of airspace control.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 Airspace Control Authority and Airspace Class
2. JP 3-52 Joint Airspace Control

9.15 T&R SYLLABUS MATRIX.

5953 T&R SYLLABUS MATRIX										
STAGE	CODE	TITLE	POI	DEVICE	COND	PROFICIENCY PERIOD	E-CODED	TIME	PREREQ	CHAIN
CORE INTRODUCTION PHASE (1000)										
CYBER SECURITY WORK FORCE (CSWF)										
CSWF	1005	Provide cyberwarfare technical support and troubleshooting.	B	G	(N)	*	*	0	*	*
CSWF	1006	Repair common cables.	B	G	(N)	*	*	0	*	*
TOTAL HOURS CSWF STAGE			EVENTS		2	HOURS		0		
MARINE AIR TRAFFIC CONTROL LANDING SYSTEMS (MATCLS)										
MATCLS	1300	Perform corrective maintenance on the AN/TPN-31 to the lowest repairable unit (LRU).	B	G	(N)	*	*	0	*	*
MATCLS	1305	Setup the AN/TPN-31 with AN/TSQ-263 on an airfield.	B	G	(N)	*	*	0	*	*
MATCLS	1310	Disassemble the AN/TPN-31 with the AN/TSQ-263.	B	G	(N)	*	*	0	*	*
MATCLS	1315	Perform post emplacement procedures on the AN/TPN-31 and AN/TSQ-263.	B	G	(N)	*	*	0	*	*
MATCLS	1320	Perform corrective maintenance on the AN/TSQ-263 to the lowest repairable unit (LRU).	B	G	(N)	*	*	0	*	*
MATCLS	1321	Perform corrective maintenance on the AN/TYQ-164 to the lowest repairable unit (LRU)	B	G	(N)	*	*	0	*	*
MATCLS	1322	Setup the AN/TYQ-164.	B	G	(N)	*	*	1	*	*
MATCLS	1323	Disassemble the AN/TYQ-164.	B	G	(N)	*	*	2	*	*
TOTAL HOURS (MATCLS) STAGE			EVENTS		8	HOURS		3		

5953 T&R SYLLABUS MATRIX										
STAGE	CODE	TITLE	POI	DEVICE	COND	PROFICIENCY PERIOD	E-CODED	TIME	PREREQ	CHAIN
TOTAL HOURS CORE INTRODUCTION PHASE (1000)								3		
CORE PHASE (2000)										
FUNDAMENTAL (FUND) SKILL										
ORNT	2031	Complete NAMP indoctrination training.	B, R	G	(N)	*	*	1	*	*
MMCN	2001	State the physical security requirements for classified areas.	B,R	G	(N)	*	*	1	*	*
MMCN	2012	State the organizational destructive weather plan.	B, R,M	G	(N)	1095	*	1	*	*
DEPL	2238	State the required coordination between maintenance personnel and the ATC watch supervisors and METOC watch supervisor.	B	G	(N)	*	*	1	*	*
DEPL	2239	State the purpose of a Flight Inspection.	B	G	(N)	*	*	1	*	*
MMGT	2086	Perform PMS on a MATCALs system	B,R	L	(N)	*	*	1	*	*
IADS	2091	State the Types of Weapons Engagement Zone (WEZ).	B, R, M	G	(N)	365	*	1	*	*
IADS	2092	State the role of Marine Air Traffic Control Detachments in a Base Defense Zone (BDZ).	B, R, M	G	(N)	365	*	1	2091	*
ACPM	8000	MACCS.	B	G	(N)	*	*	1	8001, 8002, 8003, 8004, 8005, 8006, 8008	*
ACPM	8001	Marine Air Command and Control System.	B	G	(N)	*	*	4	*	*
ACPM	8002	Tactical Air Command Center (TACC).	B	G	(N)	*	*	4	*	*

5953 T&R SYLLABUS MATRIX										
STAGE	CODE	TITLE	POI	DEVICE	COND	PROFICIENCY PERIOD	E-CODED	TIME	PREREQ	CHAIN
ACPM	8003	Direct Air Support Center (DASC).	B	G	(N)	*	*	4	*	*
ACPM	8004	Tactical Air Operations Center (TAOC).	B	G	(N)	*	*	4	*	*
ACPM	8005	Marine Air Traffic Control (MATC).	B	G	(N)	*	*	4	*	*
ACPM	8006	Low Altitude Air Defense (LAAD).	B	G	(N)	*	*	4	*	*
ACPM	8008	Marine Wing Communications Squadron (MWCS).	B	G	(N)	*	*	4	*	*
TOTAL HOURS FUNDAMENTAL SKILL			EVENTS		16	HOURS		37		
RADIO SKILL										
COMM	2202	Configure RT-1796 for SATCOM operations.	B	L/S	(N)	*	*	3	*	2000,2001, 2002, 2004, 2005
TOTAL HOURS RADIO SKILL			EVENTS		1	HOURS		3		
COLLATERAL DUTY INSPECTOR (CDI) SKILL										
MMGT	2081	Perform CDI Queue functions.	B, R	L	(N)	*	*	1	*	*
MMGT	2082	Open a Baseline Trouble Report (BTR).	B,R	L	(N)	*	*	1	*	*
MMGT	2083	Order parts in OOMA / NALCOMIS.	B,R	L	(N)	*	*	1	*	*
MMGT	2084	Perform contingency processing.	B,R	L	(N)	*	*	1	2075	*
MMGT	2085	Describe auditing and monitoring techniques and procedures used by Quality Assurance.	B,R	G	(N)	*	*	1	*	*
TOTAL HOURS COLLATERAL DUTY SKILL			EVENTS		4	HOURS		4		

5953 T&R SYLLABUS MATRIX										
STAGE	CODE	TITLE	POI	DEVICE	COND	PROFICIENCY PERIOD	E-CODED	TIME	PREREQ	CHAIN
COLLATERAL DUTY QUALITY ASSURANCE REPRESENTATIVE (CDQAR) SKILL										
MMGT	2078	Perform Critical Maintenance Inspection Requirements.	B	L	(N)	*	*	3	*	*
MMGT	2080	Run an AD HOC query.	B, R	L	(N)	*	*	1	*	*
TOTAL HOURS CDQAR SKILL			EVENTS		2	HOURS		4		
TOTAL HOURS CORE PHASE (2000)								48		
MISSION PHASE (3000)										
SURVEY (SURV) SKILL										
MMCN	2004	Operate the handheld GPS.	B, R, M	L	(N)	1095	*	1	*	*
RADAR	2178	Perform AN/TPN-31 site survey.	B,R,M	L	(N)	730	*	8	*	*
TOTAL HOURS SURVEY SKILL			EVENTS		3	HOURS		10		
OPERATIONAL PLANNING (OPLN) SKILL										
MMCN	2006	Develop an embarkation plan.	B, R, M	L	(N)	1095	*	2	2014	*
MMCN	2009	Complete a Bill of Material (BOM) request.	B, R	L	(N)	*	*	2	*	*
MMCN	2014	Produce an Equipment Density List (EDL).	B, R	L	(N)	*	*	1	*	*
MMCN	2007	Identify spectrum management procedures.	B,R,M	G	(N)	1095	*	1	*	*
MMCN	3030	Deploy a MACCS capability.	B,R,M	L	(N)	1095	*	8	2006, 2007, 2009, 2014	*
MMCN	3031	Conduct a site survey.	B,R,M	L	(N)	1095	*	8	*	*
TOTAL HOURS OPERATION PLANNING SKILL			EVENTS		6	HOURS		22		

5953 T&R SYLLABUS MATRIX										
STAGE	CODE	TITLE	POI	DEVICE	COND	PROFICIENCY PERIOD	E-CODED	TIME	PREREQ	CHAIN
NETWORK (NET) SKILL										
MMCN	2000	Operate a common fill device.	B,R	L	(N)	*	*	1	*	*
MMCN	2002	Extract key material information from COMSEC callout.	B,R	G	(N)	*	*	1	*	*
MMCN	2003	Create a classified area physical security diagram.	B,R	L	(N)	*	*	1	2001	*
MMCN	2010	Identify Cryptographic Controlled Item (CCI) devices organic to the section.	B	G	(N)	*	*	2	*	*
MMCN	2011	Manage COMSEC / classified material.	B,R	L	(N)	*	*	1	*	*
CSWF	2040	Explain Information Security Principles.	B, R, M	G	(N)	1095	*	4	*	*
CSWF	2041	Perform account management.	B, R, M	L	(N)	1095	*	2	*	*
CSWF	2042	Explain risk management involved in operational security.	B, R, M	G	(N)	1095	*	4	*	*
CSWF	2043	Explain computer and network cryptography.	B, R, M	G	(N)	1095	*	4	*	*
CSWF	2044	Explain computer and networking equipment.	B,R,M	G	(N)	1095	*	4	*	*
CSWF	2045	Explain Networking Concepts.	B,R	G	(N)	*	*	4	*	*
CSWF	2046	Explain Network Media and Topologies.	B,R	G	(N)	*	*	4	*	*
CSWF	2047	Explain troubleshooting of computer and network equipment.	B, R	G	(N)	*	*	4	2044, 2045, 2046	*
RADAR	2168	Setup the AN/TSQ-263.	B	L	(N)	*	*	4	*	*
RADAR	2169	Disassemble the AN/TSQ-263.	B	L	(N)	*	*	4	*	*

5953 T&R SYLLABUS MATRIX										
STAGE	CODE	TITLE	POI	DEVICE	COND	PROFICIENCY PERIOD	E-CODED	TIME	PREREQ	CHAIN
TDL	2809	Describe the Multi-Tactical Data Link (TDL) Interface.	B	G	(N)	*	*	2	*	*
TDL	2819	State the characteristics of the Joint Range Extension Application Protocol (JREAP).	B	G	(N)	*	*	2	*	*
CSWF	3000	Administer data system host security measures.	B,R,M	L	(N)	1095	*	4	2040, 2042, 2043, 2044, 2045, 2046, 2047	*
CSWF	3001	Perform network management.	B,R,M	L	(N)	1095	*	4	2040, 2042, 2044, 2045, 2046, 2047	*
CSWF	3002	Design network architecture.	B,R,M	L	(N)	1095	*	4	2040, 2042, 2043, 2044, 2045, 2046, 2047	2040, 2042, 2043, 2044, 2045, 2046, 3000
MMCN	3032	Fill the hand held GPS with the appropriate crypto.	B	L	(N)	*	*	2	*	2000,2001, 2002, 2004, 2005
TDL	3800	Identify the purpose of documents that enable Tactical Data Link (TDL) operations.	B	G	(N)	*	*	1	*	2003
TDL	3801	Identify TACC voice and data communications equipment.	B	G	(N)	*	*	1	*	*
TDL	3802	Identify TAOC and EW/C voice and data communications equipment.	B	G	(N)	*	*	1	*	*
TDL	3803	Identify DASC voice and data communications equipment.	B	G	(N)	*	*	1	*	*
TDL	3805	Identify LAAD voice and data communications equipment.	B	G	(N)	*	*	1	*	*
RADAR	3070	Load IFF cryptographic device.	B,R,M	L	(N)	730	*	1	2000,2001, 2002, 2004, 2005, 2175	2000, 2001, 2002, 2004, 2005

5953 T&R SYLLABUS MATRIX										
STAGE	CODE	TITLE	POI	DEVICE	COND	PROFICIENCY PERIOD	E-CODED	TIME	PREREQ	CHAIN
ACPM	8020	ACE.	B	G	(N)	*	*	1	8021, 8022, 8023, 8024, 8025, 8026, 8027, 8028	*
ACPM	8021	Aviation Operations.	B	G	(N)	*	*	4	*	*
ACPM	8022	Control of Aircraft and Missiles.	B	G	(N)	*	*	4	*	*
ACPM	8023	Offensive Air Support (OAS).	B	G	(N)	*	*	4	*	*
ACPM	8024	Assault Support (AS).	B	G	(N)	*	*	4	*	*
ACPM	8025	Air Reconnaissance.	B	G	(N)	*	*	4	*	*
ACPM	8026	Electronic Warfare (EW).	B	G	(N)	*	*	1	*	*
ACPM	8027	Anti-Air Warfare (AAW).	B	G	(N)	*	*	4	*	*
ACPM	8028	Aviation Ground Support.	B	G	(N)	*	*	4	*	*
TOTAL HOURS NETWORK SKILL			EVENTS		44	HOURS		120.5		
TECHNICIAN (TECH) SKILL										
MMCN	2013	Describe the characteristics of unit T/E generators.	B	G	(N)	*	*	1	*	*
MMCN	2005	Demonstrate an earth ground installation..	B, R, M	L	(N)	365	*	1	*	*
MMGT	2087	State the handling and storage requirements of voice/data recordings.	B, R, M	G	(N)	365	*	1	*	*
RADAR	2164	Install system software load on the AN/TPN-31.	B,R	L	(N)	*	*	2	*	*
RADAR	2165	Perform replacement procedures to the LRU for the an AN/TPN-31.	B,R	L	(N)	*	*	1	*	*
RADAR	2166	Manage environments for the AN/TPN-31.	B,R,M	L	(N)	730	*	2	*	*
RADAR	2167	Setup the AN/TPN-31.	B,R	L	(N)	*	*	6	*	*
RADAR	2170	Disassemble the AN/TPN-31.	B,R	L	(N)	*	*	6	*	*

5953 T&R SYLLABUS MATRIX										
STAGE	CODE	TITLE	POI	DEVICE	COND	PROFICIENCY PERIOD	E-CODED	TIME	PREREQ	CHAIN
RADAR	2171	Perform troubleshooting with the Control and Monitoring test terminal.	B,R,M	L	(N)	730	*	1	*	*
RADAR	2172	Describe authorization levels within Control and Monitoring Display (CMD).	B,R,	L	(N)	*	*	1	*	*
RADAR	2173	Capture system start-up log.	B,R,M	L	(N)	730	*	1	*	*
RADAR	2174	Describe the corrupt FTAB correction procedure.	B,R,M	G	(N)	730	*	1	*	*
RADAR	2175	Perform video playback.	B,R,M	L	(N)	365	*	2	*	*
RADAR	2177	Perform a remote tape load.	B,R,M	L	(N)	730	*	1	*	*
RADAR	2179	Perform post setup procedures on the AN/TPN-31.	B,R,M	L	(N)	365	*	1	2167	*
RADAR	2180	Adjust the Airport Surveillance Radar Tunable Local Oscillator frequencies	B,R,M	L/S	(N)	730	*	1	*	*
RADAR	3067	Provide radar services as a member of a crew.	B,R,M	L	(N)	730	*	8	2005, 2010, 2012, 2061, 2175, 2179, 2164, 2165, 2167, 2168, 2169, 2170, 2171, 2172, 2173, 2177, 2238, 2239	*
RADAR	3068	Deploy the AN/TPN-31 with the AN/TSQ-263.	B,R,M	L	(N)	1095	*	40	2071, 2167, 2168, 2169, 2170, 2178, 2179	*
TOTAL HOURS TECHNICIAN SKILL			EVENTS		17	HOURS		76		
MAINTENANCE ADMINISTRATION (MA) SKILL										
MMGT	2061	Identify parts data.	B, R	L/S	(N)	*	*	1	*	*
MMGT	2074	Explain the information contained in the MATCALs system history and inventory record.	B, R	L	(N)	*	*	1	*	*

5953 T&R SYLLABUS MATRIX										
STAGE	CODE	TITLE	POI	DEVICE	COND	PROFICIENCY PERIOD	E-CODED	TIME	PREREQ	CHAIN
MMGT	2064	State the information contained in the allowance lists.	B, R	G	(N)	*	*	1	*	*
MMGT	2065	Record equipment readiness using Aviation Management Supply and Readiness Reporting (AMSRR) system.	B	L	(N)	*	*	1	*	*
MMGT	2071	State the purpose of the following MATCD Supply Functions.	B	L	(N)	*	*	1	*	*
MMGT	2075	Initiate a Work Order.	B, R	L	(N)	*	*	1	*	*
MMGT	2076	Update a Work Order.	B, R	L	(N)	*	*	1	*	*
MMGT	2077	Close a Work Order.	B, R	L	(N)	*	*	1	*	*
MMGT	2079	Describe the purpose of inspections.	B	G	(N)	*	*	1	*	*
MMGT	3011	Pass CDI Periodic Evaluation IAW CSEC.	B,R,M	L	(N)	365	*	1	*	*
TOTAL HOURS MAINTENANCE ADMINISTRATION SKILL			EVENTS		9	HOURS		9		
TOTAL HOURS MISSION PHASE (3000)								237.5		
CORE PLUS PHASE (4000)										
INTEGRATED AIR DEFENSE SYSTEMS (IADS)										
IADS	4040	Perform as a member of a Marine Air Traffic Control Detachments in a Base Defense Zone (BDZ).	B,R,M	L	(N)	1095	*	8	2091, 2092	*
TOTAL IADS STAGE			EVENTS		1	HOURS		8		
MAINTENANCE MANAGEMENT (MMGT)										

5953 T&R SYLLABUS MATRIX										
STAGE	CODE	TITLE	POI	DEVICE	COND	PROFICIENCY PERIOD	E-CODED	TIME	PREREQ	CHAIN
MMGT	4200	State the considerations of the Contingency Support Package (CSP).	B,R,M	G	(N)	365	*	2	2071	*
TOTAL HOURS MMMGT STAGE			EVENTS		1	HOURS		2		
TOTAL HOURS CORE PLUS TRAINING (4000 PHASE)								10		
INSTRUCTOR TRAINING PHASE (5000)										
INSTRUCTOR TRAINING STAGE										
IUT	5000	Introduce principals of instruction.	B	L	(N)	*	*	2	*	*
IUT	5010	Describe individual T&R requirements.	B	G	(N)	*	*	2	*	*
IUT	5020	Conduct T&R instruction.	B,R,M	L	(N)	90	*	12	5000, 5010	*
IUT	5100	Describe the Aviation Training and Readiness (T&R) Program.	B	G	(N)	*	*	2	*	*
IUT	5110	Conduct instructor evaluations.	B,R,M	L	(N)	365	*	4	5100	*
IUT	5120	Perform T&R administration.	B	L	(N)	*	*	2	5100, 5110	*
IUT	5130	Develop a training plan.	B	L	(N)	*	*	2	5100, 5110, 5120	*
TOTAL HOURS IUT STAGE			EVENTS		7	HOURS		26		
TOTAL HOURS INSTRUCTOR TRAINING PHASE (5000)								26		
CERTIFICATIONS, QUALIFICATIONS, AND DESIGNATIONS (CQD) PHASE (6000)										
CERTIFICATIONS (CERT) STAGE										
CERT	6260	CSWF Tech Support Specialist.	B	G	(N)	*	*	0.5	2040, 2041, 2042, 2044, 2045, 2046, 2047, 3001	*
CERT	6261	CSWF IT Specialist.	B	G	(N)	*	*	0.5	2040, 2042, 2043, 2044, 2045, 2046, 2047, 3000, 3001, 3002	*
CERT	6262	CSWF System Administrator.	B	G	(N)	*	*	0.5	2040, 2041, 2042, 2043, 2044, 2045, 2046, 2047, 3000, 3001, 3002	*

5953 T&R SYLLABUS MATRIX										
STAGE	CODE	TITLE	POI	DEVICE	COND	PROFICIENCY PERIOD	E-CODED	TIME	PREREQ	CHAIN
TOTAL HOURS CERTIFICATIONS (CERT) STAGE			EVENTS		3	HOURS		1.5		
DESIGNATIONS (DESG) STAGE										
DESG	6104	Collateral Duty Inspector.	B	G	(N)	*	*	0.5	2031, 2079, 2081, 2083, 2084, 3011, 6107	*
DESG	6105	Collateral Duty Quality Assurance Representative.	B	G	(N)	*	*	0.5	2031, 2078, 2079, 2080, 2081, 2082, 2083, 2084, 2085	
DESG	6106	Quality Assurance Representative.	B	G	(N)	*	*	0.5	2031, 2078, 2079, 2080, 2081, 2082, 2083, 2084, 2085	*
DESG	6200	Radar Chief.	B	G	(N)	*	*	0.5	2000, 2001, 2002, 2003, 2004, 2005, 2006, 2007, 2010, 2011, 2012, 2013, 2014, 2045, 2061, 2064, 2065, 2009, 2087, 2071, 2074, 2075, 2077, 2238, 2239, 2164, 2165, 2166, 2167, 2168, 2169, 2170, 2171, 2172, 2173, 2174, 2175, 2177, 2178, 2179, 3000, 3001, 3002, 3030, 3031, 3067, 3068, 3800, 3801, 3805, 6105, 6200, 8000, 8020	*
DESG	6320	Basic Instructor (BI).	B	G	(N)	*	*	0.5	5000, 5010, 5020	*
DESG	6321	Senior Instructor (SI).	B	G	(N)	*	*	0.5	5000, 5010, 5020, 5100, 5110, 5120, 5130, 6320	*
DESG	6322	Weapons and Tactics Instructor (WTI).	B	G	(N)	*	*	0.5	6000	*
DESG	6330	Formal Learning Center Instructor (FLCI).	B	G	(N)	*	*	0.5	6096	*
TOTAL HOURS DESIGNATIONS (DESG) STAGE			EVENTS		8	HOURS		4		
SCHOOL (SCHL)										
SCHL	6000	WTI Course.	B	G	(N)	*	*	0.5	6320, 6321, 8000, 8020, 8040, 8060, 8080	*
SCHL	6020	Link 16 Basics Course (JT-100).	B	G	(N)	*	*	0.5	*	*
SCHL	6021	Intro to Multi TDL Network (JT-101) Course.	B	G	(N)	*	*	0.5	*	*

5953 T&R SYLLABUS MATRIX										
STAGE	CODE	TITLE	POI	DEVICE	COND	PROFICIENCY PERIOD	E-CODED	TIME	PREREQ	CHAIN
SCHL	6022	Multi-TDL Advanced Joint Interoperability Course (MAJIC) (JT-102).	B	G	(N)	*	*	0.5	6021	*
SCHL	6026	Joint Interface Control Officer Course. (JICO) (JT-301)	B	G	(N)	*	*	0.5	*	*
SCHL	6027	Advanced JICC Operator Course. (JT-310)	B	G	(N)	*	*	0.5	*	*
SCHL	6030	Work Center Supervisor's Course.	B	G	(N)	*	*	0.5	2238, 3030	*
SCHL	6031	MATC Maintenance Manager's Course.	B	G	(N)	*	*	0.5	*	*
SCHL	6060	Aeronautical Technical Publication Library Management Course.	B	G	(N)	*	*	0.5	*	*
SCHL	6073	Microminiature Electronic Repair.	B	G	(N)	*	*	0.5	*	*
SCHL	6075	Naval Aviation Maintenance Program Management.	B	G	(N)	*	*	0.5	*	*
SCHL	6095	Ground Electronics Maintenance NCO Course.	B	G	(N)	*	*	0.5	*	*
SCHL	6096	Attend respective instructor development course.	B	G	(N)	*	*	0.5	*	*
SCHL	6107	Equipment Grounding	B	G	(N)	*	*	0.5	*	*
SCHOOL (SCHL)			EVENTS	14		HOURS		7		
TOTAL HOURS CQD (6000 PHASE)								12.5		
MISSION ESSENTIAL TASK (MET) PHASE (7000)										
ATC CONDITION (COND)										
COND	7100	Provide ATC tower services.	B,R,M	L	(N)	730	E	18	*	*

5953 T&R SYLLABUS MATRIX										
STAGE	CODE	TITLE	POI	DEVICE	COND	PROFICIENCY PERIOD	E-CODED	TIME	PREREQ	CHAIN
COND	7200	Provide ATC approach services.	B,R,M	L	(N)	730	E	12	*	*
COND	7300	Provide ATC arrival/departure services.	B,R,M	L	(N)	365	E	12	*	*
COND	7400	Conduct Marine air traffic control mobile team (MMT) ALZ operations.	B,R,M	L	(N)	730	E	2	*	*
COND	7400	Conduct Marine Air Traffic Control Mobile Team (MMT) FARP operations.	B,R,M	L	(N)	730	E	2	*	*
ATC CONDITION (COND)			EVENTS	5		HOURS		46		
TOTAL HOURS MET PHASE (7000)								46		
AVIATION CAREER PROGRESSION MODEL PHASE(ACPM) (8000)										
AVIATION CAREER PROGRESSION MODEL (ACPM)										
ACPM	8000	MACCS.	B	G	(N)	*	*	1	8001, 8002, 8003, 8004, 8005, 8006, 8008	*
ACPM	8001	Marine Air Command and Control System.	B	G	(N)	*	*	4	*	*
ACPM	8002	Tactical Air Command Center (TACC).	B	G	(N)	*	*	4	*	*
ACPM	8003	Direct Air Support Center (DASC).	B	G	(N)	*	*	4	*	*
ACPM	8004	Tactical Air Operations Center (TAOC).	B	G	(N)	*	*	4	*	*
ACPM	8005	Marine Air Traffic Control (MATC).	B	G	(N)	*	*	4	*	*
ACPM	8006	Low Altitude Air Defense (LAAD).	B	G	(N)	*	*	4	*	*
ACPM	8008	Marine Wing Communications Squadron (MWCS).	B	G	(N)	*	*	4	*	*
ACPM	8020	ACE.	B	G	(N)	*	*	1	8021, 8022, 8023, 8024, 8025, 8026, 8027, 8028	*

5953 T&R SYLLABUS MATRIX										
STAGE	CODE	TITLE	POI	DEVICE	COND	PROFICIENCY PERIOD	E-CODED	TIME	PREREQ	CHAIN
ACPM	8021	Aviation Operations.	B	G	(N)	*	*	4	*	*
ACPM	8022	Control of Aircraft and Missiles.	B	G	(N)	*	*	4	*	*
ACPM	8023	Offensive Air Support (OAS).	B	G	(N)	*	*	4	*	*
ACPM	8024	Assault Support (AS).	B	G	(N)	*	*	4	*	*
ACPM	8025	Air Reconnaissance.	B	G	(N)	*	*	4	*	*
ACPM	8026	Electronic Warfare (EW).	B	G	(N)	*	*	1	*	*
ACPM	8027	Anti-Air Warfare (AAW).	B	G	(N)	*	*	4	*	*
ACPM	8028	Aviation Ground Support.	B	G	(N)	*	*	4	*	*
ACPM	8040	Threat.	B	G	(N)	*	*	1	8041, 8042, 8043, 8044	*
ACPM	8041	Surface to Air threat to the MAGTF.	B	G	(N)	*	*	4	*	*
ACPM	8042	Fixed Wing threat to the MAGTF.	B	G	(N)	*	*	4	*	*
ACPM	8043	Rotary Wing threat to the MAGTF.	B	G	(N)	*	*	4	*	*
ACPM	8044	Missile and UAS threat to the MAGTF.	B	G	(N)	*	*	4	*	*
ACPM	8060	MAGTF.	B	G	(N)	*	*	1	8061, 8062, 8063, 8064, 8065, 8066, 8067	*
ACPM	8061	Ground Combat Operations.	B	G	(N)	*	*	4	*	*
ACPM	8062	Fire Support Coordination in the GCE.	B	G	(N)	*	*	4	*	*
ACPM	8063	MAGTF Command and Control.	B	G	(N)	*	*	4	*	*
ACPM	8064	MAGTF Communications.	B	G	(N)	*	*	4	*	*
ACPM	8065	Phasing Control Ashore.	B	G	(N)	*	*	4	*	*
ACPM	8066	Information Management.	B	G	(N)	*	*	4	*	*
ACPM	8067	UAS support of the MAGTF.	B	G	(N)	*	*	4	*	*

5953 T&R SYLLABUS MATRIX										
STAGE	CODE	TITLE	POI	DEVICE	COND	PROFICIENCY PERIOD	E-CODED	TIME	PREREQ	CHAIN
ACPM	8080	Joint Air Operations.	B	G	(N)	*	*	1	8081, 8082, 8083, 8084, 8085, 8086, 8087, 8088	*
ACPM	8081	Command and Control of Joint Air Operations.	B	G	(N)	*	*	4	*	*
ACPM	8082	Theater Air Ground System (TAGS).	B	G	(N)	*	*	4	*	*
ACPM	8083	Joint Fire Support.	B	G	(N)	*	*	4	*	*
ACPM	8084	Close Air Support (CAS).	B	G	(N)	*	*	4	*	*
ACPM	8085	Joint Targeting.	B	G	(N)	*	*	4	*	*
ACPM	8086	North Atlantic Treaty Organization (NATO).	B	G	(N)	*	*	4	*	*
ACPM	8087	Joint Airspace Control.	B	G	(N)	*	*	4	*	*
ACPM	8088	Countering Air and Missile Threats.	B	G	(N)	*	*	4	*	*
AVIATION CAREER PROGRESSION MODEL (ACPM)			EVENTS	39		HOURS		138		
TOTAL ACPM PHASE (8000)								138		

9.15.1 MIRRORING TABLE.

MACCS MAINTENANCE MIRRORING (5953)		
NEW EVENT		MATC
2000		2175
2001		2155
2002		2170
2003		2160

MACCS MAINTENANCE MIRRORING (5953)		
NEW EVENT		MATC
2004		2050
2005		*
2006		*
2007		2212
2008		*
2009		2223
2010		2165
2011		2165
2012		*
2013		*
2014		2232
2031		*
2040		*
2041		*
2042		*
2043		*
2044		*
2045		*
2046		*
2047		*
2061		2207
2064		2211
2065		2213
2071		2234
2074		2209
2075		*

MACCS MAINTENANCE MIRRORING (5953)		
NEW EVENT		MATC
2076		*
2077		*
2078		*
2079		
2080		*
2081		*
2083		*
2084		*
2085		*
2086		*
2087		2233
2091		*
2092		*
2164		*
2165		2801
2166		2802
2167		*
2168		2805
2169		2806
2170		*
2171		2808
2172		2809
2173		2810
2174		2811
2175		2812

MACCS MAINTENANCE MIRRORING (5953)		
NEW EVENT		MATC
2177		2814
2178		*
2179		2818
2202		*
2238		2405
2239		2410
3000		*
3001		*
3002		*
3011		*
3030		3400
3031		*
3032		*
3040		*
3067		3801
3068		3805
3070		*

CHAPTER 10

MARINE AIR TRAFFIC CONTROL COMMUNICATIONS TECHNICIAN/MOS 5954
INDIVIDUAL TRAINING AND READINESS REQUIREMENTS

	<u>PARAGRAPH</u>	<u>PAGE</u>
CREWMEMBER T&R SYLLABUS REQUIREMENTS.	10.0	10-3
TRAINING PROGRESSION MODEL.	10.1	10-3
PROGRAMS OF INSTRUCTION.	10.2	10-3
PROFICIENCY AND CURRENCY.	10.3	10-4
CERTIFICATION, QUALIFICATION, AND DESIGNATION TABLES	10.4	10-5
SYLLABUS NOTES.	10.5	10-5
CORE INTRODUCTION PHASE (1000).	10.6	10-7
CORE PHASE (2000).	10.7	10-16
MISSION PHASE (3000).	10.8	10-45
CORE PLUS PHASE (4000).	10.9	10-52
MISSION PLUS PHASE (4000).	10.10	10-71
INSTRUCTOR TRAINING PHASE (5000).	10.11	10-70
CERTIFICATIONS, QUALIFICATIONS, DESIGNATIONS (CD) PHASE (6000) . . .	10.12	10-75
MET PHASE (7000).	10.13	10-89
AVIATION CAREER PROGRESSION MODEL (8000).	10.14	10-93
T&R SYLLABUS MATRIX.	10.15	10-111

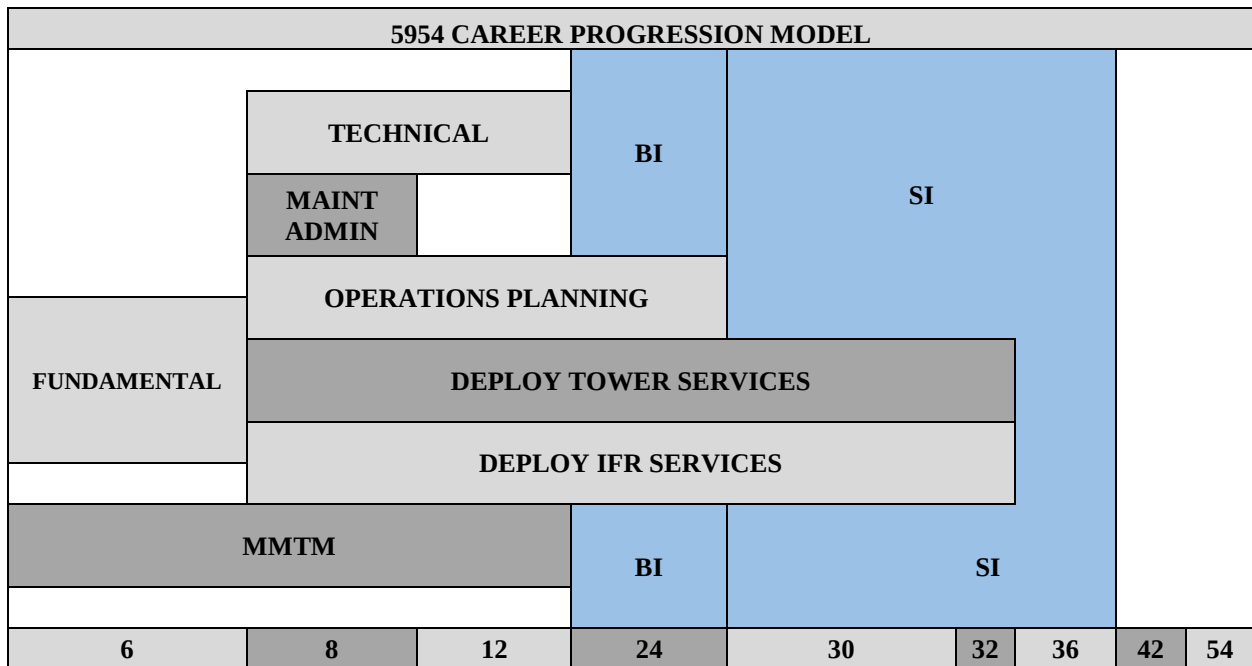
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CHAPTER 5

MARINE AIR TRAFFIC CONTROL COMMUNICATIONS TECHNICIAN/MOS 5954
INDIVIDUAL TRAINING AND READINESS REQUIREMENTS

10.0 CREWMEMBER T&R SYLLABUS REQUIREMENTS. This T&R Syllabus is based on specific goals and performance standards designed to ensure individual proficiency in Core and Mission Phase skills. The goal of this chapter is to develop individual and unit warfighting capabilities.

10.1 TRAINING PROGRESSION MODEL. This model represents the recommended average training progression for the Aviation Communications Systems Technician crewmember. Units should use the model as a point of departure to generate individual training plans.



NOTE: TIME IS EXPRESSED IN TRAINING MONTHS

10.2 PROGRAMS OF INSTRUCTION (POI). These tables reflect average time-to-train versus the minimum to maximum time-to-train parameters in the Training Progression Model.

10.2.1 Basic POI.

ATC MAINTENANCE MOS 5954		
BASIC POI		
WEEKS	PHASE OF INSTRUCTION	UNIT RESPONSIBLE
0-18	CORE INTRODUCTION PHASE	NATTC PENSACOLA, FL
19-26	CORE TRAINING PHASE	TACTICAL SQUADRON
27-32	MISSION TRAINING PHASE	TACTICAL SQUADRON
32-35	CORE PLUS PHASE	TACTICAL SQUADRON

10.2.2 Refresher POI.

ATC MAINTENANCE MOS 5954 REFRESHER POI		
WEEKS	PHASE OF INSTRUCTION	UNIT RESPONSIBLE
VARIES	CORE TRAINING PHASE	TACTICAL SQUADRON
VARIES	MISSION TRAINING PHASE	TACTICAL SQUADRON
VARIES	CORE PLUS PHASE	TACTICAL SQUADRON

NOTE 1: TRAINING DURATIONS VARIES BY POSITION BEING TRAINED. SEE PROGRESSION MODEL FOR NOTIONAL TRAINING TIMES.

10.3 PROFICIENCY AND CURRENCY.

10.3.1 Event Proficiency. Event proficiency is defined as successful completion of the performance standard as determined by the instructor or evaluator. Event completion is predicated upon demonstrated proficiency. Once completed, it is logged in M-SHARP by entering the appropriate event code. M-SHARP automatically updates the event proficiency date to reflect the completion date.

10.3.2 Skill Proficiency. Proficiency is a measure of achievement of a specific skill. To attain individual skill proficiency, an individual must be simultaneously proficient in all events for that skill. Individuals may be attaining proficiency in some skills while maintaining proficiency in others.

10.3.2.1 Maintaining Skill Proficiency. Once attained, skill proficiency is maintained by executing those events which have a Proficiency Period (Maintain events). Proficiency Periods establish the maximum time between event demonstration. Should proficiency be lost in any maintain event, for a specific skill, that skill proficiency is temporarily lost. Skill proficiency can be re-attained by again demonstrating proficiency in the event(s) that are not proficient.

10.3.2.2 Loss Of Individual Skill Proficiency. Should an individual lose proficiency in all maintain events in a skill, the individual will be assigned to the Refresher POI for the skill. To regain skill proficiency, the individual must demonstrate proficiency in all R-coded events for the skill. Refresher training is required once an individual has been absent from a technician billet for 36 months or longer. Upon return, the individual will complete R-coded events.

10.3.2.3 Loss of Unit Skill Proficiency. If an entire unit loses proficiency in an event, unit instructors shall regain proficiency by completing the event with an instructor from a like unit. If not feasible, the instructor shall regain proficiency by completing the event with another instructor. For flying communities, if a unit has only one instructor and cannot complete the event with an instructor from another unit, the instructor shall regain proficiency with another aircraft commander or as designated by the commanding officer.

10.3.2.4 Proficiency Status. Proficiency is a "Yes/No" status by skill assigned to an individual. When an individual attains and maintains Core, Mission, Core Plus, or Mission Plus Phase the individual may count towards CMMR or CMTS.

10.3.3 Skill Currency. Currency is a control measure used to provide an additional margin of safety based on exposure frequency to a particular skill and applies to all MOS's that must comply with NATOPS and OPNAV requirements. It is a measure of time since the last event demanding that specific skill. For example, currency

determines minimum altitudes in rules of conduct based upon the most recent low altitude fly date. Specific currency requirements for aircrew individual type mission profiles can be found in Chapter 3.

10.4 **CERTIFICATION, QUALIFICATION, AND DESIGNATION TABLES.** The tables below delineate T&R events required to be completed to attain proficiency for select certifications, qualifications and designations. In addition to event requirements, all required stage lectures, briefs, squadron training, prerequisites, and other criteria shall be completed prior to completing final events. Certification and designation letters signed by the commanding officer shall be placed in training Performance Records and NATOPS. See Chapter 6 of the Aviation T&R Program Manual on regaining lost qualifications.

10.4.1 **INSTRUCTOR DESIGNATIONS.**

MOS 5954 INSTRUCTOR DESIGNATIONS	
INSTRUCTOR DESIGNATION	EVENTS
BASIC INSTRUCTOR (BI)	5000, 5010, 5020, 6320
SENIOR INSTRUCTOR (SI)	5000, 5010, 5020, 5100, 5110, 5120, 5130, 6320, 6321
WEAPONS AND TACTICS INSTRUCTOR (WTI)	6320, 6321, 6322, 8000, 8020, 8040, 8060, 8080
FORMAL LEARNING CENTER INSTRUCTOR (FLC)	6096

10.4.2 **CERTIFICATIONS, QUALIFICATIONS, AND DESIGNATIONS.**

MOS 5954 CERTIFICATIONS, QUALIFICATIONS, AND DESIGNATIONS (CQD)	
CERTIFICATIONS	EVENTS
CSWF Technical Support Specialist	6260
CSWF IT Specialist	6261
CSWF System Administrator	6262

10.5 **SYLLABUS NOTES.**

10.5.1 **Environmental Conditions Matrix**

Environmental Conditions	
Code	Meaning
D	Shall be conducted during hours of daylight: (by exception - there is no use of a symbol)
N	Shall be conducted during hours of darkness, may be aided or unaided

(N)	May be conducted during darkness - If conducted during hours of darkness; may be flown aided or unaided

10.5.2 Device Matrix.

DEVICE	
Symbol	Meaning
L	Event shall be conducted live (conducted in the field/garrison, during an exercise, etc). Requires live (non-simulated) execution of the event.
L/S	Event performed live preferred/simulator optional.
S/L	Event performed in simulator preferred/live optional.
G	Ground/academic training. May include Distance Learning, CBT, lectures, self paced.

10.5.3 Program of Instruction Matrix.

PROGRAM OF INSTRUCTION MATRIX		
Program of Instruction (POI)	Symbol	Aviation Ground
Basic	B	Initial MOS Training
Refresher	R	Return to community from non (MOS/Skill) associated tour
Maintain	M	All individuals who have attained CSP/MSP/CPD by initial POI assignment are re- assigned to the M POI to maintain proficiency.

10.5.4 Event Terms.

EVENT TERMS	
TERM	DESCRIPTION
Discuss	An explanation of systems, procedures, or tactics during the brief, exercise, or debrief. Student is responsible for knowledge of procedures.
Demonstrate	The description and performance of a particular event by the instructor, observed by the student. The student is responsible for knowledge of the procedures prior to the demonstration of a required event.
Introduce	The instructor may demonstrate a procedure or event to a student, or may coach the student through the maneuver without demonstration. The student performs the procedures or maneuver with coaching as necessary. The student is responsible for knowledge of the procedures.
Practice	The performance of a maneuver or procedure by the student that may have been previously introduced in order to attain a specified level of performance.
Review	Demonstrated proficiency of an event by the student.

Evaluate	Any event designed to evaluate team/crew standardization that does not fit another category.

10.6 CORE INTRODUCTION PHASE (0000)

10.6.1 Purpose. To provide entry level instruction to develop the basic skills necessary to become a MOS 5954 Air Traffic Control Communications Technician. This training is completed upon graduation from the Marine Air Traffic Control Communications Technician course.

10.6.2 General.

10.6.2.1 Prerequisite.

1. Graduate from the Marine Avionics ATT Course (CID: N23KJ22), Pensacola, Fl.
2. Graduate from the Aviation Warfare Apprentice Training (AWAT) Course (CID: N23E2X2), Pensacola, Fl.
3. Graduate from the Avionics Technician I Level Class A1 Course (CID: N23A952), Pensacola, Fl.
4. Meet the 5954 requirement delineated in the MOS Manual (NAVMC 1200).

10.6.2.2 Admin Notes. None.

10.6.2.3 Stages. The following stages are included in the Core Phase:

PAR NO.	STAGE NAME	PAGE NUMBER
10.6.3	ACADEMIC (ACAD)	10-7
10.6.4	CYBER SECURITY WORK FORCE (CSWF)	10-9
10.6.5	MARINE AIR TRAFFIC CONTROL LANDING SYSTEM (MATCLS)	10-10

ACAD-0570 1.0 * B (N) G

Goal. Discuss basic knowledge of the MMT.

Requirement. During a guided discussion:

1. Explain the historical background of the MMT
2. Define the mission of the MMT
3. Explain the functions of the MMT
4. Explain the organization of the MMT

Performance Standard. Demonstrate an understanding of the steps in the requirement. Instructor will question and mentor the trainee throughout the discussion.

Instructor. BI

Prerequisite. None.

External Syllabus Support. None.

Reference.

1. MCRP 3-20F.7, Marine Air Traffic Control Detachment Handbook
2. MMT TACSOP
3. MAWTS-1 Course Catalog

ACAD-0571 1.0 * B (N) G

Goal. Discuss tactical communications terms and procedures.

Requirement. During a guided discussion and given the references:

1. Describe the authentication process
2. Define the term gingerbread
3. Define the term chattermark
4. Describe the seven beadwindow codes
5. Understand lost communication procedures
6. Define EMCON and explain the procedures

Performance Standard. Demonstrate an understanding of the steps in the requirement. Instructor will question and mentor the trainee throughout the discussion

Instructor. BI

Prerequisite. None.

External Syllabus Support. None.

Reference.

1. MCRP 3-40.3B, Radio Operator's Handbook
2. MMT TACSOP

ACAD-0573 1.0 * B (N) G

Goal. Discuss the MEU mission.

Requirement. Given the reference and during a guided discussion:

1. State the MEU(SOC) mission
2. State the MEU(SOC) mission essential tasks (MET) and the output standards for each
3. Describe the MEU(SOC) certification policy

Performance Standard. Demonstrate an understanding of the steps in the requirement. Instructor will question and mentor the trainee throughout the discussion

Instructor. BI

Prerequisite. None.

External Syllabus Support. None.

Reference.

1. MCO 3120.9B, Policy for Marine Expeditionary Units and Marine Expeditionary Units (Special Operations Capable

ACAD-0574 2.0 * B (N) G

Goal. Discuss forward arming and refueling point (FARP) operations.

Requirement. During a guided discussion:

1. Explain the three types of aviation ground support (AGS) FARPs and NATOPS ground separation criteria associated to each
2. Explain aviation-delivered ground refueling (ADGR) operations
3. Explain tactical bulk fuel dispensing system (TBFDS) operations

Performance Standard. Demonstrate an understanding of the steps in the requirement. Instructor will

question and mentor the trainee throughout the discussion

Instructor. BI

Prerequisite. None.

External Syllabus Support. None.

Reference.

1. MMT TACSOP
2. NAVAIR 00-80T-109, Aircraft Refueling NATOPS Manual
3. ANTTP 3-22.5, RW TACSOP
4. ANTTP 3-22.3, KC-130 TACSOP
5. MAWTS-1 Course Catalog

10.6.4 CYBER SECURITY WORK FORCE (CSWF) STAGE

10.6.4.1 Purpose. To provide entry-level skills in computing and networking that will be used in the performance of assigned duties within the Marine Air Command and Control System (MACCS).

10.6.4.2 General.

Prerequisite.

1. Meet the 5954 requirements delineated in the MOS Manual.

Admin Notes. The following events establish the foundational skills required to be successful in the cyber security workforce.

Crew Requirements. None.

CSWF-1005	0	*	B	(N)	G

Goal. Provide cyberwarfare technical support and troubleshooting.

Requirement. Provide the references and appropriate equipment:

1. Install and configure hardware, software, and peripheral equipment.
2. Manage accounts, networks, and access to systems and equipment.
3. Monitor client-level computer system performance.
4. Diagnose and resolve operator reported system incidents.
5. Troubleshoot system hardware and software.
6. Implement disaster recovery continuity of operations plans.

Performance Standard. Pass an exam.

Instructor. FLC Instructor.

Prerequisite. None.

References.

1. DoD 8570.01_, Information Assurance Workforce Improvement Program
2. SECNAVINST 5239.20_, DON Cyber IT and CSWF Management and Qualification
3. MCO 5239.20_, Department of the Navy Cyberspace Information Technology and Cybersecurity Workforce Management
4. National Initiative for Cybersecurity Careers and Studies (NICCS) website

CSWF-1006	0	*	B	(N)	G

Goal. Repair common cables.

Requirement. Provided the appropriate equipment repair:

1. Ethernet/RJ-45 cable.
2. BNC cable.
3. RF cable.
4. Data cable.

Performance Standard. Pass an exam.

Instructor. FLC Instructor.

Prerequisite. None.

References.

1. Companion Guide 3rd Edition ISBN-13:978-1-58713-199-8
2. TIA/EIA-568-B.1-2001 ANSI/TIA/EIA-568-B.1-2001
3. Twisted pair cable test set 33-933NV Operator Manual 6510-00-5037
4. User's Manual for cable analyzer, DSP-4300/AN TM 10704B-OI/1
5. Fiber Optics Technician's Manual 3rd Edition
6. Understanding Fiber Optics 5th Edition ISBN 0-13-117429-0
7. Standard Maintenance Practices Miniature/Microminiature (2M) Electronic Assembly Repair Organizational/Intermediate/Depot Level TM 5895 45/1

10.6.5 MARINE AIR TRAFFIC CONTROL LANDING SYSTEM (MATCLS) STAGE

10.6.5.1 **Purpose.** To provide entry-level instruction to develop the basic skills necessary to configure and setup communications equipment, conduct preventive maintenance and limited technical inspections on assigned equipment. This training phase is complete upon graduation from the Marine Air Traffic Control Communications Technician Course when the trainee is designated MOS 5954, Marine Air Traffic Control Communications Technician.

10.6.5.2 General.

Admin Notes. MATC Communication Technician Course (CID: N2359M2) is located at Naval Air Technical Training Center Pensacola, FL.

Prerequisites.

1. Graduate the MATC Technician Common POI, (CID: N23XSET), NAS Pensacola, FL.
2. Meet the 5954 requirements delineated in the MOS Manual.

Crew Requirements. None.

MATCLS-1400 0 * B (N) G

Goal. Operate the XTS-5000.

Requirement. Perform the following:

1. Describe the characteristics of the XTS-5000 Radio Set.
2. Configure the XTS-5000 Handheld Radio.
3. Establish two way communication with radio set.

Performance Standard. Pass an exam.

Instructor. FLC instructor.

Prerequisite. None.

References.

1. Technical Manual 16-60TSQ216-100, Deployment and Operating Procedures Organizational Level remote Landing Site Tower AN/TSQ-216
2. Technical Manual 16-60TSQ216-200, Maintenance and Parts List Organizational Level Remote Landing Site Tower AN/TSQ-216
3. Motorola Manual 6881094C25-E, ASTRO XTS-5000 Digital Portable Radio Model I User Guide

MATCLS-1405 0 * B (N) G

Goal. Operate the AN/ARC-210.

Requirement. Perform the following:

1. Describe the characteristics of the AN/ARC-210 SATCOM Radio Set.
2. Describe the modes of operation of the AN/ARC-210 SATCOM Radio Set.
3. Configure the ARC-210.
4. Establish two way communication with the AN/ARC-210 Radio Set.

Performance Standard. Pass an exam.

Instructor. FLC instructor.

Prerequisite. None.

References.

1. Source Data (Organizational Maintenance), Radio Receiver-Transmitter RT-1794(c)/ARC, 523-0778328, Government Systems Rockwell Collins, Inc. Cedar Rapids, Iowa
2. AN/ARC-210(V) Informal Technical Data System Description Theory of Operation
3. Performance Description Document AN/ARC-210(V) SATCOM System Equipment
4. AN/ARC-210(V) RT-1794(c) Advanced VHF/UHF Multimode Communications System Description and Applications Manual, Government Systems Rockwell Collins
5. Equipment Specification Receiver-Transmitter RT-1794(c)/ARC, DWG NO. 670-3319-002
6. Performance Description Document RT-1794(c)/ARC Receiver-Transmitter, PDD-ARC210-006
7. Set-up and Operating Guide for the MATCLS AN/ARC-210 Radio Interface, SPAWAR System Center San Diego

MATCLS-1410 0 * B (N) G

Goal. Assemble the AN/TSQ-120.

Requirement. As a member of a crew, given tools, the reference and an AN/TSQ-120, assemble by completing the following:

1. Inventory.
2. Assemble scaffolding.
3. Raise tower.
4. Verify guy line tension.

Performance Standard. Pass an exam.

Instructor. FLC instructor.

Prerequisite. None.

Reference.

1. 16-60TSQ120_, Deployment and Operating Procedures

MATCLS-1415 0 * B (N) G

Goal. Perform corrective maintenance on the AN/TSQ-216 to the lowest repairable unit.

Requirement. Given the references and an inoperative AN/TSQ-216, complete the following steps:

1. Adhere to safety requirements.
2. Research applicable technical data pertaining to faulty equipment.
3. Read schematic diagrams.
4. Ensure proper handling of ESD components.
5. Set up test equipment.
6. Connect test equipment.
7. Measure basic circuit performance.
8. Trace signal paths.
9. Trace current/voltage paths.
10. Identify faulty subassembly(s).

Performance Standard. Pass an exam.

Instructor. FLC instructor.

Prerequisite. None.

References.

1. 16-60TSQ-216_, Deployment and Operating Procedures
2. Technical Manual 16-60TSQ216-200, Maintenance and Parts List Organizational Level Remote Landing Site Tower AN/TSQ-216

MATCLS-1420 0 * B (N) G

Goal. Assemble the AN/TSQ-216.

Requirement. As a member of a crew, given tools, the reference and an AN/TSQ-216, assemble by completing the following:

1. Inventory.
2. Assemble antenna farm.
3. Raise shelter.
4. Emplace generator(s).
5. Perform post emplacement procedures.

Performance Standard. Pass an exam.

Instructor. FLC instructor.

Prerequisite. None.

References.

1. 16-60TSQ-216_, Deployment and Operating Procedures
2. Technical Manual 16-60TSQ-216-200

MATCLS-1425 0 * B (N) G

Goal. Setup the TPN-31 with the AN/TSQ-263.

Requirement. As member of a crew, perform the following:

1. Assist with the site survey.
2. Setup operations shelter.
3. Assist in setup of the sensor pallet.
4. Setup the TSQ-263.
5. Ground the system.

Performance Standard. Pass an exam.

Instructor. FLC instructor.

Prerequisite. None.

References.

1. NAVAIR 16-60TPN31_, Operator Manual Air Traffic Navigation, Integration, and Coordination System
2. NAVAIR 16-60TSQ263_, Operation and Organizational Maintenance Instructions Tactical Terminal Control System

MATCLS-1435 0 * B (N) G

Goal. Perform PMS on the AN/ARC-210 radio set.

Requirement. Given the reference, an AN/ARC-210, and required equipment perform all MRCs IAW the current MRC.

Performance Standard. Pass an exam.

Instructor. FLC instructor.

Prerequisite. None.

Reference.

1. 16-600TSQ120-6-3

MATCLS-1440 0 * B (N) G

Goal. Operate RT-1694.

Requirement. Given the reference, RT-1694, and SL-3 equipment, perform the following:

1. Describe the characteristics of the RT-1694.
2. Describe the modes of operation of the RT-1694.
3. Configure the RT-1694.
4. Establish two way communications with the RT-1694.

Performance Standard. Pass an exam.

Instructor. FLC instructor.

Prerequisite. None.

Reference.

1. TM 10515-0103-4100 AN/PRC 150© Advanced Tactical Radio Operators Manual

MATCLS-1445 0 * B (N) G

Goal. Operate RT-1796.

Requirement. Given the reference, RT-1796, and SL-3 equipment, perform the following:

1. Describe the characteristics of the RT-1796.
2. Describe the modes of operation of the RT-1796.
3. Configure the RT-1796.
4. Establish two way communications with the RT-1796.

Performance Standard. Pass an exam.

Instructor. FLC instructor.

Prerequisite. None.

References.

1. TM 10515-0109-4100 AN/PRC-117F Operation Manual
2. TM 10515-0109-4000 AN/PRC-117F Quick Reference Guide

MATCLS-1450 0 * B (N) G

Goal. Disassemble the AN/TSQ-120.

Requirement. As a member of a crew, given tools, the reference and an AN/TSQ-120, disassemble by completing the following:

1. Lower the tower.
2. Disassemble the scaffolding.
3. Inventory the system.
4. Pack the system.

Performance Standard. Pass an exam.

Instructor. FLC instructor.

Prerequisite. None.

Reference.

1. 16-60TSQ120_, Operation and Maintenance Instructions

MATCLS-1455 0 * B (N) G

Goal. Disassemble the AN/TSQ-216.

Requirement. As a member of a crew, given tools, the reference and an AN/TSQ-216, disassemble by completing the following:

1. Lower the shelter.
2. Disassemble the antenna farm.
3. Inventory the system.
4. Pack the system.

Performance Standard. Pass an exam.

Instructor. FLC instructor.

Prerequisite. None.

Reference.

1. 16-60TSQ216_, Operation and Maintenance Instructions

MATCLS-1460 0 * B (N) G

Goal. Perform PMS on the RT-1694.

Requirement. Given the reference, an RT-1694, and required equipment perform all MRCs IAW the current MRC.

Performance Standard. Pass an exam.

Instructor. FLC instructor.

Prerequisite. None.

Reference.

1. 16-600-TS216-6-3

MATCLS-1465 0 * B (N) G

Goal. Perform PMS on the RT-1796.

Requirement. Given the reference, an RT-1796, and required equipment perform all MRCs IAW the current MRC.

Performance Standard. Pass an exam.

Instructor. FLC instructor.

Prerequisite. None.

Reference.

1. 16-600-TSQ216-6-3

MATCLS-1470 0 * B (N) G

Goal. Disassemble the AN/TPN-31 with AN/TSQ-263.

Requirement. as member of a crew, perform the following:

1. Disassemble the AN/TSQ-263.
2. Disassemble the AN/TPN-31.
 - a. Disassemble the operations shelter.
 - b. Assist with disassembly of the sensor pallet.
3. Pack the system.

Performance Standard. Pass an exam.

Instructor. FLC instructor.

Prerequisite. None.

References.

1. 16-60TPN31_, Operator Manual Air Traffic Navigation, Integration, and Coordination System
Operation and Maintenance Instructions
2. 16-60TSQ263_, Operation and Maintenance Instructions Tactical Terminal Control System

MATCLS-1475 0 * B (N) L

Goal. Perform voice recording extraction and storage procedures.

Requirement. Given the reference, state the following:

1. Record audio segment from all channels.
2. Verify playback of recorded audio.
3. Verify export folder configuration.
4. Export audio segment.
5. Transfer exported file to removable media.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. FLC Instructor.

Prerequisite. None.

References.

1. NAVAIR 00-80T-114, NATOPS ATC Manual
2. Applicable TM

10.7 CORE PHASE (2000)

10.7.1 Purpose. Instruct trainee to survey, site, install and operate communication systems to include planned and corrective maintenance.

1. Communication Chiefs will gain Core Phase skill proficiency in supervising and managing maintenance section operations to include communication systems operations and maintenance, and maintenance management. This training will provide the Communications Chief the necessary skills to run a communications section.

10.7.2 General.

10.7.2.1 Prerequisite. None.

10.7.2.2 Admin Notes.

1. Training in this phase does not preclude simultaneous training in the Mission and Core Plus phases provided applicable prerequisites have been met.

2. Individual Core Phase skills are learned and mastered using a varied combination of written exams, scenarios and practical demonstrations of proficiency.

10.7.2.3 Stages. The following stages are included in the Core Phase:

PAR NO.	STAGE NAME	PAGE NUMBER
10.7.3	MACCS MAINTENANCE COMMON (MMCN)	10-17
10.7.4	ORIENTATION (ORNT)	10-23
10.7.5	MAINTENANCE MANAGEMENT (MMGT)	10-24
10.7.6	DEPLOYMENT (DEPL)	10-31
10.7.7	MARINE AIR TRAFFIC CONTROL MOBILE TEAM MEMBER (MMTM)	10-32
10.7.8	COMMUNICATION (COMM)	10-34

10.7.9	INTEGRATED AIR DEFENSE SYSTEM (IADS)	10-44

10.7.3 MACCS MAINTENANCE COMMON (MMCN) STAGE

10.7.3.1 Purpose. To provide entry-level skills that are common to all 5900 occupational field technicians that will be used in the performance of assigned duties within the Marine Air Command and Control System (MACCS).

10.7.3.2 General.

Prerequisite.

1. Meet the requirements delineated in the MOS Manual.

Admin Notes. The following events establish the foundational skills required to be successful in the cyber security workforce.

Crew Requirements. None

MMCN-2000 1.0 * B, R (N) L

Goal. Operate a common fill device.

Requirement. Given two loaded common fill devices and a zeroized cryptographic device, perform the following:

1. Describe the purpose of a common fill device.
2. Define the common fill device loading procedure.
3. Configure the common fill device.
4. Identify common fill device indicators and messages.
5. Transfer key material to Controlled Cryptographic Item (CCI) equipment.
6. Transfer cryptographic information from common fill device to common fill device.
7. Destroy superseded key material within the cryptographic fill device.

Performance Standard. With the aid of reference, load key material into appropriate COMSEC equipment using a fill device and destroy superseded key material without error.

Instructor. BI.

Prerequisite. None.

Reference.

1. EKMS-1_, Electronic Key Management System

MMCN-2001 1.0 * B, R (N) G

Goal. State the physical security requirements for classified areas.

Requirement. Given a tactical scenario and references, identify the following:

1. Purpose of a guard schedule.
2. Purpose of access control.
3. Purpose of the entry control point.
4. Perimeter barrier requirements.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

Reference.

1. MCO P5530.14_, Marine Corps Physical Security Program Manual

MMCN-2002 1.0 * B, R (N) G

Goal. Extract key material information from COMSEC callout.

Requirement. Given a COMSEC callout and references, perform the following:

1. State the purpose of the COMSEC callout.
2. Identify the five main pieces of key information:
 - a. Short Title.
 - b. Edition.
 - c. Segment.
 - d. Classification.
 - e. Supersession date.
3. Identify segment roll over dates and time.
4. Identify short titles applicable to specific implementations within the unit.

Performance Standard. With the aid of reference, state the purpose and identify the key information on the callout. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

References.

1. EKMS-1_, Electronic Key Management System
2. MCWP 3-40.3, MAGTF Communications System

MMCN-2003 1.0 1095 B, R, M (N) L

Goal. Create a classified area physical security diagram.

Requirement. Given a tactical scenario and references, create a diagram that includes the following:

1. Entry control point(s).
2. Perimeter barrier.
3. Communication lines.
4. Storage area locations.

Performance Standard. With the aid of reference, draw a diagram depicting the information listed in the requirement. Instructor will validate that the diagram supports the scenario. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. 2002.

References.

1. MCO P5530.14, Marine Corps Physical Security Program Manual
2. FM 5-34_, Engineer Field Data

MMCN-2004 1.0 1095 B, R, M (N) L

Goal. Operate the handheld GPS.

Requirement. Perform the following:

1. State the purpose of the handheld GPS.
2. State the characteristics of the handheld GPS.
3. Find current location (coordinates including elevation).
 - a. MGRS.
 - b. LAT/LONG.
 - c. UTM/UPS.
4. Plot a way point.
5. Given coordinates, navigate to a location.

Performance Standard. Given a handheld GPS, complete the requirements without error. Navigation part of requirement will be three points within a one mile radius within one hour.

Instructor. BI.

Prerequisite. None.

Reference.

1. TM 11-5820-1172-13, Defense Advanced GPS Receiver (DAGR), AN/PSN-13

MMCN-2005	1.0	365	B, R, M	(N)	L

Goal. Demonstrate an earth ground installation.

Requirement. Given a grounding kit and the reference:

1. Identify ground tolerances for equipment and personnel.
2. Identify methods of grounding.
3. Identify a method for improving a ground.
4. Identify proper location to test a ground.
5. Install an earth ground.
6. Create grounding pits.
7. Connect grounding braids/cables.
8. Test grounds with TMDE.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

Reference.

1. TM 9406-15, Ground Procedures Manual
2. MIL-STD-188-125
3. TM 5-690

MMCN-2006	2.0	1095	B, R, M	(N)	L

Goal. Develop an embarkation plan.

Requirement. Given the references and an operational scenario, perform the following:

1. State the purpose of an embarkation plan.
2. Produce an Equipment Density List (EDL).
3. Produce logistics documents as required.

4. Identify heavy equipment required to move EDL items.
5. Identify the modes of transportation required to move EDL items.

Performance Standard. With the aid of reference, complete the requirement and develop an embarkation plan to support the scenario. Minor corrections by the trainee are acceptable.

Instructor. BI.

Prerequisite. 2014.

References.

1. Applicable TM
2. Unit SOP

MMCN-2007 1.0 1095 B, R, M (N) L/S

Goal. Identify spectrum management procedures.

Requirement. Given the references and a scenario with operational requirements, perform the following:

1. Identify frequency requirements.
 - a. Identify submission timelines.
 - b. Identify data elements (Freq, Location, Power, Dates).
2. Identify Satellite Access requirements.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

References.

1. MCRP 3-40B, Tactical Level Logistics
2. MCO 2400.2, Marine Corps Management of the Radio Frequency Spectrum

MMCN-2008 4.0 1095 B, R, M (N) L

Goal. Construct and use a field expedient antenna.

Requirement. Given all required materials, construct field expedient antennas using wave propagation techniques by performing the following:

1. Determine frequency.
2. Determine distance and direction of distant station.
3. Determine antenna type and configuration.
4. Erect antenna using recommended construction techniques.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

References.

1. MCRP 3-40B, Tactical Level Logistics
2. MCRP 8-10B.11 Antenna Handbook

3. MCI 2515H Antenna Construction and Propagation of Radio Waves
4. USMC Field Antenna Handbook APK2.5
5. MCRP 8-10B.11 Antenna Handbook
6. Field Antenna Handbook 1999

MMCN-2009 2.0 * B, R (N) L

Goal. Complete a Bill of Material (BOM) request.

Requirement. Given Training Exercise and Employment Plan (TEEP) documents and reference, perform the following:

1. Collect requests from maintenance sections.
2. Consolidate required materials into a BOM request.
3. Verify the request is sufficient to support required operations and for the length of the exercise, validate the content to ensure that it meets sustained operational requirement.
4. Submit a BOM request to the instructor.

Performance Standard. With the aid of reference, perform the requirements. Minor corrections by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

Reference.

1. MCO P4400.150_, Ships' Maintenance and Material Management Manual

MMCN-2010 2.0 * B (N) L

Goal. Identify Cryptographic Controlled Item (CCI) devices organic to the section.

Requirement. Perform the following:

1. Inventory all CCI on the SF-153.
2. State the purpose of each piece of equipment.

Performance Standard. With the aid of reference, complete the requirements, minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

References.

1. Technical Manual
2. CMR

MMCN-2011 1.0 1095 B, R, M (N) L

Goal. Manage COMSEC/classified material.

Requirement. During a crew change over, perform the following:

1. Conduct classified material inventory.
2. Conduct CCI inventory.
3. Destroy superseded key material as required.

Performance Standard. With the aid of reference, conduct the inventories and destroy key materials without discrepancy.

Instructor. BI.

Prerequisite. None.

References.

1. EKMS-1_, Electronic Key Management System
2. SECNAVINST 5510, DON Information Security Program
3. Local SOP

MMCN-2012 1.0 1095 B, R, M (N) G

Goal. State the organizational destructive weather plan.

Requirement. Given the references, state the following:

1. When to shift from shore power to auxiliary power.
2. Equipment required to be packed and/or stored in order to prevent damage.
3. Locations systems and equipment are to be stored during inclement weather.
4. The precautions to take to prevent damage to equipment.
5. Location of destructive weather prevention materials.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

References.

1. OPNAVINST 3140.24, Adverse and Severe Weather Warnings
2. Unit SOP
3. NAVAIR 00-80T-114, NATOPS ATC Manual

MMCN-2013 1.0 * B, R (N) G

Goal. Describe the characteristics of unit T/E generators.

Requirement. Identify the following:

1. Frequency.
2. Voltage(s).
3. Load capacity.
4. Fuel consumption.
5. Phases.

Performance Standard. With the aid of reference, complete the requirements, minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

References.

1. Technical Manuals
2. <https://www.marcorsyscom.marines.mil/Portfolios-and-Programs/Logistics-Combat-Element-Systems/Engineer-Systems/Power-Team/Mobile-Power/>

MMCN-2014 1.0 * B, R (N) L

Goal. Produce an Equipment Density List (EDL).

Requirement. Given the references and a 30 day scenario, perform the following:

1. Define the purpose of an EDL.
2. Describe essential EDL contents.
3. Complete an EDL.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

References.

1. MCTP 13-10C Unit Embarkation Handbook
2. Local SOP
3. Applicable TM

10.7.4 ORIENTATION (ORNT) STAGE

10.7.4.1 Purpose. To provide an overview of the Naval Aviation Maintenance Program.

10.7.4.2 General.

Prerequisites. None.

Admin Notes. None.

Crew Requirements. None.

ORNT-2031 1.0 * B, R (N) G

Goal. Complete NAMP indoctrination training.

Requirement. Complete the following NAMP Indoctrination training:

1. NAMP Compliance auditing.
2. NAMDRP.
3. Tool Control.
4. Corrosion.
5. Tech Data Management.
6. METCAL.
7. Technical Directives.
8. Logs and Records.
9. Material Control.
10. AMMRL.
11. Data Analysis.
12. CDI Periodic.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

Reference.

1. COMNAVAIRFORINST 4790.2_, Naval Aviation Maintenance Program

10.7.5 MAINTENANCE MANAGEMENT (MMGT) STAGE

10.7.5.1 Purpose. To instruct trainee how to perform MATC maintenance management functions.

10.7.5.2 General.

Prerequisite. None.

Admin Notes. None.

Crew Requirements. None.

MMGT-2061	1.0	*	B, R	(N)	L/S

Goal. Identify parts data.

Requirement. Given the reference, perform the following:

1. State sources that can be used to obtain parts data.
2. Research parts.
 - a. Part number.
 - b. Nomenclature.
 - c. NIIN.
3. Identify Source Maintenance and Recoverability (SMR) codes for system components and explain what level of maintenance is authorized.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

References.

1. NAVSUP P-488, COSAL Use and Maintenance Manual
2. FEDLOG
3. NAVSUP P-485, Navy Ashore Supply Procedures
4. NAVSUPINST 4423.29, Navy Uniform Source, Maintenance and Recoverability (SM&R) Codes
5. NAVSUP P-409 MILSTRIP/MILSTRAP DESKTOP GUIDE

MMGT-2064	1.0	*	B, R	(N)	G

Goal. State the information contained in the allowance lists.

Requirement. State the information contained in the following:

1. Users Logistics Support Summary.
2. Table of Basic Allowance.
3. Marine Air Traffic Control and Landing Systems (MATCALS) equipment allowance list.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

References.

1. NAVAIR ATC-37-02, Users Logistics Support Summary
2. TM 3125-OI/1, TBA Manual
3. Fleet Marine Forces Air Traffic Control (FMFATC) Systems and Marine Air Traffic Control and Landing Systems (MATCALs) Equipment Allowance List
4. EL172-LQ-LSS-010

MMGT-2065 1.0 * B (N) L

Goal. Record equipment readiness using Aviation Management Supply and Readiness Reporting (AMSRR) system.

Requirement. Given user access and a work order, complete the following:

1. Create a maintenance discrepancy.
2. Create a supply discrepancy.
3. Input and update data to the required fields.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

Reference.

1. AMSRR Web 3.01 Software User Manual (SUM)

MMGT-2071 1.0 * B (N) G

Goal. Explain MATCD Supply Functions.

Requirement. Explain the following supply functions in accordance with the references:

1. Operation of the Navy Supply System (i.e. One Touch, SUADPS).
2. Functions of the Aviation Supply Departments (ASD, within a Marine Aviation Logistic Squadron (MALS).
3. Federal Logistic Data (FEDLOG) operations in management of supply support.
4. Military Standard Requisitioning and Issue Procedures (MILSTRIP).
5. Discrepancy reporting through Joint Deficiency Reporting System (JDRS).
6. Supply Discrepancy Reports.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

References.

1. NAVSUP PUB P-485 VOL. I, II, III, Navy Ashore Supply Procedures
2. NAVSUP PUB P-719, Guide for the Assignment, Application and Use of Source, Maintenance, and Recoverability Codes
3. NAVSUP INSTR-4423.29, Navy Uniform Source, Maintenance, and Recoverability Codes

4. NAVSUP PUB P-409, MILSTRIP MILSTRAP Desk Guide
5. MCO P4400.177_, Marine Corps Aviation Supply Desktop Procedures with Continuous Process Improvement
6. SPCCINST 4441.170_, COSAL Use and Maintenance Manual

MMGT-2074 1.0 * B, R (N) G

Goal. Explain the information contained in the MATCALs system history and inventory record.

Requirement. Given a system's historical file and reference, explain the following:

1. Custody and maintenance history record.
2. Transfer and acceptance checklist.
3. Shortage records.
4. Inventory record.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

Reference.

1. COMNAVAIRFORINST 4790.2_, Naval Aviation Maintenance Program

MMGT-2075 1.0 * B, R (N) L

Goal. Initiate a Work Order.

Requirement. Given the reference, perform the following:

1. Open the appropriate VED.
2. Select the proper type of work order to initiate.
3. Select EOC in accordance(Only U/D are accessible).
4. Modify the appropriate assembly code if other than the default.
5. Enter serial number.
6. Fill in the remaining required fields and click save.
7. Save work order.
8. Respond to the print prompt accordingly.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

References.

1. OOMA Help Guide 5.22.
2. Applicable TM

MMGT-2076 1.0 * B, R (N) L

Goal. Update a Work Order.

Requirement. Given the reference, perform the following:

1. Add/Edit a job status.

2. Add/Edit Worker/In Work Time including toolbox.
3. Order a consumable.
4. Order a repairable.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. BI

Prerequisite. None.

References.

1. OOMA Help Guide 5.22.
2. Applicable TM

MMGT-2077 1.0 * B, R (N) L

Goal. Close a Work Order.

Requirement. Given the reference, perform the following:

1. On the Active Work Order Query list, choose Update and select Repair.
2. Select appropriate transaction code.
3. Select appropriate action code.
4. Enter appropriate data in fillable boxes.
5. Sign off on the corrected by box.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

References.

1. OOMA Help Guide 5.22.
2. Applicable TM

MMGT-2078 3.0 * B (N) L

Goal. Perform Critical Maintenance Inspection Requirements.

Requirement. Perform all published critical maintenance inspection requirements and document via in process inspection.

Performance Standard. Ensure all inspection requirements are met without error.

Instructor. BI.

Prerequisite. None.

References.

1. OOMA Help Guide 5.22.
2. Applicable TM

MMGT-2079 1.0 * B (N) G

Goal. Describe the purpose of inspections.

Requirement. Describe the following inspections:

1. Special.
2. Conditional.
3. One Time Inspections.
4. In-process and final inspection requirements.
5. Critical maintenance inspection requirements.

Performance Standard. Complete the requirements without error.

Instructor. BI.

Prerequisite. None.

References.

1. OOMA User Guide 5.22
2. 16-600_

MMGT-2080	1.0	*	B, R	(N)	L

Goal. Run an AD HOC query.

Requirement. Given the reference, perform the following:

1. Open the Ad Hoc VED.
2. Select Open New Query.
3. Select an Ad Hoc from files.
4. Input search criteria.
5. Run ad hoc.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

Reference.

1. OOMA User Guide 5.22

MMGT-2081	1.0	*	B, R	(N)	L

Goal. Perform CDI Queue functions.

Requirement. Given a Work Order in the CDI Queue, perform the following:

1. Review the Job Status/Worker Hours/TD tab for accuracy and ensure all section are signed.
2. Review the Failed/Required tab to ensure all part orders have been completed.
3. Review the CDI/QAR In-process Inspections tab for accuracy and ensure all inspections are signed.
4. Run Check/Validate on the Basic Work Order Update tab to ensure all data and entries are correct.
5. Enter login information in the Inspected By block.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

Reference.

1. OOMA User Guide 5.22

MMGT-2082 1.0 * B, R (N) L

Goal. Open a Baseline Trouble Report (BTR).

Requirement. Given the reference, perform the following:

1. State the purpose of the BTR being submitted.
2. Verify the accuracy of all equipment data entered into the BTR.
3. Obtain BTR evaluation QA approval.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. BI

Prerequisite. None.

Reference.

1. OOMA User Guide 5.22

MMGT-2083 1.0 * B, R (N) L

Goal. Order parts in OOMA/NALCOMIS.

Requirement. Perform the following:

1. Verify the correct WUC was selected.
2. Order a repairable part.
 - a. Select the faulty part information in Material Required screen.
 - b. Verify that the part information matches the tech manual, and the appropriate U/D/P indicator.
 - c. Electronically remove the failed part from the equipment.
 - d. Electronically install the new part into the equipment.
3. Order a consumable part.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

Reference.

1. OOMA User Guide 5.22

MMGT-2084 1.0 * B, R (N) L

Goal. Perform contingency processing.

Requirement. Perform the following:

1. State the purpose of contingency processing.
2. Document work order on green MAF.
3. Return green MAF to maintenance admin.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. 2075.

References.

1. OOMA User Guide 5.22
2. COMNAVAIRFORINST 4790.2_

MMGT-2085	1.0	*	B, R	(N)	L

Goal. Describe auditing and monitoring techniques and procedures used by Quality Assurance.

Requirement. Describe the processes involved in completing an audit.

1. Computerized Self Evaluation Checklist Database.
 - a. Quarterly update requirements including verifying MATCALs applicable questions.
 - b. Computerized Self Evaluation Checklist.
 - c. Input audit data.
 - d. Discrepancy reports.
2. Routing Forms.
3. Memorandums.
4. Spot Checks.

Performance Standard. With the aid of reference, complete the requirements.

Instructor. BI.

Prerequisite. None.

References.

1. COMNAVAIRFORINST 4790.2_
2. MATCALs Share Point
3. Local SOPs

MMGT-2086	1.0	*	B	(N)	L

Goal. Perform PMS on a MATCALs system.

Requirement. Given the reference, a Work Center Workload Report, a MATCALs system, and required equipment, perform planned maintenance IAW with the current MRC deck.

1. Observe all safety requirements.
2. Complete all cards for the scheduled periodicity.
3. Document completion in accordance with local SOP.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. 2215.

Reference.

1. 16-600_

MMGT-2087 1.0 * B (N) G

Goal. State the handling and storage requirements of voice/data recordings.

Requirement. Given the reference, state the following:

1. Requirement for archived recording of an incident.
 - a. Requirements for labeling.
 - b. Requirements for chain of custody.
 - c. Requirements for providing media to investigating agency.
 - d. Requirements for storage.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

References.

1. 00-80T-114
2. Applicable technical manual
3. Unit SOP

10.7.6 DEPLOYMENT (DEPL) STAGE

10.7.6.1 Purpose. To train the individual in skills required for the Marine ATC COMM section to perform in a deployed capacity. These skills are specific and differ from actions and skills required to operate MATC communication systems in garrison.

10.7.6.2 General.

Prerequisite. None.

Admin Notes. None.

Crew Requirements. None.

DEPL-2238 1.0 * B (N) G

Goal. State the required coordination between maintenance personnel and the ATC watch supervisors and METOC watch supervisor.

Requirement. Perform the following:

1. Describe procedures for an equipment outage.
2. Describe procedures for returning equipment to service.
3. Describe the purpose of a Notice to Airmen (NOTAM).
4. State the timeframe requirements for NOTAM.
5. State the purpose of a Commander's Critical Information Requirements (CCIR).

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

References.

1. NAVAIR 00-80T-114, NATOPS ATC Manual
2. Unit SOP

DEPL-2239 1.0 * B (N) G

Goal. State the purpose of a flight Inspection.

Requirement. State the following:

1. Describe the purpose of an FAA flight inspection.
 - a. Commissioning.
 - b. Periodic.
 - c. Special.
 - d. Site-evaluation.
 - e. Surveillance.
2. Describe the role of each work center to include air traffic controllers during an FAA flight inspection.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

References.

1. NAVAIR 16-1-520, United States Flight Inspection Manual
2. NAVAIR 00-80T-114, NATOPS ATC Manual
3. FAAO 8200.1_, US Standard Flight Inspection Manual

10.7.7 MARINE AIR TRAFFIC CONTROL MOBILE TEAM MEMBER (MMTM) STAGE

10.7.7.1 Purpose. To teach the trainee their responsibilities in conducting MMT operations.

10.7.7.2 General

Prerequisite. None.

Admin Notes. None.

Crew Requirements. None.

MMTM-2226 6.0 1095 B, R, M (N) L

Goal. Conduct MMT Assault Landing Zone (ALZ) Operations.

Requirement. Given the required equipment at a LZ or simulated LZ with a six-member MMT and the references, conduct the following during day and night conditions:

1. Establish and retrograde an airfield marking pattern (AMP)-1.
2. Establish and retrograde an AMP-2.
3. Establish and retrograde an AMP-3.

Performance Standard. Complete the requirement items IAW the references. Rapidly and accurately accomplish the requirement steps while serving in at least three of the six billets associated with the establishment of a C-130 ALZ. Panels or lights were properly aligned and securely fixed to the ground without error.

Instructor. BI (MMTL).

Prerequisite. 0570, 0571, 0573, 0574.

External Syllabus Support. One ALZ capable of supporting expeditionary C-130 operations.

References.

1. MMT TACSOP
2. MAWTS-1 Course Catalog

MMTM-2227 4.0 1095 B, R, M (N) L

Goal. Conduct MMT Helicopter Landing Zone (HLZ) Operations.

Requirement. Given the required equipment at an HLZ or simulated HLZ and the references, conduct the following during day and night conditions:

1. Mark the HLZ utilizing Bullet Traps.
2. Mark the HLZ utilizing an Inverted Y.
3. Establish visual Initial Terminal Guidance (ITG) during night operations.

Performance Standard. Complete the requirement items IAW the references. Dimensions of the markings were accurate and the marking of the HLZ met criteria. ITG was established and easily identified from the air.

Instructor. BI (MMTL).

Prerequisite. 0570, 0571, 0573, 0574.

External Syllabus Support. One HLZ.

Reference.

1. MMT TACSOP

MMTM-2228 12.0 1095 B, R, M (N) L

Goal. Conduct MMT land navigation operations.

Requirement. Given the required equipment in a field environment with a six-member MMT and a list of five MGRS locations, complete a land navigation course.

Performance Standard. Complete the requirement items IAW the references. Accurately locate the MGRS locations while leading a MMT on a patrol.

Instructor. BI (MMTL).

Prerequisite. 2004.

External Syllabus Support. DAGR.

References.

1. MCWP 3-11.3: Scouting and Patrolling
2. MCRP 8-10B.8: Marine Troop Leader's Guide, Chapter 3: Fire Team

MMTM-2229 1.0 730 B, R, M (N) L

Goal. Program a RT-1694 for Automatic Link Establishment (ALE) operations.

Requirement. Given the reference and an RT-1694 program for ALE operations by completing the

following:

1. Place RT is in ALE mode.
2. Place ALE Call.
3. Place an ALE Call to a Non-Programmed Net.
4. Place an ALE Group Call.
5. Program radio for 3G operation.
6. Program radio for 3G+ operation.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

Reference.

1. TM 10515-0103-4100 AN/PRC 150(C) Advanced Tactical Radio Operators Manual

MMTM-2230 2.0 * B, R (N) L

Goal. Expeditionary power source familiarization.

Requirement. Given the reference, an expeditionary power system, and required equipment, perform the following:

1. Discuss field troubleshooting techniques.
2. Introduce field PMCS procedures.
3. Clean spark arrestor.
4. Change fuel filter.
5. Change oil filter.
6. Adjust output voltage and current.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

Reference.

1. TM 9-6115-673-13&P, 2kW Military Tactical Generator Set MEP-531A

10.7.8 COMMUNICATION (COMM) STAGE

10.7.8.1 Purpose. Instruct trainee to survey, site, install and operate communication systems to include planned and corrective maintenance.

10.7.8.2 General.

Prerequisite. None.

Admin Notes. None.

Crew Requirements. None.

COMM-2195 1.0 1095 B, R, M (N) L

Goal. Configure the RT-1694 for cipher text (CT) operations.

Requirement. Given radios and common fill device with keying material, perform the following:

1. Set frequency.
2. Set power out.
3. Load fill.
4. Set mode of operation.
5. Conduct an encrypted communications check.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. 2000.

References.

1. TM 10515-0103-4100 AN/PRC 150 Advanced Tactical Radio Operators Manual
2. SKL Quick Reference Guide

COMM-2196 1.0 1095 B, R, M (N) L

Goal. Configure the RT-1796 for cipher text (CT) operations.

Requirement. Given radios and common fill device with keying material, perform the following:

1. Set frequency.
2. Set power out.
3. Load fill.
4. Set mode of operation.
5. Conduct an encrypted communications check.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. 2000.

References.

1. TM 10515-0109-4100 AN/PRC-117F Operation Manual
2. TM 10515-0109-4000 AN/PRC-117F Quick Reference Guide
3. SKL Quick Reference Guide

COMM-2197 2.0 * B, R (N) L

Goal. Perform corrective maintenance on the AN/TSQ-120_ to the lowest repairable unit.

Requirement. Given the references and an inoperative AN/TSQ-120_ system, complete the following steps:

1. Adhere to safety requirements.
2. Research applicable technical data pertaining to faulty equipment.
3. Read schematic diagrams.
4. Ensure proper handling of ESD components.
5. Set up test equipment.
6. Connect test equipment.
7. Measure basic circuit performance.

8. Trace signal paths.
9. Trace current/voltage paths.
10. Identify faulty subassembly(s).
11. Replace faulty subassembly.
12. Verify proper operation.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

References.

1. TM 10515-0103-4100 AN/PRC 150© Advanced Tactical Radio Operators Manual
2. AE-100AB-CSU-000 Air Traffic Control Central

COMM-2198 2.0 * B, R (N) L

Goal. Perform corrective maintenance on the AN/TSQ-216 to the lowest repairable unit.

Requirement. Given the references and an inoperative AN/TSQ-216, complete the following steps:

1. Adhere to safety requirements.
2. Research applicable technical data pertaining to faulty equipment.
3. Read schematic diagrams.
4. Ensure proper handling of ESD components.
5. Set up test equipment.
6. Connect test equipment.
7. Measure basic circuit performance.
8. Trace signal paths.
9. Trace current/voltage paths.
10. Identify faulty subassembly(s).
11. Replace faulty subassembly
12. Verify proper operation.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

References.

1. TM 10515-0103-4100 AN/PRC 150© Advanced Tactical Radio Operators Manual
2. 16-60TSQ216_, Operation and Organizational Maintenance Instructions

COMM-2199 1.0 1095 B, R, M (N) L

Goal. Configure the AN/ARC-210 for cipher text (CT) operations.

Requirement. Given radios and common fill device with keying material, perform the following:

1. Load keymat into common fill device.
2. Create Red platform data.
3. Set dip switch settings for Red Bus address.
4. Load AN/ARC-210 with Red data platform.

5. Setup RT for encrypted operation.
6. Verify two-way encrypted communication.

Performance Standard. With the aid of reference, complete the requirements, minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. 2000.

External Syllabus Support. Local EKMS manager.

References.

1. Source Data (Organizational Maintenance), Radio Receiver-Transmitter RT-1794(c)/ARC, 523-0778328, Government Systems Rockwell Collins, Inc. Cedar Rapids, Iowa
2. AN/ARC-210(V) Informal Technical Data System Description Theory of Operation
3. Performance Description Document AN/ARC-210(V) SATCOM System Equipment
4. AN/ARC-210(V) RT-1794(c) Advanced VHF/UHF Multimode Communications System Description and Applications Manual, Government Systems Rockwell Collins
5. Equipment Specification Receiver-Transmitter RT-1794(c)/ARC, DWG NO. 670-3319-002
6. Performance Description Document RT-1794(c)/ARC Receiver-Transmitter, PDD-ARC210-006
7. AE-100AB-CSU-000 Air Traffic Control Central

COMM-2200 1.0 730 B, R, M (N) L

Goal. Configure RT-1796 for HAVEQUICK Frequency Hopping (FH) operations.

Requirement. Given an RT-1796, GPS, and a Communications Message (training WOD is acceptable):

1. Load Time of Day (TOD).
2. Load HAVEQUICK Word of Day (WOD).
3. Configure HAVEQUICK Net.
4. Verify two-way HAVEQUICK FH communications.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. 2000, 2004.

References.

1. TM 10515-0109-4100 AN/PRC-117F Operation Manual
2. TM 10515-0109-4000 AN/PRC-117F Quick Reference Guide

COMM-2201 1.0 730 B, R, M (N) L

Goal. Configure RT-1796 for SINCGARS (FH) operations.

Requirement. Given an RT-1796, GPS, and common fill device:

1. Load Time of Day (TOD).
2. Load SINCGARS loadset.
3. Configure SINCGARS Net.
4. Verify two-way SINCGARS FH communications.

Performance Standard. With the aid of reference, perform the requirements without error. Minor corrections by the trainee are acceptable.

Instructor. BI.

Prerequisite. 2000, 2004.

References.

1. TM 10515-0109-4100 AN/PRC-117F Operation Manual
2. TM 10515-0109-4000 AN/PRC-117F Quick Reference Guide
3. SKL Quick Reference Guide

COMM-2202 3.0 * B (N) L/S

Goal. Configure RT-1796 for SATCOM operations.

Requirement. Given the radios, references, satellite access authorization letter, and common fill device with keying material, perform the following:

1. Configure 5 KHz NB (dedicated) channel.
2. Configure 25 KHz WB (dedicated) channel.
3. Configure DAMA Channel.
4. Configure Integrated Waveform (IW).
5. Conduct a radio check.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. 2000, 2004.

References.

1. TM 10597A-OR/4 Manpack Radio Operation Manual AN/PRC-117F(V)1(C)Radio Set
2. Harris Premier Account
3. RF-5850-PS001 Operator's Manual

COMM-2203 1.0 1095 B, R, M (N) L

Goal. Operate the CM-200 Transmitter.

Requirement. Given a CM-200 transmitter, perform the following:

1. Identify panel controls indicators and connectors.
2. Describe the characteristics of the transmitter.
3. Tune the transmitter.
4. Verify transmission.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

Reference.

1. FAA Technical Instruction 6610.16A, Transmitter, Radio UHF, CM-200UT Volume 1 and 2

COMM-2204 2.0 * B, R (N) L

Goal. Perform corrective maintenance on the communication system to the lowest repairable unit on the AN/TPN-31_.

Requirement. Given the references and an inoperative communication system, complete the following steps:

1. Adhere to safety requirements.
2. Research applicable technical data pertaining to faulty equipment.
3. Read schematic diagrams.
4. Ensure proper handling of ESD components.
5. Set up test equipment.
6. Connect test equipment.
7. Measure basic circuit performance.
8. Trace signal paths.
9. Trace current/voltage paths.
10. Identify faulty subassembly(s).
11. Replace faulty subassembly.
12. Verify proper operation.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

References.

1. NAVAIR 16-60TPN31_, Operator Manual Air Traffic Navigation, Integration, and Coordination System
2. NAVAIR 16-60TSQ263_, Operation and Organizational Maint Instructions Tactical Terminal Control System

COMM-2205 1.0 * B, R (N) L

Goal. Verify the PL-2000 is operational.

Requirement. Given a PL-2000, and all applicable references, demonstrate the procedures to perform the following:

1. Record audio segment from all channels.
2. Verify playback of recorded audio on all channels.
3. Ensure recordable media is operational.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

References.

1. ATIS Technical Manual
2. NATOPS Manual 00-80T-114, NATOPS ATC Manual

COMM-2206 1.0 1095 B, R, M (N) L

Goal. Setup telephone lines used by the voice communication switch.

Requirement. Perform the following:

1. Determine telephone requirements.
2. Configure individual telephone lines.
3. Establish telephone communications.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

References.

1. NAVAIR 16-60TPN31_, Operator Manual Air Traffic Navigation, Integration, and Coordination System
2. NAVAIR AE-070AA-INM-000
3. NAVAIR 16-60TSQ120_, Operation and Maintenance Instructions Tower Shelter Support
4. NAVAIR 16-60TSQ216_, Deployment and Operating Procedures

COMM-2207 10.0 1095 B, R, M (N) L

Goal. Setup the AN/TSQ-120.

Requirement. Given a crew, tools, the reference and an AN/TSQ-120, supervise the following:

1. Inventory.
2. Assemble scaffolding.
3. Raise tower.
4. Verify guy line tension.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

Reference.

1. 16-60TSQ120-100, Operational and Maintenance Instructions

COMM-2208 10.0 1095 B, R, M (N) L

Goal. Disassemble the AN/TSQ-120.

Requirement. Given a crew, tools, the reference and an AN/TSQ-120, supervise the following:

1. Lower the tower.
2. Disassemble the scaffolding.
3. Inventory the system.
4. Pack the system.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

Reference.

1. 16-60TSQ120-100, Operational and Maintenance Instructions

COMM-2209 4.0 1095 B, R, M (N) L

Goal. Setup the AN/TSQ-216.

Requirement. As a member of a crew, given tools, the reference and an AN/TSQ-216, assemble by completing the following:

1. Inventory.
2. Assemble antenna farm.
3. Raise shelter.
4. Emplace generator(s).

Performance Standard. With the aid of reference, perform the requirements without error. Minor corrections by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

Reference.

1. 16-60TSQ-216_, Deployment and Operating Procedures

COMM-2210 4.0 1095 B, R, M (N) L

Goal. Disassemble the AN/TSQ-216.

Requirement. As a member of a crew, given tools, the reference and an AN/TSQ-216, disassemble by completing the following:

1. Lower the shelter.
2. Disassemble the antenna farm.
3. Inventory the system.
4. Pack the system.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

Reference.

1. 16-60TSQ-216_, Deployment and Operating Procedures

COMM-2211 4.0 1095 B, R, M (N) L

Goal. Setup the AN/TPN-31 with AN/TSQ-263.

Requirement. Given a crew, tools, the reference and an AN/TSQ-263, supervise the following:

1. Setup operations shelter.
2. Assist in the setup of the sensor pallet.
3. Setup the TSQ-263.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

References.

1. NAVAIR 16-60TSQ263_, Operation and Organizational Maint Instructions Tactical Terminal Control System
2. NAVAIR 16-60TPN31_, Operator Manual Air Traffic Navigation, Integration, and Coordination System

COMM-2212 4.0 1095 B, R, M (N) L

Goal. Disassemble the AN/TPN-31 with AN/TSQ-263.

Requirement. Given a crew, tools, the reference and an AN/TSQ-263, supervise the following:

1. Disassemble the AN/TSQ-263.
2. Disassemble the AN/TPN-31.
 - a. Disassemble the operations shelter.
 - b. Assist with disassembly of the sensor pallet.
3. Pack the system.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

References.

1. NAVAIR 16-60TSQ263_, Operation and Organizational Maint Instructions Tactical Terminal Control System
2. NAVAIR 16-60TPN31_, Operator Manual Air Traffic Navigation, Integration, and Coordination System

COMM-2213 2.0 1095 B, R, M (N) L

Goal. Perform post emplacement procedures for the AN/TSQ-120.

Requirement. Given an AN/TSQ-120 and all applicable technical manuals, demonstrate the following:

1. Apply power.
2. System checks.
 - a. VHF/HF radios.
 - b. Communication switching system.
 - c. UHF/VHF radios.
 - d. Signal lights.
 - e. Crash alarm.
 - f. ATIS.
 - g. Weather workstation.
 - h. Voice recorder.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. 2203, 2205, 2206.

Reference.

1. AE-100AB-CSU-000 Air Traffic Control Central

COMM-2214 2.0 1095 B, R, M (N) L

Goal. Perform post emplacement procedures for the AN/TSQ-216.

Requirement. Given an AN/TSQ-216 and all applicable technical manuals, demonstrate the following:

1. Apply power.
2. System checks.
 - a. VHF/HF radios.
 - b. Communication switching system.
 - c. UHF/VHF radios.
 - d. Signal lights.
 - e. Weather workstation.
 - f. Voice recorder.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. 2195, 2196, 2203, 2205, 2206, 2209.

Reference.

1. AE-100AB-CSU-000 Air Traffic Control Central

COMM-2215 2.0 1095 B, R, M (N) L

Goal. Perform post emplacement procedures for the AN/TPN-31 with AN/TSQ-263.

Requirement. Given an AN/TPN-31 and all applicable technical manuals, demonstrate the following:

1. Apply power.
2. System checks.
 - a. Communication switching system.
 - b. UHF/VHF radios.
 - c. Voice recorder.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. 2205, 2206.

Reference.

1. 16-60TPN31_, Operator Manual Air Traffic Navigation, Integration, and Coordination System

COMM-2216 2.0 365 B, R, M (N) L

Goal. Setup the AN/USQ-218.

Requirement. Given a crew, tools, the reference, an operational AN/TSQ-120, and an AN/USQ-218, perform the following:

1. Inventory.
2. Setup remote operation positions.
3. Connect required cabling.
4. Apply power.
5. Perform system checks.
 - a. VHF/HF radios.
 - b. Communication switching system.
 - c. UHF/VHF radios.
 - d. Signal lights.
 - e. Crash alarm.
 - f. ATIS.
 - g. Weather workstation.
 - h. Voice recorder .

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. 2205.

Reference.

1. 16-60-USQ218-200

10.7.9 INTEGRATED AIR DEFENSE SYSTEM (IADS) STAGE.

10.7.9.1 Purpose. Instruct trainee on the Base Defense Zone

10.7.9.2 General.

Prerequisite. None.

Admin Notes. None.

Crew Requirements. None.

IADS-2091	1.0	365	B, R, M	(N)	G

Goal. State the different types of Weapons Engagement Zones (WEZ).

Requirement. Given the reference, explain the following:

1. Identify a WEZ.
2. Identify a Fighter Engagement Zone (FEZ).
3. Identify a Missile Engagement Zone (MEZ).
4. Identify a Joint Engagement Zone (JEZ).
5. Identify a Short Range Air Defense Engagement Zone (SHORADEZ).
6. Identify a Base Defense Zone (BDZ).

Performance Standard. Without the aid of reference, complete the requirement.

Instructor. BI

Prerequisite. None.

References.

1. MCRP 3-20F.8 Low Altitude Air Defense Battalion Handbook
2. MCRP 8-10B.11 Antenna Handbook

3. MCRP 3-30B.3 Multi-Service Tactics, Techniques, and Procedures for Tactical Radios
4. MCTP 3-20F Control of Aircraft and Missiles
5. MCWP 3-25.8 Marine Air Traffic Control Detachment Handbook
6. MCTP 3-20C Anti-Air Warfare
7. MCWP 3-30 MAGTF Command and Control
8. MCTP-30 Information Management
9. MCRP 3-30B.2 MAGTF Communications Systems
10. MCTP 10-10B Multi-Service Tactics, Techniques, and Procedures For An Integrated Air Defense System (IADS)
11. CJCSM 6120.01 Joint Multi TDL Operating Procedures

IADS-2092 1.0 365 B, R, M (N) G

Goal. State the role of Marine Air Traffic Control Detachments in a Base Defense Zone (BDZ).

Requirement. State the role of Marine Air Traffic Control Detachments in a Base Defense Zone (BDZ):

1. Identify key agencies in a BDZ.
2. Identify key personnel in a BDZ.
3. State the required elements of a BDZ.
4. Identify key Information Exchange Requirements in a BDZ (LAAD/MWSS).
5. Describe a Cartesian Grid Coordinate and its role in a BDZ.
6. Identify equipment necessary for integration of BDZ agencies.

Performance Standard. Without the aid of reference, complete the requirement.

Instructor. BI.

Prerequisite. None.

References.

1. MCRP 3-20F.8 Low Altitude Air Defense Battalion Handbook
2. MCRP 8-10B.11 Antenna Handbook
3. MCRP 3-30B.3 Multi-Service Tactics, Techniques, and Procedures for Tactical Radios
4. MCTP 3-20F Control of Aircraft and Missiles
5. MCWP 3-25.8 Marine Air Traffic Control Detachment Handbook

10.8 MISSION PHASE (3000)

10.8.1 Purpose. To provide the requisite advanced skills and working knowledge to employ the Marine Air Traffic Control Detachment Communication Section and ancillary equipment in order to accomplish the Marine Air Control Squadron missions.

10.8.2 General.

10.8.2.1 Prerequisite. None.

10.8.2.2 Admin Notes. None.

1. Training in this phase does not preclude simultaneous training in Core and Core Plus phases.
2. Individual Core Phase skills are learned and mastered using a varied combination of written exams, scenarios and practical demonstrations of proficiency.
3. If crew members are required to assist in the conduct of an event, the crew shall be core capable in the role they will play, as applicable. Training will be executed as individual training with appropriate assistance at the crew level as needed and as dictated by the conditions listed for each event. Crew member assistance must be

restricted to those actions required to support or facilitate individual training so as not to detract from the individual properly demonstrating the event performance standard.

4. Academic Training. Academic training will be conducted prior to and concurrently with required events. An academic training event, once completed, can be credited as a prerequisite for follow-on training events.

5. Refresher Training. Refresher training is required once an individual has been absent from a technician billet for 36 months or longer. Upon return, the individual will complete R-coded events in the Attain table; else the technician will maintain proficiency by completing the R-coded events in the Maintain table.

10.8.2.3 Stages. The following stages are included in the Mission Phase:

PAR NO.	STAGE NAME	PAGE NUMBER
10.8.3	MACCS MAINTENANCE COMMON (MMCN)	10-46
10.8.4	MAINTENANCE MANAGEMENT (MMGT)	10-48
10.8.5	MARINE AIR TRAFFIC CONTROL MOBILE TEAM MEMBER (MMTM)	10-49
10.8.6	COMMUNICATION (COMM)	10-50
10.8.7	INTEGRATED AIR DEFENSE SYSTEM (IADS)	10-52

10.8.3 MACCS MAINTENANCE COMMON (MMCN) STAGE

10.8.3.1 Purpose. To provide Mission Phase skills that are common to all 5900 occupational field technicians that will be used in the performance of assigned duties within the Marine Air Command and Control System (MACCS).

10.8.3.2 General.

Prerequisite.

1. Meet the requirements delineated in the MOS Manual.

Admin Notes. The following events establish the foundational skills required to be successful in the cyber security workforce.

Crew Requirements. None.

MMCN-3030 8.0 1095 B, R, M (N) L

Goal. Deploy a MACCS capability.

Requirement. Given an operational requirement and commander's guidance, conduct the following:

1. Review operational requirements and develop an EDL.
2. Coordinate for support equipment as required.
3. Verify and complete Bill of Materials.
4. Establish float requirements as required.
5. Conduct inspections on listed equipment.
6. Supervise pack-up and securing of equipment and validate EDL accuracy.
7. Create a packing list.
8. Ensure correct placement of placard/label the equipment for embark.
9. Ensure correct execution of the load plan for equipment handling and safety.
10. Ensure maintenance crews are formed and prepared for deployment.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. SI.

Prerequisite. 2006, 2009, 2007, 2014.

References.

1. MCO 3120.6, Standard Embarkation Management System
2. Applicable TMs/Ums

MMCN-3031 8.0 1095 B, R, M (N) L

Goal. Conduct a site survey.

Requirement. Given a scenario, applicable references, a TO/E and operational tasking, determine an appropriate site for system emplacement by performing the following:

1. Use planning tools to determine terrain masking and line of sight connectivity.
2. Determine a primary and secondary site location.
3. Identify obstructions and hazards.
4. Determine tactical orientation and equipment emplacement.
 - a. Ensure emitters are emplaced IAW Hazardous Electronic Radiation to Fuels (HERF) regulations.
 - b. Ensure emitters are emplaced IAW Hazardous Electronic Radiation to Ordinance (HERO) regulations.
 - c. Ensure emitters are emplaced IAW Hazardous Electronic Radiation to Personnel (HERP) regulations.
 - d. Ensure emitters are emplaced to support working area.
5. Identify the placement for equipment.
6. Identify the placement for antennas.
7. Identify required internal / external equipment requirements.
8. Determine communications obstacles.
8. Determine system grounding requirements.
9. Identify utility requirements to include power and fuel requirements.
10. Describe environmental considerations.
11. Determine protection from the elements.
11. Determine terrain requirements / masking.
12. Determine operational footprint.
13. Design a site layout and submit to the instructor.
14. Develop a brief that addresses all event requirement items.

Performance Standard. With the aid of reference, complete the requirements, minor errors corrected by the trainee are acceptable.

Instructor. SI.

Prerequisite. None.

References.

1. Technical Manuals
2. Operational Order
3. CMR
4. MCWP 3-25.4
5. MCWP 5-1
6. MCO 5104.2
7. MCO 5104.3B

MMCN-3032 2.0 * B (N) L

Goal. Fill the hand held GPS with the appropriate crypto.

Requirement. Perform the following:

1. Identify the proper crypto load.
2. Load crypto into hand held GPS .
3. Verify crypto load.

Performance Standard. With the aid of reference, perform the requirements. Minor corrections by the trainee are acceptable.

Instructor. BI.

Prerequisite. 2000.

Reference.

1. TM 11-5820-1172-13, Defense Advanced GPS Receiver (DAGR), AN/PSN-13

10.8.4 MAINTENANCE MANAGEMENT (MMGT) STAGE.

10.8.4.1 Purpose. To provide the Mission Phase skills necessary to manage maintenance activities and administrative responsibilities in support of the Mission Essential Tasks (METs).

10.8.4.2 General.

Prerequisite. None.

Admin Notes. None.

Crew Requirements.

MMGT-3011	1.0	365	B, R, M	(N)	L

Goal. Pass CDI Periodic Evaluation IAW CSEC.

Requirement.

1. Follow all safety precautions.
2. Document in-process inspection.
3. Perform CDI Queue functions.

Performance Standard. With the aid of reference, complete the requirements.

Instructor. SI.

Prerequisite. None.

References.

1. COMNAVAIRFORINST 4790.2_
2. Local SOPs

10.8.5 MARINE AIR TRAFFIC CONTROL MOBILE TEAM MEMBER (MMTM) STAGE.

10.8.5.1 Purpose. To instruct the trainee on performing as an MMT member for ALZ and FARP operations.

10.8.5.2 General.

Prerequisite. None.

Admin Note. Designation as a MMT leader is not required for MOS 5954 to perform event 3034, this event is for exposure to the MMT Leader position responsibilities only.

Crew Requirements. None.

MMTM-3034 2.0 1095 B, R, M (N) L

Goal. Perform as a MMT Leader during ALZ operations.

Requirement. During an operation or training exercise, conduct the following:

1. Effectively execute movement to objective.
2. Conduct hasty LZ assessment to ensure required criteria exists.
3. Ensure LZ markings are accurately and rapidly established.
4. Ensure accurate establishment of NAVAIDS.
5. Ensure the effective establishment of the control point.
6. Ensure C2 communications are established and maintained.
7. Effect coordination with adjacent units.
8. Ensure communications with aircraft are established and maintained.
9. Ensure the LZ is sanitized and secure.
10. Ensure that LZ marking repair is accomplished as required.
11. Ensure rapid retrograde of the LZ.
12. Ensure LZ marking repair is accomplished, as required.
13. Ensure the team maintains a tactical posture with regard to security, noise, and light discipline.

Performance Standard. Complete the requirement items IAW the reference. Requirements were accomplished in support of the operational requirements.

Instructor. SI.

Prerequisite. 0570, 0571, 0573, 0574, 2004, 2226, 2228, 2229, 2230.

External Syllabus Support. 1 KC-130, 1 ALZ.

Reference.

1. MMT TACSOP

MMTM-3035 2.0 1095 B, R, M (N) L

Goal. Perform as a MMT Member during FARP operations.

Requirement. During an operation or training exercise, conduct the following:

1. Effectively execute movement to objective.
2. Establish and maintain integration with the FARP OIC and/or aircraft commander.
3. Ensure C2 communications are established and maintained.
4. Effect coordination with adjacent units.
5. Ensure communications with aircraft are established and maintained.
6. Ensure accurate establishment of NAVAIDS, as applicable.

Performance Standard. Complete the requirement items proficiently, IAW the reference and with minimal assistance from a qualified MMT Leader. Requirements were accomplished thoroughly and in support of operational requirements.

Instructor. SI.

Prerequisite. 0570, 0571, 0573, 0574, 2004, 2227, 2228, 2229, 2230.

External Syllabus Support. FARP.

Reference.

1. MMT TACSOP

10.8.6 COMMUNICATION (COMM) STAGE.

10.8.6.1 Purpose. To instruct the trainee to deploy, setup, and maintain the communication systems in a deployed or garrison setting.

10.8.6.2 General.

Prerequisite. None.

Admin Notes. None.

Crew Requirements. None.

COMM-3076 30.0 1095 B, R, M (N) L

Goal. Deploy AN/TSQ-120.

Requirement. Given a crew, tools, the reference and an AN/TSQ-120, complete the following:

1. Inventory all equipment.
2. Pack up procedures.
3. Identify support requirements.
4. Determine setup location.
5. Unpack procedures.
6. Inventory all equipment.
7. Setup procedures.
8. Perform post setup procedures on the AN/TSQ-120.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable. AN/TSQ-120 must be erected to 3 levels within 10 hours.

Instructor. SI.

Prerequisite. 2207, 2208, 2213.

Reference.

1. 16-60TSQ120-100, Operational and Maintenance Instructions

COMM-3077 8.0 730 B, R, M (N) L

Goal. Provide communications services as a member of a crew.

Requirement. During communications operations:

1. Verify site specific parameters.
2. Perform system adjustments in support of operational requirements.
3. Perform physical and system safety checks prior to assuming a crew position.
4. Review crew changeover notes.

Performance Standard. Perform the requirements. Minor corrections by the trainee are acceptable. System requests can be simulated by the instructor.

Instructor. SI.

Prerequisite. 2000, 2002, 2010, 2012, 2004, 2005, 2008, 2087, 2238, 2196, 2200, 2201, 2202, 2205, 2206.

References.

1. 16-60TSQ120_, Operation and Maintenance Instructions
2. 16-60TSQ216_, Operation and Maintenance Instructions
3. 00-80T-114, NATOPS ATC Manual

COMM-3078 8.0 1095 B, R, M (N) L

Goal. Deploy AN/TSQ-216.

Requirement. Perform the following:

1. Inventory all equipment.
2. Pack up procedures.
3. Identify support requirements.
4. Determine setup location.
5. Unpack procedures.
6. Inventory all equipment.
7. Setup procedures.
8. Perform post setup procedures on the AN/TSQ-216.

Performance Standard. With the aid of reference, perform the requirements. Minor corrections by the trainee are acceptable.

Instructor. SI.

Prerequisite. 2209, 2210, 2214.

Reference.

1. 16-60TSQ216_, Deployment and Operating Procedures

COMM-3079 30.0 730 B, R, M (N) L

Goal. Deploy the AN/TPN-31 with the AN/TSQ-263.

Requirement. Given the reference and an AN/TPN-31, perform the following:

1. Inventory all equipment.
2. Pack up procedures.
3. Identify support requirements.
4. Determine setup location.
5. Unpack procedures.
6. Inventory all equipment.
7. Setup procedures.
8. Perform post setup procedures on the AN/TPN-31.

Performance Standard. With the aid of reference, perform the requirements. Minor corrections by the trainee are acceptable. Trainee performs COMM tasks and assists radar member with radar tasks.

Instructor. SI.

Prerequisite. 2211, 2212, 2215.

External Syllabus Support. Basic Tech 5953.

References.

1. NAVAIR 16-60TSQ263_, Operation and Organizational Maintenance Instructions Tactical Terminal Control System
2. NAVAIR 16-60TPN31_, Operator Manual Air Traffic Navigation, Integration, and Coordination System

10.8.7 INTEGRATED AIR DEFENSE SYSTEM (IADS) STAGE.

10.8.7.1 Purpose. Instruct trainee to perform as a member of a Marine Air Traffic Control Detachments in a Base Defense Zone (BDZ).

10.8.7.2 General.

Prerequisite. None.

Admin Notes. None.

Crew Requirements. None.

IADS-3040	8.0	1095	B, R, M	(N)	L

Goal. Perform as a member of a Marine Air Traffic Control Detachments in a Base Defense Zone (BDZ).

Requirement. Given the required equipment, perform the following:

1. Establish communication between key agencies in a BDZ.
2. Integrate key personnel within the BDZ.
3. Log key Information Exchanges between key agencies/personnel in a BDZ (LAAD/MWSS).
4. Coordinate with LAAD Section/Platoon Leader to gather details of their Cartesian Grid.
5. Provide a Cartesian Grid Coordinate on the Airport Surveillance Radar for LAAD Section/Platoon Leader.
6. Connect equipment necessary for integration of BDZ agencies.

Performance Standard. Without the aid of reference, complete the requirement.

Instructor. SI.

Prerequisite. 2092.

References.

1. MCRP 3-20F.8 Low Altitude Air Defense Battalion Handbook
2. MCRP 8-10B.11 Antenna Handbook
3. MCRP 3-30B.3 Multi-Service Tactics, Techniques, and Procedures for Tactical Radios
4. MCTP 3-20F Control of Aircraft and Missiles
5. MCWP 3-25.8 Marine Air Traffic Control Detachment Handbook

10.9 CORE PLUS PHASE (4000)

10.9.1 Purpose. RESERVED FOR FUTURE USE.

10.9.2 General.

10.9.2.1 Admin Notes.

10.10 MISSION PLUS PHASE (4000)

10.10.1 Purpose. To provide the requisite skills and working knowledge in areas that, while may have a low likelihood of occurrence or are theater dependent, have value to the Communication Technician in support of the Marine ATC detachment.

10.10.2 General.

10.10.2.1 Prerequisite. None.

10.10.2.2 Admin Notes.

1. Training in this phase does not preclude simultaneous training in Core and Mission phases.
2. Individual Core Phase skills are learned and mastered using a varied combination of written exams, scenarios and practical demonstrations of proficiency.
3. If crew members are required to assist in the conduct of an event, the crew shall be core capable in the role they will play, as applicable. Training will be executed as individual training with appropriate assistance at the crew level as needed and as dictated by the conditions listed for each event. Crew member assistance must be restricted to those actions required to support or facilitate individual training so as not to detract from the individual properly demonstrating the event performance standard.
4. Academic training will be conducted prior to and concurrently with required events. An academic training event, once completed, can be credited as a prerequisite for follow-on training events.
5. Refresher training is required once an individual has been absent from a technician billet for 36 months or longer. Upon return, the individual will complete R-coded events in the Attain table; else the technician will maintain proficiency by completing the R-coded events in the Maintain table.

10.10.2.3 Stages. The following stages are included in the Mission Plus Phase:

PAR NO.	STAGE NAME	PAGE NUMBER
10.10.3	MAINTENANCE MANAGEMENT (MMGT)	10-53
10.10.4	DEPLOYMENT (DEPL)	10-57
10.10.5	AVIATION COMMUNICATION (AVCOMM)	10-59
10.10.6	SYSTEM ADMINISTRATION (SYSAD)	10-65
10.10.7	CONFIGURATION (CONFIG)	10-67
10.10.8	COMMUNICATIONS (COMM)	10-67

10.10.3 MAINTENANCE MANAGEMENT (MMGT) STAGE.

10.10.3.1 Purpose. To instruct trainee how to perform MATC maintenance management functions directly associated with MET accomplishment of the ATC Detachment.

10.10.2 General.

Prerequisite. None.

Admin Notes. None.

Crew Requirements. Core minimum crew.

MMGT-4050 6.0 1095 B, R, M (N) L

Goal. Conduct QC procedures.

Requirement. Ensure the timely performance of all corrective maintenance actions per the references.

1. Verify the induction process:
 - a. Confirm SL-3 accountability.
 - b. Ensure visual inspection occurs.
 - c. Verify record jacket.
 - d. Verify proper organizational PM.
 - e. Verify NAVMC 1018.
 - f. Verify if warranty procedures apply.

2. Determine availability of resources.
3. Ensure proper troubleshooting of faulty item.
4. Ensure repair parts are ordered.
5. Ensure faulty item is repaired to code A status.
6. Ensure safety measures are adhered to during repair process.
7. Review quality control procedures.
8. Verify quality control inspectors based on individual qualifications on equipment are assigned in writing.
9. Verification of MI and TI.
10. Verify proper closeout of SR.
11. Ensure equipment record jacket is updated.

Performance Standard. Complete the requirement items IAW the references. Minor errors corrected by the trainee are acceptable.

Instructor. SI

Prerequisite. 2071.

References.

1. MCO 4790.2
2. TM-4700-15/1H
3. MCO 4400.16_
4. MCBUL 3000
5. Associated Equipment TM
6. UM 4000-125 GCSS-MC User's Manual
7. MCO 4400.150
8. MMSOP

MMGT-4200 2.0 365 B, R, M (N) G

Goal. State the considerations of the Contingency Support Package (CSP).

Requirement. State the following:

1. The purpose of the CSP.
2. Who maintains the CSP.
3. How to pull the CSP for operations.
4. The CSP inventory process.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. SI.

Prerequisite. 2071.

References.

1. MCTP 3-20A Aviation Logistics
2. Unit COSAL

MMGT-4252 1.0 * B,R (N) L

Goal. Induct equipment into the maintenance cycle.

Requirement. Given a piece of equipment requiring a service request, NAVMC 1018, and a computer with GCSS access, perform the following:

1. Via service request, validate the following induction procedures:

- a. Validate service request accuracy.
 - b. Confirm SL-3 accountability.
 - c. Verify and annotate visual inspection and ensure NAVMC 1018 is applied.
 - d. Verify and annotate service history in record jacket.
 - e. Verify and annotate proper organizational PM.
 - f. Verify and annotate Modification Instruction (MI) and Technical Instruction (TI).
 - g. Verify and annotate warranty (if applicable).
2. Determine availability of resources.
 3. Conduct and document proper troubleshooting of faulty item.
 4. Order repair parts as necessary.
 5. Submit equipment and records for QC.

Performance Standard. With the aid of reference, complete the requirements, minor errors corrected by the trainee are acceptable.

Instructor. SI

Prerequisite. None.

References.

1. TM 4700-15/1H
2. MCO 4790.2
3. MCBUL 3000
4. MCO 4400.16
5. Unit MMSOP
6. UM 4000-125 GCSS-MC User's Manual

MMGT-4253 1.0 * B,R (N) G

Goal. Create a Preventive Maintenance Checks and Services (PMCS) schedule.

Requirement. Given GCSS access, an end item, and applicable references, perform the following:

1. State the purpose of PMCS.
2. Identify the PM frequency.
3. Identify PM procedures.
4. Create a PMCS schedule within GCSS.

Performance Standard. With the aid of reference, complete the requirements, minor errors corrected by the trainee are acceptable.

Instructor. SI

Prerequisite. None.

References.

1. TM 4700-15/1H
2. MCO 4790.2
3. Technical Manuals
4. UM 4400-125 GCSS-MC User's Manual

MMGT-4254 2.0 * B,R (N) L

Goal. Submit a Product Quality Deficiency Report (PQDR).

Requirement. Given the reference, equipment or a scenario:

1. State the criteria under which the PQDR should be submitted.

2. Complete the PQDR.
3. Explain the squadron's internal process for submitting a PQDR.
4. Identify the procedure to follow up with the PQDR.
5. Discuss external process flow of the PQDR.

Performance Standard. With the aid of reference, complete the requirements, minor errors corrected by the trainee are acceptable.

Instructor. SI

Prerequisite. None.

References.

1. MCO 4790.2
2. Unit MMSOP
3. MCO 4855.10B PRODUCT QUALITY DEFICIENCY REPORT (PQDR)
4. SECNAVINST 4855.5, Product Quality Deficiency Report Program

MMGT-4255 2.0 * B,R (N) G

Goal. Identify the SECREP management process.

Requirement. Given the references, perform the following:

1. Define the purpose of the SECREP management process.
2. Define the purpose of Critical Low Density SECREP exchange process.
3. Identify the SECREP management re-computation process.

Performance Standard. With the aid of reference, complete the requirements, minor errors corrected by the trainee are acceptable.

Instructor. SI

Prerequisite. None.

References.

1. MCO 4790.2
2. MCO 4400.150
3. FEDLOG/WEBFLIS
4. UM 4000-125 GCSS-MC User's Manual

MMGT-4257 4.0 * B, R (N) L

Goal. Reconcile Global Combat Support System (GCSS) reports.

Requirement. Given the reports listed in item 1 below:

1. Identify the purpose of:
 - a. Maintenance Production Report (MPR)
 - b. Equipment Status Report (ESR)
 - c. Preventative Maintenance Report
 - d. Calibrations Report
 - e. Modification Instruction report
 - f. Maintenance Management Report (MMR)
 - g. Due and status file (DASF)
 - h. Service Request (SR)
 - (1) Tasks
 - (2) Notes

- (3) Parts Requirements
 - i. Sub-Inventory
 - (1) Layette
 - (2) Stage
 - (3) Demand Supported Items (DSI)
 - j. Oracle Install Base
 - (1) Parent/Child Relationships
- 2. Identify the type of information contained in each of the forms listed above.
- 3. Identify the status of a parts requisition.
- 4. Identify proper use of UMMIPS priorities.
- 5. State item requisition priorities.
- 6. Reconcile all items listed above and list all errors found in each form.
- 7. Explain how to maintain a layette bin.

Performance Standard. With the aid of reference, complete the requirements, minor errors corrected by the trainee are acceptable.

Instructor. SI

Prerequisite. None.

References.

- 1. MCO 4790.2
- 2. MCBUL 3000
- 3. MCO P4400.16
- 4. DLA Handbook
- 5. Unit MMSOP
- 6. UM 4400-125 GCSS-MC User's Manual

MMGT-4258 1.0 * B,R (N) L

Goal. Verify inventory control procedures are implemented.

Requirement. Given an equipment record and SL-3:

- 1. Validate inventory results.
- 2. Validate parts requisition details.
- 3. Ensure service request is created within GCSS-MC.
- 4. Ensure parts requirement for unserviceable items are created within GCSS-MC.
- 5. Ensure inventory records are updated to reflect current status:
 - a. Item on-hand availability status.
 - b. Parts requisition status.

Performance Standard. With the aid of reference, complete the requirements, minor errors corrected by the trainee are acceptable.

Instructor. SI

Prerequisite. None.

References.

- 1. MCO 4400.150
- 2. MCO 4790.2
- 3. UM 4000-125 GCSS-MC User's Manual

10.10.4 DEPLOYMENT (DEPL) STAGE

10.10.4.1 Purpose. To provide the Mission Phase skills required to deploy Marine Air Command and Control Systems (MACCS) equipment, to include planning, crew management, system configuration management, and employment procedures.

10.10.4.2 General.

Admin Notes. None.

Prerequisite. None.

Crew Requirements. None.

DEPL-4060 8.0 1095 B, R, M (N) L

Goal. Prepare system for embark.

Requirement. Given an Equipment Density List (EDL) that supports the mission, prepare system for embark/retrograde:

1. Conduct proper system power down/teardown.
2. Layout and conduct an SL-3 inventory of the equipment.
3. Conduct Limited Technical Inspections on listed equipment.
4. Pack and secure equipment.
5. Create a packing list.
6. Placard/label the shelters for embark.

Performance Standard. Complete the requirement items IAW the references. Minor errors corrected by the trainee are acceptable.

Instructor. SI

Prerequisite. 2071.

References.

1. MCO 3120.6 (Standard Embarkation Management System)
2. Applicable technical manuals
3. Unit SOP

DEPL-4103 4.0 * B, R (N) G

Goal. Identify power requirements (Specific to AN/MRQ-13).

Requirement. Given a scenario, EDL, and references, determine total power requirements.

Performance Standard. With the aid of reference, complete the requirements, minor errors corrected by the trainee are acceptable.

Instructor. BI

Prerequisite. None.

Reference.

1. Applicable technical manuals

DEPL-4105 2.0 * B, R (N) L

Goal. Write a packing list (specific to AN/MRQ-13 items).

Requirement. Given the references, perform the following:

1. Define the purpose of a packing list.
2. Describe essential packing list contents.
3. Complete a packing list.

Performance Standard. With the aid of reference, complete the requirements, minor errors corrected by the trainee are acceptable.

Instructor. BI

Prerequisite. None.

Reference.

1. Unit SOP

10.10.5 AVIATION COMMUNICATION (AVCOMM) STAGE

10.10.5.1 Purpose. To instruct the trainee on configuration of the MACCS TDS equipment.

10.10.5.2 General.

Admin Notes. None.49

Prerequisite. None.

Crew Requirements. None.

AVCOMM-4100 4.0 1095 B, R, M (N) L

Goal. Set-up the Communications System (CS).

Requirement. Given required communications system(s) and as a member of a crew, perform the following:

1. Emplace the communications system(s).
2. Ground equipment.
3. Erect and cable antennas.
4. Apply power.
 - a. Verify inputs and phases.
 - b. Hook up NATO cable.
 - c. Power up shelter and all ancillary equipment in proper sequence.
5. Run voice network cabling.

Performance Standard. With the aid of reference, complete the requirements, minor errors corrected by the trainee are acceptable.

Instructor. SI

Prerequisite. 2000, 2004, 2229, 4201, 4202, 4203, 4204, 4205, 4213, 4250

External Syllabus Support. Utilities mechanic to properly connect and power up required generator.

References.

1. TM 11402B/12506A/12714A-15/112 Software User's Manual for Air Command and Control System
2. TM 11255A-OR/1 AN/VRC-103(V)2 Vehicular Radio Communication System
3. TM 10597A-OR/4 Manpack Radio Operation Manual AN/PRC-117F(V)1(C)Radio Set
4. TM-11496A-OI RF-300M-HVXXX Multiband Vehicular Radio System

5. Distributed Scalable Access Net (DSAN) Systems Manual
6. TM 9406-15 Grounding Procedures
7. MCRP 3-40.3B Radio Operator's Handbook

AVCOMM-4101 4.0 1095 B, R, M (N) L

Goal. Verify voice communications are operational.

Requirement. Given a scenario, operational documents, and a CS:

1. Verify radio frequency configuration.
2. Verify crypto.
3. Verify radio net configurations.
4. Verify antenna type and locations.
5. Conduct radio check.

Performance Standard. With the aid of reference, complete the requirements, minor errors corrected by the trainee are acceptable.

Instructor. SI

Prerequisite. 2000, 2004, 2229, 4100, 4201, 4202, 4203, 4204, 4205

References.

1. TM 11402B/12506A/12714A-15/112 Software Users Manual for Air Command and Control System
2. TM 11255A-OR/1 AN/VRC-103(V)2 Vehicular Radio Communication System
3. TM 10597A-OR/4 Manpack Radio Operation Manual AN/PRC-117F(V)1(C)Radio Set
4. TM-11496A-OI RF-300M-HVXXX Multiband Vehicular Radio System
5. Distributed Scalable Access Net (DSAN) Systems Manual Software Build 5.13
6. TM 9406-15 Grounding Procedures
7. MCRP 3-40.3B Radio Operator's Handbook

AVCOMM-4102 12.0 1095 B, R, M (N) L

Goal. Deploy the CS in support of operational requirements.

Requirement. Given operational input, perform the following:

1. Conduct detailed planning of the Area of Operations (AO).
2. Develop a restoration priority list with operations section.
 - a. Create redundant communications paths as appropriate IAW restoration priority.
 - b. Assign priority radio nets to radios with auxiliary vehicle power.
3. Emplace antennas in accordance with mission requirements.
 - a. Directionalize antenna propagation pattern.
 - b. Reduction of RF footprint/EM signature.
4. Assign user templates IAW mission requirements/billets.
5. Ensure logistical support is confirmed.
 - a. Generator support
 - b. ECU support
 - c. Supply support
6. Develop CS network topology.

Performance Standard. With the aid of reference, complete the requirements, minor errors corrected by the trainee are acceptable.

Instructor. SI

Prerequisites. 2000, 2004, 2229, 4100, 4101, 4201, 4202, 4203, 4204, 4205, 4213, 4250

References.

1. TM 11402B/12506A/12714A-15/112 Software Users Manual for Air Command and Control System

2. TM 11255A-OR/1 AN/VRC-103(V)2 Vehicular Radio Communication System
3. TM 10597A-OR/4 Manpack Radio Operation Manual AN/PRC-117F(V)1(C)Radio Set
4. TM-11496A-OI RF-300M-HVXXX Multiband Vehicular Radio System
5. Distributed Scalable Access Net (DSAN) Systems Manual Software Build 5.13
6. TM 9406-15 Grounding Procedures
7. MCRP 3-40.3B Radio Operator's Handbook

AVCOMM-4201 1.0 * B, R (N) L

Goal. Configure the AN/VRC-103.

Requirement. Given an AN/VRC-103 and a computer loaded with the Communications Planning Application, perform the following:

1. Identify the characteristics of the AN/VRC-103.
2. Identify the components of the AN/VRC-103.
3. Program the AN/VRC-103 manually.
4. Program the AN/VRC-103 using Communications Planning Application (CPA).
5. Conduct a plain text communications check.
6. Conduct an encrypted communications check.

Performance Standard. With the aid of reference, complete the requirements, minor errors corrected by the trainee are acceptable.

Instructor. BI

Prerequisite. 2000

References.

1. TM 10597A-OR/4 Manpack Radio Operation Manual AN/PRC-117F(V)1(C)Radio Set
2. Harris Premier Account
3. RF-5850-PS001 Operator's Manual

AVCOMM-4202 1.0 * B, R (N) L

Goal. Configure the AN/VRC-104.

Requirement. Given an AN/VRC-104 and a computer loaded with the Communications Planning Application, perform the following:

1. Identify the characteristics of the AN/VRC-104.
2. Identify the components of the AN/VRC-104.
3. Program the AN/VRC-104 manually.
4. Program the AN/VRC-104 using Communications Planning Application (CPA).
5. Conduct a plain text communications check.
6. Conduct an encrypted communications check.

Performance Standard. With the aid of reference, complete the requirements, minor errors corrected by the trainee are acceptable.

Instructor. BI

Prerequisite. 2000.

References.

1. TM 10822A-OR AN/PRC-150(C) Advanced Tactical HF Radio
2. Harris Premier Account

AVCOMM-4203 3.0 * B, R (N) L

Goal. Configure the AN/VRC-103 for SATCOM operation.

Requirement. Given the radios, references, satellite access authorization letter, and common fill device with keying material, perform the following:

1. Configure 5 KHz NB (dedicated) channel.
2. Configure 25 KHz WB (dedicated) channel.
3. Configure DAMA Channel.
4. Configure Integrated Waveform (IW).
5. Conduct a radio check.

Performance Standard. With the aid of reference, complete the requirements, minor errors corrected by the trainee are acceptable.

Instructor. BI

Prerequisite. 2000.

References.

1. TM 10597A-OR/4 Manpack Radio Operation Manual AN/PRC-117F(V)1(C)Radio Set
2. Harris Premier Account
3. RF-5850-PS001 Operator's Manual

AVCOMM-4204 2.0 * B, R (N) L

Goal. Interface an external radio with the CS.

Requirement. Given a CS and a stand-alone radio set, interface an external radio and conduct a communications check.

Performance Standard. With the aid of reference, complete the requirements, minor errors corrected by the trainee are acceptable.

Instructor. BI

Prerequisite. None.

References.

1. TM 11402B/12506A/12714A-15/111 Software Administrator Manual for Air Command and Control System
2. TM 11402B/12506A/12714A-15/112 Software User's Manual for Air Command and Control System

AVCOMM-4205 4.0 * B, R (N) L

Goal. Configure Distributed Scalable Access Network (DSAN) for a multiple vehicle system.

Requirement. Using doctrinal radio nets, complete the following:

1. Build Communications templates.
2. Configure Digital Switching Units (DSUs).
3. Configure voice network devices.
4. Configure LongArm.
5. Assign IP addresses to each radio.
6. Push communications template to the user.

7. Conduct radio check from VSOL.

Performance Standard. With the aid of reference, complete the requirements, minor errors corrected by the trainee are acceptable.

Instructor. BI

Prerequisite. None.

References.

1. TM 11402B/12506A/12714A-15/111 Software Administrator Manual for Air Command and Control System
2. TM 11402B/12506A/12714A-15/112 Software User's Manual for Air Command and Control System

AVCOMM-4206 2.0 * B (N) L

Goal. Conduct organizational level maintenance on the AN/VRC-103.

Requirement. Given the references, tools, and an AN/VRC-103 with a given fault(s) complete the following:

1. Conduct a visual inspection of cabling and connections.
2. Perform power on procedures.
3. Perform a built-in test.
4. Identify the fault(s) and seek verification from a second maintainer.
5. Induct the faulty component into the maintenance cycle and document maintenance actions.

Performance Standard. With the aid of reference, complete the requirements, minor errors corrected by the trainee are acceptable.

Instructor. BI

Prerequisite. 2000, 2201.

References.

1. TM 10597A-OR/4 Manpack Radio Operation Manual AN/PRC-117F(V)1(C)Radio Set
2. TM 11255A-OR/1 AN/VRC-103(V)2 Vehicular Radio Communication System
3. Harris Premier Account
4. RF-5850-PS001 Operator's Manual

AVCOMM-4207 2.0 * B (N) L

Goal. Conduct organizational level maintenance on the AN/VRC-104.

Requirement. Given the references, tools, and an AN/VRC-104 with a given fault(s) complete the following:

1. Conduct a visual inspection of cabling and connections.
2. Perform power on procedures.
3. Perform a built-in test.
4. Identify the fault(s) and seek verification from a second maintainer.
5. Induct the faulty component into the maintenance cycle and document maintenance actions.

Performance Standard. With the aid of reference, complete the requirements, minor errors corrected by the trainee are acceptable.

Instructor. BI

Prerequisite. 2000, 4202

References.

1. TM 10822A-OR AN/PRC-150(C) Advanced Tactical HF Radio
2. Harris Premier Account

AVCOMM-4211 2.0 1095 B, R, M (N) L

Goal. Maintain the voice network within the CS.

Requirement. Given a CS, applicable references, materials, and equipment complete the following:

1. Describe signal flow within the DSAN.
 - a. Digital Switching Unit (DSU)
 - b. Network Devices
 - c. Radios
2. Describe DSU theory of operation.
3. Troubleshoot DSAN Software.
4. Troubleshoot Network connectivity.
5. Re-image workstations.
6. Re-image the DSU/CF Card.
7. Re-install switch IOS.

Performance Standard. With the aid of reference, complete the requirements, minor errors corrected by the trainee are acceptable.

Instructor. BI

Prerequisite. None.

References.

1. TM 11402B/12506A/12714A-15/111 Software Administrator Manual for Air Command and Control System
2. TM 11402B/12506A/12714A-15/112 Software User's Manual for Air Command and Control System

AVCOMM-4212 4.0 * B, R (N) L

Goal. Conduct maintenance on the CS.

Requirement. Given the references, TMDE, and tools, perform the following:

1. Perform PMCS.
2. Perform Corrective Maintenance to the LRU.
3. Verify correct operation.
4. Document maintenance actions.

Performance Standard. With the aid of reference, complete the requirements, minor errors corrected by the trainee are acceptable.

Instructor. BI

Prerequisite. None.

References.

1. TM 11402B/12506A/12714A-15/111 Software Administrator Manual for Air Command and Control System
2. TM 11402B/12506A/12714A-15/112 Software User's Manual for Air Command and Control System
3. TM 10597A-OR/4 Manpack Radio Operation Manual AN/PRC-117F(V)1C Radio Set

References.

1. Applicable technical manuals
2. Commercial resources

SYSAD-4145 4.0 1095 B, R, M (N) L

Goal. Develop disaster recovery plan.

Requirement. With the aid of reference, perform the following:

1. Data backup/recovery plan.
2. Backup power plan.
3. Security plan.
4. Accountability.
5. Communications restoration priorities.

Performance Standard. With the aid of reference, complete the requirements, minor errors corrected by the trainee are acceptable.

Instructor. SI

Prerequisite. 2001, 4144

References.

1. Applicable technical manuals
2. Commercial resources

SYSAD-4146 4.0 1095 B, R, M (N) L

Goal. Manage System Administration responsibilities.

Requirement. Given a scenario, ensure the following:

1. Manage data recovery plan.
2. Manage log files.
3. Manage user accounts.
4. Verify software/firmware are up to date.
5. Manage system passwords.
6. Explain the fundamentals of dealing with prohibited content/activity.
7. Manage network architecture.

Performance Standard. With the aid of reference, complete the requirements, minor errors corrected by the trainee are acceptable.

Instructor. SI

Prerequisite. 6110, 6111, 6112, 6113, 6114, 6115, 6116, 6117, 6118, 6119, 6120, 4144, 4250

References.

1. Applicable technical manuals
2. Commercial resources

SYSAD-4250 4.0 * B, R (N) L

Goal. Configure workstation.

Requirement. Given an emplaced system and an operational requirement, perform the following:

1. Energize workstation.
2. Configure workstation.

- a. Host name
- b. IP address
- c. Mission required software/applications
3. Conduct operational status check.
4. Document any changes to system configuration as required.

Performance Standard. With the aid of reference, complete the requirements, minor errors corrected by the trainee are acceptable.

Instructor. BI

Prerequisite. 6114.

References.

1. TM 11402B/12506A/12714A-15/111 Software Administrator Manual for Air Command and Control System
2. TM 11402B/12506A/12714A-15/112 Software Users Manual for Air Command and Control System

10.10.7 CONFIGURATION (CONFIG) STAGE

10.10.7.1 Purpose. To provide the core skills required to configure aviation C2 systems within the Marine Air Command and Control System.

10.10.7.2 General.

Admin Notes. None.

Prerequisite. None.

Crew Requirements. None.

CONFIG-4301	4.0	*	B, R	(N)	L

Goal. Perform data recovery on organic C2 systems.

Requirement. With the aid of reference, perform the following:

1. Create data backup.
2. Restore data from backup.
3. Document as required.

Performance Standard. With the aid of references, perform the requirement to a proficient level (correct, efficient and skillful execution of tasks requiring minimal input from the instructor). Minor errors corrected by the trainee are acceptable.

Instructor. BI

Prerequisite. None.

Reference.

1. Applicable system manuals

10.10.5 COMMUNICATION (COMM) STAGE

10.10.9.1 Purpose. To instruct the trainee on situational skills of the communication systems within the Marine ATC Detachment.

10.10.9.2 General.

Prerequisite. None.

Admin Notes. None.

Crew Requirements. None.

COMM-4905	1.0	*	B	(N)	L

Goal. Perform cloning of RT-1796 programming.

Requirement. Given the reference, two RT-1796 radios and data cable, clone programming from RT-1 to RT-2 by performing the following:

1. Connect the radios with data cable.
2. Perform the cloning procedure.
3. Verify that settings were received on RT2.
4. Perform operational check.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

References.

1. TM 10515-0109-4100 AN/PRC-117F Operation Manual
2. TM 10515-0109-4000 AN/PRC-117F Quick Reference Guide

COMM-4910	1.0	*	B	(N)	L

Goal. Program the RT-1796 for Beacon operations.

Requirement. Given the reference and an RT-1796, perform Beacon operation by performing the following:

1. Place the radio in beacon mode.
2. Verify operation.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

References.

1. TM 10515-0109-4100 AN/PRC-117F Operation Manual
2. TM 10515-0109-4000 AN/PRC-117F Quick Reference Guide

COMM-4915	1.0	*	B	(N)	L

Goal. Prepare the RT-1796 for Re-Transmit operations.

Requirement. Given two RT-1796 radios, re-transmit cable, and authorized frequencies, setup radios for re-transmit operation:

1. State the characteristics of a re-transmit site.

2. Program RT-1796s for re-transmit operation.
3. Cable the RTs.
4. Test proper operation of re-transmit radios.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

References.

1. TM 10515-0109-4100 AN/PRC-117F Operation Manual
2. TM 10515-0109-4000 AN/PRC-117F Quick Reference Guide

COMM-4925 4.0 * B (N) L

Goal. Load Black data platforms for the AN/ARC-210.

Requirement. Given a Communications message, SINCGARS loadset, and a computer with the ARC Fill Program (AFP), complete the following:

1. Build Black Data for the following modes:
 - a. HAVEQUICK.
 - b. SINCGARS-FH.
2. Set dip switches for Black Bus address.
3. Load Black Data.
4. Configure AN/ARC-210 for modes listed in requirement 1.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. 2000.

External Syllabus Support. Local EKMS Manager.

References.

1. Source Data (Organizational Maintenance), Radio Receiver-Transmitter RT-1794(c)/ARC, 523-0778328, Government Systems Rockwell Collins, Inc. Cedar Rapids, Iowa
2. AN/ARC-210(V) Informal Technical Data System Description Theory of Operation
3. Performance Description Document AN/ARC-210(V) SATCOM System Equipment
4. AN/ARC-210(V) RT-1794(c) Advanced VHF/UHF Multimode Communications System Description and Applications Manual, Government Systems Rockwell Collins
5. Equipment Specification Receiver-Transmitter RT-1794(c)/ARC, DWG NO. 670-3319-002
6. Performance Description Document RT-1794(c)/ARC Receiver-Transmitter, PDD-ARC210-006

COMM-4930 1.0 730 B, R, M (N) L

Goal. Program XTS-5000 for covered operations.

Requirement. Given two radios, antennas, authorized frequencies, data cable, and a computer with the Customer Programming Software (CPS) perform the following:

1. Input data into the CPS.
2. Load radio with CPS data.
3. Power on procedures.

4. Verify two-way communications.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. 2000.

Reference.

1. Motorola Manual 6881094C25-E

10.11 INSTRUCTOR TRAINING PHASE (5000)

10.11.1 Purpose. To provide technicians the additional skills necessary to instruct, evaluate and approve event completions. Upon completion of the required training, an individual may be approved for instructor designation by the commanding officer.

10.11.2 General.

10.11.2.1 Prerequisite. None.

10.11.2.2 Admin Notes.

1. The MACCS instructor concept is a means to standardize all instructors across the MACCS in regards to the concepts of managing a WTTP, properly conducting training, performing evaluations, and recommending training plans.

2. There are different instructor designations (listed below). The intent is to train individuals with different levels and areas of experience to instruct personnel. Instructor experience is also gained while progressing through the different instructor designations.

- a. Basic Instructor (BI)
- b. Senior Instructor (SI)
- c. Weapons and Tactics Instructor (WTI)

3. The MAWTS-1 C3 Course catalog contains the training requirements for the above listed instructors. The catalog is located at the MAWTS-1 website, <https://www.intranet.tecom.usmc.mil/sites/mawts1/default.aspx>.

10.11.2.3 Stages. The following stages are included in the Instructor Training Phase:

PAR NO.	STAGE NAME	PAGE NUMBER
10.11.3	INSTRUCTOR TRAINING PHASE	10-70

10.11.3 INSTRUCTOR TRAINING PHASE

10.11.3.1 Purpose. To train Air Traffic Control Communication Technicians in the fundamentals of instructing and training processes.

10.11.3.2 General.

Prerequisite. None.

Admin Notes. None.

Crew Requirements. None.

IUT-5000 2.0 * B (N) L

Goal. Introduce principals of instruction.

Requirement. Given the reference, the BIUT will demonstrate the following with the assistance of a unit instructor:

1. Adult learning principles.
 - a. Pedagogy to andragogy.
 - b. Characteristics of the adult learner.
 - c. Learning styles.
 - d. How adults learn.
 - e. Domains of learning.
 - f. Group dynamics.
 - g. Motivation.
 - h. Constructivist learning environments.
2. Introduce, discuss, and demonstrate instruction techniques.
3. Introduce, discuss, and demonstrate class management techniques.
 - a. How to select teaching resources to accommodate student learning styles.
 - b. How to properly organize the instructional environment for effective learning.

Performance Standard. With the aid of references, the BIUT shall demonstrate principles of instruction. During this session, the instructor shall discuss the event content and question the student throughout the training session to ensure understanding.

Instructor. BI.

Prerequisite. None.

References.

1. Adult Learning section, Systems Approach to Training Manual (2004)
2. NAVMC 3500.14
3. NAVMC 1553.1

IUT-5010 2.0 * B (N) G

Goal. Describe individual T&R requirements.

Requirement. Using the Aviation T&R Program Manual, discuss the purpose of each of the following items with an instructor:

1. Training progression model.
2. Programs of Instruction.
 - a. Basic.
 - b. Refresher.
 - c. Conversion.
 - d. Series Conversion.
 - e. Transition.
 - f. Maintain.
3. T&R attain and maintain tables.
4. Syllabus notes.
5. T&R syllabus structure.
 - a. Phase.
 - b. Stage.
 - c. Event.

- d. Skill.
- e. Syllabus.
- 6. Event format.
 - a. Header.
 - (1) Event prefix - event code.
 - (2) Projected event duration.
 - (3) Proficiency period.
 - (4) Programs of instruction (POI).
 - (5) Event conditions.
 - (6) Device options.
 - (7) Device number.
 - (8) Device type.
 - b. Body.
 - (1) Goal.
 - (2) Requirement.
 - (3) Performance standard.
 - (4) Equipment.

Performance Standard. Without the aid of references and during a discussion session, the BIUT shall describe Individual T&R requirements. During this session, the instructor shall discuss the event content and question the student throughout the training session to ensure understanding.

Instructor. BI.

Prerequisite. None.

References.

- 1. NAVMC 3500.14
- 2. NAVMC 1553.1

IUT-5020	12.0	90	B, R, M	(N)	L

Goal. Conduct T&R instruction.

Requirement. The BIUT, under the supervision of an instructor, will conduct three periods of instruction on three different T&R events selected by the instructor and should include as many different methods of instruction as possible (lecture or academic, demonstration, and practical application). The event must be one the BIUT is current and proficient in. The BIUT will complete the following for each of the three events instructed:

- 1. Prepare to train the event.
 - a. Review a trainee's performance record to identify required training for the event selected.
 - b. Ensure the student has met prerequisites for the event to be trained.
 - c. Gather the resources necessary to conduct the training (i.e., instructional materials, references, and equipment).
 - d. Conduct task analysis on each event to ensure all intended requirements and prerequisite skills, specified or implied, are trained IAW applicable references.
 - e. Schedule the training event (facilities and students).
 - f. Prepare an evaluation form for each student to be evaluated.
- 2. Conduct training on the event selected:
 - a. Ensure all training resources are properly staged/equipment if set up properly for training.
 - b. Instruct the student in a thorough manner so as to cover all requirements for the event.
 - c. Ensure continuous, objective assessment of the student's progress during training.
- 3. Assess student performance:
 - a. Assess the student's performance to the performance standard.
 - b. Correct student deficiencies in a timely manner and provide the student feedback.
 - c. Complete the evaluation form on for each student trained.

- d. Debrief student on the performance and provide corrective action.
4. Route evaluation form as required.

Performance Standard. Complete the requirement items IAW the reference and ensure training is doctrinally and technically current. Instructor shall use the instructor evaluation form from the SAT user's guide for each class and a mark of satisfactory must be achieved for each of the three classes.

Instructor. BI.

Prerequisite. 5000, 5010.

References.

1. NAVMC 3500.14, Ch 6
2. NAVMC 1553.1
3. MCO 1553.2B, Appendix O

IUT-5100	2.0	*	B	(N)	G

Goal. Describe the Aviation Training and Readiness (T&R) Program.

Requirement. Using the community T&R manual discuss the following with an instructor:

1. Describe the Weapons and Tactics Training Program (WTTP).
2. Define each element of the Core Model:
 - a. Mission statements.
 - b. Core Mission Essential Task List (METL).
 - c. Output standards.
 - d. Core Phase skills (How to attain and maintain).
 - e. Mission Phase skills (How to attain and maintain).
 - f. Combat Leadership.
3. Define each of the following elements of unit training:
 - a. Training Exercise Employment Plan (TEEP).
 - b. Core Model Minimum Requirements (CMMR).
 - c. Instructors.
 - d. Core Model Training Report (CMTR).
 - e. T&R manual connection to readiness reporting.
4. Define each of the following elements of training:
 - a. Certification.
 - b. Qualification.
 - c. Designation.
5. PERFORMANCE RECORD Explain how changes are made to the Program manual:
 - a. Explain T&R conference procedures.
 - b. Explain correspondence change procedures.

Performance Standard. Complete the requirements IAW the reference. Instructor will question the SIUT to check for thorough understanding of the Aviation T&R Program.

Instructor. SI.

Prerequisite. None.

References.

1. NAVMC 3500.14
2. MCO 3500.109

IUT-5110	4.0	365	B, R, M	(N)	L

Goal. Conduct instructor evaluations.

Requirement. Using the instructor evaluation checklist from the SAT manual, conduct two evaluations on instructors of equal or lower designation.

1. Provide notification of evaluation to the instructor being evaluated.
2. Do not interfere with or disrupt the instruction while taking place.
3. Thoroughly document observed items on the checklist.
4. Ensure student evaluation form is filled out correctly and the appropriate debrief took place.
5. Debrief the instructor being evaluated on their preparation, instruction, evaluation, and documentation.
6. Have the evaluated instructor complete the instructor improvement plan section and sign.
7. File a copy of the completed evaluation form in both the evaluator's and evaluated instructor's performance record.

Performance Standard. Complete the requirements IAW the reference.

Instructor. SI.

Prerequisite. 5100.

References.

1. NAVMC 3500.14
2. Applicable community T&R Manual
3. MCO1553.2B, Appendix O

IUT-5120	2.0	*	B	(N)	L

Goal. Perform T&R administration.

Requirement. Document training to include:

1. Performance records.
2. Ensure MSHARP is updated appropriately.
3. Assemble recommendation package for certifications, qualifications, and designations IAW T&R manual.

Performance Standard. Complete the requirement items IAW the references. Instructor will question the trainee to check for understanding of the administration process.

Instructor. SI.

Prerequisite. 5100, 5110.

References.

1. NAVMC 3500.14
2. Local WTTP SOP
3. <http://marineit.freshdesk.com/support/login>

IUT-5130	2.0	*	B	(N)	L

Goal. Develop a training plan.

Requirement. Given a deployment scenario develop a training plan to determine individual, and crew training needed to meet CMMR by completing the following:

1. Review Commander's training guidance.
2. Analyze the CMTR to determine training deficiencies and how to achieve CMMR.
3. Identify and schedule T&R training opportunities IAW the TEEP to achieve requirements.
4. Determine instructors required.

5. Determine equipment required.
6. Determine external support required.
7. Deliver a brief to the instructor that shows:
 - a. Crew manning and training requirements.
 - b. Current training status.
 - c. Identify the training deficiencies and resource shortfalls.
 - d. Explain the training plan to correct the training deficiencies.
 - e. Training plan meets commander's guidance.

Performance Standard. Complete the requirement items IAW the references and commander's training guidance. Training plan will ensure adequate time is allocated to include preparation, instruction, assessment, documentation, and remediation.

Instructor. SI.

Prerequisite. 5100, 5110, 5120.

References.

1. NAVMC 3500.14
2. Applicable Community T&R manuals

10.12 CERTIFICATION, QUALIFICATION, AND DESIGNATION (CQD) (6000)

10.12.1 Purpose. This phase provides community standardization for technician qualifications and designations; combat leaders and instructor designations; and tracking of collateral duties (CD) assignments. This syllabus does not contain "one time" certification training requirements.

10.12.2 General.

10.12.2.1 Prerequisite. None.

10.12.2.2 Admin Notes.

1. This section enables units to document and track combat leaders, instructors, technician and CD assignments. All syllabus training and administration requirements must be complete prior to being qualified or designated. A qualification or designation is not effective until all administration is completed.

2. Only once an individual is qualified or designated in writing, the signed letter is filed in the IPR, and all administrative actions are completed, and the event code has been logged in M-SHARP shall the qualification or designation be effective.

10.12.2.3 Stages. The following stages are included in the Certification, Qualification, Designation Phase:

PAR NO.	STAGE NAME	PAGE NUMBER
10.12.3	CERTIFICATION (CERT)	10-75
10.12.4	DESIGNATION (DESG)	10-76
10.12.5	SCHOOL CODES (SCHL)	10-79
10.12.6	CYBER SECURITY WORK FORCE (CSWF)	10-84

10.12.3 CERTIFICATION (CERT) STAGE.

10.12.3.1 Purpose. To provide for tracking of certifications for the MATC Communication technicians.

10.12.3.2 General.

Prerequisite. None.

Admin Notes. Policies and rules for attaining and maintaining certifications are detailed in the Aviation T&R Program Manual and this Manual.

Crew Requirements. None.

CERT-6260 4.0 * B (N) G

Goal. CSWF Technical Support Specialist.

Requirement. Complete the prerequisites. Be recommended for certification and approved in writing by the commanding officer.

Performance Standard. Complete requirements in accordance with the reference.

Instructor. SI.

Prerequisite. 6110, 6111, 6112, 6113, 6114, 6115, 6116, 6118.

Reference.

1. DOD 8570.01_, Information Assurance Workforce Improvement Program

CERT-6261 4.0 * B (N) G

Goal. CSWF IT Specialist.

Requirement. Complete the prerequisites. Be recommended for certification and approved in writing by the commanding officer.

Performance Standard. Complete requirements in accordance with the reference.

Instructor. SI.

Prerequisite. 6110, 6112, 6113, 6114, 6115, 6116, 6117, 6118, 6119.

Reference.

1. DOD 8570.01_, Information Assurance Workforce Improvement Program

CERT-6262 4.0 * B (N) G

Goal. CSWF System Administrator.

Requirement. Complete the prerequisites. Be recommended for certification and approved in writing by the commanding officer.

Performance Standard. Complete requirements in accordance with the reference.

Instructor. SI.

Prerequisite. 6110, 6111, 6112, 6113, 6114, 6115, 6116, 6117, 6118, 6119.

Reference.

1. DOD 8570.01_, Information Assurance Workforce Improvement Program

10.12.4 DESIGNATION (DESG) STAGE.

10.12.4.1 Purpose. To provide for designation of combat leaders and instructors. Designations are command specific and expire when an individual transfers out of a command. In order to ensure proficiency is maintained, specific events throughout this syllabus have been R-coded. The gaining command shall review the IPR to ensure prerequisite R-coded events for a designation are current prior to approving that designation. If prerequisite R-coded events are delinquent, the individual shall update those events.

10.12.4.2 General

Prerequisite. None.

Admin Notes. Policies and rules for attaining and maintaining designations are detailed in the Aviation T&R Program Manual and this Manual.

Crew Requirements. None.

DESG-6104	1.0	*	B	(N)	G

Goal. Collateral Duty Inspector.

Requirement. Complete the prerequisites IAW the reference:

1. Complete Fundamental skillset.
2. Complete Maintenance Admin skillset.
3. Complete required reading IAW local SOP.

Performance Standard. Pass written exams and an oral interview administered by QA and be designated on OPNAV 4790/12.

Instructor. SI.

Prerequisite. 2031, 2079, 2080, 2081, 2083, 2084, 3011, 6107.

References.

1. COMNAVAIRFORINST 4790.2_, Naval Aviation Maintenance Program
2. Local SOPs

DESG-6105	1.0	*	B	(N)	G

Goal. Collateral Duty Quality Assurance Representative.

Requirement. Complete the prerequisites IAW the reference:

1. Complete Fundamental skillset.
2. Complete Maintenance Admin skillset.
3. Complete required reading IAW local SOP.

Performance Standard. Pass written exams and an oral interview administered by QA and be designated on OPNAV 4790/12.

Instructor. SI.

Prerequisite. 2031, 2078, 2079, 2080, 2081, 2082, 2083, 2084, 2085.

References.

1. COMNAVAIRFORINST 4790.2_, Naval Aviation Maintenance Program
2. Local SOPs

DESG-6106	1.0	*	B	(N)	G

Goal. Quality Assurance Representative.

Requirement. Complete the prerequisites IAW the reference:

1. Complete Fundamental skillset.
2. Complete Maintenance Admin skillset.
3. Complete required reading IAW local SOP.

Performance Standard. Pass written exams and an oral interview administered by QA and be designated on OPNAV 4790/12.

Instructor. SI.

Prerequisite. 2031, 2078, 2079, 2080, 2081, 2082, 2083, 2084, 2085.

References.

1. COMNAVAIRFORINST 4790.2_, Naval Aviation Maintenance Program
2. Local SOPs

DESG-6320 1.0 * B (N) G

Goal. Basic Instructor (BI).

Requirement. Complete the prerequisites required for the designation.

Performance Standard. Be verified by a WTI and designated in writing by the designating official.

Prerequisite. 5000, 5010, 5020.

Reference.

1. NAVMC 3500.14_, Naval Aviation Program Manual

DESG-6321 1.0 * B (N) G

Goal. Senior Instructor (SI).

Requirement. Complete the prerequisites required for the designation

Performance Standard. Be verified by a WTI and designated in writing by the designating official

Prerequisite. 5000, 5010, 5020, 5100, 5110, 5120, 5130, 6320

Reference.

1. NAVMC 3500.14_, Naval Aviation Program Manual

DESG-6322 1.0 * B (N) G

Goal. Weapons Training Instructor WTI.

Requirement. Be certified by MAWTS-1 as a WTI, designated by the commanding officer in writing.

Performance Standard. N/A.

Instructor. WTI.

Prerequisite. 6000.

Reference.

1. NAVMC 3500.14_, Naval Aviation Program Manual

DESG-6330 0.5 * B (N) G

Goal. Formal Learning Center Instructor (FLCI).

Requirement. Complete the formal learning center's instructor requirements, designated by the commanding officer in writing.

Performance Standard. N/A.

Instructor. WTI.

Prerequisite. 6096.

Reference.

1. NAVMC 3500.14, Naval Aviation Program Manual

DESG-6355 1.0 * B (N) L

Goal. Communications Chief.

Requirement. Complete the prerequisites required for the designation.

Performance Standard. Be verified by a WTI and designated in writing by the designating official.

Prerequisite. 2001, 2002, 2010, 2011, 2012, 2013, 2005, 2006, 2007, 2009, 2014, 2031, 2061, 2064, 2065, 2087, 2071, 2075, 2077, 2238, 2239, 2003, 2198, 2201, 2202, 2204, 2207, 2208, 2209, 2210, 2211, 2212, 2213, 2214, 2215, 2216, 3030, 3031, 3077, 3076, 3078, 3079, 6105.

Reference.

1. COMNAVAIRFORINST 4790.2_, Naval Aviation Maintenance Program

10.12.5 SCHOOL CODES (SCHL) STAGE

10.12.5.1 Purpose. To provide tracking codes for formal schools that are required for the MOS training of the MATCD Warrant Officer.

10.12.5.2 General.

Prerequisite. None.

Admin Notes. None.

Crew Requirements. None.

COURSE NAME	LOCATION	CID/CIN	T&R CODE
Weapons and Tactics Instructor	MCAS Yuma, AZ	M14P2A1	SCHL-6000
Link 16 Basics Course JT-100	Joint Knowledge Online (JKO)	N/A	SCHL-6020
Intro to Multi TDL Network JT-101	Fort Bragg, NC	N/A	SCHL-6021
Multi-TDL Advanced Joint Interoperability Course (MAJIC) JT-102	Fort Bragg, NC	A36L6Z1	SCHL-6022
Link 16 Joint Interoperability Course US-109	Joint Knowledge Online (JKO)	N/A	SCHL-6023

COURSE NAME	LOCATION	CID/CIN	T&R CODE
Multi TDL Planner Course (JT-201)	Fort Bragg, NC	A05KHY1	SCHL-6024
Link 16 Unit Manager (LUM) Course (JT-220)	Fort Bragg, NC	A05A111	SCHL-6025
Work Center Supervisor's Course	NATTC, FL	N23KCM2	SCHL-6030
MATC Maintenance Manager's Course	NATTC, FL	N23KCN2	SCHL-6031
Aeronautical Technical Publication Library Management Course	NAMTRAGRUDET, MCAS Cherry Point, NC	N9062R2	SCHL-6060
Microminiature Electronic Repair	San Diego CA Norfolk, VA	N01A351 N02A351	SCHL-6073
Naval Aviation Maintenance Program Management	NAS Whiting Field, FL	N42P2M2	SCHL-6075
Ground Electronics Maintenance NCO Course	Camp Johnson, NC	M03DNSG	SCHL-6095
Respective Instructor Development Course.	MCB Camp Lejeune, NC	M03WJBA	SCHL-6096
	MCB Camp Lejeune, NC (MTT)	M03WJBM	
	MCB Camp Pendleton, CA	M10WJB1	
	MCB Camp Pendleton, CA (MTT)	M10WJBM	
	NAS Pensacola, FL	N23X991	
Mountain Command Control Communications Course	Bridgeport, CA	M24CXJ1	SCHL-6097

SCHL-6000 0.5 * B (N) G

Goal. Weapons and Tactics Instructor Course.

Requirement. Successfully complete course curriculum.

Performance Standard. N/A.

Instructor. N/A.

Prerequisite. None.

Reference. None.

SCHL-6020 0.5 * B (N) G

Goal. Link 16 Basics Course (JT-100).

Requirement. Successfully complete course curriculum.

Performance Standard. N/A.

Instructor. N/A.

Prerequisite. None.

Reference. None.

SCHL-6021 0.5 * B (N) G

Goal. Intro to Multi TDL Network (JT-101).

Requirement. Successfully complete course curriculum.

Performance Standard. N/A.

Instructor. N/A.

Prerequisite. None.

Reference. None.

SCHL-6022	0.5	*	B	(N)	G

Goal. Multi-TDL Advanced Joint Interoperability Course (MAJIC) (JT-102).

Requirement. Successfully complete course curriculum.

Performance Standard. N/A.

Instructor. FLCI.

Prerequisite. 6021.

Reference. None.

SCHL-6024	0.5	*	B	(N)	G

Goal. Multi TDL Planner Course (JT-201).

Requirement. Successfully complete course curriculum.

Performance Standard. N/A.

Instructor. FLCI.

Prerequisite. None.

Reference. None.

SCHL-6025	0.5	*	B	(N)	G

Goal. Link 16 Unit Manager (LUM) Course (JT-220).

Requirement. Successfully complete course curriculum.

Performance Standard. N/A.

Instructor. FLCI.

Prerequisite. None.

Reference. None.

SCHL-6030	0.5	*	B	(N)	G

Goal. Work Center Supervisor's Course.

Requirement. Successfully complete course curriculum.

Performance Standard. N/A.

Instructor. FLCI.

Prerequisite. None.

Reference. None.

SCHL-6031	0.5	*	B	(N)	G

Goal. MATC Maintenance Manager's Course.

Requirement. Successfully complete course curriculum.

Performance Standard. N/A.

Instructor. FLCI.

Prerequisite. None.

Reference. None.

SCHL-6060	0.5	*	B	(N)	G

Goal. Aeronautical Technical Publication Library Management Course.

Requirement. Successfully complete course curriculum.

Performance Standard. N/A.

Instructor. FLCI.

Prerequisite. None.

Reference. None.

SCHL-6073	0.5	*	B	(N)	G

Goal. Microminiature Electronic Repair Course.

Requirement. Successfully complete course curriculum.

Performance Standard. N/A.

Instructor. FLCI.

Prerequisite. None.

Reference. None.

SCHL-6075	0.5	*	B	(N)	G

Goal. Naval Aviation Maintenance Program Management.

Requirement. Successfully complete course curriculum.

Performance Standard. N/A.

Instructor. FLCI.

Prerequisite. None.

Reference. None.

SCHL-6095	0.5	*	B	(N)	G

Goal. Ground Electronics Maintenance NCO Course.

Requirement. Successfully complete course curriculum.

Performance Standard. N/A.

Instructor. FLCI.

Prerequisite. None.

Reference. None.

SCHL-6096	0.5	*	B	(N)	G

Goal. Respective instructor development course.

Requirement. Successfully complete course curriculum.

Performance Standard. N/A.

Instructor. FLCI.

Prerequisite. None.

Reference. None.

SCHL-6097	0.5	*	B	(N)	G

Goal. Mountain Command and Control Course.

Requirement. Successfully complete course curriculum.

Performance Standard. N/A.

Instructor. FLCI.

Prerequisite. None.

Reference. None.

SCHL-6107	.5	*	B	(N)	G

Goal. Complete Equipment Grounding Systems (EGS000001A) MarineNet course.

Requirement. Attend the course.

Performance Standard. Successfully complete course requirements.

Prerequisite. None.

Reference.

10.12.6 CYBER SECURITY WORKFORCE (CSWF) STAGE

10.12.6.1 Purpose. To provide entry-level skills in cyber security workforce related tasks that are common to all 5900 occupational field technicians that will be used in the performance of assigned duties within the Marine Air Command and Control System (MACCS).

10.12.6.2 General.

Admin Notes. None.

Prerequisite. None.

Crew Requirements. None.

CSWF-6110	4.0	1095	B, R, M	(N)	G

Goal. Explain Information Security Principles.

Requirement. With the aid of references, perform the following:

1. Explain common threats and vulnerabilities.
 - a. Malware.
 - b. Ransomware.
 - c. Viruses.
 - d. Denial of Service.
 - e. Insider Threats.
2. Explain the function and purpose of authentication services.
3. Explain data and network security tools.
 - a. Firewall.
 - b. Access Control Lists.
 - c. Port Security.
 - d. Anti-Virus.
 - e. Log Files.
 - f. Network monitoring application(s) .
4. Describe cyber security, privacy principles, and organizational requirements to provide Confidentiality, Integrity, and Availability (CIA).

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

References.

1. NIST Special Publication 800-__
2. Applicable User's Manuals.
3. Current industry-standard curriculum and references.

CSWF-6111 2.0 1095 B, R, M (N) L

Goal. Perform account management.

Requirement. With the aid of reference, perform the following:

1. Plan user accounts.
2. Create user accounts IAW naming convention.
3. Create groups IAW naming convention.
4. Set account permissions.
5. Manage user accounts.
6. Document as required.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

References.

1. NIST Special Publication 800-__
2. Applicable User's Manuals.
3. Current industry-standard curriculum and references.

CSWF-6112 4.0 1095 B, R, M (N) G

Goal. Explain risk management involved in operational security.

Requirement. With the aid of reference, perform the following:

1. Explain risk related concepts.
2. Explain appropriate risk mitigation strategies.
3. Explain appropriate incident response procedures.
4. Explain the importance of security related awareness and training.
5. Compare aspects of business continuity.
6. Explain the impact and proper use of environmental controls.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

References.

1. NIST Special Publication 800-__
2. Applicable User's Manuals.
3. Current industry-standard curriculum and references.

CSWF-6113 4.0 1095 B, R, M (N) G

Goal. Explain computer and network cryptography.

Requirement. With the aid of reference, perform the following:

1. Explain symmetric key rotation techniques.
2. Explain symmetric key concepts.
3. Explain cryptographic security models (e.g. Bell-LaPadula model, Biba integrity model, Clark-Wilson integrity model).
4. Explain the core concepts of Public Key Infrastructure (PKI).
5. Explain the implementation of PKI, certificate management and associated components.
6. Explain the appropriate cryptographic tools and products.

Performance Standard. With the aid of reference, complete the requirements, minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

References.

1. NIST Special Publication 800-__
2. Applicable User's Manuals.
3. Current industry-standard curriculum and references.

CSWF-6114	4.0	*	B, R	(N)	G

Goal. Explain computer and networking equipment.

Requirement. With the aid of references, perform the following:

1. State the purpose and functions of:
 - a. Network switch.
 - b. Router.
 - c. Server.
 - d. Virtual Machine.
 - e. Workstation.
2. Explain the installation and configuration of peripheral devices.
3. Explain installation and configuration of storage devices and appropriate media.
4. Explain the purpose of connection interfaces and transmission media.

Performance Standard. With the aid of reference, complete the requirements, minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

References.

1. NIST Special Publication 800-__
2. Applicable User's Manuals.
3. Current industry-standard curriculum and references.

CSWF-6115	4.0	*	B, R	(N)	G

Goal. Explain Networking Concepts.

Requirement. With the aid of references, perform the following:

1. Identify types of network cables and connectors.
2. Categorize characteristics of connectors and cabling.

3. Compare the layers of the OSI and TCP/IP models.
4. Classify how applications, devices, and protocols relate to the OSI model layers.
5. Explain the purpose and properties of IP addressing.
6. Explain the purpose and properties of routing and switching.
7. Identify common TCP and UDP default ports.
8. Explain the function of common networking protocols.
9. Summarize DNS concepts and its components.
10. Identify virtual network components.
11. Identify appropriate network monitoring tools.
12. Explain the purpose and properties of DHCP.
13. Explain the purpose and properties of Network Address Translation (NAT).
14. Explain the purpose and properties of Port Address Translation (PAT).

Performance Standard. With the aid of reference, complete the requirements, minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

References.

1. NIST Special Publication 800-__
2. Applicable User's Manuals.
3. Current industry-standard curriculum and references.

CSWF-6116	4.0	*	B, R	(N)	G

Goal. Explain Network Media and Topologies.

Requirement. With the aid of references, explain the following:

1. Describe different network topologies.
2. Compare different LAN technologies.
3. Identify components of wiring distribution.
4. Explain different methods and rationales for network performance optimization.

Performance Standard. With the aid of reference, complete the requirements, minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

References.

1. NIST Special Publication 800-__
2. Applicable User's Manuals.
3. Current industry-standard curriculum and references.

CSWF-6117	4.0	*	B, R, M	(N)	G

Goal. Explain Troubleshooting of Computer and Network equipment.

Requirement. Given the references, Explain the following:

1. Troubleshooting theory.
2. Troubleshooting common problems related to motherboards, RAM, BIOS, CPU and power with appropriate tools.
3. Troubleshooting hard drives and RAID arrays with appropriate tools.

4. Troubleshooting common video and display issues.
5. Troubleshooting wired networks with appropriate tools.
6. Troubleshooting operating system problems with appropriate tools.
7. Troubleshooting common security issues with appropriate tools and best practices.
8. Troubleshooting of common laptop issues while adhering to the appropriate procedures.
9. Troubleshooting of common peripheral devices with appropriate tools.

Performance Standard. With the aid of reference, complete the requirements, minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. 6113, 6114, 6115

References.

1. NIST Special Publication 800-__
2. Applicable User's Manuals.
3. Current industry-standard curriculum and references.

CSWF-6118 4.0 1095 B, R, M (N) L

Goal. Administer data system host security measures.

Requirement. Given a configured network, demonstrate the following:

1. Install current Anti-virus definitions and service packs.
2. Configure firewalls.
3. Troubleshoot system faults.
4. Initiate corrective actions as required.
5. Document changes.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. SI.

Prerequisite. 6110, 6112, 6113, 6114, 6115, 6116.

References.

1. NIST Special Publication 800-__
2. Applicable User's Manuals.
3. Current industry-standard curriculum and references.

CSWF-6119 4.0 1095 B, R, M (N) L

Goal. Perform network management.

Requirement. Given a LAN, references, and required equipment, perform the following:

1. Monitor the LAN for connectivity.
2. Assist with troubleshooting connectivity issues with external agencies.
3. Troubleshoot Network error(s).
4. Document changes.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. SI.

Prerequisite. 6110, 6112, 6113, 6114, 6115, 6116.

References.

1. NIST Special Publication 800-__
2. Applicable User's Manuals.
3. Current industry-standard curriculum and references.

CSWF-6120 4.0 1095 B, R, M (N) L

Goal. Design network architecture.

Requirement. Given an operational scenario conduct the following:

1. Identify network requirements.
 - a. External interfaces.
 - b. VLANs.
 - c. IP Class.
2. Assign Internet Protocol (IP) addresses, subnets, and netmasks.
3. Identify notation of domain.
4. Identify asset locations.
5. Assign computer hostnames.
6. Implement security measures.
7. Record network configuration.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. SI.

Prerequisite. 6110, 6112, 6113, 6114, 6115, 6116.

References.

1. NIST Special Publication 800-__
2. Applicable User's Manuals.
3. Current industry-standard curriculum and references.

10.13 MISSION ESSENTIAL TASK (MET) PHASE (7000).

10.13.1 Purpose. This phase takes CMMR proficient Marines from multiple PMOS, puts them in CMMR representative crews, and trains them as combat effective teams in combined events.

10.13.2 General.

10.13.2.1 Prerequisite. Marines must either be CMMR crew position or non- aviation PMOS proficient to train in this phase. For those events requiring combat leaders, only Marines currently designated as such can train in this phase.

10.13.2.2 Admin Notes. Prerequisites for this phase of training cannot be waived. Multiple events can be trained at the same time as long as separate evaluations are being conducted.

10.13.2.3 Stages. The following stages are included in the Mission Essential Task (MET) Phase of training:

PAR NO.	STAGE NAME	PAGE NUMBER
10.13.3	CONDITION (COND)	10-90

10.13.3 CONDITION (COND) STAGE

10.13.3.1 Purpose. To train unit level teams in executing community specific MET(s) or MET preparatory events.

10.13.3.2 General

Prerequisite. If an event requires prerequisites in addition to those listed for the MET Phase, they will be covered in the individual event.

Admin Notes. All events in this stage will require the following administrative/operational documents to be identified or created:

1. Letter Of Intent (LOI)
2. Personnel Roster
3. Bill Of Material (BOM)
4. Equipment Density List (EDL)

Crew Requirements. This stage requires that all crew members and combat leaders be qualified/designated and proficient (current) in the position they are assigned for the following events. Crews shall be task organized to meet the mission.

COND-7100 18.0 730 B, R, M E (N) L

Goal. Provide ATC tower services.

Requirement. Given an expeditionary control tower, an FAA certifiable TACAN, and all ancillary equipment, conduct continuous expeditionary control tower operations.

Performance Standard. Perform the following:

1. Emplace an expeditionary control tower, an FAA certifiable TACAN, and ancillary equipment.
2. Establish applicable functional operating positions within 10 hours.
3. Establish two-way communications with aircraft and ground agencies.
4. Provide sustained integration with the MACCS, other military C2 and civilian entities to include FAA and the International Civil Aviation Organization (ICAO).
5. Control the movement of aircraft and/or vehicular traffic.
6. Control aircraft within assigned terminal airspace.
7. Pass a tactical or FAA flight inspection.
8. Provide sustained navigational assistance.
9. Perform a crew relief.

Prerequisite. Two CMMR crews.

Instructor. WTI.

Range Requirement. Airfield.

External Resource Requirement. Rotary-wing and/or fixed-wing aircraft, MWSS personnel, NAVFIG, and MHE.

References.

1. MCRP 3-20F.7, Marine Air Traffic Control Detachment Handbook
2. JO 7110.65, Air Traffic Control.
3. NAVAIR 00-80T-114, NATOPS Air Traffic Control Manual.

COND-7200 12.0 730 B, R, M E (N) L

Goal. Provide ATC approach services.

Requirement. Given an airport surveillance radar, a precision approach radar, an FAA certifiable TACAN, and all ancillary equipment; conduct continuous expeditionary radar approach control operations.

Performance Standard. Perform the following:

1. Emplace an airport surveillance radar, a precision approach radar, an FAA certifiable TACAN, and all ancillary equipment.
2. Establish six functional operating positions within eight hours.
3. Have maps available on operating positions.
4. Provide sustained integration with the MACCS, other military C2 and civilian entities to include FAA and ICAO.
5. Establish and maintain communication and radar identification of aircraft within the detachment's airspace.
6. Pass a tactical or FAA flight inspection.
7. Control aircraft within assigned airspace.
8. Provide sustained navigational assistance.
9. Provide sustained radar air surveillance data to the MAGTF or joint force via Tactical Data Link.
10. Perform a crew relief.

Prerequisite. Two CMMR crews.

Instructor. WTI.

Range. Assigned airspace.

External Resource Requirement. Rotary-wing and/or fixed-wing aircraft, MWSS personnel, NAVFIG, and MHE.

References.

1. MCRP 3-20F.7, Marine Air Traffic Control Detachment Handbook
2. JO 7110.65, Air Traffic Control.
3. Applicable technical manuals.

COND-7300 12.0 365 B, R, M E (N) L

Goal. Provide ATC arrival/departure services.

Requirement. Given an AN/TPN-31(V) and all ancillary equipment, conduct continuous expeditionary radar arrival/departure and final control operations.

Performance Standard. Perform the following:

1. Emplace an airport surveillance radar, precision approach radar, FAA certifiable TACAN, and all ancillary equipment.
2. Establish five functional operating positions within six hours.
3. Have maps available on operating positions.
4. Provide sustained integration with the MACCS, other military C2 and civilian entities to include FAA and ICAO.
5. Establish and maintain communication and radar identification of aircraft within the detachment's airspace.
6. Pass a tactical or FAA flight inspection.
7. Control aircraft within assigned airspace.
8. Provide precision/non-precision approaches in a terminal environment.
9. Provide sustained navigational assistance.
10. Provide sustained radar air surveillance data to the MAGTF or joint force via Tactical Data Link.
11. Perform crew relief.

Prerequisite. Two CMMR crews.

Instructor. WTI.

Range. Airfield.

External Resource Requirement. Rotary-wing and/or fixed-wing aircraft, MWSS personnel, NAVFIG, and MHE.

References.

1. MCRP 3-20F.7, Marine Air Traffic Control Detachment Handbook
2. JO 7110.65, Air Traffic Control.
3. Applicable technical manuals.

COND-7400 2.0 730 B, R, M E (N) L

Goal. Conduct Marine air traffic control mobile team (MMT) ALZ operations.

Requirement. Provided a Table of Equipment (T/E) and/or equipment density list (EDL), conduct ALZ operations.

Performance Standard. Perform the following during a minimum operational tempo of three air traffic control operations.

1. Conduct a hasty assault zone survey and assessment.
2. Travel to the landing zone.
3. Within five minutes of arrival at the site, establish visual control capability consisting of radios and/or appropriate signaling devices.
4. Within 30 minutes of arrival at the site, establish appropriate marking of the landing zone and emplace navigational aid.
5. Provide sustained integration with the MACCS and other military C2 agencies.
6. Control aircraft within assigned terminal airspace.
7. Provide sustained navigational assistance.
8. Provide appropriate small unit defense capability and integrate with the defensive force established at the landing zone, if provided.
9. Retrograde from the landing zone with the last available transportation.

Prerequisite. One CMMR MMT.

Instructor. SI.

Range. Assault landing zone.

External Resource Requirement. ALZ-capable fixed-wing aircraft.

References.

1. MAWTS-1 MMT TACSOP.
2. MCRP 3-20F.7, Marine Air Traffic Control Detachment Handbook

COND-7500 2.0 730 B, R, M E (N) L

Goal. Conduct Marine air traffic control mobile team (MMT) FARP operations.

Requirement. Given a Table of Equipment (T/E) and/or equipment density list (EDL), conduct FARP operations.

Performance Standard. Perform the following during a minimum operational tempo of three air traffic

control operations.

1. Conduct a hasty survey and assessment.
2. Travel to the landing zone.
3. Within five minutes of arrival at the site, establish visual control capability consisting of radios and/or appropriate signaling devices.
4. Within 30 minutes of arrival at the site, establish appropriate marking of the landing zone and emplace navigational aid.
5. Provide sustained integration with the MACCS and other military C2 agencies.
6. Control aircraft within assigned terminal airspace.
7. Provide sustained navigational assistance.
8. Provide appropriate small unit defense capability and integrate with the defensive force established at the landing zone, if provided.
9. Retrograde from the landing zone with the last available transportation.

Prerequisite. One CMMR MMT.

Instructor. SI.

Range. Operational FARP.

External Resource Requirement. Fixed or rotary-wing aircraft.

References.

1. MAWTS-1 MMT TACSOP.
2. MCRP 3-20F.7, Marine Air Traffic Control Detachment Handbook _

10.14 AVIATION CAREER PROGRESSION MODEL (8000).

10.14.1 Purpose. To enhance professional understanding of Marine Aviation and the MAGTF, and to ensure individuals possess the requisite skills to fill battle command and battle staff positions in support of the ACE and the MAGTF in a joint environment. The focus of training in the Aviation Career Progression Model (ACPM) is on academic events in the following areas:

Marine Air Command and Control System (MACCS)
Aviation Ground Support
Joint Air Operations
ACE Battle Staff
MAGTF Seabased Operations
Combatant Commander Organizations

10.14.2 General. The ACPM is intended to be an integrated series of academic events contained within each phase of training. Accordingly, ACPM academic events are like any other academic event in that they serve as pre-requisites to selected flight events or stages. Additionally, several ACPM academic events are integrated as prerequisites for flight leadership syllabi. ACPM events may be conducted in group session with an assigned instructor teaching the period of instruction or they may be accomplished by self-paced instruction. MAWTS-1 is responsible for the update and validity of the ACPM periods of instruction. In the future, courses may be consolidated or revised to meet changing requirements. Refer to the MAWTS-1 ACPM link for the current ACPM program of instruction:

<https://mcalms.usmc.mil/kc/login/PAWAcknowledgement.aspx>

Completed events shall be manually logged and tracked in M-SHARP. ACPM academic events, along with their identifying prerequisite association with other training phases/stages/events, are listed below.

10.14.2.1 General

Prerequisite. None.

Admin Notes. None

Crew Requirements. None.

ACPM-8000	1.0	*	B	(N)	G

Goal. Demonstrate an understanding of the MACCS stage.

Requirement. Pass a closed book examination that encompasses all learning objectives contained in the prerequisites.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. SI.

Prerequisite. 8001, 8002, 8003, 8004, 8005, 8006, 8008.

Reference. C3 Course Catalog.

ACPM-8001	4.0	*	B	(N)	G

Goal. Demonstrate an understanding of the Marine Air Command and Control System (MACCS).

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Describe how the control of aircraft and missiles relates to the other five functions of USMC aviation.
2. Define the control of aircraft and missiles and each of its subcomponents.
3. Define the Marine aviation's philosophy of centralized command and decentralized control.
4. Differentiate between Marine aviation philosophy and Joint aviation philosophy.
5. Identify the principle objectives of the MACCS.
6. Recall the primary role of each agency of the MACCS.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 MACCS Agencies, Functions and the Control of Aircraft and Missiles Class
2. MCWP 3-25.3 MACCS Handbook
3. MCWP 3-25 Control of Aircraft and Missiles

ACPM-8002	4.0	*	B	(N)	G

Goal. Demonstrate an understanding of the Tactical Air Command Center (TACC).

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. State the mission of the TACC.
2. Identify the four organizations of the TACC.
3. List the primary responsibilities of Air Combat Intelligence (ACI).
4. List the primary responsibilities of Future Operations (FOPS).
5. List the primary responsibilities of Future Plans (FPLANS).
6. List the primary responsibilities of Current Operations (COPS).
7. List the major end items used by the TACC.

8. List the system limitations of the TACC.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 TACC Class
2. MAWTS-1 MTACS Class
3. MCWP 3-25.4 TACC Handbook

ACPM-8003	4.0	*	B	(N)	G

Goal. Demonstrate an understanding of the Direct Air Support Center (DASC).

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify the role of the DASC.
2. List the structure and task organization of the DASC.
3. Identify the major end items and their characteristics used by the DASC.
4. List the capabilities and limitations of the DASC.
5. Identify how the DASC is doctrinally employed as part of the MACCS.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 DASC Class
2. MCWP 3-25.5 DASC Handbook

ACPM-8004	4.0	*	B	(N)	G

Goal. Demonstrate an understanding of the Tactical Air Operations Center (TAOC).

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Define the mission of the TAOC.
2. Identify the Mission Essential Tasks (METs) for the TAOC.
3. Identify the structure and task organization of the TAOC.
4. Identify the major end items and their characteristics used by the TAOC.
5. Identify the capabilities and limitations of the TAOC.
6. Identify how the TAOC is doctrinally employed as part of the MACCS.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 TAOC Class

2. MCWP 3-25.7 TAOC Handbook

ACPM-8005 4.0 * B (N) G

Goal. Demonstrate an understanding of the Marine Air Traffic Control (MATC).

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify the mission of MATC.
2. Identify the Mission Essential Tasks (METs) for MATC.
3. List the structure and task organization of MATC.
4. Identify the major end items and their characteristics used by MATC.
5. Identify the capabilities and limitations of MATC.
6. Identify how MATC is doctrinally employed as part of the MACCS.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 MATC Class
2. MAWTS-1 MMT Class
3. MCWP 3-25.8 MATC Detachment Handbook

ACPM-8006 4.0 * B (N) G

Goal. Demonstrate an understanding of the Low Altitude Air Defense (LAAD).

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify the mission of the LAAD battalion.
2. Identify the structure and task organization of the LAAD battalion.
3. Identify the primary vehicle and surface-to-air weapon used by the LAAD Battalion.
4. Define the LAAD employed guidelines.
5. List the LAAD weapon applications.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 LAAD Class
2. MCWP 3-25.10 LAAD BN Handbook
3. MCWP 3-25.10A LAAD Gunner's Handbook

ACPM-8008 4.0 * B (N) G

Goal. Demonstrate an understanding of the Marine Wing Communications Squadron (MWCS).

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify the mission of the MWCS.

2. Identify the structure and task organization of the MWCS.
3. Identify the Mission Essential Tasks (METs) for the MWCS.
4. Identify the major end items and their characteristics used by MWCS.
5. Identify the capabilities and limitations of the MWCS.
6. Identify how the MWCS is doctrinally employed as part of the MACCS.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 MWCS Employment Class
2. MCRP 3-30B.2 MAGTF Communications Systems
3. NAVMC 3500.56 Communications Training and Readiness Manual

ACPM-8020 1.0 * B (N) G

Goal. Demonstrate an understanding of the ACE stage of the MACCS ACPM.

Requirement. Pass a closed book examination that encompasses all learning objectives contained in the prerequisites.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. 8021, 8022, 8023, 8024, 8025, 8026, 8027, 8028.

Reference. C3 Course Catalog.

ACPM-8021 4.0 * B (N) G

Goal. Demonstrate an understanding of USMC aviation operations doctrine.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify the six functions of Marine aviation to include all their subsets.
2. Identify the organization and mission of the Marine Aircraft Wing (MAW), to include each type of group and squadron.
3. Define who has operational control of organic MAGTF aviation assets during Joint operations.
4. List the four types of sorties the MAGTF Commander makes available to the Joint Force.
5. Identify the purpose of the Air Tasking Order (ATO).
6. Identify the six phases of the air tasking cycle.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

Reference. MCWP 3-2 Aviation Operations

ACPM-8022 4.0 * B (N) G

Goal. Demonstrate an understanding of USMC doctrine for the control of aircraft and missiles.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify how the control of aircraft and missiles relates to the other five functions of USMC aviation.
2. Identify distinctions between Marine aviation philosophy and that of the other services.
3. Identify the principle objectives of the Marine Air Command and Control System (MACCS).
4. Describe how the COMMARFOR may serve as the Joint Force Air
5. Component Commander (JFACC), Airspace Control Authority (ACA), and Area Air Defense Commander (AADC).

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 Control of Aircraft and Missiles Class
2. MCWP 3-25 Control of Aircraft and Missiles

ACPM-8023 4.0 * B (N) G

Goal. Demonstrate an understanding of USMC Offensive Air Support (OAS) doctrine.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify the purpose of the MAGTF Commanders Single Battle Concept.
2. Define the subcategories of OAS.
3. Define the requirements for effective OAS.
4. Define the three types of Deep Air Support (DAS).
5. Define the capabilities and limitations of the OAS function.
6. Identify the elements of a Joint Tactical Air Strike Request (JTAR).
7. Identify the three types of control of Close Air Support (CAS).

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 OAS Class
2. MCWP 3-23 Offensive Air Support

ACPM-8024 4.0 * B (N) G

Goal. Demonstrate an understanding of USMC Assault Support doctrine.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Define the types of assault support operations.
2. Identify which aircraft conduct each of the types of assault support operations.
3. Identify the elements of an Assault Support Request (ASR).
4. List assault support capabilities and limitations.

5. Define the role of the air mission commander and the assault force commander during air assault operations.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 Assault Support Class
2. MAWTS-1 Direct Air Support Requests Class

ACPM-8025 4.0 * B (N) G

Goal. Demonstrate an understanding of USMC Air Reconnaissance doctrine.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify the three categories of air reconnaissance.
2. Identify the four principals of air reconnaissance.
3. Identify the five prerequisites for effective air reconnaissance.
4. Identify the current USMC aircraft that have the mission of air reconnaissance.
5. Identify the form used to request air reconnaissance.
6. Identify the five supporting operations for effective air reconnaissance.
7. Identify the capabilities and limitations of air reconnaissance.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

Reference. MCWP 3-26 Air Reconnaissance

ACPM-8026 4.0 * B (N) G

Goal. Demonstrate an understanding of USMC Electronic Warfare (EW) doctrine.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Define radar.
2. List the three basic radar types.
3. Identify the limitations and characteristics of radar systems.
4. Identify the six guidance systems and how they work.
5. List the three subdivisions of Electronic Warfare (EW).

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 (S) Electronic Warfare Class—for additional training only, secret courseware should not to be used for testing purposesMAWTS-1 Direct Air Support Requests Class

2. MCWP 3-40.5 Electronic Warfare

ACPM-8027 4.0 * B (N) G

Goal. Demonstrate an understanding of USMC Antiair Warfare (AAW) doctrine.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Define AAW.
2. Define the two subsets of AAW.
3. Identify the principles of AAW.
4. Identify the types of Offensive Antiair Warfare (OAAW).
5. Identify the active air defense functions.
6. List three examples of passive air defense measures.
7. Define a Joint Engagement Zone (JEZ), Fighter Engagement Zone (FEZ), Missile Engagement Zone (MEZ), and Base Defense Zone (BDZ).
8. Define the air defense warning conditions.
9. Define the weapons control statuses.
10. Identify the responsibilities of the Regional Air Defense Commander (RADC) and the Sector Air Defense Commander (SADC).

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 Air Defense Class
2. MAWTS-1 Air Defense Commanders Class
3. MAWTS-1 Offensive Antiair Warfare Class
4. MCWP 3-22 Antiair Warfare

ACPM-8028 4.0 * B (N) G

Goal. Demonstrate an understanding of USMC Ground Support (AGS) doctrine.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify the organization responsible for providing AGS to the Marine Aircraft Wing (MAW).
2. Identify the 13 functions of AGS.
3. Identify the five activities that the Marine Wing Support Squadron (MWSS) performs for the ACE when deployed.
4. Identify the four basing concepts for MAGTF Forward Operating Bases (FOBs).
5. List the four classifications of FOBs.
6. Differentiate the distinguishing characteristics of FOBs.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 AGS Class

2. MCWP 3-21.1 Aviation Ground Support

ACPM-8040 1.0 * B (N) G

Goal. Demonstrate an understanding of the Threat stage of the MACCS ACPM

Requirement. Pass a closed book examination that encompasses all learning objectives contained in the prerequisites.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. SI.

Prerequisite. 8041, 8042, 8043, 8044.

Reference. C3 Course Catalog.

ACPM-8041 4.0 * B (N) G

Goal. Demonstrate an understanding of the surface-to-air threat to the MAGTF.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Match the system name with the guidance and target aspect for the following Man Portable Air Defense Systems (MANPADS):
 - a. SA-7
 - b. SA-14
 - c. SA-16
 - d. SA-18
2. Match the system name with the guidance and associated radars for the following Radio Frequency Surface-to-Air Missile Systems (RF SAMS):
 - a. SA-2
 - b. SA-6
 - c. SA-8
 - d. SA-10
 - e. SA-11
 - f. SA-15
 - g. SA-20
 - h. Roland-III
3. Match the system name with the type and associated radar for the following Air Defense Artillery (AAA):
 - a. ZPU 1, 2, 4
 - b. ZSU-23-4
 - c. 2S6
 - d. S-60

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

Reference. MAWTS-1 Marine Aviation Intelligence Reference
(<https://vcepub.tecom.usmc.mil/sites/msc/magtftc/mawts1/departments1/newc3/default.aspx>)

ACPM-8042 4.0 * B (N) G

Goal. Demonstrate an understanding of the fixed wing threat to the MAGTF.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify the role of the AN-2 Colt.
2. Identify the role of the MIG-23 Flogger.
3. Identify the role of the MIG-29 Fulcrum.
4. Identify the role of the MIG-31 Foxhound.
5. Identify the role of the Su-24 Fencer.
6. Identify the role of the Su-25 Frogfoot.
7. Identify the role of the Su-27 Flanker.
8. Identify the role of the Su-30 Flanker.
9. Identify the role of the Tu-22M Backfire.
10. Identify the role of the Tu-95 Bear.
11. Identify the role of the Tu-160 Blackjack.
12. Identify the role of the J-7 Fishbed.
13. Identify the role of the JH-7 Flounder.
14. Identify the role of the J-8 Finback.
15. Identify the role of the J-10 Firebird.
16. Identify the role of the H-6 Badger.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

Reference. MAWTS-1 Marine Aviation Intelligence Reference
(<https://vcepub.tecom.usmc.mil/sites/msc/magftc/mawts1/departments1/newc3/default.aspx>)

ACPM-8043	4.0	*	B	(N)	G

Goal. Demonstrate an understanding of the rotary wing threat to the MAGTF.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify the role of the Mi-24 Hind.
2. Identify the role of the SA 342 Gazelle.
3. Identify the role of the Ka-25 Hormone.
4. Identify the role of the Mi-6 Hook.
5. Identify the role of the Mi-28 Havoc.
6. Identify the role of the Mi-8 Hip.
7. Identify the role of the Ka-50 Kokum.
8. Identify the role of the Ka-29 Helix B.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

Reference. MAWTS-1 Marine Aviation Intelligence Reference
(<https://vcepub.tecom.usmc.mil/sites/msc/magftc/mawts1/departments1/newc3/default.aspx>)

ACPM-8044	4.0	*	B	(N)	G

Goal. Demonstrate an understanding of the missile and Unmanned Aircraft System (UAS) threat to the MAGTF.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Match the system name with the terminal guidance for the following Air-to-Surface Missiles:
 - a. AS-10 Karen
 - b. AS-11 Kilter
 - c. AS-12 Kegler
 - d. AS-14 Kedge
 - e. AS-17 Krypton
2. Match the system name with the warhead and guidance for the following Surface-to-Surface Missiles:
 - a. FROG-7
 - b. SCUD-B
 - c. SCUD-C
 - d. Nodong 1
 - e. C 801
 - f. C 802
3. Identify the mission of the following threat UAS:
 - a. Ababil
 - b. Mohajer
 - c. Harpy
 - d. Heron
 - e. ASN-206
 - f. Pchela-1T

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 Marine Aviation Intelligence Reference
2. <https://vcepub.tecom.usmc.mil/sites/msc/magtftc/mawts1/departments1/ne>
3. [wc3/default.aspx](https://vcepub.tecom.usmc.mil/sites/msc/magtftc/mawts1/departments1/ne)
4. Marine Corps Intelligence Activity Iran Country Handbook (appendix A)
5. Marine Corps Intelligence Activity North Korea Country Handbook (page 86)
6. Marine Corps Intelligence Activity China Country Handbook (appendix A)
<https://www.intelink.gov/mcia/handbook.htm>
7. MCIA UAV Recognition Guide <https://www.intelink.gov/mcia/index.htm>

ACPM-8060	1.0	*	B	(N)	G

Goal. Demonstrate an understanding of the MAGTF stage of the MACCS ACPM.

Requirement. Pass a closed book examination that encompasses all learning objectives contained in the prerequisites.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. SI.

Prerequisite. 8061, 8062, 8063, 8064, 8065.

Reference. C3 Course Catalog.

ACPM-8061 4.0 * B (N) G

Goal. Demonstrate an understanding of the MAGTF ground combat operations.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify how the Ground Combat Element (GCE) is employed as part of the MAGTF and the capabilities the GCE provides to the MAGTF commander
2. Define the following items related to command and control of ground combat operations:
 - a. Echelons of the GCE headquarters
 - b. Battlespace Organization
 - c. Battlespace Framework
3. Define the five types of amphibious operations.
4. Identify the following items related to offensive operations:
 - a. Types of offensive operations
 - b. Types of attack
 - c. Forms of maneuver
 - d. Distribution of forces
5. Identify the following items related to defensive operations:
 - a. Organization of the defense
 - b. Distribution of forces
 - c. Types of defensive operations
 - d. Defensive methods

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MCDP 1-0 Marine Corps Operations
2. MCWP 3-1 Ground Combat Operations

ACPM-8062 4.0 * B (N) G

Goal. Demonstrate an understanding of fire support coordination in the Ground Combat Element (GCE).

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify the four fire support tasks.
2. List the functions of the senior fire support coordination center (FSCC) in the GCE.
3. List the four steps of the MAGTF Targeting Process.
4. Define the purpose of essential fire support tasks (EFST).

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 MAGTF Targeting and Fire Support Planning Class

2. MCWP 3-16 Fire Support Coordination in the GCE

ACPM-8063 4.0 * B (N) G

Goal. Demonstrate an understanding of MAGTF command and control.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify MAGTF command and support relationships.
2. Identify the purpose and role of the command and control centers in the CE, ACE, GCE, and LCE.
3. Identify the purpose and role of the amphibious command and control facilities.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

Reference. MCWP 3-40.1 MAGTF C2

ACPM-8064 4.0 * B (N) G

Goal. Demonstrate an understanding of MAGTF communications.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify the six characteristics of communications and information systems.
2. Identify the mission and organizational structure of the Communications Battalion.
3. Identify the purpose of the Communications-Electronics Operating Instructions (CEOI) and what information is usually included in it.
4. Identify what information can be found in Annex K of an operations order.
5. Identify the purpose of select fires, support, and ACE specific radio nets.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

Reference. MCWP 3-40.3 MAGTF Communications System

ACPM-8065 4.0 * B (N) G

Goal. Demonstrate an understanding of phasing control ashore.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify types of amphibious operations and how command relationships may change during the conduct of each.
2. Identify how disputes among commanders during amphibious operations are resolved.
3. Identify the key commanders and command relationships.
4. Identify the key characteristics of each phase in phasing the MACCS ashore.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 Phasing Control Ashore Class
2. JP 3-02 Joint Doctrine for Amphibious Operations (Ch 2)
3. MCWP 3-25 Control of Aircraft and Missiles (Appendix C)

ACPM-8066 4.0 * B (N) G

Goal. Demonstrate an understanding of information management.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Match the principles of information management with their descriptions.
2. Define each of the classes of information within an information hierarchy.
3. List the characteristics of quality information.
4. Identify the role and responsibilities of an Information Management Officer (IMO).
5. Define C2 support structure and the three steps followed to develop one.
6. Identify the purpose of an information management matrix and the information management plan.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

Reference. MCWP 3-40.2 Information Management

ACPM-8067 4.0 * B (N) G

Goal. Demonstrate an understanding of Unmanned Aircraft Systems in support of MAGTF operations.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify the four types of payloads.
2. Identify the three attributes that determine UAS Groups.
3. Identify the five different UAS Group Categories.
4. Identify the two types of VMU operational employment.
5. Identify the three components of the RQ-7B Communications Relay Package.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 UAS In Support of MAGTF Operations
2. MCRP 3-42.1A
3. NTTP 3-22.3-VMU

ACPM-8080 1.0 * B (N) G

Goal. Demonstrate an understanding of the MAGTF stage of the joint air operations stage of the MACCS ACPM.

Requirement. Pass a closed book examination that encompasses all learning objectives contained in the prerequisites.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. SI.

Prerequisite. 8081, 8082, 8083, 8084, 8085, 8086, 8087, 8088.

Reference. C3 Course Catalog.

ACPM-8081 4.0 * B (N) G

Goal. Demonstrate an understanding of the command and control of joint air operations.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify the definition of joint air operations.
2. Identify the Joint Force Air Component Commander's responsibilities.
3. Identify the five sections that comprise the Joint Air Operations Center.
4. Identify the six phases of the Joint Air Tasking Cycle.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives or pass the DOCNET course listed below with a score of 80% or higher.

Instructor. BI.

Prerequisite. None.

References.

1. DOCNET Course 3-30 (<http://www.dtic.mil/doctrine/docnet/>)
2. MAWTS-1 Joint Air Operations Class
3. JP 3-30 C2 of Joint Air Operations

ACPM-8082 4.0 * B (N) G

Goal. Demonstrate an understanding of the theater air ground system (TAGS).

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. List the primary characteristics of the Theater Air Ground System (TAGS).
2. Identify the elements within the Air Force's Theater Air Control System (TACS) and their primary responsibilities.
3. Identify the aviation command and control elements with the Army Air and Ground System (AAGS) and their primary responsibilities.
4. Identify the aviation elements within the Navy's Composite Warfare Commander (CWC) architecture.
5. Identify the Amphibious Task Force (ATF) construct and its primary responsibilities.
6. Identify the aviation command and control elements within the Special Operations Air-Ground System.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References

1. MAWTS-1 TAGS ClassMAWTS-1 Joint Air Operations Class
2. ALSA TAGS Pub. (<https://wwwmil.alsa.mil/default.aspx>)

ACPM-8083 4.0 * B (N) G

Goal. Demonstrate an understanding of joint fire support doctrine.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Define joint fires.
2. Define joint fire support.
3. Identify the steps of the joint fire support planning process.
4. List the various elements of the component commander's fires command and control system.
5. Define the various joint control and coordination measures associated with joint fire support.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives or pass the DOCNET course listed below with a score of 80% or higher.

Instructor. BI.

Prerequisite. None.

References.

1. DOCNET Course 3-09 (<http://www.dtic.mil/doctrine/docnet/>)
2. JP 3-09 Joint Fire Support

ACPM-8084 4.0 * B (N) G

Goal. Demonstrate an understanding of close air support (CAS) doctrine.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Explain key roles and responsibilities related to the planning and execution of CAS.
2. Detail key steps in the planning and execution of CAS.
3. Describe various coordination measures used in the planning and conduct of CAS.
4. Describe the manner in which the two types of CAS requests are fulfilled.
5. Identify the goal and purpose of synchronizing CAS with surface fires.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives or pass the DOCNET course listed below with a score of 80% or higher.

Instructor. BI.

Prerequisite. None.

References.

1. DOCNET Course 3-09 (<http://www.dtic.mil/doctrine/docnet/>)
2. MAWTS-1 CAS Class
3. JP 3-09.3 Close Air Support

ACPM-8085 4.0 * B (N) G

Goal. Demonstrate an understanding of joint targeting doctrine.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify types of targets.
2. Identify and describe the six phases of the joint targeting cycle.
3. Identify characteristics of a target.
4. Identify and describe steps in dynamic targeting.
5. Describe roles and responsibilities related to the joint targeting process.
6. Describe key products and processes of the joint targeting cycle.
7. Identify key terms related to the joint targeting process.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives or pass the DOCNET course listed below with a score of 80% or higher.

Instructor. BI.

Prerequisite. None.

References.

1. DOCNET Course 3-09 (<http://www.dtic.mil/doctrine/docnet/>)
2. JP 3-60 Joint Targeting

ACPM-8086 4.0 * B (N) G

Goal. Demonstrate an understanding of the North Atlantic Treaty Organization (NATO).

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify the composition of the NATO alliance.
2. Identify the three key articles of the NATO alliance.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 NATO Class
2. "What is NATO" Brief (http://www.nato.int/welcome/intro_to_NATO_en.ppt)
3. AJP-01(D)

ACPM-8087 4.0 * B (N) G

Goal. Demonstrate an understanding of joint airspace control doctrine.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify the responsibilities of the airspace control authority (ACA).
2. Identify the basic principles for airspace control.
3. Identify the purpose of the airspace control plan (ACP).
4. Identify the purpose of the airspace control order (ACO).
5. Identify the methods of airspace control.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 Airspace Control Authority and Airspace Class
2. JP 3-52 Joint Airspace Control

10.15 T&R SYLLABUS MATRIX.

5954 T&R SYLLABUS MATRIX										
STAGE	CODE	TITLE	POI	DEVICE	COND	PROFICIENCY PERIOD	E-CODED	TIME	PREREQ	CHAIN
CORE INTRODUCTION (1000)										
CYBER SECURITY WORK FORCE (CSWF) STAGE										
CSWF	1005	Provide cyberwarfare technical support and troubleshooting.	B	G	(N)	*	*	0	*	*
CSWF	1006	Repair common cables.	B	G	(N)	*	*	0	*	*
TOTAL HOURS CYBER SECURITY WORK FORCE (CSWF) STAGE								0		
MARINE AIR TRAFFIC CONTROL LANDING SYSTEM (MATCLS) STAGE										
MATCLS	1400	Operate the XTS-5000.	B	G	(N)	*	*	0	*	*
MATCLS	1405	Operate the AN/ARC-210.	B	G	(N)	*	*	0	*	*
MATCLS	1410	Assemble the AN/TSQ-120.	B	G	(N)	*	*	0	*	*
MATCLS	1415	Perform corrective maintenance on the AN/TSQ-216 to the lowest repairable unit.	B	G	(N)	*	*	0	*	*
MATCLS	1420	Assemble the AN/TSQ-216.	B	G	(N)	*	*	0	*	*
MATCLS	1425	Setup the TPN-31 with the AN/TSQ-263.	B	G	(N)	*	*	0	*	*
MATCLS	1435	Perform PMS on the AN/ARC-210 radio set.	B	G	(N)	*	*	0	*	*
MATCLS	1440	Operate RT-1694.	B	G	(N)	*	*	0	*	*
MATCLS	1445	Operate RT-1796.	B	G	(N)	*	*	0	*	*
MATCLS	1450	Disassemble the AN/TSQ-120.	B	G	(N)	*	*	0	*	*
MATCLS	1455	Disassemble the AN/TSQ-216.	B	G	(N)	*	*	0	*	*
MATCLS	1460	Perform PMS on the RT-1694.	B	G	(N)	*	*	0	*	*
MATCLS	1465	Perform PMS on the RT-1796.	B	G	(N)	*	*	0	*	*
MATCLS	1470	Disassemble the AN/TPN-31 with AN/TSQ-263.	B	G	(N)	*	*	0	*	*
MATCLS	1475	Perform voice recording extraction and storage procedures.	B	G	(N)	*	*	0	*	*

5954 T&R SYLLABUS MATRIX										
STAGE	CODE	TITLE	POI	DEVICE	COND	PROFICIENCY PERIOD	E-CODED	TIME	PREREQ	CHAIN
TOTAL HOURS MARINE AIR TRAFFIC CONTROL LANDING SYSTEM (MATCLS) STAGE								0		
TOTAL HOURS CORE INTRODUCTION (1000)								0		
CORE PHASE (2000)										
TECHNICAL (TECH) SKILL										
COMM	2197	Perform corrective maintenance on the communication system to the lowest repairable unit on the AN/TSQ-120	B,R	L	(N)	*	*	2	*	*
COMM	2198	Perform corrective maintenance on the communication system to the lowest repairable unit on the AN/TSQ-216	B,R	L	(N)	*	*	2	*	*
COMM	2199	Configure the AN/ARC-210 for cipher text (CT) operations	B,R,M	L	(N)	1095	*	1	2000	*
COMM	2203	Operate the CM-200 Transmitter	B,R,M	L	(N)	1095	*	1	*	*
MMGT	2086	Perform PMS on an MATCALS system.	B	L	(N)	*	*	1	2215	*
COMM	2204	Perform corrective maintenance on the communication system to the lowest repairable unit on the AN/TPN-31_	B,R	L	(N)	*	*	2	*	*
COMM	2205	Verify the PL-2000 is operational	B,R	L	(N)	*	*	1	*	*
COMM	2206	Setup telephone lines used by the voice communication switch	B,R,M	L	(N)	1095	*	1	*	*
COMM	2216	Setup the AN/USQ-218	B,R,M	L	(N)	365	*	2	2205	*
IADS	2091	State the different types of Engagement Zones (EZ)	B,R,M	G	(N)	365	*	1	*	*

5954 T&R SYLLABUS MATRIX										
STAGE	CODE	TITLE	POI	DEVICE	COND	PROFICIENCY PERIOD	E-CODED	TIME	PREREQ	CHAIN
IADS	2092	State the role of Marine Air Traffic Control Detachments in a Base Defense Zone (BDZ)	B,R,M	G	(N)	365	*	1	*	*
TOTAL TECHNICAL (TECH) SKILL			EVENTS		11	HOURS		15		
MAINTENANCE ADMINISTRATION (MA) SKILL										
MMGT	2061	Identify parts data.	B,R	L/S	(N)	*	*	1	*	*
MMGT	2071	Explain MATCD Supply Functions	B	G	(N)	*	*	1	*	*
MMGT	2074	Explain the information contained in the MATCALs system history and inventory record	B, R	G	(N)	*	*	1	*	*
MMGT	2075	Initiate a Work Order	B, R	L	(N)	*	*	1	*	*
MMGT	2076	Update a work order	B, R	L	(N)	*	*	1	*	*
MMGT	2077	Close a Work Order	B, R	L	(N)	*	*	1	*	*
MMGT	2078	Perform Critical Maintenance Inspection Requirements.	B	L	(N)	*	*	3	*	*
MMGT	2079	Describe the purpose of inspections.	B	G	(N)	*	*	1	*	*
MMGT	2080	Run an AD HOC query.	B,R	L	(N)	*	*	1	*	*
MMGT	2081	Perform CDI Queue functions.	B,R	L	(N)	*	*	1	*	*
MMGT	2082	Open a Baseline Trouble Report (BTR).	B,R	L	(N)	*	*	1	*	*
MMGT	2083	Order parts in OOMA/NALCOMIS.	B,R	L	(N)	*	*	1	*	*
MMGT	2084	Perform contingency processing.	B,R	L	(N)	*	*	1	*	*
MMGT	2085	Describe auditing and monitoring techniques and procedures used by Quality Assurance.	B,R	L	(N)	*	*	1	*	*
DEPL	2239	State the purpose of a flight Inspection.	B	G	(N)	*	*	1	*	*
TOTAL MAINT ADMIN SKILL			EVENTS		5	HOURS		5		
TOTAL HOURS CORE PHASE (2000)								20		

5954 T&R SYLLABUS MATRIX										
STAGE	CODE	TITLE	POI	DEVICE	COND	PROFICIENCY PERIOD	E-CODED	TIME	PREREQ	CHAIN
MISSION PHASE (3000)										
FUNDAMENTAL (FUND) SKILL										
ORNT	2031	Complete NAMP indoctrination training.	B,R	G	(N)	*	*	1	*	*
MMGT	2087	State the handling and storage requirements of voice data recordings.	B	G	(N)	*	*	1	*	*
DEPL	2238	State the required coordination between maintenance personnel and the ATC watch supervisors and METOC watch supervisor	B	G	(N)	*	*	1	*	*
ACPM	8000	MACCS	B	G	(N)	*	*	1	8001, 8002, 8003, 8004, 8005, 8006, 8007, 8008	*
ACPM	8001	Marine Air Command and Control System	B	G	(N)	*	*	4	*	*
ACPM	8002	Tactical Air Command Center (TACC)	B	G	(N)	*	*	4	*	*
ACPM	8003	Direct Air Support Center (DASC)	B	G	(N)	*	*	4	*	*
ACPM	8004	Tactical Air Operations Center (TAOC)	B	G	(N)	*	*	4	*	*
ACPM	8005	Marine Air Traffic Control (MATC)	B	G	(N)	*	*	4	*	*
ACPM	8006	Low Altitude Air Defense (LAAD)	B	G	(N)	*	*	4	*	*
ACPM	8008	Marine Wing Communications Squadron (MWCS)	B	G	(N)	*	*	4	*	*
TOTAL FUNDAMENTAL (FUND) SKILL			EVENTS		12	HOURS		40		
MARINE AIR TRAFFIC CONTROL MOBILE TEAM MEMBER (MMTM) SKILL										
ACAD	0570	Discuss basic knowledge of the MMT	B	G	(N)	*	*	1	*	*

5954 T&R SYLLABUS MATRIX										
STAGE	CODE	TITLE	POI	DEVICE	COND	PROFICIENCY PERIOD	E-CODED	TIME	PREREQ	CHAIN
ACAD	0571	Discuss tactical communications terms and procedures	B	G	(N)	*	*	1	*	*
ACAD	0573	Discuss the MEU mission	B	G	(N)	*	*	1	*	*
ACAD	0574	Discuss forward arming and refueling point (FARP) operations	B	G	(N)	*	*	2	*	*
MMTM	2226	Conduct MMT Assault Landing Zone (ALZ) Operations	B,R,M	L	(N)	1095	*	6	0570, 0571, 0573, 0574	*
MMTM	2227	Conduct MMT Helicopter Landing Zone (HLZ) Operations	B,R,M	L	(N)	1095	*	4	0570, 0571, 0573, 0574	*
MMTM	2228	Conduct MMT land navigation operations	B,R,M	L	(N)	1095	*	12	2004	*
MMTM	2229	Program a RT-1694 for Automatic Link Establishment (ALE) operations	B,R,M	L	(N)	730	*	1	*	*
MMTM	2230	Field troubleshooting and PMCS of expeditionary power source familiarization	B,R	L	(N)	*	*	2	*	*
MMTM	3034	Perform as a MMT Leader during ALZ operations	B,R,M	L	(N)	1095	*	2	0570, 0571, 0573, 0574, 2004, 2000, 2001, 2226, 2228, 2229, 2230	2500, 2510
MMTM	3035	Perform as a MMT Member during FARP operations	B,R,M	L	(N)	1095	*	2	0570, 0571, 0573, 0574, 2004, 2000, 2001, 2227, 2228, 2229, 2230	2500, 2510
TOTAL MMTM SKILL			EVENTS		11	HOURS		34		
DEPLOY IFR SERVICES SKILL										
COMM	2206	Setup telephone lines used by the voice communication switch.	B,R,M	L	(N)	1095	*	1	*	*
COMM	2211	Setup the AN/TPN-31 with AN/TSQ-263	B,R,M	L	(N)	1095	*	4	*	2005

5954 T&R SYLLABUS MATRIX										
STAGE	CODE	TITLE	POI	DEVICE	COND	PROFICIENCY PERIOD	E-CODED	TIME	PREREQ	CHAIN
COMM	2212	Disassemble the AN/TPN-31 with AN/TSQ-263	B,R,M	L	(N)	1095	*	4	*	*
COMM	2215	Perform post emplacement procedures for the AN/TPN-31 with AN/TSQ-263	B,R,M	L	(N)	1095	*	2	2205, 2206	2205
COMM	3079	Deploy the AN/TPN-31 with the AN/TSQ-263	B,R,M	L	(N)	730	*	30	2211, 2212, 2214, 2215	2005, 2205, 2211, 2212, 2215
TOTAL DEPLOY IFR SERVICES SKILL			EVENTS		4	HOURS		40		
DEPLOY TOWER SERVICES SKILL										
COMM	2195	Configure the RT-1694 for cipher text (CT) operations.	B,R,M	L	(N)	1095	*	1	2000	*
COMM	2196	Configure the RT-1796 for cipher text (CT) operations.	B,R,M	L	(N)	1095	*	1	2000	*
COMM	2197	Perform corrective maintenance on the AN/TSQ-120_ to the lowest repairable unit.	B,R	L	(N)	*	*	2	*	*
COMM	2198	Perform corrective maintenance on the AN/TSQ-216 to the lowest repairable unit.	B,R	L	(N)	*	*	2	*	*
COMM	2199	Configure the AN/ARC-210 for cipher text (CT) operations.	B,R,M	L	(N)	1095	*	1	2000	*
COMM	2200	Configure RT-1796 for HAVEQUICK Frequency Hopping (FH) operations.	B,R,M	L	(N)	730	*	1	2000, 2004	*
COMM	2201	Configure RT-1796 for SINCGARS (FH) operations.	B,R,M	L	(N)	730	*	1	2000, 2004	*
COMM	2202	Configure RT-1796 for SATCOM operations.	B	L/S	(N)	*	*	3	2000, 2004	*
COMM	2207	Setup the AN/TSQ-120	B,R,M	L	(N)	1095	*	10	*	2005
COMM	2208	Disassemble the AN/TSQ-120	B,R,M	L	(N)	1095	*	10	*	*
COMM	2209	Setup the AN/TSQ-216	B,R,M	L	(N)	1095	*	4	*	2005

5954 T&R SYLLABUS MATRIX										
STAGE	CODE	TITLE	POI	DEVICE	COND	PROFICIENCY PERIOD	E-CODED	TIME	PREREQ	CHAIN
COMM	2210	Disassemble the AN/TSQ-216	B,R,M	L	(N)	1095	*	4	*	*
COMM	2213	Perform post emplacement procedures for the AN/TSQ-120	B,R,M	L	(N)	1095	*	2	2203, 2205, 2206	2205
COMM	2214	Perform post emplacement procedures for the AN/TSQ-216	B,R,M	L	(N)	1095	*	2	2195, 2196, 2203, 2205, 2206, 2209.	2205
IADS	3040	Perform as a member of a Marine Air Traffic Control Detachments in a Base Defense Zone (BDZ).	B,R,M	L	(N)	1095	*	8	2092	*
COMM	3076	Deploy AN/TSQ-120	B,R,M	L	(N)	1095	*	30	2061, 2208, 2213	2005, 2205, 2061, 2208, 2213
COMM	3077	Provide communications services as a member of a crew	B,R,M	L	(N)	730	*	8	2000, 2002, 2010, 2012, 2004, 2005, 2008, 2087, 2238, 2196, 2200, 2201, 2202, 2205, 2206	*
COMM	3078	Deploy AN/TSQ-216	B,R,M	L	(N)	1095	*	8	2209, 2210, 2214	2005, 2205, 2209, 2210, 2214
TOTAL DEPLOY TOWER SERVICES SKILL			EVENTS		8	HOURS		70		
OPERATIONS PLANNING SKILL										
MMCN	2000	Operate a common fill device.	B,R	L	(N)	*	*	1	*	*
MMCN	2001	State the physical security requirements for classified areas	B,R	G	(N)	*	*	1	*	*
MMCN	2002	Extract key material information from COMSEC callout.	B,R	G	(N)	*	*	1	*	*
MMCN	2003	Create a classified area physical security diagram	B,R,M	L	(N)	1095	*	1	2002	*
MMCN	2004	Operate the handheld GPS.	B,R,M	L	(N)	1095	*	1	*	*
MMCN	2005	Demonstrate an earth ground installation.	B,R,M	L	(N)	365	*	1	*	*

5954 T&R SYLLABUS MATRIX										
STAGE	CODE	TITLE	POI	DEVICE	COND	PROFICIENCY PERIOD	E-CODED	TIME	PREREQ	CHAIN
MMCN	2013	Describe the characteristics of unit T/E generators	B, R	G	(N)	*	*	1	*	*
MMCN	2006	Develop an embarkation plan	B, R, M	L	(N)	1095	*	2	2014	*
MMCN	2009	Complete a Bill of Material (BOM) request	B,R	L	(N)	*	*	2	*	*
MMCN	2010	Identify Cryptographic Controlled Item (CCI) devices organic to the section.	B	L	(N)	*	*	2	*	*
MMCN	2011	Manage COMSEC/classified material.	B,R,M	L	(N)	1095	*	1	*	*
MMCN	2012	State the organizational destructive weather plan.	B,R,M	G	(N)	1095	*	1	*	*
MMCN	2014	Produce an Equipment Density List (EDL)	B, R	L	(N)	*	*	1	*	*
MMCN	2007	Identify spectrum management procedures	B,R,M	L/S	(N)	1095	*	1	*	*
MMCN	2008	Construct and use a field expedient antenna.	B,R,M	L	(N)	1095	*	4	*	*
MMGT	2065	Record equipment readiness using Aviation Management Supply and Readiness Reporting (AMSRR) system.	B	L	(N)	*	*	1	*	*
MMGT	2064	State the information contained in the allowance lists	B, R	G	(N)	*	*	1	*	*
MMGT	3011	Pass CDI Periodic Evaluation IAW CSEC.	B,R,M	L	(N)	365	*	1	2112, 2114, 2116	*
MMCN	3030	Deploy a MACCS capability	B,R,M	L	(N)	1095	*	8	2014, 2006, 2009, 2007	2136, 2137, 2138, 2140
MMCN	3031	Conduct a site survey	B,R,M	L	(N)	1095	*	8	*	*
MMCN	3032	Fill the hand held GPS with the appropriate crypto.	B	L	(N)	*	*	2	2000	*
TOTAL OPERATIONS PLANNING SKILL			EVENTS		10	HOURS		26		
TOTAL HOURS MISSION PHASE								210		

5954 T&R SYLLABUS MATRIX										
STAGE	CODE	TITLE	POI	DEVICE	COND	PROFICIENCY PERIOD	E-CODED	TIME	PREREQ	CHAIN
MISSION PLUS PHASE (4000)										
MAINTENANCE MANAGEMENT (MMGT) STAGE										
MMGT	4050	Conduct QC procedures.	B,R,M	L	(N)	1095	*	6	2071	*
MMGT	4200	State the considerations of the Contingency Support Package (CSP).	B,R,M	G	(N)	365	*	2	2071	*
MMGT	4252	Induct equipment into the maintenance cycle.	B,R,M	L	(N)	*	*	1	*	*
MMGT	4253	Create a Preventive Maintenance Checks and Services (PMCS) schedule.	B,R	G	(N)	*	*	1	*	*
MMGT	4254	Submit a Product Quality Deficiency Report (PQDR).	B,R	L	(N)	*	*	2	*	*
MMGT	4255	Identify the SECREP management process.	B,R	G	(N)	*	*	2	*	*
MMGT	4257	Reconcile Global Combat Support System (GCSS) reports	B,R	L	(N)	*	*	2	*	*
MMGT	4258	Verify inventory control procedures are implemented	B,R	L	(N)	*	*	1	*	*
TOTAL MMGT STAGE			EVENTS		8	HOURS		17		
DEPLOYMENT (DEPL) STAGE										
DEPL	4060	Prepare system for embark.	B,R,M	L	(N)	1095	*	8	2071	*
DEPL	4103	Identify power requirements (Specific to AN/MRQ-13).	B,R	G	(N)	*	*	4	*	*
DEPL	4105	Write a packing list (specific to AN/MRQ-13 items).	B,R	L	(N)	*	*	2	*	*
TOTAL HOURS DEPL STAGE			EVENTS		3	HOURS		14		
AVIATION COMMUNICATION (AVCOMM) STAGE										
AVCOMM	4100	Set-up the Communications System (CS).	B,R,M	L	(N)	1095	*	4	2000, 2004, 2229, 4201, 4202, 4203, 4204, 4205, 4213, 4250	*

5954 T&R SYLLABUS MATRIX										
STAGE	CODE	TITLE	POI	DEVICE	COND	PROFICIENCY PERIOD	E-CODED	TIME	PREREQ	CHAIN
AVCOMM	4101	Verify voice communications are operational.	B,R,M	L	(N)	1095	*	4	2000, 2004, 2229, 4100, 4201, 4202, 4203, 4204, 4205	*
AVCOMM	4102	Deploy the CS in support of operational requirements.	B,R,M	L	(N)	1095	*	12	2000, 2004, 2229, 4100, 4101, 4201, 4202, 4203, 4204, 4205, 4213, 4250	*
AVCOMM	4201	Configure the AN/VRC-103.	B,R	L	(N)	*	*	1	2000	*
AVCOMM	4202	Configure the AN/VRC-104.	B,R	L	(N)	*	*	1	2000	*
AVCOMM	4203	Configure the AN/VRC-103 for SATCOM operation.	B,R	L	(N)	*	*	3	2000	*
AVCOMM	4204	Interface an external radio with the CS.	B,R	L	(N)	*	*	2	*	*
AVCOMM	4205	Configure Distributed Scalable Access Network (DSAN) for a multiple vehicle system.	B,R	L	(N)	*	*	4	*	*
AVCOMM	4206	Conduct organizational level maintenance on the AN/VRC-103.	B	L	(N)	*	*	2	2000, 2201	*
AVCOMM	4207	Conduct organizational level maintenance on the AN/VRC-104.	B	L	(N)	*	*	2	2000, 4202	*
AVCOMM	4211	Maintain the voice network within the CS.	B,R,M	L	(N)	1095	*	2	*	*
AVCOMM	4212	Conduct maintenance on the CS.	B,R	L	(N)	*	*	4	*	*
AVCOMM	4213	Set up the C2 system voice equipment.	B,R	L	(N)	*	*	2	*	*
TOTAL HOURS AVCOMM STAGE			EVENTS		13	HOURS		43		
SYSTEMS ADMINISTRATION (SYSAD) STAGE										
SYSAD	4144	Develop data recovery management plan.	B,R,M	G	(N)	1095	*	4	6112	*
SYSAD	4145	Develop disaster recovery plan.	B,R,M	L	(N)	1095	*	4	2001, 4144	*
SYSAD	4146	Manage System Administration responsibilities.	B,R,M	L	(N)	1095	*	4	6110, 6111, 6112, 6113, 6114, 6115, 6116, 6117, 6118, 6119, 6120, 4144, 4250	*
SYSAD	4250	Configure workstation.	B,R	L	(N)	*	*	4	6114	*

5954 T&R SYLLABUS MATRIX										
STAGE	CODE	TITLE	POI	DEVICE	COND	PROFICIENCY PERIOD	E-CODED	TIME	PREREQ	CHAIN
TOTAL HOURS SYSAD STAGE			EVENTS		4	HOURS		16		
CONFIGURATION (CONFIG) STAGE										
CONFIG	4301	Perform data recovery on organic C2 systems.	B,R	L	(N)	*	*	4	*	*
TOTAL HOURS CONFIG STAGE			EVENTS		1	HOURS		4		
COMMUNICATION (COMM) STAGE										
COMM	4905	Perform cloning of RT-1796 programming.	B	L	(N)	*	*	1	*	*
COMM	4910	Program the RT-1796 for Beacon operations.	B	L	(N)	*	*	1	*	*
COMM	4915	Prepare the RT-1796 for Re-Transmit operations.	B	L	(N)	*	*	1	*	*
COMM	4925	Load Black data platforms for the AN/ARC-210	B	L	(N)	*	*	4	2000	*
COMM	4930	Program XTS-5000 for covered operations.	B,R,M	L	(N)	730	*	1	2000	*
TOTAL HOURS COMM STAGE			EVENTS		5	HOURS		8		
TOTAL HOURS MISSION PLUS PHASE (4000)								98		
INSTRUCTOR TRAINING PHASE (5000)										
INSTRUCTOR UNDER TRAINING (IUT) STAGE										
IUT	5000	Introduce principals of instruction.	B	L	(N)	*	*	2	*	*
IUT	5010	Describe individual T&R requirements.	B	G	(N)	*	*	2	*	*
IUT	5020	Conduct T&R instruction.	B,R,M	L	(N)	90	*	12	5000, 5010	*
IUT	5100	Describe the Aviation Training and Readiness (T&R) Program.	B	G	(N)	*	*	2	*	*
IUT	5110	Conduct instructor evaluations.	B,R,M	L	(N)	365	*	4	5100	*
IUT	5120	Perform T&R administration.	B	L	(N)	*	*	2	5100, 5110	*

5954 T&R SYLLABUS MATRIX										
STAGE	CODE	TITLE	POI	DEVICE	COND	PROFICIENCY PERIOD	E-CODED	TIME	PREREQ	CHAIN
IUT	5130	Develop a training plan.	B	L	(N)	*	*	2	5100, 5110, 5120	*
TOTAL HOURS IUT STAGE			EVENTS		7	HOURS		26		
TOTAL HOURS INSTRUCTOR TRAINING PHASE (5000)								26		
CERTIFICATIONS, QUALIFICATIONS AND DESIGNATIONS (QCD) (6000 PHASE EVENTS)										
CERTIFICATIONS (CERT) STAGE										
CERT	6260	CSWF Technical Support Specialist.	B	G	(N)	*	*	1	6110, 6111, 6112, 6113, 6114, 6115, 6116, 6118	*
CERT	6261	CSWF IT Specialist.	B	G	(N)	*	*	1	6110, 6112, 6113, 6114, 6115, 6116, 6117, 6118, 6119	*
CERT	6262	CSWF System Administrator.	B	G	(N)	*	*	1	6110, 6111, 6112, 6113, 6114, 6115, 6116, 6117, 6118, 6119	*
TOTAL HOURS CERT STAGE			EVENTS		3	HOURS		3		
DESIGNATION (DESG) STAGE										
DESG	6104	Collateral Duty Inspector.	B	G	(N)	*	*	1	2031, 2080, 2081, 2083, 2084, 3032	*
DESG	6105	Collateral Duty Quality Assurance Representative.	B	G	(N)	*	*	1	2031, 2078, 2080, 2081, 2082, 2083, 2084, 2085, 2088, 3032	*
DESG	6106	Quality Assurance Representative.	B	G	(N)	*	*	1	2031, 2078, 2080, 2081, 2082, 2083, 2084, 2085, 2088, 3032	*
DESG	6320	Basic Instructor (BI).	B	G	(N)	*	*	1	5000, 5010, 5020	*
DESG	6321	Senior Instructor (SI).	B	G	(N)	*	*	1	5000, 5010, 5020, 5100, 5110, 5120, 5130, 6320	*
DESG	6322	Weapons Training Instructor WTI	B	G	(N)	*	*	1	6000	*
DESG	6330	Formal Learning Center Instructor (FLCI).	B	G	(N)	*	*	1	6096	*

5954 T&R SYLLABUS MATRIX										
STAGE	CODE	TITLE	POI	DEVICE	COND	PROFICIENCY PERIOD	E-CODED	TIME	PREREQ	CHAIN
DESG	6355	Communications Chief.	B	G	(N)	*	*	1	2012, 2001, 2002, 2010, 2011, 2031, 2013, 2005, 2006, 2009, 2014, 2007, 2061, 2074, 2064, 2065, 2087, 2071, 2075, 2077, 2238, 2239, 3030, 3031, 3046, 3805, 3077, 3040, 2003, 2197, 2198, 2201, 2202, 2910, 2204, 2061, 2208, 2209, 2210, 2211, 2212, 2213, 2214, 2215, 2216, 3076, 3078, 3079	*
TOTAL HOURS DESIGNATION (DESG) STAGE			EVENTS		8	HOURS		8		
SCHOOL CODES (SCHL) STAGE										
SCHL	6000	Weapons and Tactics Instructor Course	B	G	(N)	*	*	0.5		*
SCHL	6020	Link 16 Basics Course (JT-100).	B	G	(N)	*	*	0.5	*	*
SCHL	6021	Intro to Multi TDL Network (JT-101).	B	G	(N)	*	*	0.5	*	*
SCHL	6022	Multi-TDL Advanced Joint Interoperability Course (MAJIC) (JT-102).	B	G	(N)	*	*	0.5	*	*
SCHL	6024	Multi TDL Planner Course (JT-201).	B	G	(N)	*	*	0.5	*	*
SCHL	6025	Link 16 Unit Manager (LUM) Course (JT-220).	B	G	(N)	*	*	0.5	*	*
SCHL	6030	Work Center Supervisor's Course.	B	G	(N)	*	*	0.5	*	*
SCHL	6031	MATC Maintenance Manager's Course.	B	G	(N)	*	*	0.5	*	*
SCHL	6060	Aeronautical Technical Publication Library Management Course.	B	G	(N)	*	*	0.5	*	*

5954 T&R SYLLABUS MATRIX										
STAGE	CODE	TITLE	POI	DEVICE	COND	PROFICIENCY PERIOD	E-CODED	TIME	PREREQ	CHAIN
SCHL	6073	Micro-miniature Electronic Repair Course.	B	G	(N)	*	*	0.5	*	*
SCHL	6075	Naval Aviation Maintenance Program Management.	B	G	(N)	*	*	0.5	*	*
SCHL	6095	Ground Electronics Maintenance NCO Course.	B	G	(N)	*	*	0.5	*	*
SCHL	6096	Respective Instructor Development Course.	B	G	(N)	*	*	0.5	*	*
SCHL	6097	Mountain Command Control Communications Course	B	G	(N)	*	*	0.5	*	*
TOTAL HOURS CERTIFICATION, DESIGNATION, QUALIFICATION (CQD) STAGE			EVENTS		13	HOURS		6.5		
TOTAL HOURS RQCD (6000 PHASE)								13.5		
CYBER SECURITY WORK FORCE (CSWF)										
CSWF	6110	Explain Information Security Principles.	B,R,M	G	(N)	1095	*	4	*	*
CSWF	6111	Perform account management.	B,R,M	L	(N)	1095	*	2	*	*
CSWF	6112	Explain risk management involved in operational security.	B,R,M	G	(N)	1095	*	4	*	*
CSWF	6113	Explain computer and network cryptography.	B,R,M	G	(N)	1095	*	4	*	*
CSWF	6114	Explain computer and networking equipment.	B,R	G	(N)	*	*	4	*	*
CSWF	6115	Explain Networking Concepts.	B,R	G	(N)	*	*	4	*	*
CSWF	6116	Explain Network Media and Topologies.	B,R	G	(N)	*	*	4	*	*
CSWF	6117	Explain Troubleshooting of Computer and Network equipment.	B,R	G	(N)	*	*	4	6113, 6114, 6115	*
CSWF	6118	Administer data system host security measures.	B,R,M	L	(N)	1095	*	4	6110, 6112, 6113, 6114, 6115, 6116	*

5954 T&R SYLLABUS MATRIX										
STAGE	CODE	TITLE	POI	DEVICE	COND	PROFICIENCY PERIOD	E-CODED	TIME	PREREQ	CHAIN
CSWF	6119	Perform network management.	B,R,M	L	(N)	1095	*	4	6110, 6112, 6113, 6114, 6115, 6116	*
CSWF	6120	Design network architecture.	B,R,M	L	(N)	1095	*	4	6110, 6112, 6113, 6114, 6115, 6116	*
TOTAL CSWF STAGE			EVENTS		10	HOURS		38		
MISSION ESSENTIAL TASK (MET) (7000 PHASE EVENTS)										
ATC CONDITION (COND) STAGE										
COND	7300	Provide ATC control tower services.	B,R,M	L	(N)	730	E	18	*	*
COND	7301	Provide ATC approach services.	B,R,M	L	(N)	730	E	12	*	*
COND	7302	Provide ATC arrival/departure services.	B,R,M	L	(N)	365	E	12	*	*
COND	7303	Conduct Marine air traffic control mobile team (MMT) ALZ operations.	B,R,M	L	(N)	730	E	2	*	*
COND	7304	Conduct Marine air traffic control mobile team (MMT) FARP operations.	B,R,M	L	(N)	730	E	2	*	*
TOTAL HOURS ATC (COND) STAGE			EVENTS		5	HOURS		46		
TOTAL HOURS MISSION ESSENTIAL TASK (7000 PHASE)								46		
AVIATION CAREER PROGRESSION MODEL (ACPM) (8000 PHASE EVENTS)										
AVIATION CAREER PROGRESSION MODEL (ACPM) STAGE										
ACPM	8000	MACCS	B	G	(N)	*	*	1	8001, 8002, 8003, 8004, 8005, 8006, 8007, 8008	*
ACPM	8001	Marine Air Command and Control System	B	G	(N)	*	*	4	*	*
ACPM	8002	Tactical Air Command Center (TACC)	B	G	(N)	*	*	4	*	*
ACPM	8003	Direct Air Support Center (DASC)	B	G	(N)	*	*	4	*	*
ACPM	8004	Tactical Air Operations Center (TAOC)	B	G	(N)	*	*	4	*	*

5954 T&R SYLLABUS MATRIX										
STAGE	CODE	TITLE	POI	DEVICE	COND	PROFICIENCY PERIOD	E-CODED	TIME	PREREQ	CHAIN
ACPM	8005	Marine Air Traffic Control (MATC)	B	G	(N)	*	*	4	*	*
ACPM	8006	Low Altitude Air Defense (LAAD)	B	G	(N)	*	*	4	*	*
ACPM	8007	Marine Unmanned Aerial Vehicle Squadron (VMU)	B	G	(N)	*	*	4	*	*
ACPM	8008	Marine Wing Communications Squadron (MWCS)	B	G	(N)	*	*	4	*	*
ACPM	8020	ACE	B	G	(N)	*	*	1	8021, 8022, 8023, 8024, 8025, 8026, 8027, 8028	*
ACPM	8021	Aviation Operations	B	G	(N)	*	*	4	*	*
ACPM	8022	Control of Aircraft and Missiles	B	G	(N)	*	*	4	*	*
ACPM	8023	Offensive Air Support (OAS)	B	G	(N)	*	*	4	*	*
ACPM	8024	Assault Support (AS)	B	G	(N)	*	*	4	*	*
ACPM	8025	Air Reconnaissance	B	G	(N)	*	*	4	*	*
ACPM	8026	Electronic Warfare (EW)	B	G	(N)	*	*	1	*	*
ACPM	8027	Anti-Air Warfare (AAW)	B	G	(N)	*	*	4	*	*
ACPM	8028	Aviation Ground Support	B	G	(N)	*	*	4	*	*
ACPM	8040	Threat	B	G	(N)	*	*	1	8041, 8042, 8043, 8044	*
ACPM	8041	Surface to Air threat to the MAGTF	B	G	(N)	*	*	4	*	*
ACPM	8042	Fixed Wing threat to the MAGTF	B	G	(N)	*	*	4	*	*
ACPM	8043	Rotary Wing threat to the MAGTF	B	G	(N)	*	*	4	*	*
ACPM	8044	Missile and UAS threat to the MAGTF	B	G	(N)	*	*	4	*	*
ACPM	8060	MAGTF	B	G	(N)	*	*	1	8061, 8062, 8063, 8064, 8065, 8066, 8067	*
ACPM	8061	Ground Combat Operations	B	G	(N)	*	*	4	*	*
ACPM	8062	Fire Support Coordination in the GCE	B	G	(N)	*	*	4	*	*
ACPM	8063	MAGTF Command and Control	B	G	(N)	*	*	4	*	*
ACPM	8064	MAGTF Communications	B	G	(N)	*	*	4	*	*
ACPM	8065	Phasing Control Ashore	B	G	(N)	*	*	4	*	*

5954 T&R SYLLABUS MATRIX										
STAGE	CODE	TITLE	POI	DEVICE	COND	PROFICIENCY PERIOD	E-CODED	TIME	PREREQ	CHAIN
ACPM	8066	Information Management	B	G	(N)	*	*	4	*	*
ACPM	8067	UAS support of the MAGTF	B	G	(N)	*	*	4	*	*
ACPM	8080	Joint Air Operations	B	G	(N)	*	*	1	8081, 8082, 8083, 8084, 8085, 8086, 8087, 8088	*
ACPM	8081	Command and Control of Joint Air Operations	B	G	(N)	*	*	4	*	*
ACPM	8082	Theater Air Ground System (TAGS)	B	G	(N)	*	*	4	*	*
ACPM	8083	Joint Fire Support	B	G	(N)	*	*	4	*	*
ACPM	8084	Close Air Support (CAS)	B	G	(N)	*	*	4	*	*
ACPM	8085	Joint Targeting	B	G	(N)	*	*	4	*	*
ACPM	8086	North Atlantic Treaty Organization (NATO)	B	G	(N)	*	*	4	*	*
ACPM	8087	Joint Airspace Control	B	G	(N)	*	*	4	*	*
ACPM	8088	Countering Air and Missile Threats	B	G	(N)	*	*	4	*	*
TOTAL HOURS AVIATION CAREER PROGRESSION MODEL (ACPM) STAGE								142		
TOTAL ACPM (8000 PHASE)								142		

10.15.1 MIRRORING TABLE

MACCS MAINTENANCE MIRRORING (5954)	
NEW EVENT	MACS
2000	2175
2001	2155
2002	2170
2003	2160
2004	2050
2005	2055
2006	2221
2007	2212
2008	*
2009	2223
2010	2165
2011	2165
2012	*
2013	*
2014	2232
2031	*
6110	*
6111	*
6112	*
6113	*
6114	*
6115	*
6116	*
2061	2207
2064	2211
2065	2213
2071	2234
2074	2209
2075	*
2076	*
2077	*
2078	*
2079	*
2080	*
2081	*

MACCS MAINTENANCE MIRRORING (5954)	
NEW EVENT	MACS
2082	*
2083	*
2084	*
2085	*
2086	*
2087	*
2238	2405
2239	2410
2227	2505
2229	*
2230	*
2195	2900
2196	2901
2197	*
2198	2903
2199	2904
2200	2905
2201	2906
2202	2907
2203	2909
2204	2911
2205	2912
2206	2913
2207	2914
2208	2915
2209	2916
2210	2917
2211	2918
2212	2919
2213	2920
2214	2921
2215	2922
2216	*
2091	*
2092	*
6117	*

MACCS MAINTENANCE MIRRORING (5954)	
NEW EVENT	MACS
6118	*
6119	*
3030	3400
3031	*
3032	*
3011	*
3034	3505
3035	3510
3076	3900
3077	3901
3078	3905
3079	3910
3040	*

CHAPTER 11

MARINE AIR TRAFFIC CONTROL SYSTEMS MAINTENANCE CHIEF/MOS 5959
INDIVIDUAL TRAINING AND READINESS REQUIREMENTS

	<u>PARAGRAPH</u>	<u>PAGE</u>
CREW MEMBER T&R SYLLABUS REQUIREMENTS	11.0	11-3
TRAINING PROGRESSION MODEL	11.1	11-3
PROGRAMS OF INSTRUCTION (POI)	11.2	11-3
PROFICIENCY AND CURRENCY	11.3	11-4
CERTIFICATION, QUALIFICATION AND DESIGNATION TABLES	11.4	11-5
SYLLABUS NOTES	11.5	11-5
CORE INTRODUCTION PHASE (0000)	11.6	11-6
CORE PHASE (2000)	11.7	11-6
MISSION PHASE (3000)	11.8	11-7
CORE PLUS PHASE (4000)	11.9	11-7
MISSION PLUS PHASE (4500)	11.10	11-7
INSTRUCTOR TRAINING PHASE (5000)	11.11	11-7
CERTIFICATIONS, QUALIFICATIONS, AND DESIGNATIONS (CQD) PHASE (6000)	11.12	11-12
MISSION ESSENTIAL TASK (MET) PHASE (7000)	11.13	11-19
AVIATION CAREER PROGRESSION MODEL (8000)	11.14	11-23
T&R SYLLABUS MATRIX	11.15	11-41

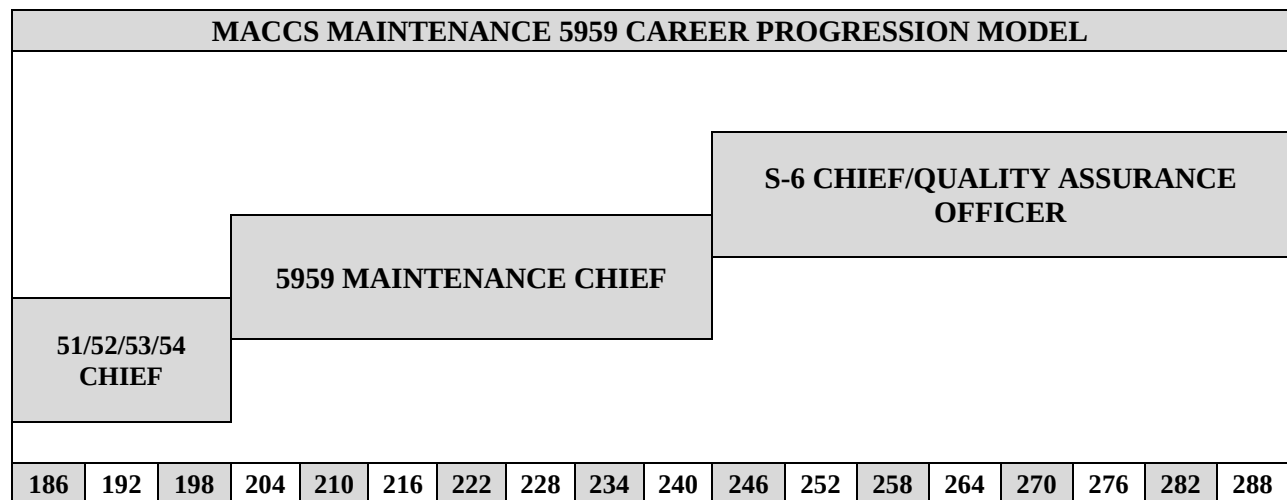
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CHAPTER 11

MARINE AIR TRAFFIC CONTROL SYSTEMS MAINTENANCE CHIEF (MOS 5959) INDIVIDUAL TRAINING AND READINESS REQUIREMENTS

11.0 CREW MEMBER T&R SYLLABUS REQUIREMENTS. This T&R Syllabus is based on specific goals and performance standards designed to ensure individual proficiency in Core and Mission Skills. The goal of this chapter is to develop individual and unit warfighting capabilities.

11.1 TRAINING PROGRESSION MODEL. This model represents the recommended average training progression for the Air Traffic Control Maintenance Chief. Units should use the model as a point of departure to generate individual training plans. Marines are not required to hold the 5959 MOS to begin the syllabus.



NOTE: TIME IS EXPRESSED IN TRAINING MONTHS

11.2 PROGRAMS OF INSTRUCTION (POI).

11.2.1 General. Represents the average POI time-to-train by Phase. Note: Each POI built during the syllabus chapter requires a POI Table.

11.2.2 Basic POI.

MATC MAINTENANCE MOS 5959 BASIC POI		
WEEKS	PHASE OF INSTRUCTION	UNIT RESPONSIBLE
1-6	CORE PHASE	TACTICAL
7-10	MISSION PHASE	TACTICAL

NOTE 1: TRAINING DURATIONS VARIES BY POSITION BEING TRAINED. SEE PROGRESSION MODEL FOR NOTIONAL TRAINING TIMES.

11.2.3 Refresher POI.

MATC MAINTENANCE MOS 5959 REFRESHER POI		
WEEKS	PHASE OF INSTRUCTION	UNIT
VARIES	CORE	TACTICAL

VARIABLES	MISSION PHASE	TACTICAL SQUADRON

11.3 PROFICIENCY AND CURRENCY.

11.3.1 Event Proficiency. Event proficiency is defined as successful completion of the performance standard as determined by the instructor or evaluator. Event completion is predicated upon demonstrated proficiency. Once completed, it is logged in M-SHARP by entering the appropriate event code. M-SHARP automatically updates the event proficiency date to reflect the completion date.

11.3.2 Skill Proficiency. Proficiency is a measure of achievement of a specific skill. To attain Individual Skill proficiency, an individual must be simultaneously proficient in all events for that Skill. Individuals may be attaining proficiency in some skills while maintaining proficiency in others. Refresher training is required once an individual has been absent from a technician billet for 36 months or longer. Upon return, the individual will complete R-coded events.

11.3.2.1 Maintaining Skill Proficiency. Once attained, skill proficiency is maintained by executing those events which have a Proficiency Period (Maintain events). Proficiency Periods establish the maximum time between event demonstration. Should proficiency be lost in any maintain event, for a specific skill, that skill proficiency is temporarily lost. Skill proficiency can be re-attained by again demonstrating proficiency in the event(s) that are not proficient. For flying communities, an individual shall complete delinquent events with a proficient instructor, crewman/flight lead as delineated by the T/M/S Syllabus Sponsor (see Chapter 3 of the Program Manual on specific instructor requirements for Low Altitude Flight, Night Systems, ACM, DM, DACM, DCM, FAC(A)).

11.3.2.2 Loss Of Individual Skill Proficiency. Should an individual lose proficiency in all maintain events in a skill, the individual will be assigned to the Refresher POI for the skill. To regain skill proficiency, the individual must demonstrate proficiency in all R-coded events for the skill.

11.3.2.3 Loss of Unit Skill Proficiency. If an entire unit loses proficiency in an event, unit instructors shall regain proficiency by completing the event with an instructor from a like unit. If not feasible, the instructor shall regain proficiency by completing the event with another instructor. For flying communities, if a unit has only one instructor and cannot complete the event with an instructor from another unit, the instructor shall regain proficiency with another aircraft commander or as designated by the commanding officer.

11.3.2.4 Proficiency Status. Proficiency is a "Yes/No" status by skill assigned to an individual. When an individual attains and maintains Core Skill Proficiency (CSP), Mission Skill Proficiency (MSP), Core Plus Skill Proficiency (CPSP), or Mission Plus Skill Proficiency (MPSP), the individual may count towards CMMR or CMTS.

11.3.3 Skill Currency. Currency is a control measure used to provide an additional margin of safety based on exposure frequency to a particular skill and applies to all MOS's that must comply with NATOPS and OPNAV requirements. It is a measure of time since the last event demanding that specific skill. Specific currency requirements for aircrew individual type mission profiles can be found in Chapter 3.

11.4 CERTIFICATION, QUALIFICATION, AND DESIGNATION TABLES. The tables below delineate T&R events required to be completed to attain proficiency for select certifications, qualifications and designations. In addition to event requirements, all required stage lectures, briefs, squadron training, prerequisites, and other criteria shall be completed prior to completing final events. Certification, qualification and designation letters signed by the commanding officer shall be placed in training Performance Records and NATOPS. See Chapter 6 of the Aviation T&R Program Manual on regaining lost qualifications.

11.4.1 INSTRUCTOR DESIGNATIONS.

MOS 5959 INSTRUCTOR DESIGNATIONS	
INSTRUCTOR DESIGNATION	EVENTS
BASIC INSTRUCTOR (BI)	5000, 5010, 5020, 6320
SENIOR INSTRUCTOR (SI)	5000, 5010, 5020, 5100, 5110, 5120, 5130, 6320, 6321
WEAPONS AND TACTICS INSTRUCTOR (WTI)	6320, 6321, 6322, 8000, 8020, 8040, 8060, 8080

11.4.2 CERTIFICATIONS, QUALIFICATIONS AND DESIGNATIONS.

MOS 5959	
CERTIFICATIONS, QUALIFICATIONS, AND DESIGNATIONS (CQD)	
DESIGNATIONS (DESG)	EVENT
MAINTENANCE CHIEF	6333

11.5 SYLLABUS NOTES. None.

11.5.1 Environmental Conditions Matrix.

Environmental Conditions	
Code	Meaning
(N)	May be conducted during darkness – If conducted during hours of darkness; may be flown aided or unaided

11.5.2 Device Matrix.

DEVICE	
Symbol	Meaning
L	Event shall be conducted live (conducted in the field/garrison, during an exercise, etc). Requires live (non-simulated) execution of the event.
L/S	Event performed live preferred/simulator optional.
G	Ground/academic training. May include Distance Learning, CBT, lectures, self paced.

11.5.3 Program of Instruction Matrix.

PROGRAM OF INSTRUCTION MATRIX

Program of Instruction (POI)	Symbol	Aviation Ground
Basic	B	Initial MOS Training
Refresher	R	Return to community from non (MOS/Skill) associated tour
Maintain	M	All individuals who have attained CSP/MSP/CPD by initial POI assignment are re- assigned to the M POI to maintain proficiency.

11.5.4 Event Terms.

EVENT TERMS	
TERM	DESCRIPTION
Discuss	An explanation of systems, procedures, or tactics during the brief, exercise, or debrief. Student is responsible for knowledge of procedures.
Demonstrate	The description and performance of a particular event by the instructor, observed by the student. The student is responsible for knowledge of the procedures prior to the demonstration of a required event.
Introduce	The instructor may demonstrate a procedure or event to a student, or may coach the student through the maneuver without demonstration. The student performs the procedures or maneuver with coaching as necessary. The student is responsible for knowledge of the procedures.
Practice	The performance of a maneuver or procedure by the student that may have been previously introduced in order to attain a specified level of performance.
Review	Demonstrated proficiency of an event by the student.
Evaluate	Any event designed to evaluate team/crew standardization that does not fit another category.

11.6 CORE INTRODUCTION PHASE (0000).

11.6.1 Purpose. The 5959 ATC Maintenance Chief MOS does not have or require an MOS producing school for granting the MOS. The MOS is allocated to 5951, 5952, 5953 and 5954 Gunnery Sergeants upon promotion to Master Sergeant.

11.6.2 General.

11.6.2.1 Prerequisite. N/A.

11.6.2.2 Administrative Note. N/A.

11.6.2.3 Stages. N/A.

11.7 CORE PHASE (2000).

11.7.1 Purpose. **RESERVED FOR FUTURE USE.**

11.7.2 General.

11.7.2.1 Admin Notes.

11.7.2.2 Prerequisite.

11.7.2.3 Stages.

11.8 MISSION PHASE (3000).

11.8.1 Purpose. **RESERVED FOR FUTURE USE.**

11.8.2 General.

11.8.2.1 Admin Notes.

11.8.2.2 Prerequisite.

11.8.2.3 Stages. The following stages are included in the Mission Skill Phase of training.

11.9 CORE PLUS PHASE (4000).

11.9.1 Purpose. **RESERVED FOR FUTURE USE.**

11.9.2 General.

11.9.2.1 Admin Notes.

11.9.2.2 Prerequisite.

11.9.2.3 Stages.

11.10 MISSION PLUS PHASE (4500).

11.10.1 Purpose. **RESERVED FOR FUTURE USE.**

11.10.2 General.

11.10.2.1 Admin Notes.

11.10.2.2 Prerequisite.

11.10.2.3 Stages.

11.11 INSTRUCTOR TRAINING PHASE (5000).

11.11.1 Purpose. The MACCS instructor concept is a means to standardize all instructors across the MACCS in regards to the concepts of managing a WTP, properly conducting training, performing evaluations, and recommending training plans. Upon completion of the required training, an individual may be approved for instructor designation by the commanding officer.

11.11.2 General.

11.11.2.1 Prerequisite. None.

11.11.2.2 Admin Notes. None.

11.11.2.3 Stages. The following stages are included in the Instructor Training Phase:

PAR NO.	STAGE NAME	PAGE NUMBER
11.11.3	INSTRUCTOR UNDER TRAINING (IUT)	11-8

11.11.3 INSTRUCTOR UNDER TRAINING (IUT) STAGE

11.11.3.1 Purpose. To train Aviation Communication System Technicians in the fundamentals of instructing and training processes.

11.11.3.2 General.

Prerequisite. None.

Admin Notes. None.

Crew Requirements. None.

T&R CODE	EVENT DESCRIPTION	INSTRUCTOR
5000	Introduce principles of instruction	BI
5010	Understand the structure of an event	BI
5020	Conduct a period of instruction on a core skill event	BI
5100	Understand the Aviation Training and Readiness (T&R) Program	SI
5110	Understand the applicable community T&R program	SI
5120	Understand T&R administration	SI
5130	Develop a training plan	SI

IUT-5000 2.0 * B (N) G

Goal. Introduce principals of instruction.

Requirement. Given the reference, the BIUT will demonstrate the following with the assistance of a unit instructor:

1. Adult learning principles.
 - a. Pedagogy to andragogy.
 - b. Characteristics of the adult learner.
 - c. Learning styles.
 - d. How adults learn.
 - e. Domains of learning.
 - f. Group dynamics.
 - g. Motivation.
 - h. Constructivist learning environments.
2. Introduce, discuss, and demonstrate instruction techniques.
3. Introduce, discuss, and demonstrate class management techniques.
 - a. How to select teaching resources to accommodate student learning styles.
 - b. How to properly organize the instructional environment for effective learning.

Performance Standard. With the aid of references, the BIUT shall demonstrate principles of instruction. During this session, the instructor shall discuss the event content and question the student throughout the training session to ensure understanding.

Instructor. BI

Prerequisite. None.

References.

1. Adult Learning section, Systems Approach to Training Manual (2004)

2. NAVMC 3500.14
3. NAVMC 1553.1

IUT-5010 2.0 * B (N) G

Goal. Describe individual T&R requirements.

Requirement. Using the Aviation T&R Program Manual, discuss the purpose of each of the following items with an instructor:

1. Training progression model.
2. Programs of Instruction.
 - a. Basic.
 - b. Refresher.
 - c. Conversion.
 - d. Series Conversion.
 - e. Transition.
 - f. Maintain.
3. T&R attain and maintain tables.
4. Syllabus notes.
5. T&R syllabus structure.
 - a. Phase.
 - b. Stage.
 - c. Event.
 - d. Skill.
 - e. Syllabus.
6. Event format.
 - a. Header.
 - (1) Event prefix - event code.
 - (2) Projected event duration.
 - (3) Proficiency period.
 - (4) Programs of instruction (POI).
 - (5) Event conditions.
 - (6) Device options.
 - (7) Device number.
 - (8) Device type.
 - b. Body.
 - (1) Goal.
 - (2) Requirement.
 - (3) Performance standard.
 - (4) Equipment.

Performance Standard. Without the aid of references and during a discussion session, the BIUT shall describe Individual T&R requirements. During this session, the instructor shall discuss the event content and question the student throughout the training session to ensure understanding.

Instructor. BI

Prerequisite. None.

References.

1. NAVMC 3500.14
2. NAVMC 1553.1

IUT-5020 12.0 90 B, R, M (N) L

Goal. Conduct T&R instruction.

Requirement. The BIUT, under the supervision of an instructor, will conduct three periods of instruction on three different T&R events selected by the instructor and should include as many different methods of instruction as possible (lecture or academic, demonstration, and practical application). The event must be one the BIUT is current and proficient in. The BIUT will complete the following for each of the three events instructed:

1. Prepare to train the event.
 - a. Review a trainee's performance record to identify required training for the event selected.
 - b. Ensure the student has met prerequisites for the event to be trained.
 - c. Gather the resources necessary to conduct the training (i.e., instructional materials, references, and equipment).
 - d. Conduct task analysis on each event to ensure all intended requirements and prerequisite skills, specified or implied, are trained IAW applicable references.
 - e. Schedule the training event (facilities and students).
 - f. Prepare an evaluation form for each student to be evaluated.
2. Conduct training on the event selected:
 - a. Ensure all training resources are properly staged/equipment if set up properly for training.
 - b. Instruct the student in a thorough manner so as to cover all requirements for the event.
 - c. Ensure continuous, objective assessment of the student's progress during training.
3. Assess student performance:
 - a. Assess the student's performance to the performance standard.
 - b. Correct student deficiencies in a timely manner and provide the student feedback.
 - c. Complete the evaluation form on for each student trained.
 - d. Debrief student on the performance and provide corrective action.
4. Route evaluation form as required.

Performance Standard. Complete the requirement items IAW the reference and ensure training is doctrinally and technically current. Instructor shall use the instructor evaluation form from the SAT user's guide for each class and a mark of satisfactory must be achieved for each of the three classes.

Instructor. BI

Prerequisite. 5000, 5010

References.

1. NAVMC 3500.14, Ch 6
2. NAVMC 1553.1
3. MCO 1553.2B, Appendix O

IUT-5100 2.0 * B (N) G

Goal. Describe the Aviation Training and Readiness (T&R) Program.

Requirement. Using the community T&R manual discuss the following with an instructor:

1. Describe the Weapons and Tactics Training Program (WTP).
2. Define each element of the Core Model:
 - a. Mission statements.
 - b. Core Mission Essential Task List (METL).
 - c. Output standards.
 - d. Core Skills (How to attain and maintain).
 - e. Mission Skills (How to attain and maintain).
 - f. Combat Leadership.
3. Define each of the following elements of unit training:
 - a. Training Exercise Employment Plan (TEEP).
 - b. Core Model Minimum Requirements (CMMR).
 - c. Instructors.
 - d. Core Model Training Report (CMTR).
 - e. T&R manual connection to readiness reporting.

4. Define each of the following elements of training:
 - a. Certification.
 - b. Qualification.
 - c. Designation.
5. PERFORMANCE RECORD Explain how changes are made to the Program manual:
 - a. Explain T&R conference procedures.
 - b. Explain correspondence change procedures.

Performance Standard. Complete the requirements IAW the reference. Instructor will question the SIUT to check for thorough understanding of the Aviation T&R Program.

Instructor. SI

Prerequisite. None.

References.

1. NAVMC 3500.14
2. MCO 3500.109

IUT-5110	4.0	365	B, R, M	(N)	L

Goal. Conduct instructor evaluations.

Requirement. Using the instructor evaluation checklist from the SAT manual, conduct two evaluations on instructors of equal or lower designation.

1. Provide notification of evaluation to the instructor being evaluated.
2. Do not interfere with or disrupt the instruction while taking place.
3. Thoroughly document observed items on the checklist.
4. Ensure student evaluation form is filled out correctly and the appropriate debrief took place.
5. Debrief the instructor being evaluated on their preparation, instruction, evaluation, and documentation.
6. Have the evaluated instructor complete the instructor improvement plan section and sign.
7. File a copy of the completed evaluation form in both the evaluator's and evaluated instructor's performance record.

Performance Standard. Complete the requirements IAW the reference.

Instructor. SI

Prerequisite. 5100.

References.

1. NAVMC 3500.14
2. Applicable community T&R Manual
3. MCO1553.2B, Appendix O

IUT-5120	2.0	*	B	(N)	L

Goal. Perform T&R administration.

Requirement. Document training to include:

1. Performance records.
2. Ensure MSHARP is updated appropriately.
3. Assemble recommendation package for certifications, qualifications, and designations IAW T&R manual.

Performance Standard. Complete the requirement items IAW the references. Instructor will question the trainee to check for understanding of the administration process.

Instructor. SI

Prerequisite. 5100, 5110.

References.

1. NAVMC 3500.14
2. Local WTPP SOP
3. <http://msharpssupport.com>

IUT-5130 2.0 * B (N) L

Goal. Develop a training plan.

Requirement. Given a deployment scenario develop a training plan to determine individual, and crew training needed to meet CMMR by completing the following:

1. Review Commander's training guidance.
2. Analyze the CMTR to determine training deficiencies and how to achieve CMMR.
3. Identify and schedule T&R training opportunities IAW the TEEP to achieve requirements.
4. Determine instructors required.
5. Determine equipment required.
6. Determine external support required.
7. Deliver a brief to the instructor that shows:
 - a. Crew manning and training requirements.
 - b. Current training status.
 - c. Identify the training deficiencies and resource shortfalls.
 - d. Explain the training plan to correct the training deficiencies.
 - e. Training plan meets commander's guidance.

Performance Standard. Complete the requirement items IAW the references and commander's training guidance. Training plan will ensure adequate time is allocated to include preparation, instruction, assessment, documentation, and remediation.

Instructor. SI

Prerequisite. 5100, 5110, 5120.

References.

1. NAVMC 3500.14
2. Applicable Community T&R manuals

11.12 CERTIFICATION, QUALIFICATION, AND DESIGNATION (CQD) PHASE (6000)

11.12.1 Purpose. This phase provides community standardization for technician qualifications and designations; combat leaders and instructor designations; and tracking of collateral duties (CD) assignments. This syllabus does not contain "one time" certification training requirements.

11.12.2 General.

11.12.2.1 Prerequisite. None.

11.12.2.2 Admin Notes.

1. This section enables units to document and track combat leaders, instructors, technician and CD assignments. All syllabus training and administration requirements must be complete prior to being qualified or designated. A qualification or designation is not effective until all administration is completed.

2. Only once an individual is qualified or designated in writing, the signed letter is filed in the IPR, and all

administrative actions are completed, and the event code has been logged in M-SHARP shall the qualification or designation be effective.

11.12.2.3 Stages. The following stages are included in the Requirement, Certification, Qualification, and Designation Skill Phase of training:

PAR NO.	STAGE NAME	PAGE NUMBER
11.12.5	DESIGNATION (DESG)	11-13
11.12.6	SCHOOL CODES (SCHL)	11-14

11.12.5 DESIGNATION (DESG) STAGE.

11.12.5.1 Purpose. To provide for designation of combat leaders and instructors. Designations are command specific and expire when an individual transfers out of a command. In order to ensure proficiency is maintained, specific events throughout this syllabus have been R-coded. The gaining command shall review the IPR to ensure prerequisite R-coded events for a designation are current prior to approving that designation. If prerequisite R-coded events are delinquent, the individual shall update those events.

11.12.5.2 General.

Prerequisite. None.

Admin Notes. Policies and rules for attaining and maintaining designations are detailed in the Aviation T&R Program Manual and this Manual.

Crew Requirements. None.

DESG-6320 1.0 * B (N) L

Goal. Basic Instructor (BI).

Requirement. Complete the prerequisites required for the designation.

Performance Standard. Be verified by a WTI and designated in writing by the designating official

Prerequisite. 5000, 5010, 5020.

Reference.

1. NAVMC 3500.14_, Naval Aviation Program Manual

DESG-6321 1.0 * B (N) L

Goal. Senior Instructor (SI).

Requirement. Complete the prerequisites required for the designation.

Performance Standard. Be verified by a WTI and designated in writing by the designating official

Prerequisite. 5000, 5010, 5020, 5100, 5110, 5120, 5130, 6320.

Reference.

1. NAVMC 3500.14_, Naval Aviation Program Manual

DESG-6322 1.0 * B (N) L

Goal. WTI.

Requirement. Be certified by MAWTS-1 as a WTI, designated by the commanding officer in writing.

Performance Standard. N/A

Prerequisite. 6000.

Reference.

1. NAVMC 3500.14_, Naval Aviation Program Manual

DESG-6333 .5 * B (N) G

Goal. Maintenance Chief (MC).

Requirement. Be designated by the commanding officer in writing.

Performance Standard. N/A.

Instructor. WTI.

Prerequisite. None.

Reference.

1. NAVMC 3500.14, Naval Aviation Program Manual

11.12.6 SCHOOL CODES (SCHL) STAGE

11.12.6.1 Purpose. To provide tracking codes for formal schools that are required for the MOS training of the MATCD Warrant Officer.

11.12.6.2 General

Prerequisite. None.

Admin Notes. None.

Crew Requirements. None.

T&R CODE	COURSE NAME	LOCATION	CID/CIN
SCHL-6000	Weapons and Tactics Instructor	MCAS Yuma, AZ	M14P2A1
SCHL-6020	Link 16 Basics Course JT-100	Joint Knowledge Online (JKO)	N/A
SCHL-6021	Intro to Multi TDL Network JT-101	Fort Bragg, NC	N/A
SCHL-6022	Multi-TDL Advanced Joint Interoperability Course (MAJIC) JT-102	Fort Bragg, NC	A36L6Z1
SCHL-6023	Link 16 Joint Interoperability Course US-109	Joint Knowledge Online (JKO)	N/A
SCHL-6024	Multi TDL Planner Course (JT-201)	Fort Bragg, NC	A05KHY1
SCHL-6025	Link 16 Unit Manager (LUM) Course (JT-220)	Fort Bragg, NC	A05A111
SCHL-6026	Joint Interface Control Officer (JICO) (JT-301)	Fort Bragg, NC	A05FH21
SCHL-6027	Advanced JICC Operator Course (JT-310)	Fort Bragg, NC	A05FH11
SCHL-6030	Work Center Supervisor's Course	NATTC, FL	N23KCM2
SCHL-6031	MATC Maintenance Manager's Course	NATTC, FL	N23KCN2

SCHL-6060	Aeronautical Technical Publication Library Management Course	NAMTRAGRUDET, MCAS Cherry Point, NC	N9062R2
SCHL-6073	Microminiature Electronic Repair	San Diego CA Norfolk, VA	N01A351 N02A351
SCHL-6075	Naval Aviation Maintenance Program Management	NAS Whiting Field, FL	N42P2M2
SCHL-6095	Ground Electronics Maintenance NCO Course	Camp Johnson, NC	M03DNSG
SCHL-6097	Mountain Command Control Communications Course	Bridgeport, CA	M24CXJ1

SCHL-6000 0.5 * B (N) G

Goal. Complete WTI Course.

Requirement. Successfully complete course curriculum.

Performance Standard. N/A.

Instructor. N/A.

Prerequisite. 6320, 6321, 8000, 8020, 8040, 8060, 8080

Reference. None.

SCHL-6020 0.5 * B (N) G

Goal. Complete Link 16 Basic Course (JT-100).

Requirement. Successfully complete course curriculum.

Performance Standard. N/A.

Instructor. N/A.

Prerequisite. None.

Reference. None.

SCHL-6021 0.5 * B (N) G

Goal. Complete Intro to Multi TDL Network (JT-101).

Requirement. Successfully complete course curriculum.

Performance Standard. N/A.

Instructor. N/A.

Prerequisite. None.

Reference. None.

SCHL-6022 0.5 * B (N) G

Goal. Complete Multi-TDL Advanced Joint Interoperability Course (MAJIC) (JT-102).

Requirement. Successfully complete course curriculum.

Performance Standard. N/A

Instructor. N/A.

Prerequisite. 6021.

Reference. None.

SCHL-6023 0.5 * B (N) G

Goal. Link 16 Joint Interoperability Course (US-109).

Requirement. Successfully complete course curriculum.

Performance Standard. N/A

Instructor. N/A.

Prerequisite. None.

Reference. None.

SCHL-6024 0.5 * B (N) G

Goal. Complete Multi TDL Planner Course (JT-201).

Requirement. Successfully complete course curriculum.

Performance Standard. N/A

Instructor. N/A

Prerequisite. None.

Reference. None.

SCHL-6025 0.5 * B (N) G

Goal. Complete Link 16 Unit Manager (LUM) Course (JT-220).

Requirement. Successfully complete course curriculum.

Performance Standard. N/A.

Instructor. N/A.

Prerequisite. None.

Reference. None.

SCHL-6026	0.5	*	B	(N)	G

Goal. Complete Joint Interface Control Officer (JICO) (JT-301).

Requirement. Successfully complete course curriculum.

Performance Standard. N/A.

Instructor. N/A.

Prerequisite. 6021, 6022, 6024

Reference. None.

SCHL-6027	0.5	*	B	(N)	G

Goal. Complete Advanced JICC Operator Course (JT-310).

Requirement. Successfully complete course curriculum.

Performance Standard. N/A.

Instructor. N/A.

Prerequisite. None.

Reference. None.

SCHL-6030	0.5	*	B	(N)	G

Goal. Complete Work Center Supervisor's Course.

Requirement. Successfully complete course curriculum.

Performance Standard. N/A.

Instructor. N/A.

Prerequisite. None.

Reference. None.

SCHL-6031 0.5 * B (N) G

Goal. Complete MATC Maintenance Manager's Course.

Requirement. Successfully complete course curriculum.

Performance Standard. N/A.

Instructor. N/A.

Prerequisite. None.

Reference. None.

SCHL-6060 0.5 * B (N) G

Goal. Complete Aeronautical Technical Publication Library Management Course.

Requirement. Successfully complete course curriculum.

Performance Standard. N/A.

Instructor. N/A.

Prerequisite. None.

Reference. None.

SCHL-6073 0.5 * B (N) G

Goal. Complete Micro-Miniature Electronics Repair Course.

Requirement. Successfully complete course curriculum.

Performance Standard. N/A.

Instructor. N/A.

Prerequisite. None.

Reference. None.

SCHL-6075 0.5 * B (N) G

Goal. Complete Naval Aviation Maintenance Program Management.

Requirement. Successfully complete course curriculum.

Performance Standard. N/A.

Instructor. N/A.

Prerequisite. None.

Reference. None.

SCHL-6095	0.5	*	B	(N)	G

Goal. Complete Ground Electronics Maintenance NCO Course.

Requirement. Successfully complete course curriculum.

Performance Standard. N/A.

Instructor. N/A.

Prerequisite. None.

Reference. None.

SCHL-6097	0.5	*	B	(N)	G

Goal. Complete Mountain Command Control Communications Course.

Requirement. Successfully complete course curriculum.

Performance Standard. N/A.

Instructor. N/A.

Prerequisite. None.

Reference. None.

11.13 MISSION ESSENTIAL TASK (MET) PHASE (7000).

11.13.1 Purpose. This phase takes CMMR proficient Marines from multiple PMOS, puts them in CMMR representative crews, and trains them as combat effective teams in combined events.

11.13.2 General.

11.13.2.1 Prerequisite. Marines must either be CMMR crew position or non- aviation PMOS proficient to train in this phase. For those events requiring combat leaders, only Marines currently designated as such can train in this phase.

11.13.2.2 Admin Notes. Prerequisites for this phase of training cannot be waived. Multiple events can be trained at the same time as long as separate evaluations are being conducted.

11.13.2.3 Stages. The following stages are included in the Mission Essential Task (MET) Phase of training:

PAR NO.	STAGE NAME	PAGE NUMBER
11.13.3	CONDITION (COND)	11-20

11.13.3 CONDITION (COND) STAGE.

11.13.3.1 Purpose. To train unit level teams in executing community specific MET(s) or MET preparatory events.

11.13.3.2 General.

Prerequisite. If an event requires prerequisites in addition to those listed for the MET Phase, they will be covered in the individual event.

Admin Notes. All events in this stage will require the following administrative/operational documents to be identified or created:

1. Letter of Intent (LOI)
2. Personnel Roster
3. Bill of Material (BOM)
4. Equipment Density List (EDL)

Crew Requirements. This stage requires that all crew members and combat leaders be qualified/designated and proficient (current) in the position they are assigned for the following events. Crews shall be task organized to meet the mission.

COND-7100 18.0 730 B, R, M (N) E L

Goal. Provide ATC tower services.

Requirement. Given an expeditionary control tower, an FAA certifiable TACAN, and all ancillary equipment, conduct continuous expeditionary control tower operations.

Performance Standard. Perform the following:

1. Emplace an expeditionary control tower, an FAA certifiable TACAN, and ancillary equipment.
2. Establish applicable functional operating positions within 10 hours.
3. Establish two-way communications with aircraft and ground agencies.
4. Provide sustained integration with the MACCS, other military C2 and civilian entities to include FAA and the International Civil Aviation Organization (ICAO).
5. Control the movement of aircraft and/or vehicular traffic
6. Control aircraft within assigned terminal airspace.
7. Pass a tactical or FAA flight inspection.
8. Provide sustained navigational assistance.
9. Perform a crew relief.

Prerequisite. Two CMMR crews.

Instructor. WTI.

Range Requirement. Airfield

External Resource Requirement. Rotary-wing and/or fixed-wing aircraft, MWSS personnel, NAVFIG, and MHE.

References.

1. MCRP 3-20F.7, Marine Air Traffic Control Detachment Handbook
2. JO 7110.65, Air Traffic Control.
3. NAVAIR 00-80T-114, NATOPS Air Traffic Control Manual.

COND-7200 12.0 730 B, R, M (N) E L

Goal. Provide ATC approach services.

Requirement. Given an airport surveillance radar, a precision approach radar, an FAA certifiable TACAN, and all ancillary equipment; conduct continuous expeditionary radar approach control operations.

Performance Standard. Perform the following:

1. Emplace an airport surveillance radar, a precision approach radar, an FAA certifiable TACAN, and all ancillary equipment.
2. Establish six functional operating positions within eight hours.
3. Have maps available on operating positions.
4. Provide sustained integration with the MACCS, other military C2 and civilian entities to include FAA and ICAO.
5. Establish and maintain communication and radar identification of aircraft within the detachment's airspace.
6. Pass a tactical or FAA flight inspection.
7. Control aircraft within assigned airspace.
8. Provide sustained navigational assistance.
9. Provide sustained radar air surveillance data to the MAGTF or joint force via Tactical Data Link.
10. Perform a crew relief.

Prerequisite. Two CMMR crews.

Instructor. WTI.

Range. Assigned airspace.

External Resource Requirement. Rotary-wing and/or fixed-wing aircraft, MWSS personnel, NAVFIG, and MHE.

References.

1. MCRP 3-20F.7, Marine Air Traffic Control Detachment Handbook
2. JO 7110.65, Air Traffic Control.
3. Applicable technical manuals.

COND-7300 12.0 365 B, R, M (N) E L

Goal. Provide ATC arrival/departure services.

Requirement. Given an AN/TPN-31(V) and all ancillary equipment, conduct continuous expeditionary radar arrival/departure and final control operations.

Performance Standard. Perform the following:

1. Emplace an airport surveillance radar, precision approach radar, FAA certifiable TACAN, and all ancillary equipment.
2. Establish five functional operating positions within six hours.
3. Have maps available on operating positions.
4. Provide sustained integration with the MACCS, other military C2 and civilian entities to include FAA and ICAO.
5. Establish and maintain communication and radar identification of aircraft within the detachment's airspace.
6. Pass a tactical or FAA flight inspection.
7. Control aircraft within assigned airspace.
8. Provide precision/non-precision approaches in a terminal environment.
9. Provide sustained navigational assistance.
10. Provide sustained radar air surveillance data to the MAGTF or joint force via Tactical Data Link.
11. Perform crew relief.

Prerequisite. Two CMMR crews.

Instructor. WTI.

Range. Airfield.

External Resource Requirement. Rotary-wing and/or fixed-wing aircraft, MWSS personnel, NAVFIG, and MHE.

References.

1. MCRP 3-20F.7, Marine Air Traffic Control Detachment Handbook
2. JO 7110.65, Air Traffic Control.
3. Applicable technical manuals.

COND-7400 2.0 730 B, R, M (N) E L

Goal. Conduct Marine air traffic control mobile team (MMT) ALZ operations.

Requirement. Provided a Table of Equipment (T/E) and/or equipment density list (EDL), conduct ALZ operations.

Performance Standard. Perform the following during a minimum operational tempo of three air traffic control operations.

1. Conduct a hasty assault zone survey and assessment.
2. Travel to the landing zone.
3. Within five minutes of arrival at the site, establish visual control capability consisting of radios and/or appropriate signaling devices.
4. Within 30 minutes of arrival at the site, establish appropriate marking of the landing zone and emplace navigational aid.
5. Provide sustained integration with the MACCS and other military C2 agencies.
6. Control aircraft within assigned terminal airspace.
7. Provide sustained navigational assistance.
8. Provide appropriate small unit defense capability and integrate with the defensive force established at the landing zone, if provided.
9. Retrograde from the landing zone with the last available transportation.

Prerequisite. One CMMR MMT.

Instructor. MMTI.

Range. Assault landing zone.

External Resource Requirement. ALZ-capable fixed-wing aircraft.

References.

1. MAWTS-1 MMT TACSOP.
2. MCRP 3-20F.7, Marine Air Traffic Control Detachment Handbook

COND-7500 2.0 730 B, R, M (N) E L

Goal. Conduct Marine air traffic control mobile team (MMT) FARP operations.

Requirement. Given a Table of Equipment (T/E) and/or equipment density list (EDL), conduct FARP operations.

Performance Standard. Perform the following during a minimum operational tempo of three air traffic control operations.

1. Conduct a hasty survey and assessment.
2. Travel to the landing zone.
3. Within five minutes of arrival at the site, establish visual control capability consisting of radios and/or appropriate signaling devices.
4. Within 30 minutes of arrival at the site, establish appropriate marking of the landing zone and emplace navigational aid.
5. Provide sustained integration with the MACCS and other military C2 agencies.
6. Control aircraft within assigned terminal airspace.
7. Provide sustained navigational assistance.
8. Provide appropriate small unit defense capability and integrate with the defensive force established at the landing zone, if provided.
9. Retrograde from the landing zone with the last available transportation.

Prerequisite. One CMMR MMT.

Instructor. MMTI.

Range. Operational FARP.

External Resource Requirement. Fixed or rotary-wing aircraft.

References.

1. MAWTS-1 MMT TACSOP.
2. MCRP 3-20F.7, Marine Air Traffic Control Detachment Handbook.

11.14 AVIATION CAREER PROGRESSION MODEL (8000).

11.14.1 Purpose. To enhance professional understanding of Marine Aviation and the MAGTF, and to ensure individuals possess the requisite skills to fill battle command and battle staff positions in support of the ACE and the MAGTF in a joint environment.

11.14.2 General. The ACPM is intended to be an integrated series of academic events contained within each phase of training. Accordingly, ACPM academic events are like any other academic event in that they serve as pre-requisites to selected flight events or stages. Additionally, several ACPM academic events are integrated as prerequisites for flight leadership syllabi. ACPM events may be conducted in group session with an assigned instructor teaching the period of instruction or they may be accomplished by self-paced instruction.

MAWTS-1 is responsible for the update and validity of the ACPM periods of instruction. In the future, courses may be consolidated or revised to meet changing requirements. Refer to the MAWTS-1 ACPM link for the current ACPM program of instruction: <https://www.intranet.tecom.usmc.mil/sites/mawts1/mawts1%20webpages/Aviation%20Career%20Progression%20Model.aspx?PageView=Shared>

Completed events shall be manually logged and tracked in M-SHARP. ACPM academic events, along with their identifying prerequisite association with other training phases/stages/events, are listed below.

11.14.2.1 General

Prerequisite. None.

Admin Notes. None

Crew Requirements. None.

ACPM-8000	1.0	*	B	(N)	G

Goal. Demonstrate an understanding of the MACCS stage.

Requirement. Pass a closed book examination that encompasses all learning objectives contained in the prerequisites.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. SI.

Prerequisite. 8001, 8002, 8003, 8004, 8005, 8006, 8008.

Reference. C3 Course Catalog.

ACPM-8001	4.0	*	B	(N)	G

Goal. Demonstrate an understanding of the Marine Air Command and Control System (MACCS).

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Describe how the control of aircraft and missiles relates to the other five functions of USMC aviation.
2. Define the control of aircraft and missiles and each of its subcomponents.
3. Define the Marine aviation's philosophy of centralized command and decentralized control.
4. Differentiate between Marine aviation philosophy and Joint aviation philosophy.
5. Identify the principle objectives of the MACCS.
6. Recall the primary role of each agency of the MACCS.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 MACCS Agencies, Functions and the Control of Aircraft and Missiles Class
2. MCWP 3-25.3 MACCS Handbook
3. MCWP 3-25 Control of Aircraft and Missiles

ACPM-8002	4.0	*	B	(N)	G

Goal. Demonstrate an understanding of the Tactical Air Command Center (TACC).

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. State the mission of the TACC.
2. Identify the four organizations of the TACC.
3. List the primary responsibilities of Air Combat Intelligence (ACI).
4. List the primary responsibilities of Future Operations (FOPS).
5. List the primary responsibilities of Future Plans (FPLANS).
6. List the primary responsibilities of Current Operations (COPS).
7. List the major end items used by the TACC.
8. List the system limitations of the TACC.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 TACC Class
2. MAWTS-1 MTACS Class
3. MCWP 3-25.4 TACC Handbook

ACPM-8003 4.0 * B (N) G

Goal. Demonstrate an understanding of the Direct Air Support Center (DASC).

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify the role of the DASC.
2. List the structure and task organization of the DASC.
3. Identify the major end items and their characteristics used by the DASC.
4. List the capabilities and limitations of the DASC.
5. Identify how the DASC is doctrinally employed as part of the MACCS.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 DASC Class
2. MCWP 3-25.5 DASC Handbook

ACPM-8004 4.0 * B (N) G

Goal. Demonstrate an understanding of the Tactical Air Operations Center (TAOC).

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Define the mission of the TAOC.
2. Identify the Mission Essential Tasks (METs) for the TAOC.
3. Identify the structure and task organization of the TAOC.
4. Identify the major end items and their characteristics used by the TAOC.
5. Identify the capabilities and limitations of the TAOC.
6. Identify how the TAOC is doctrinally employed as part of the MACCS.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 TAOC Class
2. MCWP 3-25.7 TAOC Handbook

ACPM-8005 4.0 * B (N) G

Goal. Demonstrate an understanding of the Marine Air Traffic Control (MATC).

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify the mission of MATC.

2. Identify the Mission Essential Tasks (METs) for MATC.
3. List the structure and task organization of MATC.
4. Identify the major end items and their characteristics used by MATC.
5. Identify the capabilities and limitations of MATC.
6. Identify how MATC is doctrinally employed as part of the MACCS.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 MATC Class
2. MAWTS-1 MMT Class
3. MCWP 3-25.8 MATC Detachment Handbook

ACPM-8006 4.0 * B (N) G

Goal. Demonstrate an understanding of the Low Altitude Air Defense (LAAD).

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify the mission of the LAAD battalion.
2. Identify the structure and task organization of the LAAD battalion.
3. Identify the primary vehicle and surface-to-air weapon used by the LAAD Battalion.
4. Define the LAAD employed guidelines.
5. List the LAAD weapon applications.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 LAAD Class
2. MCWP 3-25.10 LAAD BN Handbook
3. MCWP 3-25.10A LAAD Gunner's Handbook

ACPM-8008 4.0 * B (N) G

Goal. Demonstrate an understanding of the Marine Wing Communications Squadron (MWCS).

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify the mission of the MWCS.
2. Identify the structure and task organization of the MWCS.
3. Identify the Mission Essential Tasks (METs) for the MWCS.
4. Identify the major end items and their characteristics used by MWCS.
5. Identify the capabilities and limitations of the MWCS.
6. Identify how the MWCS is doctrinally employed as part of the MACCS.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 MWCS Employment Class
2. MCRP 3-30B.2 MAGTF Communications Systems
3. NAVMC 3500.56 Communications Training and Readiness Manual

ACPM-8020 1.0 * B (N) G

Goal. Demonstrate an understanding of the ACE stage of the MACCS ACPM.

Requirement. Pass a closed book examination that encompasses all learning objectives contained in the prerequisites.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. 8021, 8022, 8023, 8024, 8025, 8026, 8027, 8028.

Reference. C3 Course Catalog.

ACPM-8021 4.0 * B (N) G

Goal. Demonstrate an understanding of USMC aviation operations doctrine.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify the six functions of Marine aviation to include all their subsets.
2. Identify the organization and mission of the Marine Aircraft Wing (MAW), to include each type of group and squadron.
3. Define who has operational control of organic MAGTF aviation assets during Joint operations.
4. List the four types of sorties the MAGTF Commander makes available to the Joint Force.
5. Identify the purpose of the Air Tasking Order (ATO).
6. Identify the six phases of the air tasking cycle.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

Reference. MCWP 3-2 Aviation Operations

ACPM-8022 4.0 * B (N) G

Goal. Demonstrate an understanding of USMC doctrine for the control of aircraft and missiles.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify how the control of aircraft and missiles relates to the other five functions of USMC aviation.
2. Identify distinctions between Marine aviation philosophy and that of the other services.

3. Identify the principle objectives of the Marine Air Command and Control System (MACCS).
4. Describe how the COMMARFOR may serve as the Joint Force Air
5. Component Commander (JFACC), Airspace Control Authority (ACA), and Area Air Defense Commander (AADC).

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 Control of Aircraft and Missiles Class
2. MCWP 3-25 Control of Aircraft and Missiles

ACPM-8023 4.0 * B (N) G

Goal. Demonstrate an understanding of USMC Offensive Air Support (OAS) doctrine.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify the purpose of the MAGTF Commanders Single Battle Concept.
2. Define the subcategories of OAS.
3. Define the requirements for effective OAS.
4. Define the three types of Deep Air Support (DAS).
5. Define the capabilities and limitations of the OAS function.
6. Identify the elements of a Joint Tactical Air Strike Request (JTAR).
7. Identify the three types of control of Close Air Support (CAS).

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 OAS Class
2. MCWP 3-23 Offensive Air Support

ACPM-8024 4.0 * B (N) G

Goal. Demonstrate an understanding of USMC Assault Support doctrine.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Define the types of assault support operations.
2. Identify which aircraft conduct each of the types of assault support operations.
3. Identify the elements of an Assault Support Request (ASR).
4. List assault support capabilities and limitations.
5. Define the role of the air mission commander and the assault force commander during air assault operations.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 Assault Support Class
2. MAWTS-1 Direct Air Support Requests Class

ACPM-8025 4.0 * B (N) G

Goal. Demonstrate an understanding of USMC Air Reconnaissance doctrine.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify the three categories of air reconnaissance.
2. Identify the four principals of air reconnaissance.
3. Identify the five prerequisites for effective air reconnaissance.
4. Identify the current USMC aircraft that have the mission of air reconnaissance.
5. Identify the form used to request air reconnaissance.
6. Identify the five supporting operations for effective air reconnaissance.
7. Identify the capabilities and limitations of air reconnaissance.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

Reference. MCWP 3-26 Air Reconnaissance

ACPM-8026 4.0 * B (N) G

Goal. Demonstrate an understanding of USMC Electronic Warfare (EW) doctrine.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Define radar.
2. List the three basic radar types.
3. Identify the limitations and characteristics of radar systems.
4. Identify the six guidance systems and how they work.
5. List the three subdivisions of Electronic Warfare (EW).

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 (S) Electronic Warfare Class—for additional training only, secret courseware should not to be used for testing purposesMAWTS-1 Direct Air Support Requests Class
2. MCWP 3-40.5 Electronic Warfare

ACPM-8027 4.0 * B (N) G

Goal. Demonstrate an understanding of USMC Antiair Warfare (AAW) doctrine.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Define AAW.

2. Define the two subsets of AAW.
3. Identify the principles of AAW.
4. Identify the types of Offensive Antiair Warfare (OAAW).
5. Identify the active air defense functions.
6. List three examples of passive air defense measures.
7. Define a Joint Engagement Zone (JEZ), Fighter Engagement Zone (FEZ), Missile Engagement Zone (MEZ), and Base Defense Zone (BDZ).
8. Define the air defense warning conditions.
9. Define the weapons control statuses.
10. Identify the responsibilities of the Regional Air Defense Commander (RADC) and the Sector Air Defense Commander (SADC).

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 Air Defense Class
2. MAWTS-1 Air Defense Commanders Class
3. MAWTS-1 Offensive Antiair Warfare Class
4. MCWP 3-22 Antiair Warfare

ACPM-8028 4.0 * B (N) G

Goal. Demonstrate an understanding of USMC Ground Support (AGS) doctrine.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify the organization responsible for providing AGS to the Marine Aircraft Wing (MAW).
2. Identify the 13 functions of AGS.
3. Identify the five activities that the Marine Wing Support Squadron (MWSS) performs for the ACE when deployed.
4. Identify the four basing concepts for MAGTF Forward Operating Bases (FOBs).
5. List the four classifications of FOBs.
6. Differentiate the distinguishing characteristics of FOBs.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 AGS Class
2. MCWP 3-21.1 Aviation Ground Support

ACPM-8040 1.0 * B (N) G

Goal. Demonstrate an understanding of the Threat stage of the MACCS ACPM

Requirement. Pass a closed book examination that encompasses all learning objectives contained in the prerequisites.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. SI.

Prerequisite. 8041, 8042, 8043, 8044.

Reference. C3 Course Catalog.

ACPM-8041 4.0 * B (N) G

Goal. Demonstrate an understanding of the surface-to-antiair threat to the MAGTF.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Match the system name with the guidance and target aspect for the following Man Portable Air Defense Systems (MANPADS):
 - a. SA-7
 - b. SA-14
 - c. SA-16
 - d. SA-18
2. Match the system name with the guidance and associated radars for the following Radio Frequency Surface-to-Air Missile Systems (RF SAMS):
 - a. SA-2
 - b. SA-6
 - c. SA-8
 - d. SA-10
 - e. SA-11
 - f. SA-15
 - g. SA-20
 - h. Roland-III
3. Match the system name with the type and associated radar for the following Air Defense Artillery (AAA):
 - a. ZPU 1, 2, 4
 - b. ZSU-23-4
 - c. 2S6
 - d. S-60

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

Reference. MAWTS-1 Marine Aviation Intelligence Reference
(<https://vcepub.tecom.usmc.mil/sites/msc/magtftc/mawts1/departments1/newc3/default.aspx>)

ACPM-8042 4.0 * B (N) G

Goal. Demonstrate an understanding of the fixed wing threat to the MAGTF.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify the role of the AN-2 Colt.
2. Identify the role of the MIG-23 Flogger.
3. Identify the role of the MIG-29 Fulcrum.
4. Identify the role of the MIG-31 Foxhound.
5. Identify the role of the Su-24 Fencer.

6. Identify the role of the Su-25 Frogfoot.
7. Identify the role of the Su-27 Flanker.
8. Identify the role of the Su-30 Flanker.
9. Identify the role of the Tu-22M Backfire.
10. Identify the role of the Tu-95 Bear.
11. Identify the role of the Tu-160 Blackjack.
12. Identify the role of the J-7 Fishbed.
13. Identify the role of the JH-7 Flounder.
14. Identify the role of the J-8 Finback.
15. Identify the role of the J-10 Firebird.
16. Identify the role of the H-6 Badger.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

Reference. MAWTS-1 Marine Aviation Intelligence Reference
(<https://vcepub.tecom.usmc.mil/sites/msc/magtftc/mawts1/departments1/newc3/default.aspx>)

ACPM-8043 4.0 * B (N) G

Goal. Demonstrate an understanding of the rotary wing threat to the MAGTF.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify the role of the Mi-24 Hind.
2. Identify the role of the SA 342 Gazelle.
3. Identify the role of the Ka-25 Hormone.
4. Identify the role of the Mi-6 Hook.
5. Identify the role of the Mi-28 Havoc.
6. Identify the role of the Mi-8 Hip.
7. Identify the role of the Ka-50 Kokum.
8. Identify the role of the Ka-29 Helix B.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

Reference. MAWTS-1 Marine Aviation Intelligence Reference
(<https://vcepub.tecom.usmc.mil/sites/msc/magtftc/mawts1/departments1/newc3/default.aspx>)

ACPM-8044 4.0 * B (N) G

Goal. Demonstrate an understanding of the missile and Unmanned Aircraft System (UAS) threat to the MAGTF.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Match the system name with the terminal guidance for the following Air-to-Surface Missiles:
 - a. AS-10 Karen
 - b. AS-11 Kilter
 - c. AS-12 Kegler
 - d. AS-14 Kedge

- e. AS-17 Krypton
- 2. Match the system name with the warhead and guidance for the following Surface-to-Surface Missiles:
 - a. FROG-7
 - b. SCUD-B
 - c. SCUD-C
 - d. Nodong 1
 - e. C 801
 - f. C 802
- 3. Identify the mission of the following threat UAS:
 - a. Ababil
 - b. Mohajer
 - c. Harpy
 - d. Heron
 - e. ASN-206
 - f. Pchela-1T

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

- 1. MAWTS-1 Marine Aviation Intelligence Reference
- 2. <https://vcepub.tecom.usmc.mil/sites/msc/magtftc/mawts1/departments1/ne>
- 3. [wc3/default.aspx](https://vcepub.tecom.usmc.mil/sites/msc/magtftc/mawts1/departments1/ne/wc3/default.aspx)
- 4. Marine Corps Intelligence Activity Iran Country Handbook (appendix A)
- 5. Marine Corps Intelligence Activity North Korea Country Handbook (page 86)
- 6. Marine Corps Intelligence Activity China Country Handbook (appendix A)
<https://www.intelink.gov/mcia/handbook.htm>
- 7. MCIA UAV Recognition Guide <https://www.intelink.gov/mcia/index.htm>

ACPM-8060 1.0 * B (N) G

Goal. Demonstrate an understanding of the MAGTF stage of the MACCS ACPM.

Requirement. Pass a closed book examination that encompasses all learning objectives contained in the prerequisites.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. SI.

Prerequisite. 8061, 8062, 8063, 8064, 8065.

Reference. C3 Course Catalog.

ACPM-8061 4.0 * B (N) G

Goal. Demonstrate an understanding of the MAGTF ground combat operations.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

- 1. Identify how the Ground Combat Element (GCE) is employed as part of the MAGTF and the capabilities the GCE provides to the MAGTF commander
- 2. Define the following items related to command and control of ground combat operations:

- a. Echelons of the GCE headquarters
 - b. Battlespace Organization
 - c. Battlespace Framework
3. Define the five types of amphibious operations.
4. Identify the following items related to offensive operations:
 - a. Types of offensive operations
 - b. Types of attack
 - c. Forms of maneuver
 - d. Distribution of forces
5. Identify the following items related to defensive operations:
 - a. Organization of the defense
 - b. Distribution of forces
 - c. Types of defensive operations
 - d. Defensive methods

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MCDP 1-0 Marine Corps Operations
2. MCWP 3-1 Ground Combat Operations

ACPM-8062 4.0 * B (N) G

Goal. Demonstrate an understanding of fire support coordination in the Ground Combat Element (GCE).

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify the four fire support tasks.
2. List the functions of the senior fire support coordination center (FSCC) in the GCE.
3. List the four steps of the MAGTF Targeting Process.
4. Define the purpose of essential fire support tasks (EFST).

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 MAGTF Targeting and Fire Support Planning Class
2. MCWP 3-16 Fire Support Coordination in the GCE

ACPM-8063 4.0 * B (N) G

Goal. Demonstrate an understanding of MAGTF command and control.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify MAGTF command and support relationships.
2. Identify the purpose and role of the command and control centers in the CE, ACE, GCE, and LCE.
3. Identify the purpose and role of the amphibious command and control facilities.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

Reference. MCWP 3-40.1 MAGTF C2

ACPM-8064 4.0 * B (N) G

Goal. Demonstrate an understanding of MAGTF communications.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify the six characteristics of communications and information systems.
2. Identify the mission and organizational structure of the Communications Battalion.
3. Identify the purpose of the Communications-Electronics Operating Instructions (CEOI) and what information is usually included in it.
4. Identify what information can be found in Annex K of an operations order.
5. Identify the purpose of select fires, support, and ACE specific radio nets.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

Reference. MCWP 3-40.3 MAGTF Communications System

ACPM-8065 4.0 * B (N) G

Goal. Demonstrate an understanding of phasing control ashore.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify types of amphibious operations and how command relationships may change during the conduct of each.
2. Identify how disputes among commanders during amphibious operations are resolved.
3. Identify the key commanders and command relationships.
4. Identify the key characteristics of each phase in phasing the MACCS ashore.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 Phasing Control Ashore Class
2. JP 3-02 Joint Doctrine for Amphibious Operations (Ch 2)
3. MCWP 3-25 Control of Aircraft and Missiles (Appendix C)

ACPM-8066 4.0 * B (N) G

Goal. Demonstrate an understanding of information management.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the

following learning objectives:

1. Match the principles of information management with their descriptions.
2. Define each of the classes of information within an information hierarchy.
3. List the characteristics of quality information.
4. Identify the role and responsibilities of an Information Management Officer (IMO).
5. Define C2 support structure and the three steps followed to develop one.
6. Identify the purpose of an information management matrix and the information management plan.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

Reference. MCWP 3-40.2 Information Management

ACPM-8067 4.0 * B (N) G

Goal. Demonstrate an understanding of Unmanned Aircraft Systems in support of MAGTF operations.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify the four types of payloads.
2. Identify the three attributes that determine UAS Groups.
3. Identify the five different UAS Group Categories.
4. Identify the two types of VMU operational employment.
5. Identify the three components of the RQ-7B Communications Relay Package.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

Reference.

1. MAWTS-1 UAS In Support of MAGTF Operations
2. MCRP 3-42.1A
3. NTP 3-22.3-VMU

ACPM-8080 1.0 * B (N) G

Goal. Demonstrate an understanding of the MAGTF stage of the joint air operations stage of the MACCS ACPM.

Requirement. Pass a closed book examination that encompasses all learning objectives contained in the prerequisites.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. SI.

Prerequisite. 8081, 8082, 8083, 8084, 8085, 8086, 8087, 8088.

Reference. C3 Course Catalog.

ACPM-8081 4.0 * B (N) G

Goal. Demonstrate an understanding of the command and control of joint air operations.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify the definition of joint air operations.
2. Identify the Joint Force Air Component Commander's responsibilities.
3. Identify the five sections that comprise the Joint Air Operations Center.
4. Identify the six phases of the Joint Air Tasking Cycle.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives or pass the DOCNET course listed below with a score of 80% or higher.

Instructor. BI.

Prerequisite. None.

References.

1. DOCNET Course 3-30 (<http://www.dtic.mil/doctrine/docnet/>)
2. MAWTS-1 Joint Air Operations Class
3. JP 3-30 C2 of Joint Air Operations

ACPM-8082 4.0 * B (N) G

Goal. Demonstrate an understanding of the theater air ground system (TAGS).

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. List the primary characteristics of the Theater Air Ground System (TAGS).
2. Identify the elements within the Air Force's Theater Air Control System (TACS) and their primary responsibilities.
3. Identify the aviation command and control elements with the Army Air and Ground System (AAGS) and their primary responsibilities.
4. Identify the aviation elements within the Navy's Composite Warfare Commander (CWC) architecture.
5. Identify the Amphibious Task Force (ATF) construct and its primary responsibilities.
6. Identify the aviation command and control elements within the Special Operations Air-Ground System.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 TAGS ClassMAWTS-1 Joint Air Operations Class
2. ALSA TAGS Pub. (<https://wwwmil.alsa.mil/default.aspx>)

ACPM-8083 4.0 * B (N) G

Goal. Demonstrate an understanding of joint fire support doctrine.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Define joint fires.
2. Define joint fire support.
3. Identify the steps of the joint fire support planning process.
4. List the various elements of the component commander's fires command and control system.
5. Define the various joint control and coordination measures associated with joint fire support.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives or pass the DOCNET course listed below with a score of 80% or higher.

Instructor. BI.

Prerequisite. None.

References.

1. DOCNET Course 3-09 (<http://www.dtic.mil/doctrine/docnet/>)
2. JP 3-09 Joint Fire Support

ACPM-8084	4.0	*	B	(N)	G

Goal. Demonstrate an understanding of close air support (CAS) doctrine.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Explain key roles and responsibilities related to the planning and execution of CAS.
2. Detail key steps in the planning and execution of CAS.
3. Describe various coordination measures used in the planning and conduct of CAS.
4. Describe the manner in which the two types of CAS requests are fulfilled.
5. Identify the goal and purpose of synchronizing CAS with surface fires.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives or pass the DOCNET course listed below with a score of 80% or higher.

Instructor. BI.

Prerequisite. None.

References.

1. DOCNET Course 3-09 (<http://www.dtic.mil/doctrine/docnet/>)
2. MAWTS-1 CAS Class
3. JP 3-09.3 Close Air Support

ACPM-8085	4.0	*	B	(N)	G

Goal. Demonstrate an understanding of joint targeting doctrine.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify types of targets.
2. Identify and describe the six phases of the joint targeting cycle.
3. Identify characteristics of a target.
4. Identify and describe steps in dynamic targeting.
5. Describe roles and responsibilities related to the joint targeting process.
6. Describe key products and processes of the joint targeting cycle.
7. Identify key terms related to the joint targeting process.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives or pass the DOCNET course listed below with a score of 80% or higher.

Instructor. BI.

Prerequisite. None.

References.

1. DOCNET Course 3-09 (<http://www.dtic.mil/doctrine/docnet/>)
2. JP 3-60 Joint Targeting

ACPM-8086 4.0 * B (N) G

Goal. Demonstrate an understanding of the North Atlantic Treaty Organization (NATO).

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify the composition of the NATO alliance.
2. Identify the three key articles of the NATO alliance.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 NATO Class
2. "What is NATO" Brief (http://www.nato.int/welcome/intro_to_NATO_en.ppt)
3. AJP-01(D)

ACPM-8087 4.0 * B (N) G

Goal. Demonstrate an understanding of joint airspace control doctrine.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify the responsibilities of the airspace control authority (ACA).
2. Identify the basic principles for airspace control.
3. Identify the purpose of the airspace control plan (ACP).
4. Identify the purpose of the airspace control order (ACO).
5. Identify the methods of airspace control.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 Airspace Control Authority and Airspace Class
2. JP 3-52 Joint Airspace Control

11.15 T&R SYLLABUS MATRIX.

5959 T&R SYLLABUS MATRIX										
STAGE	CODE	TITLE	POI	DEVICE	COND	PROFICIENCY PERIOD	E-CODED	TIME	PREREQ	CHAIN
INSTRUCTOR TRAINING PHASE (5000)										
INSTRUCTOR UNDER TRAINING (IUT) STAGE										
IUT	5000	Introduce principles of instruction	B	L	(N)	*	*	2	*	*
IUT	5010	Describe individual T&R requirements	B	G	(N)	*	*	2	*	*
IUT	5020	Conduct T&R instruction	B,R,M	L	(N)	90	*	12	5000, 5010	*
IUT	5100	Describe the Aviation Training and Readiness (T&R) Program	B	G	(N)	*	*	2	*	*
IUT	5110	Conduct instructor evaluations	B,R,M	L	(N)	365	*	4	5100	*
IUT	5120	Perform T&R administration	B	L	(N)	*	*	2	5100, 5110	*
IUT	5130	Develop a training plan	B	L	(N)	*	*	2	5100, 5110, 5120	*
TOTAL HOURS (IUT) STAGE			EVENTS		7	HOURS		24		
TOTAL HOURS INSTRUCTOR TRAINING PHASE (5000)								24		
CERTIFICATIONS, QUALIFICATIONS, AND DESIGNATIONS (CQD) PHASE (6000)										
SCHOOL CODES (SCHL) STAGE										
SCHL	6000	Weapons and Tactics Instructor (WTI)	B	G	(N)	*	*	1	*	*
SCHL	6020	Link 16 Basics Course (JT-100)	B	G	(N)	*	*	1	*	*
SCHL	6021	Intro to Multi TDL Network (JT-101)	B	G	(N)	*	*	1	*	*
SCHL	6022	Multi-TDL Advanced Joint Interoperability Course (MAJIC) (JT-102)	B	G	(N)	*	*	1	*	*

5959 T&R SYLLABUS MATRIX										
STAGE	CODE	TITLE	POI	DEVICE	COND	PROFICIENCY PERIOD	E-CODED	TIME	PREREQ	CHAIN
SCHL	6023	Link 16 Joint Interoperability Course (US-109)	B	G	(N)	*	*	1	*	*
SCHL	6024	Multi TDL Planner Course (JT-201)	B	G	(N)	*	*	1	*	*
SCHL	6025	Link 16 Unit Manager (LUM) Course (JT-220)	B	G	(N)	*	*	1	*	*
SCHL	6026	Joint Interface Control Officer (JICO) (JT-301)	B	G	(N)	*	*	1	*	*
SCHL	6027	Advanced JICC Operator Course (JT-310)	B	G	(N)	*	*	1	*	*
SCHL	6030	Work Center Supervisor's Course	B	G	(N)	*	*	1	*	*
SCHL	6031	MATC Maintenance Manager's Course	B	G	(N)	*	*	1	*	*
SCHL	6060	Aeronautical Technical Publication Library Management Course	B	G	(N)	*	*	1	*	*
SCHL	6073	Microminiature Electronic Repair	B	G	(N)	*	*	1	*	*
SCHL	6075	Naval Aviation Maintenance Program Management	B	G	(N)	*	*	1	*	*
SCHL	6095	Ground Electronics Maintenance NCO Course	B	G	(N)	*	*	1	*	*
SCHL	6097	Mountain Command Control Communications Course	B	G	(N)	*	*	1	*	*
TOTAL HOURS DESIGNATION (DESG) STAGE			EVENTS		10	HOURS		10		
DESIGNATION (DESG) STAGE										
DESG	6320	Basic Instructor (BI)	B	G	(N)	*	*	.5	5000, 5010, 5020	*
DESG	6321	Senior Instructor (SI)	B	G	(N)	*	*	.5	5000, 5010, 5020, 5100, 5110, 5120, 5130	*

5959 T&R SYLLABUS MATRIX										
STAGE	CODE	TITLE	POI	DEVICE	COND	PROFICIENCY PERIOD	E-CODED	TIME	PREREQ	CHAIN
DESG	6322	Weapons and Tactics Instructor (WTI)	B	G	(N)	*	*	.5	6000, 6020, 6021, 6022, 8000, 8001, 8002, 8003, 8004, 8005, 8006, 8008, 8020, 8021, 8022, 8023, 8024, 8025, 8026, 8027, 8028, 8040, 8041, 8042, 8043, 8044, 8060, 8061, 8062, 8063, 8064, 8065, 8066, 8067, 8080, 8081, 8082, 8083, 8084, 8085, 8086, 8087, 8088	*
DESG	6333	Maintenance Chief (MC)	B	G	(N)	*	*	.5	*	*
TOTAL HOURS DESIGNATION (DESG) STAGE			EVENTS		4	HOURS		2		
TOTAL HOURS CQD PHASE (6000)								13		
MISSION ESSENTIAL TASK (MET) PHASE (7000)										
ATC CONDITION (COND) STAGE										
COND	7100	Provide ATC tower services	B,R,M	L	(N)	730	E	18	*	*

5959 T&R SYLLABUS MATRIX										
STAGE	CODE	TITLE	POI	DEVICE	COND	PROFICIENCY PERIOD	E-CODED	TIME	PREREQ	CHAIN
COND	7200	Provide ATC approach services	B,R,M	L	(N)	730	E	12	*	*
COND	7300	Provide ATC arrival/departure services	B,R,M	L	(N)	730	E	12	*	*
COND	7400	Conduct Marine air traffic control mobile team (MMT) ALZ operations	B,R,M	L	(N)	730	E	2	*	*
COND	7500	Conduct Marine air traffic control mobile team (MMT) FARP operations	B,R,M	L	(N)	730	E	2	*	*
TOTAL HOURS CONDITION (COND) STAGE			EVENTS		5	HOURS		80		
TOTAL HOURS MET PHASE (7000)								80		
AVIATION CAREER PROGRESSION MODEL (ACPM) PHASE (8000)										
AVIATION CAREER PROGRESSION MODEL (ACPM) STAGE										
ACPM	8000	MACCS	B	G	(N)	*	*	1	8001, 8002, 8003, 8004, 8005, 8006, 8008	*
ACPM	8001	Marine Air Command and Control System	B	G	(N)	*	*	4	*	*
ACPM	8002	Tactical Air Command Center (TACC)	B	G	(N)	*	*	4	*	*
ACPM	8003	Direct Air Support Center (DASC)	B	G	(N)	*	*	4	*	*
ACPM	8004	Tactical Air Operations Center (TAOC)	B	G	(N)	*	*	4	*	*
ACPM	8005	Marine Air Traffic Control (MATC)	B	G	(N)	*	*	4	*	*
ACPM	8006	Low Altitude Air Defense (LAAD)	B	G	(N)	*	*	4	*	*
ACPM	8008	Marine Wing Communications Squadron (MWCS)	B	G	(N)	*	*	4	*	*

5959 T&R SYLLABUS MATRIX										
STAGE	CODE	TITLE	POI	DEVICE	COND	PROFICIENCY PERIOD	E-CODED	TIME	PREREQ	CHAIN
ACPM	8020	ACE	B	G	(N)	*	*	1	8021, 8022, 8023, 8024, 8025, 8026, 8027, 8028	*
ACPM	8021	Aviation Operations	B	G	(N)	*	*	4	*	*
ACPM	8022	Control of Aircraft and Missiles	B	G	(N)	*	*	4	*	*
ACPM	8023	Offensive Air Support (OAS)	B	G	(N)	*	*	4	*	*
ACPM	8024	Assault Support (AS)	B	G	(N)	*	*	4	*	*
ACPM	8025	Air Reconnaissance	B	G	(N)	*	*	4	*	*
ACPM	8026	Electronic Warfare (EW)	B	G	(N)	*	*	1	*	*
ACPM	8027	Anti-Air Warfare (AAW)	B	G	(N)	*	*	4	*	*
ACPM	8028	Aviation Ground Support	B	G	(N)	*	*	4	*	*
ACPM	8040	Threat	B	G	(N)	*	*	1	8041, 8042, 8043, 8044	*
ACPM	8041	Surface to Air threat to the MAGTF	B	G	(N)	*	*	4	*	*
ACPM	8042	Fixed Wing threat to the MAGTF	B	G	(N)	*	*	4	*	*
ACPM	8043	Rotary Wing threat to the MAGTF	B	G	(N)	*	*	4	*	*
ACPM	8044	Missile and UAS threat to the MAGTF	B	G	(N)	*	*	4	*	*
ACPM	8060	MAGTF	B	G	(N)	*	*	1	8061, 8062, 8063, 8064, 8065, 8066, 8067	*
ACPM	8061	Ground Combat Operations	B	G	(N)	*	*	4	*	*
ACPM	8062	Fire Support Coordination in the GCE	B	G	(N)	*	*	4	*	*
ACPM	8063	MAGTF Command and Control	B	G	(N)	*	*	4	*	*
ACPM	8064	MAGTF Communications	B	G	(N)	*	*	4	*	*
ACPM	8065	Phasing Control Ashore	B	G	(N)	*	*	4	*	*
ACPM	8066	Information Management	B	G	(N)	*	*	4	*	*

5959 T&R SYLLABUS MATRIX										
STAGE	CODE	TITLE	POI	DEVICE	COND	PROFICIENCY PERIOD	E-CODED	TIME	PREREQ	CHAIN
ACPM	8067	UAS support of the MAGTF	B	G	(N)	*	*	4	*	*
ACPM	8080	Joint Air Operations	B	G	(N)	*	*	1	8081, 8082, 8083, 8084, 8085, 8086, 8087, 8088	*
ACPM	8081	Command and Control of Joint Air Operations	B	G	(N)	*	*	4	*	*
ACPM	8082	Theater Air Ground System (TAGS)	B	G	(N)	*	*	4	*	*
ACPM	8083	Joint Fire Support	B	G	(N)	*	*	4	*	*
ACPM	8084	Close Air Support (CAS)	B	G	(N)	*	*	4	*	*
ACPM	8085	Joint Targeting	B	G	(N)	*	*	4	*	*
ACPM	8086	North Atlantic Treaty Organization (NATO)	B	G	(N)	*	*	4	*	*
ACPM	8087	Joint Airspace Control	B	G	(N)	*	*	4	*	*
ACPM	8088	Countering Air and Missile Threats	B	G	(N)	*	*	4	*	*
TOTAL HOURS ACPM STAGE			EVENTS		40	HOURS		142		
TOTAL HOURS ACPM PHASE (8000)								142		

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CHAPTER 12

DATA SYSTEMS MAINTENANCE OFFICER (MOS 5970) INDIVIDUAL TRAINING AND READINESS REQUIREMENTS

	<u>PARAGRAPH</u>	<u>PAGE</u>
CREW MEMBER T&R SYLLABUS REQUIREMENTS	12.0	12-3
TRAINING PROGRESSION MODEL.....	12.1	12-3
PROGRAMS OF INSTRUCTION (POI)	12.2	12-3
PROFICIENCY AND CURRENCY	12.3	12-4
CERTIFICATION, QUALIFICATIONS AND DESIGNATION TABLES	12.4	12-4
SYLLABUS NOTES.....	12.5	12-5
CORE INTRODUCTION PHASE (0000).....	12.6	12-6
CORE PHASE (2000).....	12.7	12-17
MISSION PHASE (3000)	12.8	12-17
CORE PLUS PHASE (4000).....	12.9	12-17
MISSION PLUS PHASE (4500)	12.10	12-17
INSTRUCTOR TRAINING PHASE (5000).....	12.11	12-18
CERTIFICATIONS, QUALIFICATIONS, AND DESIGNATION (CQD) PHASE (6000)	12.12	12-23
MISSION ESSENTIAL TASK PHASE (7000).....	12.13	12-30
AVIATION CAREER PROGRESSION MODEL (8000).....	12.14	12-43
T&R SYLLABUS MATRIX.....	12.15	12-61

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CHAPTER 12

DATA SYSTEMS MAINTENANCE OFFICER (MOS 5970) INDIVIDUAL TRAINING AND READINESS REQUIREMENTS

12.0 CREW MEMBER T&R SYLLABUS REQUIREMENTS. This T&R Syllabus is based on specific goals and performance standards designed to ensure individual proficiency in Core and Mission Phase skills. The goal of this chapter is to develop individual and unit warfighting capabilities.

12.1 TRAINING PROGRESSION MODEL. This model represents the recommended average training progression for the Data Systems Maintenance Officer crewmember. Units should use the model as a point of departure to generate individual training plans.

5970 Career Progression Model													
MACCS WO			DSMO										
1	2	3	4	5	6	7	8	9	10	11	12	13	
WEEKS*			MONTHS*										

* Months indicated are training months, not calendar months.

12.2 PROGRAMS OF INSTRUCTION (POI). These tables reflect average time-to-train versus the minimum to maximum time-to-train parameters in the Training Progression Model.

12.2.1 Basic POI.

MACCS MAINTENANCE MOS 5970		
BASIC POI		
WEEKS	PHASE OF INSTRUCTION	UNIT RESPONSIBLE
0-3	CORE INTRODUCTION PHASE	MCCES

12.2.2 Refresher POI.

MACCS MAINTENANCE MOS 5970		
REFRESHER POI		
WEEKS	PHASE OF INSTRUCTION	UNIT RESPONSIBLE
VARIES	MET PHASE	TACTICAL SQUADRON

12.3 PROFICIENCY AND CURRENCY.

12.3.1 Event Proficiency. Event proficiency is defined as successful completion of the performance standard as determined by the instructor or evaluator. Event completion is predicated upon demonstrated proficiency. Once completed, it is logged in M-SHARP by entering the appropriate event code. M-SHARP automatically updates the event proficiency date to reflect the completion date.

12.3.2 Skill Proficiency. Proficiency is a measure of achievement of a specific skill. To attain individual skill proficiency, an individual must be simultaneously proficient in all events for that Skill. Individuals may be attaining proficiency in some skills while maintaining proficiency in others.

12.3.2.1 Maintaining Skill Proficiency. Once attained, skill proficiency is maintained by executing those events which have a Proficiency Period (Maintain events). Proficiency Periods establish the maximum time between event demonstration. Should proficiency be lost in any maintain event, for a specific skill, that skill proficiency is temporarily lost. Skill proficiency can be re-attained by again demonstrating proficiency in the event(s) that are not proficient. For flying communities, an individual shall complete delinquent events with a proficient instructor, crewman/flight lead as delineated by the T/M/S Syllabus Sponsor (see Chapter 3 of the Program Manual on specific instructor requirements for Low Altitude Flight, Night Systems, ACM, DM, DACM, DCM, FAC(A)).

12.3.2.2 Loss Of Individual Skill Proficiency. Should an individual lose proficiency in all maintain events in a skill, the individual will be assigned to the Refresher POI for the skill. To regain skill proficiency, the individual must demonstrate proficiency in all R-coded events for the skill.

12.3.2.3 Loss of Unit Skill Proficiency. If an entire unit loses proficiency in an Event, unit instructors shall regain proficiency by completing the event with an instructor from a like unit. If not feasible, the instructor shall regain proficiency by completing the event with another instructor. For flying communities, if a unit has only one instructor and cannot complete the event with an instructor from another unit, the instructor shall regain proficiency with another aircraft commander or as designated by the commanding officer.

12.3.2.4 Proficiency Status. Proficiency is a “Yes/No” status by skill assigned to an individual. When an individual attains and maintains Core, Mission, Core Plus, or Mission Plus phase skills the individual may count towards CMMR or CMTS.

12.3.3 Skill Currency. Currency is a control measure used to provide an additional margin of safety based on exposure frequency to a particular skill and applies to all MOS's that must comply with NATOPS and OPNAV requirements. It is a measure of time since the last event demanding that specific skill. For example, currency determines minimum altitudes in rules of conduct based upon the most recent low altitude fly date. Specific currency requirements for aircrew individual type mission profiles can be found in Chapter 3.

12.4 CERTIFICATION, QUALIFICATION, AND DESIGNATION TABLES. The tables below delineate T&R events required to be completed to attain proficiency for select designations. In addition to event requirements, all required stage lectures, briefs, squadron training, prerequisites, and other criteria shall be completed prior to completing final events. Designation letters signed by the commanding officer shall be placed in training Performance Records and NATOPS. See Chapter 6 of the Aviation T&R Program Manual on regaining lost qualifications.

12.4.1 INSTRUCTOR DESIGNATIONS.

MOS 5970 INSTRUCTOR DESIGNATIONS	
INSTRUCTOR DESIGNATION	EVENTS
BASIC INSTRUCTOR (BI)	5000, 5010, 5020, 6320

SENIOR INSTRUCTOR (SI)	5000, 5010, 5020, 5100, 5110, 5120, 5130, 6321
WEAPONS AND TACTICS INSTRUCTOR (WTI)	6000, 6320, 6321, 8000, 8020, 8040, 8060, 8080

12.4.2 CERTIFICATIONS, QUALIFICATIONS, AND DESIGNATIONS.

MOS 5970	
CERTIFICATIONS, QUALIFICATIONS, AND DESIGNATIONS (CQD)	
DESIGNATIONS (DESG)	EVENT
DATA SYSTEMS MAINTENANCE OFFICER	6334

12.5 SYLLABUS NOTES.

12.5.1 Environmental Conditions Matrix.

Environmental Conditions	
Code	Meaning
(N)	May be conducted day or night. If at night, may be aided or unaided.

12.5.2 Device Matrix.

DEVICE	
Symbol	Meaning
L	Event shall be conducted live (conducted in the field/garrison, during an exercise, etc). Requires live (non-simulated) execution of the event.
L/S	Event performed live preferred/simulator optional.
S/L	Event performed in simulator preferred/live optional.
G	Ground/academic training. May include Distance Learning, CBT, lectures, self paced.

12.5.3 Program of Instruction Matrix.

PROGRAM OF INSTRUCTION MATRIX		
Program of Instruction (POI)	Symbol	Aviation Ground
Basic	B	Initial MOS Training
Refresher	R	Return to community from non (MOS/Skill) associated tour
Maintain	M	All individuals who have attained CSP/MSP/CPD by initial POI assignment are re-assigned to the M POI to maintain proficiency.

12.5.4 Event Terms.

EVENT TERMS	
TERM	DESCRIPTION
Discuss	An explanation of systems, procedures, or tactics during the brief, exercise, or debrief. Student is responsible for knowledge of procedures.
Demonstrate	The description and performance of a particular event by the instructor, observed by the student. The student is responsible for knowledge of the procedures prior to the demonstration of a required event.

EVENT TERMS	
TERM	DESCRIPTION
Introduce	The instructor may demonstrate a procedure or event to a student, or may coach the student through the maneuver without demonstration. The student performs the procedures or maneuver with coaching as necessary. The student is responsible for knowledge of the procedures.
Practice	The performance of a maneuver or procedure by the student that may have been previously introduced in order to attain a specified level of performance.
Review	Demonstrated proficiency of an event by the student.
Evaluate	Any event designed to evaluate team/crew standardization that does not fit another category.

12.6 CORE INTRODUCTION PHASE (0000)

12.6.1 Purpose. To provide entry level instruction to develop the basic skills necessary to become designated as an Aviation Radar Maintenance Officer MOS 5910 or Data Systems Maintenance Officer MOS 5970. This training is completed upon graduation from the MACCS Maintenance Warrant Officer Course.

12.6.2 General.

12.6.2.1 Admin Notes. Hours are not utilized in the header information for each of the blocks of training provided by MCCES. MACCS Warrant Officer Course (CID: M0968K1), MCCES, located in 29 Palms, CA.

12.6.2.2 Prerequisite. Meet the requirement delineated in the MOS Manual (MCBul 1200).

12.6.2.3 Stages. The following stages are included in the Core Phase skill Introduction Phase of training.

PAR NO.	STAGE NAME	PAGE NUMBER
12.6.3	AIR SCHOOLS (AIRS) STAGE	12-6

12.6.3 AIR SCHOOLS (AIRS) STAGE

12.6.3.1 Purpose. To train Aviation Radar Maintenance Officer and Data System Maintenance Officers in Core Introduction Phase training events.

12.6.3.2 General.

Admin Notes. Hours are not utilized in the header information for each of the blocks of training provided by MCCES. MACCS Warrant Officer Course (CID: M0968K1), MCCES, located in 29 Palms, CA.

Prerequisite. MOS 5910 or 5970.

Crew Requirements. None.

AIRS-1002 0 * B (N) G

Goal. Conduct an inspection of maintenance functional areas.

Requirement. Given required references and a current inspection checklist, demonstrate the procedures for inspecting the following functional areas:

1. State the purpose for inspecting the functional areas.
2. Identify and review the references for each functional area and obtain applicable and current inspection lists for all.
3. Conduct an inspection of all areas to familiarize the trainee with the specifics of each.
 - a. Calibration Control Program.
 - b. Publication Control Program.
 - c. Quality Assurance Program.

- d. Preventive Maintenance Program.
- e. Modification Control Program.
- f. Tool Control Program.
- g. MIMMS/GCSS-MC.
- h. Training Program.
- i. Records.
- j. Safety Program.
- k. Corrosion Prevention and Control CPAC.
- l. Warranty Program.
- 4. Explain the inspection procedures.
 - a. Schedule the inspection.
 - b. Inform functional area manager.
 - c. Turn over folders are IAW the references.
 - d. Submit an executive summary at the conclusion of the inspection.

Performance Standard. Pass an exam.

Instructor. FLC instructor

Prerequisite. None.

References.

- 1. FSMAO Checklist
- 2. MMSOP

AIRS-1003 0 * B (N) G

Goal. Identify the key elements of Operational Orders (OPORD).

Requirement. Given an OPORD, identify those key elements pertaining to the unit's communications requirements, perform the following:

- 1. Identify the purpose and major sections of the OPORD.
- 2. State the purpose and content of the Annex K.
 - a. State the purpose and content of the OPTASKLINK.
 - b. State the purpose and content of an KMI Callout.

Performance Standard. Pass an exam.

Instructor. FLC instructor

Prerequisite. None.

Reference.

- 1. MCWP 5-1

AIRS-1004 0 * B (N) G

Goal. Reconcile Global Combat Support Systems-Marine Corps (GCSS-MC) automated reports.

Requirement. Given the reports listed in item 1 below:

- 1. Identify the purpose of:
 - a. Maintenance Production Report (MPR).
 - b. Equipment Status Report (ESR).
 - c. Preventative Maintenance (PM) Report.
 - d. Calibration Report.
 - e. Modification Report.

- f. Sub-Inventory Report.
- g. Maintenance Management Report (MMR).
- h. Due and Status File (DASF) Report.
- i. Mechanized Allowance List (MAL) Report.
- j. Inspection repair tag (NAVMC 1018)
2. Identify the type of information contained in each of the forms listed above.
3. Identify the status of a parts requisition.
4. Identify proper use of a Uniform Material Movement and Issue Priority System (UMMIPS) priorities.
5. State item requisition priorities.
6. State any errors found within each of the forms listed above.
7. Reconcile all items listed above and list all errors found in each form.
8. Explain how to maintain a layette bin.

Performance Standard. Given the GCSS-MC automated reports, reconcile these reports to pass an exam.

Instructor. FLC instructor

Prerequisite. None.

References.

1. MCO 3000.11E Ground Equipment Condition and Supply Material Readiness Reporting (MRR) Policy
2. MCO P4400.16 Uniform Material Movement and Issue Priority System (UMMIPS)
3. MCO 4790.2 Field-Level Maintenance Management Policy (FLMMP)
4. TM 4700-15/1_ Ground Equipment Record Procedures
5. UM 4000-125 Marine Corps User's Manual

AIRS-1005 0 * B (N) G

Goal. Identify the services provided by Marine Wing Communications Squadron.

Requirement. Given the references, describe the following services:

1. Single Channel Radio Communications.
2. Wide Area Networks (WAN) / Local Area Networks (LAN) Communications.
3. Electronic Message Communications.
4. Telephone Communications.
5. Digital Backbone.
6. Communications Control.

Performance Standard. Pass an exam.

Instructor. FLC instructor

Prerequisite. None.

References.

1. MCWP 3-40.3
2. MCWP 3-25 Control of Aircraft and Missiles

AIRS-1006 0 * B (N) G

Goal. Identify cyber security requirements for tactical employment of information systems.

Requirement. Given the reference, perform the following:

1. Identify the Accreditation package requirements.
2. Explain the purpose of the Authority to Operate (ATO).
3. Explain configuration management and its relationship to cyber security.

Performance Standard. Pass an exam.

Instructor. FLC instructor

Prerequisite. None.

References.

1. DOD Directive 5200.28
2. DOD Directive 5200.40
3. MCO 5239.2A
4. DoD 8570.01-M

AIRS-1007 0 * B (N) G

Goal. Identify TAOC and EW/C communications information exchange requirements.

Requirement. Given the references, perform the following:

1. Data systems.
2. Radio systems.
3. Data link systems.

Performance Standard. Pass an exam.

Instructor. FLC instructor

Prerequisite. None.

References.

1. MCRP 5-12D
2. Unit Core METL
3. MCBUL 3000
4. MCWP 3-25.7
5. MCWP 3-25.8
6. MCWP 3-25

AIRS-1008 0 * B (N) G

Goal. Identify TACC Communications information exchange requirements.

Requirement. Given the references, perform the following:

1. Data systems.
2. Radio systems.
3. Data link systems.

Performance Standard. Pass an exam.

Instructor. FLC instructor

Prerequisite. None.

References.

1. MCRP 5-12D
2. MCWP 3-25.4
3. Unit Core METL
4. MCBUL 3000

AIRS-1009 0 * B (N) G

Goal. Identify DASC communications information exchange requirements.

Requirement. Given the references, perform the following:

1. Data systems.
2. Radio systems.
3. Data link systems.

Performance Standard. Pass an exam.

Instructor. FLC instructor

Prerequisite. None.

References.

1. MCRP 5-12D
2. Unit Core METL
3. MCBUL 3000
4. MCWP 3-25.5
5. MCWP 3-25

AIRS-1010 0 * B (N) G

Goal. Analyze the TO/E.

Requirement. Given a TO/E, explain the following:

1. Mission statement.
2. Billet Organization.
3. Equipment Organization.

Performance Standard. Pass an exam.

Instructor. FLC instructor

Prerequisite. None.

References.

1. URL <https://tfsms.mccdc.usmc.mil>
2. MCO 5311.1

AIRS-1011 0 * B (N) G

Goal. Identify spectrum management procedures.

Requirement. Given the references and a scenario with operational requirements, perform the following:

1. Submit frequency requirements.
 - a. Identify submission timelines.
 - b. Identify data elements (-Freq, Location, Power, Dates).
2. Submit Satellite Access requirements.

Performance Standard. Pass an exam.

Instructor. FLC instructor

Prerequisite. None.

References.

1. MCRP 3-40
2. MCO 2400.2

AIRS-1012 0 * B (N) G

Goal. Identify the embarkation requirements for the major end items of the TACC, DASC, TAOC, and EW/C.

Requirement. Given the reference, list:

1. Hazardous Material requirements.
2. Security requirements.
3. Material Handling Equipment requirements.
4. Equipment specific transportation requirements.
5. Identify MAGTF Deployment Support System II (MDSS II) elements.

Performance Standard. Pass an exam.

Instructor. FLC instructor

Prerequisite. None.

References.

1. MCO 4030.33
2. MCRP 4-11C

AIRS-1013 0 * B (N) G

Goal. Identify LAAD Communications information exchange requirements.

Requirement. Given the references, perform the following:

1. Data systems.
2. Radio systems.
3. Data link systems.

Performance Standard. Pass an exam.

Instructor. FLC instructor

Prerequisite. None.

References.

1. MCWP 3-25.10
2. MCWP 3-25
3. Unit Core METL
4. MCBUL 3000

AIRS-1014 0 * B (N) G

Goal. Identify MATC communications information exchange requirements.

Requirement. Given the references, perform the following:

1. Data systems.
2. Radio systems.
3. Data link systems.

Performance Standard. Pass an exam.

Instructor. FLC instructor

Prerequisite. None.

References.

1. MCWP 3-25
2. MCWP 3-25.8
3. Unit Core METL
4. MCBUL 3000

AIRS-1016	0	*	B	(N)	G

Goal. Identify the Marine Corps Urgent Needs Process (MCUNP).

Requirement. Given the references and an equipment requirement, identify the process for submission and complete the MCUNP form.

1. State the purpose of the MCUNP.
2. State the purpose of the urgent Universal Needs Statement (UNS).
3. State the purpose of the deliberate UNS.
4. Describe the process of completing an Urgent UNS form.
5. Describe the process of completing a deliberate UNS form.

Performance Standard. Pass an exam.

Instructor. FLC instructor

Prerequisite. None.

References.

1. NAVMC 11475
2. MCO 3900.17

AIRS-1017	0	*	B	(N)	G

Goal. Validate induction of new equipment into service.

Requirement. Given a Material Fielding Plans (MFP) or Users Logistics Support Summary (ULSS), and applicable references, demonstrate and validate the induction of new equipment into service.

1. Review the Users Logistics Support Summary (ULSS) or Material Fielding Plan (MFP).
2. Validate new equipment is properly placed into service.
 - a. Ensure record jacket was created with proper documentation IAW the reference.
 - b. Ensure initial SL-3 was performed.
 - c. Ensure an initial LTI was performed.
 - d. Ensure induction of new equipment into calibration cycle as required.
 - e. Ensure equipment is accounted for within KMI as required.
 - f. Ensure the equipment and proper documentation was sent to Supply.
 - g. Ensure supply received the proper documentation to add equipment to the CMR.

Performance Standard. Pass an exam.

Instructor. FLC instructor

Prerequisite. None.

References.

1. Supply Instruction (SI)
2. ULSS
3. Equipment SL-3
4. Initial Issuing Provision Inventories
8. UM 4000-125 GCSS User's Manual
9. MMSOP
5. MCO 4790.2
6. MCO 4400.150

AIRS-1018 0 * B (N) G

Goal. Demonstrate the process to phase out obsolete equipment.

Requirement. Given a Phase out Plan (POP) and applicable references, demonstrate and validate phase out of obsolete equipment, to include at minimum:

1. Review the POP and applicable references.
2. State the purpose of:
 - a. Equipment disposition (Formerly WIR).
 - b. Requesting equipment disposition in GCSS-MC.
 - c. Materiel Returns (MTR) program.
3. Validate obsolete equipment was disposed of properly by ensuring the following:
 - a. Ensure a final LTI was performed.
 - b. Ensure a final SL-3 was performed.
 - c. Ensure equipment disposition request was submitted in GCSS-MC.
 - d. Ensure equipment was disposed of IAW instructions in Phase out plan.
 - e. Ensure the record jackets were completed and accompanied equipment.
 - f. Ensure the equipment and proper documentation was sent to Supply for turn-in.
 - g. Ensure supply received the proper documentation to remove equipment from the CMR.

Performance Standard. Pass an exam.

Instructor. FLC instructor

Prerequisite. None.

References.

1. Supply Instruction (SI)
2. Equipment SL-3
3. Initial Issuing Provision Inventories
4. MCO P4400.82
5. UM 4000-125 GCSS User's Manual
6. MMSOP
7. MCO 4790.2
8. MCO 4400.150

AIRS-1019 0 * B (N) G

Goal. Identify maintenance funding requirements.

Requirement. Given a scenario, equipment maintenance history and anticipated maintenance shortfalls, propose funding allocations for maintenance activities to create a maintenance budget.

1. Identify and prioritize funding requirements.
2. Provide a maintenance funding request based on requirement and prior year utilization.
3. Provide an anticipated maintenance funding request based on the unit's TEEP.

4. Submit a budget request to the instructor for validation.

Performance Standard. Pass an exam.

Instructor. FLC instructor

Prerequisite. None.

References.

1. MCO 4400.150
2. MCO 7300.21

AIRS-1020	0	*	B	(N)	G

Goal. Identify the SECREP management process.

Requirement. Given a practical application scenario, applicable maintenance and supply history documents, review and provide recommendations for organizational Critical Low Density SECREP (CLD) assets and required on-hand quantities:

1. Define the purpose of the SECREP management process.
2. Define the purpose of Critical Low Density SECREP exchange process.
3. Identify the key components of the SECREP exchange process.
4. Identify the key documentation within each component of the SECREP exchange process.
5. Identify the SECREP management re-computation process.
6. Identify Low Density SECREP assets.

Performance Standard. Pass an exam.

Instructor. FLC instructor

Prerequisite. None.

References.

1. MCO 4790.2
2. MCO 4400.150
3. FEDLOG
4. MCO P4400.82F
5. MCO P4400.151B
6. UM 4000-125 GCSS User's Manual
7. MMSOP

AIRS-1021	0	*	B	(N)	G

Goal. Identify DOD cyber security workforce structure.

Requirement. Given the reference, identify:

1. The cyber security categories.
2. Requirements for cyber security categories.

Performance Standard. Pass an exam.

Instructor. FLC instructor

Prerequisite. None.

Reference.

1. DOD 8570.01-M

AIRS-1022 0 * B (N) G

Goal. Access published information within TFSMS.

Requirement. Given access to TFSMS, complete the following:

1. Access unit TO/E.
2. Access standard reports.
3. Create custom reports.
4. Manage custom reports.

Performance Standard. Pass an exam.

Instructor. FLC instructor

Prerequisite. None.

References.

1. URL <https://tfsms.mccdc.usmc.mil>
2. MCO 5311.1

AIRS-1023 0 * B (N) G

Goal. Describe readiness ratings within DRRS-MC.

Requirement. IAW the reference, describe the following:

1. Describe P-rating.
2. Describe S-rating.
3. Describe R-rating.
4. Describe T-rating.
5. Describe C-level assessment.
6. Identify how the Commander will assess their METs.
 - a. Trained.
 - b. Qualified.
 - c. Not Observed.

Performance Standard. Pass an exam.

Instructor. FLC instructor

Prerequisite. None.

References.

1. NAVMC 3500.14C
2. MCO 3000.13 MARINE CORPS READINESS REPORTING STANDARD OPERATING PROCEDURES (SOP)
3. MCO 3000.11E

AIRS-1024 0 * B (N) G

Goal. Explain the product quality deficiency report (PQDR).

Requirement. Given the reference, an item of equipment or a scenario, identify the following:

1. Purpose of the PQDR.

2. Criteria under which a PQDR should be submitted.
3. Information required for submitting a PQDR.

Performance Standard. Pass an exam.

Instructor. FLC instructor

Prerequisite. None.

References.

1. MCO 4790.2
2. UM 4400.125
3. MCO 4855.10B PRODUCT QUALITY DEFICIENCY REPORT (PQDR)
4. SECNAVINST 4855.5, Product Quality Deficiency Report Program
5. <http://www.logcom.usmc.mil/pqdr/files/PQDR%20Users%20Guide.pdf>

AIRS-1025 0 * B (N) G

Goal. Identify major funding lines.

Requirement. Given the references, identify major funding lines:

1. Operation & Maintenance (O&M) Funds.
 - a. Planning Estimate (PE).
 - (1) Direct Support Stock Center (DSSC).
 - (2) Temporary Additional Duty.
 - (3) Fuel.
 - (4) Government-Wide Commercial Purchase Card Program (GCPC).
 - b. Requisition Authority (RA) – Supported Activities Supply System (SASSY).
2. Research, Development, Test & Evaluation (RDT&E).
3. Procurement Marine Corps (PMC).
4. Military Construction (MILCON).
5. Blue Dollars (2F Funds).

Performance Standard. Pass an exam.

Instructor. FLC instructor

Prerequisite. None.

References.

1. MCO 4400.150
2. MCO 7300.21

AIRS-1026 0 * B (N) G

Goal. State the duties of a CMR responsible officer.

Requirement. IAW the reference and given a maintenance section's CMR, ensure equipment accountability and requirements by performing the following:

1. State the purpose of a CMR.
2. Review TE.
3. Describe the process of the CMR inventory.
 - a. Ensure SL-3 accountability for assumption and relief.
 - b. Determine UURI requirements.
 - c. Ensure equipment have record jackets.
 - d. Identify discrepancies, if any.

4. State the purpose for the letter of RFI.
5. State the purpose of the delegation of authority.
6. State the purpose of the Responsible Individual (RI).
7. State the purpose for maintaining source documents.

Performance Standard. Pass an exam.

Instructor. FLC instructor

Prerequisite. None.

References.

1. MCO 4400.150
2. CMR
3. MMSOP
4. MCO 4790.2
5. UM 4000.125

12.7 CORE PHASE (2000)

12.7.1 Purpose. **RESERVED FOR FUTURE USE.**

12.7.2 General.

12.7.2.1 Admin Notes.

12.7.2.2 Prerequisite.

12.7.2.3 Stages.

12.8 MISSION PHASE (3000)

12.8.1 Purpose. **RESERVED FOR FUTURE USE.**

12.8.2 General.

12.8.2.1 Admin Notes.

12.8.2.2 Prerequisite.

12.8.2.3 Stages. The following stages are included in the Mission Phase.

12.9 CORE PLUS PHASE (4000)

12.9.1 Purpose. **RESERVED FOR FUTURE USE.**

12.9.2 General.

12.9.2.1 Admin Notes.

12.9.2.2 Prerequisite.

12.9.2.3 Stages.

12.10 MISSION PLUS PHASE (4500)

12.10.1 Purpose. **RESERVED FOR FUTURE USE.**

12.10.2 General.

12.8.2.1 Admin Notes.

12.10.2.2 Prerequisite.

12.10.2.3 Stages. The following stages are included in the Mission Phase.

12.10 INSTRUCTOR TRAINING PHASE (5000)

12.10.1 Purpose. To provide technicians the additional skills necessary to instruct, evaluate and approve event completions. Upon completion of the required training, an individual may be approved for instructor designation by the commanding officer.

12.10.2 General.

12.10.2.1 Admin Notes.

1. The MACCS instructor concept is a means to standardize all instructors across the MACCS in regards to the concepts of managing a WTTP, properly conducting training, performing evaluations, and recommending training plans.

2. There are different instructor designations (listed below). The intent is to train individuals with different levels and areas of experience to instruct personnel. Instructor experience is also gained while progressing through the different instructor designations.

a. Basic Instructor (BI)

b. Senior Instructor (SI)

c. Weapons and Tactics Instructor (WTI)

d. The MAWTS-1 C3 Course catalog contains the training requirements for the above listed instructors. The catalog is located at the MAWTS-1 website, <https://vcepub.tecom.usmc.mil/sites/msc/magtftc/mawts1/departments1/newc3/default.aspx>.

e. The table below outlines the events that each instructor can train, evaluate, and approve or recommend for approval.

12.10.2.2 Prerequisite. None.

12.10.2.3 Stages. The following stages are included in the Instructor Training Phase.

PAR NO.	STAGE NAME	PAGE NUMBER
12.10.3	INSTRUCTOR UNDER TRAINING (IUT)	12-18

12.10.3 INSTRUCTOR UNDER TRAINING (IUT) STAGE (5000)

12.10.3.1 Purpose. To train Aviation Radar Maintenance Officers in the fundamentals of instructing and training processes.

12.10.3.2 General.

Admin Notes. None.

Prerequisite. None.

Crew Requirements. None.

IUT-5000 2.0 * B (N) L

Goal. Introduce principals of instruction.

Requirement. Given the reference, the BIUT will demonstrate the following with the assistance of a unit instructor:

1. Adult learning principles.
 - a. Pedagogy to andragogy.
 - b. Characteristics of the adult learner.
 - c. Learning styles.
 - d. How adults learn.
 - e. Domains of learning.
 - f. Group dynamics.
 - g. Motivation.
 - h. Constructivist learning environments.
2. Introduce, discuss, and demonstrate instruction techniques.
3. Introduce, discuss, and demonstrate class management techniques.
 - a. How to select teaching resources to accommodate student learning styles.
 - b. How to properly organize the instructional environment for effective learning.

Performance Standard. With the aid of references, the BIUT shall demonstrate principles of instruction. During this session, the instructor shall discuss the event content and question the student throughout the training session to ensure understanding.

Instructor. BI

Prerequisite. None.

References.

1. Adult Learning section, Systems Approach to Training Manual (2004)
2. NAVMC 3500.14
3. NAVMC 1553.1

IUT-5010 2.0 * B (N) G

Goal. Describe individual T&R requirements.

Requirement. Using the Aviation T&R Program Manual, discuss the purpose of each of the following items with an instructor:

1. Training progression model.
2. Programs of Instruction.
 - a. Basic.
 - b. Refresher.
 - c. Conversion.
 - d. Series Conversion.
 - e. Transition.
 - f. Maintain.
3. T&R attain and maintain tables.

4. Syllabus notes.
5. T&R syllabus structure.
 - a. Phase.
 - b. Stage.
 - c. Event.
 - d. Skill.
 - e. Syllabus.
6. Event format.
 - a. Header.
 - (1) Event prefix - event code.
 - (2) Projected event duration.
 - (3) Proficiency period.
 - (4) Programs of instruction (POI).
 - (5) Event conditions.
 - (6) Device options.
 - (7) Device number.
 - (8) Device type.
 - b. Body.
 - (1) Goal.
 - (2) Requirement.
 - (3) Performance standard.
 - (4) Equipment.

Performance Standard. Without the aid of references and during a discussion session, the BIUT shall describe Individual T&R requirements. During this session, the instructor shall discuss the event content and question the student throughout the training session to ensure understanding.

Instructor. BI

Prerequisite. None.

References.

1. NAVMC 3500.14
2. NAVMC 1553.1

IUT-5020 12.0 90 B, R, M (N) L

Goal. Conduct T&R instruction.

Requirement. The BIUT, under the supervision of an instructor, will conduct three periods of instruction on three different T&R events selected by the instructor and should include as many different methods of instruction as possible (lecture or academic, demonstration, and practical application). The event must be one the BIUT is current and proficient in. The BIUT will complete the following for each of the three events instructed:

1. Prepare to train the event.
 - a. Review a trainee's performance record to identify required training for the event selected.
 - b. Ensure the student has met prerequisites for the event to be trained.
 - c. Gather the resources necessary to conduct the training (i.e., instructional materials, references, and equipment).
 - d. Conduct task analysis on each event to ensure all intended requirements and prerequisite skills, specified or implied, are trained IAW applicable references.
 - e. Schedule the training event (facilities and students).
 - f. Prepare an evaluation form for each student to be evaluated.
2. Conduct training on the event selected:
 - a. Ensure all training resources are properly staged/equipment if set up properly for training.
 - b. Instruct the student in a thorough manner so as to cover all requirements for the event.

- c. Ensure continuous, objective assessment of the student's progress during training.
3. Assess student performance:
 - a. Assess the student's performance to the performance standard.
 - b. Correct student deficiencies in a timely manner and provide the student feedback.
 - c. Complete the evaluation form on for each student trained.
 - d. Debrief student on the performance and provide corrective action.
4. Route evaluation form as required.

Performance Standard. Complete the requirement items IAW the reference and ensure training is doctrinally and technically current. Instructor shall use the instructor evaluation form from the SAT user's guide for each class and a mark of satisfactory must be achieved for each of the three classes.

Instructor. SI

Prerequisite. 5000, 5010

References.

1. NAVMC 3500.14, Ch 6
2. NAVMC 1553.1
3. MCO 1553.2B, Appendix O

IUT-5100 2.0 * B (N) G

Goal. Describe the Aviation Training and Readiness (T&R) Program.

Requirement. Using the community T&R manual discuss the following with an instructor:

1. Describe the Weapons and Tactics Training Program (WTTP).
2. Define each element of the Core Model:
 - a. Mission statements.
 - b. Core Mission Essential Task List (METL).
 - c. Output standards.
 - d. Core Phase skills (How to attain and maintain).
 - e. Mission Phase skills (How to attain and maintain).
 - f. Combat Leadership.
3. Define each of the following elements of unit training:
 - a. Training Exercise Employment Plan (TEEP).
 - b. Core Model Minimum Requirements (CMMR).
 - c. Instructors.
 - d. Core Model Training Report (CMTR).
 - e. T&R manual connection to readiness reporting.
4. Define each of the following elements of training:
 - a. Certification.
 - b. Qualification.
 - c. Designation.
5. PERFORMANCE RECORD Explain how changes are made to the Program manual:
 - a. Explain T&R conference procedures.
 - b. Explain correspondence change procedures.

Performance Standard. Complete the requirements IAW the reference. Instructor will question the SIUT to check for thorough understanding of the Aviation T&R Program.

Instructor. BI

Prerequisite. None.

References.

1. NAVMC 3500.14
2. MCO 3500.109

IUT-5110 4.0 365 B, R, M (N) L

Goal. Conduct instructor evaluations.

Requirement. Using the instructor evaluation checklist from the SAT manual, conduct two evaluations on instructors of equal or lower designation.

1. Provide notification of evaluation to the instructor being evaluated.
2. Do not interfere with or disrupt the instruction while taking place.
3. Thoroughly document observed items on the checklist.
4. Ensure student evaluation form is filled out correctly and the appropriate debrief took place.
5. Debrief the instructor being evaluated on their preparation, instruction, evaluation, and documentation.
6. Have the evaluated instructor complete the instructor improvement plan section and sign.
7. File a copy of the completed evaluation form in both the evaluator's and evaluated instructor's performance record.

Performance Standard. Complete the requirements IAW the reference.

Instructor. SI

Prerequisite. 5100

References.

1. NAVMC 3500.14
2. Applicable community T&R Manual
3. MCO1553.2B, Appendix O

IUT-5120 2.0 * B (N) L

Goal. Perform T&R administration.

Requirement. Document training to include:

1. Performance records.
2. Ensure MSHARP is updated appropriately.
3. Assemble recommendation package for certifications, qualifications, and designations IAW T&R manual.

Performance Standard. Complete the requirement items IAW the references. Instructor will question the trainee to check for understanding of the administration process.

Instructor. SI

Prerequisite. 5100, 5110

References.

1. NAVMC 3500.14
2. Local WTTP SOP
3. <http://msharpsupport.com>

IUT-5130 2.0 * B (N) L

Goal. Develop a training plan.

Requirement. Given a deployment scenario develop a training plan to determine individual, and crew training needed to meet CMMR by completing the following:

1. Review Commander's training guidance.
2. Analyze the CMTR to determine training deficiencies and how to achieve CMMR.
3. Identify and schedule T&R training opportunities IAW the TEEP to achieve requirements.
4. Determine instructors required.
5. Determine equipment required.
6. Determine external support required.
7. Deliver a brief to the instructor that shows:
 - a. Crew manning and training requirements.
 - b. Current training status.
 - c. Identify the training deficiencies and resource shortfalls.
 - d. Explain the training plan to correct the training deficiencies.
 - e. Training plan meets commander's guidance.

Performance Standard. Complete the requirement items IAW the references and commander's training guidance. Training plan will ensure adequate time is allocated to include preparation, instruction, assessment, documentation, and remediation.

Instructor. SI

Prerequisite. 5100, 5110, 5120

References.

1. NAVMC 3500.14
2. Applicable Community T&R manuals

12.12 CERTIFICATION, QUALIFICATIONS, AND DESIGNATIONS (CQD) PHASE (6000)

12.12.1 Purpose. This phase provides community standardization for MACCS Warrant Officer certifications and designations; combat leaders and instructor designations. This syllabus does not contain "one time" certification training requirements.

12.12.2 General.

12.12.2.1 Admin Notes.

1. This section enables units to document and track combat leaders, instructors, technician and CD assignments. All syllabus training and administration requirements must be complete prior to being qualified or designated. A qualification or designation is not effective until all administration is completed.

2. Only once an individual is qualified or designated in writing, the signed letter is filed in the IPR, and all administrative actions are completed, and the event code has been logged in M-SHARP shall the qualification or designation be effective.

12.12.2.2 Prerequisite. None.

12.12.2.3 Stages. The following stages are included in the Instructor Training Phase.

PAR NO.	STAGE NAME	PAGE NUMBER
12.12.3	DESIGNATION (DESG)	12-24
12.12.4	SCHOOL CODES (SCHL)	12-25

12.12.4 DESIGNATIONS (DESG) STAGE

12.12.4.1 Purpose. To provide for designation of combat leaders and instructors. Designations are command specific and expire when an individual transfers out of a command. In order to ensure proficiency is maintained, specific events throughout this syllabus have been R-coded. The gaining command shall review the IPR to ensure prerequisite R-coded events for a designation are current prior to approving that designation. If prerequisite R-coded events are delinquent, the individual shall update those events.

12.12.4.2 General.

Admin Notes. Policies and rules for attaining and maintaining designations are detailed in the Aviation T&R Program Manual and this Manual.

Prerequisite. None.

Crew Requirements. None.

DESG-6320	0.5	*	B	(N)	G

Goal. Designation as a Basic Instructor (BI).

Requirement. Be recommended for designation by a WTI and designated in writing by the commanding officer.

Performance Standard. N/A

Instructor. WTI

Prerequisite. 5000, 5010, 5020

External Syllabus Support. None.

Reference. NAVMC 3500.14_

DESG-6321	0.5	*	B	(N)	G

Goal. Designation as a Senior Instructor (SI).

Requirement. Be recommended for designation by a WTI and designated in writing by the commanding officer.

Performance Standard. N/A

Instructor. WTI

Prerequisite. 5000, 5010, 5020, 5100, 5110, 5120, 5130, 6320

Reference. NAVMC 3500.14

DESG-6322	0.5	*	B	(N)	G

Goal. Designation as Weapons and Tactics Instructor (WTI).

Requirement. Be certified by MAWTS-1 as a WTI and be recommended for designation by the squadron WTI. The commanding officer will designate the WTI in writing.

Performance Standard. N/A

Instructor. WTI

Prerequisite. 6000, 6320, 6321

Reference. NAVMC 3500.14_

DESG-6334 .5 * B (N) G

Goal. Data Systems Maintenance Officer (DSMO).

Requirement. Be designated by the commanding officer in writing.

Performance Standard. N/A.

Instructor. WTI.

Prerequisite. None.

Reference.

1. NAVMC 3500.14, Naval Aviation Program Manual

12.12.5 SCHOOL CODES (SCHL) STAGE

12.12.5.1 Purpose. To provide tracking codes for schools that are pertinent to the training of the 5970 in the skill progression of the Marine.

12.12.5.2 General.

Admin Notes. Policies and prerequisites for attending the listed schools are maintained within MCTIMS.

Prerequisite. None.

Crew Requirements. None.

SCHL CODE	NAME OF COURSE	LOCATION	CID
SCHL-6000	Weapons and Tactics Instructor (WTI)	MCAS Yuma, AZ	M14P2A1
SCHL-6013	(AOC IQT) System Administrator	Hurlburt Field, FL	F19L2U2
SCHL-6014	(AOC IQT) Network Administrator	Hurlburt Field, FL	F19L9W2
SCHL-6020	Link 16 Basics Course (JT-100)	Joint Knowledge Online (JKO)	N/A
SCHL-6021	Intro to Multi TDL Network (JT-101)	Fort Bragg, NC	N/A
SCHL-6022	Multi-TDL Advanced Joint Interoperability Course (MAJIC) (JT-102)	Fort Bragg, NC	A36L6Z1
SCHL-6023	Link 16 Joint Interoperability Course (US-109)	Joint Knowledge Online (JKO)	N/A
SCHL-6024	Multi TDL Planner Course (JT-201)	Fort Bragg, NC	A05KHY1
SCHL-6025	Link 16 Unit Manager (LUM) Course (JT-220)	Fort Bragg, NC	A05A111
SCHL-6026	Joint Interface Control Officer (JICO) (JT-301)	Fort Bragg, NC	A05FH22

SCHL-6027	Advanced JICC Operator Course (JT-310)	Fort Bragg, NC	A05FH11
SCHL-6031	MATC Maintenance Managers Course	NATTC, FL	N23KCN2
SCHL-6073	Micro-Miniature Electronics Repair Course	San Diego, CA	N01A351
		Norfolk, VA	N02A351
		Oak Harbor, WA	N26A352
SCHL-6093	Microminiature/Automated Test Equipment Repair Course	29 Palms, CA	M09E2D1
SCHL-6094	Advanced Electronics Course	29 Palms, CA	M09DSK1
SCHL-6095	Ground Electronics Maintenance NCO Course	Camp Johnson, NC	M03DNSG
SCHL-6097	Mountain Command Control Communications Course	Bridgeport, CA	M24CXJ1

SCHL-6000 0.5 * B (N) G

Goal. Complete WTI Course.

Requirement. Successfully complete course curriculum.

Performance Standard. N/A.

Instructor. N/A.

Prerequisite. 6320, 6321, 8000, 8020, 8040, 8060, 8080

Reference. None.

SCHL-6013 0.5 * B (N) G

Goal. Complete (AOC IQT) System Administrator.

Requirement. Successfully complete course curriculum.

Performance Standard. N/A.

Instructor. N/A.

Prerequisite. None.

Reference. None.

SCHL-6014 0.5 * B (N) G

Goal. Complete (AOC IQT) Network Administrator.

Requirement. Successfully complete course curriculum.

Performance Standard. N/A.

Instructor. N/A.

Prerequisite. None.

Reference. None.

SCHL-6020 0.5 * B (N) G

Goal. Complete Link 16 Basic Course (JT-100).

Requirement. Successfully complete course curriculum.

Performance Standard. N/A.

Instructor. N/A.

Prerequisite. None.

Reference. None.

SCHL-6021 0.5 * B (N) G

Goal. Complete Intro to Multi TDL Network (JT-101).

Requirement. Successfully complete course curriculum.

Performance Standard. N/A.

Instructor. N/A.

Prerequisite. None.

Reference. None.

SCHL-6022 0.5 * B (N) G

Goal. Complete Multi-TDL Advanced Joint Interoperability Course (MAJIC) (JT-102).

Requirement. Successfully complete course curriculum.

Performance Standard. N/A

Instructor. N/A.

Prerequisite. 6021.

Reference. None.

SCHL-6023 0.5 * B (N) G

Goal. Link 16 Joint Interoperability Course (US-109).

Requirement. Successfully complete course curriculum.

Performance Standard. N/A

Instructor. N/A.

Prerequisite. None.

Reference. None.

SCHL-6024	0.5	*	B	(N)	G

Goal. Complete Multi TDL Planner Course (JT-201).

Requirement. Successfully complete course curriculum.

Performance Standard. N/A

Instructor. N/A

Prerequisite. None.

Reference. None.

SCHL-6025	0.5	*	B	(N)	G

Goal. Complete Link 16 Unit Manager (LUM) Course (JT-220).

Requirement. Successfully complete course curriculum.

Performance Standard. N/A.

Instructor. N/A.

Prerequisite. None.

Reference. None.

SCHL-6026	0.5	*	B	(N)	G

Goal. Complete Joint Interface Control Officer (JICO) (JT-301).

Requirement. Successfully complete course curriculum.

Performance Standard. N/A.

Instructor. N/A.

Prerequisite. 6021, 6022, 6024

Reference. None.

SCHL-6027	0.5	*	B	(N)	G

Goal. Complete Advanced JICC Operator Course (JT-310).

Requirement. Successfully complete course curriculum.

Performance Standard. N/A.

Instructor. N/A.

Prerequisite. None.

Reference. None.

SCHL-6031	0.5	*	B	(N)	G

Goal. Complete MATC Maintenance Manager's Course.

Requirement. Successfully complete course curriculum.

Performance Standard. N/A.

Instructor. N/A.

Prerequisite. None.

Reference. None.

SCHL-6073	0.5	*	B	(N)	G

Goal. Complete Micro-Miniature Electronics Repair Course.

Requirement. Successfully complete course curriculum.

Performance Standard. N/A.

Instructor. N/A.

Prerequisite. None.

Reference. None.

SCHL-6093	0.5	*	B	(N)	G

Goal. Complete Micro-miniature/Automated Test Equipment Repair Course.

Requirement. Successfully complete course curriculum.

Performance Standard. N/A.

Instructor. N/A.

Prerequisite. None.

Reference. None.

SCHL-6094	0.5	*	B	(N)	G

Goal. Complete Advanced Electronics Course.

Requirement. Successfully complete course curriculum.

Performance Standard. N/A.

Instructor. N/A.

Prerequisite. None.

Reference. None.

SCHL-6095 0.5 * B (N) G

Goal. Complete Ground Electronics Maintenance NCO Course.

Requirement. Successfully complete course curriculum.

Performance Standard. N/A.

Instructor. N/A.

Prerequisite. None.

Reference. None.

SCHL-6097 0.5 * B (N) G

Goal. Complete Mountain Command Control Communications Course.

Requirement. Successfully complete course curriculum.

Performance Standard. N/A.

Instructor. N/A.

Prerequisite. None.

Reference. None.

12.13 MISSION ESSENTIAL TASK (MET) PHASE (7000)

12.13.1 Purpose. This phase takes CMMR proficient Marines from multiple PMOS, puts them in CMMR representative crews, and trains them as combat effective teams in combined events.

12.13.2 General.

12.13.2.1 Admin Notes. Prerequisites for this phase of training cannot be waived. Multiple events can be trained at the same time as long as separate evaluations are being conducted.

12.13.2.2 Prerequisite. Marines must either be CMMR crew position or non-aviation PMOS proficient to train in this phase. For those events requiring combat leaders, only Marines currently designated as such can train in this phase.

12.13.2.3 Stages. The following stages are included in the Mission Essential Task (MET) Phase of training.

PAR NO.	STAGE NAME	PAGE NUMBER
12.13.3	TACC CONDITION (COND)	12-30
12.13.4	DASC CONDITION (COND)	12-34
12.13.5	TAOC CONDITION (COND)	12-40

12.13.3 TACC CONDITION (COND) STAGE

12.13.3.1 Purpose. To train unit level teams in executing community specific MET(s) or MET preparatory events.

12.13.3.2 General.

Admin Notes. All events in this stage will require the following administrative/operational documents to be identified or created:

1. Letter of Intent (LOI)
2. Personnel Roster
3. Bill of Material (BOM)
4. Equipment Density List (EDL)

Prerequisite. If an event requires prerequisites in addition to those listed for the MET Phase, they will be covered in the individual event.

Crew Requirements. This stage requires that all crew members and combat leaders be qualified/designated and proficient (current) in the position they are assigned for the following events. Crews shall be task organized to meet the mission.

COND-7001 4.0 730 B, R, M (N) E L

Goal. Establish communications.

Requirement. Perform the following:

1. Establish communication nets in accordance with SOPs, published communications plan.
2. Communications are available for standby operational contingency actions; e.g., SAR.
3. Communications plan reflects correct key lists and edition numbers, and they are verified as correct.
4. Post communications status to include delineated alternate paths and current EMCON status.
5. Ensure operations personnel are aware of alternate communications paths to assure constant contact with higher, adjacent and subordinate commands when required.
6. Communication restoration priorities have been published and provided to communication maintenance personnel.
7. Detect instances of communications jamming, potential cyber intrusion, or imitative deceptions and provide reports in accordance with appropriate annex of the Op Order.
8. Direct changes in EMCON conditions to subordinate agencies when processed intelligence or combat information reveals a change in the enemy's threat capabilities.
9. Enact restoration procedures.
10. Ensure communication plan includes communications requirements for succession of command or control in case of catastrophic failure of any major air control agency (TADC/TACC, DASC, TAOC).
11. Crew members understand crew procedures to change communications nets and/or radio configurations.
12. Crew members perform net control station duties by initiating radio checks on appropriate nets.

Performance Standard. Establish voice and data connectivity with subordinate MACCS agencies and higher headquarters IAW ANNEX K, COMSEC Callout, ACEOI, and OPTASK LINK.

Instructor. WTI

Prerequisite. None.

External Syllabus Support. External C3 Agencies.

References.

1. MCWP 3-20F.2, Marine TACC Handbook
2. TACC Primer

COND-7003 8.0 730 B, R, M (N) E L/S

Goal. Display the Common Tactical Picture.

Requirement. Perform the following:

1. Maintain a connection to higher headquarters Common Tactical Picture per the exercise or operation's Annex U.
2. Ensure applicable ground tactical picture, maritime tactical picture, and map overlays are received from higher headquarters.
3. Provide the ACE's Common Tactical Picture to higher headquarters.
4. Manage, receive, display, and disseminate the common tactical picture.
5. Update the Battle Command Display.

Performance Standard. Complete the required items.

Instructor. WTI

Prerequisite. None.

External Syllabus Support. HHQ to provide Common Tactical Picture. MWCS support for digital backbone.

References.

1. Exercise or Operation's OPOD Annex U
2. CJCSM 3115.01_, Common Tactical Picture Reporting Requirements

COND-7004 18.0730 B, R, M (N) E L/S

Goal. Coordinate air operations between the MACCS and Joint/Combined/Coalition/Host Nation command and control agencies.

Requirement. Perform the following:

1. Establish liaison necessary to request additional aviation assets from any theater/national sources.
2. Coordinate airspace de-confliction.
3. Integrate joint, coalition, and host nation requirements/elements into the COPS floor.

Performance Standard. Complete the required items.

Instructor. WTI

Prerequisite. None.

References.

1. MCWP 3-20F.2, Marine TACC Handbook
2. TACC Primer

COND-7005 8.0 730 B, R, M (N) E L/S

Goal. Manage the current air tasking order.

Requirement. Perform the following:

1. Coordinate the recovery of isolated personnel and aircraft.
2. Coordinate air defense operations of MACCS agencies with external agencies.
3. Coordinate theater missile defense operations with external agencies.
4. Manage MAGTF air assets in support of the close, rear, and deep battle areas.

5. Monitor the equipment status and operational posture of MACCS agencies.
6. Monitor, supervise, and direct the control of aircraft and missiles by subordinate MACCS agencies.
7. Process air support requests in accordance with the MAGTF and ACE Commander's priorities.
8. Coordinate the establishment and dissemination of Air Defense Warning Conditions (ADWCs) and Weapons Control Statuses (WCS).
9. Current ATO missions executed in accordance with the MAGTF and ACE Commanders priorities, to include changing or altering pre-schedule missions as required.

Performance Standard. Complete the required items.

Instructor. WTI

Prerequisite. None.

External Syllabus Support. External C3 agencies, ACE Battlestaff, MWCS.

References.

1. MCWP 3-20F.2, Marine TACC Handbook
2. TACC Primer

COND-7007 16.0 730 B, R, M (N) E L/S

Goal. Maintain a facility and associated command and control systems for the TACC.

Requirement. Given the references, a Table of Equipment (T/E) and/or an Equipment Density List, a mission statement, commander's guidance, and an operation plan's initiating order, provide a TACC infrastructure to include the following:

1. Provide required support personnel to set up and maintain the TACC infrastructure.
2. Provide equipment and facilities for current operation (COPS).
3. Provide equipment and facilities for future operations (FOPS).
4. Provide equipment and facilities for future plans (FPLANS).
5. Provide facilities for air combat intelligence (ACI).

Performance Standard. Perform the requirement items listed.

Instructor. WTI

Prerequisite. None.

External Syllabus Support. MTACS Commander and representatives from the S-1, S-2, S-3, S-4, S-6. Simulation execution will require coordination with external agencies.

References.

1. U-TACC-PCL-0350, TACC Pocket Checklist
2. MCWP 3-20F.2, Marine Tactical Air Command Center Handbook
3. Squadron SOP

COND-7009 2.0 730 B, R, M (N) E S/L

Goal. Coordinate Airspace Management in Current Operations.

Requirement. Given the references, an operational TACC and an operations order, and airspace control plan coordinate airspace requirements in support of the MAGTF:

1. Coordinate and employ the use of air defense control measures.
2. Coordinate through the Ground Watch Section for the deconfliction of FSCMs and immediate Airspace Control Measures.

3. Coordinate with subordinate MACCS agencies for immediate Airspace Management issues.
4. Coordinate with the Air and Space Operations Center for immediate Airspace Management issues that affect the joint force.
5. Update and monitor changes to the ACP/ACO/SPINS as applicable.

Performance Standard. Perform the requirement items listed during live, virtual, or constructed exercise or real world operation.

Instructor. WTI

Prerequisite. None.

Reference.

1. JP 3-52, Joint Airspace Control

12.13.4 DASC CONDITION (COND) STAGE

12.13.4.1 Purpose. To train unit level teams in executing community specific MET(s) or MET preparatory events.

12.13.4.2 General.

Admin Notes. All events in this stage will require the following administrative/operational documents to be identified or created:

- (1) Letter Of Intent (LOI).
- (2) Personnel Roster.
- (3) Bill Of Material (BOM).
- (4) Equipment Density List (EDL).

Prerequisite. If an event requires prerequisites in addition to those listed for the MET Phase, they will be covered in the individual event.

Crew Requirements. This stage requires that all crew members and combat leaders be qualified/designated and proficient (current) in the position they are assigned for the following events. Crews shall be task organized to meet the mission.

COND-7400 3.0 730 B, R, M (N) E L/S

Goal. Employ an ASLT.

Requirement. Requirement. Given the references, a Table of Equipment (T/E) and / or Equipment Density List (EDL), Commander's guidance, and an operations order/ initiating directive, employ a ASLT to include the following:

1. Plan for Employment of a ASLT:
 - a. Conduct Problem Framing.
 - (1) Identify Level of Support Required of MASS Unit.
 - (2) Develop Mission Statement / Commander's Intent.
 - b. Create Employment Plan.
 - (1) Coordinate with External Entities (and / or Agencies).
 - (2) Identify Required Personnel and Equipment.
 - (3) Conduct Site Reconnaissance and Selection.
 - (4) Identify and Coordinate External Support Requirements.
 - c. Create Supporting Planning Products.

- (1) Create / Publish POA&M / LOI.
- (2) Create Necessary Manning Documents/EDL/BOM/Load Plan (MDSS).
- (3) Conduct Required Briefs. (IPC/MPC, Confirmation Brief, etc.)
2. Deploy an ASLT:
 - a. Conduct Movement.
 - (1) Conduct Embarkation (Unit to APOE).
 - (2) Conduct Convoy Operations (APOD to TAA to tactical site).
 - b. Establish ASLT Site.
 - (1) Establish and Maintain Site Security.
 - (2) Establish Communications and Connectivity.
 - (3) Establish Administrative and Logistics Functions.
3. Operate an ASLT:
 - a. Conduct ASLT Operations.
4. Sustain an ASLT:
 - a. Conduct Staff Functions.
 - (1) Conduct Administrative Functions.
 - (2) Conduct Intelligence Functions.
 - (3) Conduct Operations and Training.
 - (4) Conduct Logistical Functions.
 - (5) Conduct Communications Functions.
5. Re-Deploy an ASLT:
 - a. Plan for Re-Deployment.
 - (1) Identify Logistics Requirements.
 - (2) Identify External Support Requirements.
 - (3) Identify Maintenance functions and Requirements.
 - (4) Identify Administration Requirements and Functions.
 - b. Conduct Movement
 - (1) Conduct Convoy Operations. (Tactical Site to TAA to APOE).
 - (2) Conduct Embarkation (APOD to the unit).

Performance Standard. Perform the requirement items listed and conduct ASLT operations supporting the DASC during a minimum operational tempo three (3) real world operation or training simulation.

Prerequisite. (1) CMMR ASLT Crew.

Range. Range space capable of hosting ground and air fires.

External Syllabus Support. FSCC, air and fire support missions as defined by operational tempo level three, a DASC, S-1, S-2, S-3, S-4, S-6.

References.

1. MCWP 3-25.5, DASC Handbook
2. Squadron SOP

COND-7405 3.0 730 B, R, M (N) E L/S

Goal. Employ an ASE.

Requirement. Requirement. Given the references, a Table of Equipment (T/E) and / or Equipment Density List (EDL), Commander's guidance, and an operations order/ initiating directive, employ a ASE to include the following:

1. Plan for Employment of a ASE:
 - a. Conduct Problem Framing.
 - (1) Identify Level of Support Required of MASS Unit.
 - (2) Develop Mission Statement / Commander's Intent.
 - b. Create Employment Plan.

- (1) Coordinate with External Entities (and / or Agencies).
 - (2) Identify Required Personnel and Equipment.
 - (3) Conduct Site Reconnaissance and Selection.
 - (4) Identify and Coordinate External Support Requirements.
 - c. Create Supporting Planning Products.
 - (1) Create / Publish POA&M / LOI.
 - (2) Create Necessary Manning Documents/EDL/BOM/Load Plan (MDSS).
 - (3) Conduct Required Briefs. (IPC/MPC, Confirmation Brief, etc.)
2. Deploy an ASE:
 - a. Conduct Movement.
 - (1) Conduct Embarkation (Unit to APOE).
 - (2) Conduct Convoy Operations (APOD to TAA to tactical site).
 - b. Establish ASE Site.
 - (1) Establish and Maintain Site Security.
 - (2) Establish External ASE Infrastructure.
 - (3) Establish Internal ASE Infrastructure.
 - (4) Establish Communications and Connectivity.
 - (5) Establish Administrative and Logistics Functions.
3. Operate an ASE:
 - a. Conduct ASE Operations.
 - (1) Process Immediate Air Support Requests.
 - (2) Integrate Aircraft Employment with Other Supporting Arms.
 - (3) Manage Terminal Control Assets.
 - (4) Procedurally Control Aircraft within Assigned Area of Operations.
4. Sustain an ASE:
 - a. Conduct Staff Functions.
 - (1) Conduct Administrative Functions.
 - (2) Conduct Intelligence Functions.
 - (3) Conduct Operations and Training.
 - (4) Conduct Logistical Functions.
 - (5) Conduct Communications Functions.
5. Re-Deploy an ASE:
 - a. Plan for Re-Deployment.
 - (1) Identify Logistics Requirements.
 - (2) Identify External Support Requirements.
 - (3) Identify Maintenance functions and Requirements.
 - (4) Identify Administration Requirements and Functions.
 - b. Conduct Movement
 - (1) Conduct Convoy Operations. (Tactical Site to TAA to APOE).
 - (2) Conduct Embarkation (APOD to the unit).

Performance Standard. Perform the requirement items listed and conduct ASE operations during a minimum operational tempo three (3) real world operation or training simulation.

Prerequisite. (1) CMMR ASE Crew.

Range. Range space capable of hosting ground and air fires.

External Syllabus Support. S-1, S-2, S-3, S-4, S-6, air and fire support missions as defined by operational tempo three, FFCC/FSCC, and if required, a SACC and NTACC/HCS.

References.

1. MCWP 3-25.5, DASC Handbook
2. Squadron SOP

Goal. Employ a DASC.

Requirement. Requirement. Given the references, a Table of Equipment (T/E) and / or Equipment Density List (EDL), Commander's guidance, and an operations order/ initiating directive, employ a DASC to include the following:

1. Plan for Employment of a DASC:
 - a. Conduct Problem Framing.
 - (1) Identify Level of Support Required of MASS Unit.
 - (2) Identify Potential Need for DASC Extensions.
 - (3) Develop Mission Statement/ Commander's Intent.
 - b. Create Employment Plan.
 - (1) Coordinate With External Entities (and / or Agencies).
 - (2) Identify Required Personnel and Equipment.
 - (3) Conduct Site Reconnaissance and Selection.
 - (4) Identify and Coordinate External Support Requirements.
 - (5) Plan for any/all required DASC Extensions.
 - c. Create Supporting Planning Products.
 - (1) Create / Publish POA&M / LOI.
 - (2) Create Necessary Manning Documents/EDL/BOM/Load Plan (MDSS).
 - (3) Conduct Required Briefs (IPC/MPC, Confirmation Brief, etc.).
2. Deploy a DASC:
 - a. Conduct Movement.
 - (1) Conduct Embarkation (Unit to APOE).
 - (2) Conduct Convoy Operations (APOD to TAA to tactical site).
 - b. Establish DASC Site.
 - (1) Establish and Maintain Site Security.
 - (2) Establish External DASC Infrastructure.
 - (3) Establish Internal DASC Infrastructure.
 - (4) Establish Communications and Connectivity.
 - (5) Establish Administrative and Logistics Functions.
3. Operate a DASC:
 - a. Conduct DASC Operations.
 - (1) Process Immediate Air Support Requests.
 - (2) Integrate Aircraft Employment with Other Supporting Arms.
 - (3) Manage Terminal Control Assets.
 - (4) Procedurally Control Aircraft within Assigned Area of Operations.
 - b. Manage DASC extensions.
4. Sustain a DASC:
 - a. Conduct Staff Functions.
 - (1) Conduct Administrative Functions.
 - (2) Conduct Intelligence Functions.
 - (3) Conduct Operations and Training.
 - (4) Conduct Logistical Functions.
 - (5) Conduct Communications Functions.
5. Re-Deploy a DASC:
 - a. Plan for Re-Deployment.
 - (1) Identify Logistics Requirements.
 - (2) Identify External Support Requirements.
 - (3) Identify Maintenance functions and Requirements.
 - (4) Identify Administration functions and Requirements.
 - b. Conduct Movement.
 - (1) Conduct Convoy Operations (Tactical Site to TAA to APOE).
 - (2) Conduct Embarkation (APOD to the unit).

Performance Standard. Perform the requirement items listed and conduct DASC operations during a

minimum operational tempo three (3) real world operation or training simulation.

Prerequisite. Two (2) CMMR DASC crews.

Range. Range space capable of hosting ground and air fires.

External Syllabus Support. S-1, S-2, S-3, S-4, S-6, MHE, air and fire support missions as defined by operational tempo three (3), digital backbone, FFCC/FSCC, and if required, aircraft designated to provide an airborne DASC capability.

References.

1. MCWP 3-25.5, DASC Handbook
2. Squadron SOP

COND-7415 3.0 730 B, R, M (N) E L/S

Goal. Conduct a Reconnaissance, Selection, and Occupation of Position (RSOP) for the DASC.

Requirement. Given the references, a Table of Equipment (T/E) and/or Equipment Density List (EDL) and an operations order/initiating directive, conduct a RSOP for DASC operations to include the following:

1. Conduct a Map Survey selecting primary and alternate sites.
2. Identify environmental concerns that may affect DASC communication.
3. Coordinate with the FSCC to provide DASC requirements.
4. Coordinate site security, camouflage, dispersion, and trafficability.
5. Identify locations for emplacement of communications and support equipment.
6. Coordinate priorities for equipment emplacement.
7. Identify echelon considerations.
8. Identify Advanced Party/RSOP Team.
9. Occupy the site.
10. Emplace the DASC.

Performance Standard. Perform the requirement items. The RSOP team will be prepared to discuss decisions/actions.

Prerequisite. None.

External Syllabus Support. MASS Detachment Commander, DASC Chief, security team, Representatives from the following sections: S-4, S-2, S-6.

References.

1. MCWP 3-16.3, TTP for the Field Artillery Cannon Battery
2. MCWP 3-25.5, DASC Handbook
3. MCWP 3-16.3, Tactics, Techniques, and Procedures for the Field Artillery Cannon Battery, Chapter 2, Reconnaissance, Selection, and Occupation of a Position
4. Squadron SOP

COND-7205 3.0 730 B, R, M (N) E L/S

Goal. Conduct Echelon Operations.

Requirement. Given the references, a Table of Equipment (T/E) and/or Equipment Density List (EDL), Commander's guidance, and an operations order/initiating directive, conduct echelon operations to include the following:

1. Continue DASC operations without pause or loss of situational awareness.
2. Checklists for the transfer of control are on hand and are utilized.
3. Deploy the echelon element to the new position.

4. Brief the operational crew concerning their duties for passage of control.
5. Establish and maintain required communications and connectivity.
6. Updated intelligence information, to include the friendly and enemy order of battle and current ATO is on hand and posted.
7. Receive current status of air defense warnings, weapons conditions, anti-air warfare intelligence, and other pertinent data is updated prior to the transfer of control taking place.
8. Receive current status of all fixed wing aircraft to include scheduled events, alert aircraft, and airborne aircraft is verified.
9. Receive current status of all helicopter and assault support aircraft to include scheduled events, alert aircraft, airborne aircraft, MEDEVAC aircraft, and SAR aircraft is verified.
10. Review status of all Tactical Air and Assault Support Requests and ensure they are plotted and on hand.
11. Verify with the FSCC the locations of friendly artillery and active Fire Support Areas (FSAs), for naval gunfire assets.
12. Maintain continuous coordination with adjacent and higher agencies during preparation for and transfer of OAS/AS control, if required.
13. Pass control of DASC functions to the echelon element.
14. Notify the TACC, FSCC, and other agencies, as necessary, control has been passed.
15. Recover the rear element into the DASC when echelon operations have concluded.
16. Debrief with the DASC OIC and DASC Chief.

Performance Standard. Perform the requirement items listed to conduct echelon operations during a minimum operational tempo three (3) real world operation or training simulation.

Prerequisite. Two (2) CMMR DASC crews.

Range. Range space capable of hosting ground and air fires.

External Syllabus Support. S-1, S-2, S-3, S-4, S-6, MHE, air and fire support missions as defined by operational tempo three (3), digital backbone, and if required, aircraft designated to provide an airborne DASC capability.

References.

1. MCWP 3-25.5, DASC Handbook
2. Squadron SOP

COND-7425 3.0 730 B, R, M (N) E S/L

Goal. Conduct Phasing of Control Ashore.

Requirement. Given the references, a Table of Equipment (T/E) and/or Equipment Density List (EDL), Commander's guidance, and an operations order/initiating directive, conduct phasing of control ashore to include the following:

1. Conduct a Map Survey selecting primary and alternate sites.
2. Checklists for the transfer of control ashore are on hand and utilized.
3. Review the procedures delineated in the operation plan/other directives for the phasing of control ashore and keeps the Naval Tactical Air Control Center informed of current status.
4. Deploy ashore.
5. Brief the operational crew concerning their duties for the passage of control.
6. Establish and maintain required communications and connectivity.
7. Updated intelligence information, to include the friendly and enemy order of battle and current ATO is on hand and posted.
8. Receive current status of air defense warnings, weapons conditions, anti-air warfare intelligence, and other pertinent data is updated prior to the transfer of control taking place.
9. Receive current status of all fixed wing aircraft to include scheduled events, alert aircraft, and airborne aircraft.

10. Receive current status of all helicopter and assault support aircraft to include scheduled events, alert aircraft, airborne aircraft, MEDEVAC aircraft, and SAR aircraft.
11. Review status of all Tactical Air and Assault Support Requests and ensure they are plotted and on hand.
12. Verify with the FSCC the locations of friendly artillery and active Fire Support Areas (FSAs), for naval gunfire assets.
13. Ensure all requirements have been met and then advise the TACC (afloat) and FSCC that the DASC is prepared for the phasing of control of OAS/AS ashore.
14. Ensure the preplanned sequence of phasing control of OAS/AS ashore is completed and the SAD acknowledges/produces any reports required.
15. Advise CLF when ready to assume control of all or a portion of direct air support ashore (specify OAS, Assault Support, Air Recce, EW) at a specified date and time.
16. Advise CLF that control has been transferred and the date/time group that transfer was accomplished.
17. Advise the TACC (afloat)/TADC (ashore) and FSCC that the DASC now has control referencing date and time (local).
18. Maintain continuous coordination with adjacent and higher agencies.
19. Notify all adjacent agencies when transfer of control is completed.
20. As necessary, DASC/SACC liaison team provides further updates of information upon arrival at DASC site.

Performance Standard. Perform the requirement items listed to conduct phasing control ashore during a minimum operational tempo three (3) real world operation or training simulation.

Prerequisite. (1) CMMR ASE crew or (1) CMMR DASC crew.

Range. Range space capable of hosting ground and air fires.

External Syllabus Support. S-1, S-2, S-3, S-4, S-6, MHE, air and fire support missions as defined by operational tempo three (3), digital backbone, Navy TACC, FSCC, Marine TACC, LFOC, SACC/HCS.

References.

1. JP 3-02.1, Joint Doctrine for Landing Forces Operations
2. MCWP 3-16.3, Tactics, Techniques, and Procedures for the Field Artillery Cannon Battery, Chapter 2, Reconnaissance, Selection, and Occupation of a Position
3. MCWP 3-25.5, DASC Handbook
4. MCWP 3-40.3, MAGTF Communications System
5. Squadron SOP

12.13.5 TAOC CONDITION (COND) STAGE

12.13.5.1 Purpose. To train unit level teams in executing community specific MET(s) or MET preparatory events.

12.13.5.2 General.

Admin Notes. All events in this stage will require the following administrative/operational documents to be identified or created:

1. Letter Of Intent (LOI)
2. Personnel Roster
3. Bill Of Material (BOM)
4. Equipment Density List (EDL)

Prerequisite. If an event requires prerequisites in addition to those listed for the MET Phase, they will be covered in the individual event.

Crew Requirements. This stage requires that all crew members and combat leaders be qualified/designated and proficient (current) in the position they are assigned for the following events. Crews shall be task organized to meet the mission.

COND-7000 16.0 730 B, R, M (N) E L

Goal. Conduct Airspace Surveillance.

Requirement. Given organic C2 systems, radars, and a minimum of two CMMR surveillance crews, perform the following:

1. Plan for the emplacement, setup, operation, and maintenance of TAOC radar(s) and C2 equipment within the MAGTF and/or joint assigned airspace.
2. Extract tactical data link (TDL) architecture information from MAGTF and joint documents.
3. Extract required surveillance operations information exchange requirements from source MAGTF and/or joint documents.
4. Plan for TAOC airspace surveillance operations.
5. Conduct the emplacement, setup, operation, and maintenance of TAOC radar(s) and C2 equipment.
6. Detect and track aircraft and missiles within MAGTF and/or joint assigned airspace using organic TAOC radar(s).
7. Conduct combat identification on objects detected and tracked using information extracted from surveillance operations source documents.
8. Disseminate air/ground surveillance information to adjacent, higher, and subordinate agencies and aircraft identified in surveillance operations source documents.
9. Demonstrate proficiency during crew changeover.

Performance Standard. Complete the requirements conducting TAOC operations in support of MAGTF and/or joint exercises or operations.

Instructor. WTI

Prerequisite. None.

External Syllabus Support. TDSM, RDR, AVRAD, UT. Live execution will require specific T/M/S aviation assets.

Reference. None.

COND-7001 16.0 730 B, R, M (N) E L/S

Goal. Conduct Positive Control.

Requirement. Given organic C2 systems, radars, and a minimum of two CMMR weapons crews, perform the following:

1. Plan for the emplacement, setup, operation, and maintenance of TAOC radar(s) and C2 equipment within the MAGTF and/or joint assigned airspace.
2. Conduct the emplacement, setup, operation, and maintenance of TAOC radar(s) and C2 equipment.
3. Extract airspace control measures within TAOC assigned airspace from MAGTF and/or joint source documents.
4. Conduct airspace management using MEF/MAW sustained sortie generation rates.
5. Conduct airspace control using MEF/MAW sustained sortie generation rates.
6. Conduct positive control using MEF/MAW sustained sortie generation rates.
7. Demonstrate proficiency during crew changeover.

Performance Standard. Complete the requirements conducting TAOC operations in support of MAGTF and/or joint exercises or operations.

Instructor. WTI

Prerequisite. None.

External Syllabus Support. TDSM, RDR, AVRAD, UT. Live execution will require specific T/M/S aviation assets.

Reference. None.

COND-7002	16.0	730	B, R, M	(N)	E	L/S

Goal. Coordinate Air Defense Actions.

Requirement. Given organic C2 systems, radars, and a minimum of two CMMR weapons crews, perform the following:

1. Plan for the emplacement, setup, operation, and maintenance of TAOC radar(s) and C2 equipment within the MAGTF and/or joint assigned airspace.
2. Conduct the emplacement, setup, operation, and maintenance of TAOC radar(s) and C2 equipment.
3. Extract air defense requirements from MAGTF and/or joint air defense documents.
4. Create a plan for the TAOC to manage and control AAW aircraft engagements, expenditures, and employment using MEF/MAW sortie generation rates.
5. Create a plan for the TAOC to provide management of GBAD engagements, expenditures, and employment.
6. Manage and control AAW aircraft engagements, expenditures, and employment using MEF/MAW sortie generation rates.
7. Provide management of GBAD engagements, expenditures, and employment.
8. Detect potential threat aircraft and/or missiles using TAOC organic radars.
9. Disseminate threat information to higher, adjacent, and subordinate MACCS agencies.
10. Demonstrate proficiency during crew changeover.

Performance Standard. Complete the requirements conducting TAOC operations in support of MAGTF and/or joint exercises or operations.

Instructor. WTI

Prerequisite. None.

External Syllabus Support. TDSM, RDR, AVRAD, UT. Live execution will require specific T/M/S aviation assets.

Reference. None.

COND-7003	16.0	730	B, R, M	(N)	E	L/S

Goal. Conduct Dual Site Air Defense Operations.

Requirement. Given organic C2 systems, radars, and a minimum of four CMMR air defense crews, perform the following at two geographically disparate sites:

1. Plan for the emplacement, setup, operation, and maintenance of TAOC radar(s) and C2 equipment within the MAGTF and/or joint assigned airspace.
2. Conduct the emplacement, setup, operation, and maintenance of TAOC radar(s) and C2 equipment.
3. Conduct airspace surveillance.
4. Conduct positive control.
5. Coordinate air defense actions.
6. Demonstrate proficiency during crew changeover.

Performance Standard. Complete the requirements conducting TAOC operations in support of MAGTF and/or joint exercises or operations.

Instructor. WTI

Prerequisite. None.

External Syllabus Support. TDSM, RDR, AVRAD, UT. Live execution will require specific T/M/S aviation assets.

Reference. None.

COND-7004 16.0 730 B, R, M (N) E L/S

Goal. Integrate Operational Air Defense Capabilities.

Requirement. Given organic C2 systems, radars, and a minimum of two core plus proficient SADC crews, perform the following:

1. Plan for the emplacement, setup, operation, and maintenance of TAOC radar(s) and C2 equipment within the MAGTF and/or joint assigned airspace.
2. Conduct the emplacement, setup, operation, and maintenance of TAOC radar(s) and C2 equipment
3. Extract air defense requirements from MAGTF and joint air defense documents.
4. Create a plan for the TAOC to manage air defense operations within MAGTF and/or joint assigned region/sector.
6. Manage air defense operations within the MAGTF and/or joint assigned region/sector.
7. Extract tactical data link (TDL) architecture information from MAGTF and joint documents.
8. Create a plan for TAOC to assist the (Joint) Interface Control Officer J/ICO with the management of TDLs.
9. Manage TDLs for the TAOC in support of MAGTF and joint operations.
10. Demonstrate proficiency during crew changeover.

Performance Standard. Complete the requirements conducting TAOC operations in support of MAGTF AAW and/or joint DCA exercises or operations.

Instructor. WTI

Prerequisite. None.

External Syllabus Support. TDSM, RDR, AVRAD, UT. Live execution will require specific T/M/S aviation assets.

Reference. None.

12.14 AVIATION CAREER PROGRESSION MODEL (8000)

12.14.1 Purpose. To enhance professional understanding of Marine Aviation and the MAGTF, and to ensure individuals possess the requisite skills to fill battle command and battle staff positions in support of the ACE and the MAGTF in a joint environment. The focus of training in the Aviation Career Progression Model (ACPM) is on academic events in the following areas:

Marine Air Command and Control System (MACCS)
Aviation Ground Support
Joint Air Operations
ACE Battle Staff
MAGTF
Seabased Operations
Combatant Commander Organizations

12.14.2 General. The ACPM is intended to be an integrated series of academic events contained within each phase of training. Accordingly, ACPM academic events are like any other academic event in that they serve as pre-requisites to selected flight events or stages. Additionally, several ACPM academic events are integrated as prerequisites for flight leadership syllabi. ACPM events may be conducted in group session with an assigned instructor teaching the period of instruction or they may be accomplished by self-paced instruction. MAWTS-1 is responsible for the update and validity of the ACPM periods of instruction. In the future, courses may be consolidated or revised to meet changing requirements. Refer to the MAWTS-1 ACPM link for the current ACPM program of instruction:

<https://vcepub.tecom.usmc.mil/sites/msc/magtftc/mawts1/Aviation%20Career%20Progression%20Model/Forms/AllItems.aspx>

Completed events shall be manually logged and tracked in M-SHARP.

ACPM academic events, along with their identifying prerequisite association with other training phases/stages/events, are listed below.

12.14.2.1 General

Prerequisite. None.

Admin Notes. None.

Crew Requirements. None.

ACPM-8000	1.0	*	B	(N)	G

Goal. Demonstrate an understanding of the MACCS stage.

Requirement. Pass a closed book examination that encompasses all learning objectives contained in the prerequisites.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. SI.

Prerequisite. 8001, 8002, 8003, 8004, 8005, 8006, 8008.

Reference. C3 Course Catalog.

ACPM-8001	4.0	*	B	(N)	G

Goal. Demonstrate an understanding of the Marine Air Command and Control System (MACCS).

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Describe how the control of aircraft and missiles relates to the other five functions of USMC aviation.
2. Define the control of aircraft and missiles and each of its subcomponents.
3. Define the Marine aviation's philosophy of centralized command and decentralized control.
4. Differentiate between Marine aviation philosophy and Joint aviation philosophy.
5. Identify the principle objectives of the MACCS.
6. Recall the primary role of each agency of the MACCS.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 MACCS Agencies, Functions and the Control of Aircraft and Missiles Class
2. MCWP 3-25.3 MACCS Handbook
3. MCWP 3-25 Control of Aircraft and Missiles

ACPM-8002 4.0 * B (N) G

Goal. Demonstrate an understanding of the Tactical Air Command Center (TACC).

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. State the mission of the TACC.
2. Identify the four organizations of the TACC.
3. List the primary responsibilities of Air Combat Intelligence (ACI).
4. List the primary responsibilities of Future Operations (FOPS).
5. List the primary responsibilities of Future Plans (FPLANS).
6. List the primary responsibilities of Current Operations (COPS).
7. List the major end items used by the TACC.
8. List the system limitations of the TACC.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 TACC Class
2. MAWTS-1 MTACS Class
3. MCWP 3-25.4 TACC Handbook

ACPM-8003 4.0 * B (N) G

Goal. Demonstrate an understanding of the Direct Air Support Center (DASC).

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify the role of the DASC.
2. List the structure and task organization of the DASC.
3. Identify the major end items and their characteristics used by the DASC.
4. List the capabilities and limitations of the DASC.
5. Identify how the DASC is doctrinally employed as part of the MACCS.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 DASC Class
2. MCWP 3-25.5 DASC Handbook

ACPM-8004 4.0 * B (N) G

Goal. Demonstrate an understanding of the Tactical Air Operations Center (TAOC).

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Define the mission of the TAOC.
2. Identify the Mission Essential Tasks (METs) for the TAOC.
3. Identify the structure and task organization of the TAOC.
4. Identify the major end items and their characteristics used by the TAOC.
5. Identify the capabilities and limitations of the TAOC.
6. Identify how the TAOC is doctrinally employed as part of the MACCS.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 TAOC Class
2. MCWP 3-25.7 TAOC Handbook

ACPM-8005 4.0 * B (N) G

Goal. Demonstrate an understanding of the Marine Air Traffic Control (MATC).

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify the mission of MATC.
2. Identify the Mission Essential Tasks (METs) for MATC.
3. List the structure and task organization of MATC.
4. Identify the major end items and their characteristics used by MATC.
5. Identify the capabilities and limitations of MATC.
6. Identify how MATC is doctrinally employed as part of the MACCS.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 MATC Class
2. MAWTS-1 MMT Class
3. MCWP 3-25.8 MATC Detachment Handbook

ACPM-8006 4.0 * B (N) G

Goal. Demonstrate an understanding of the Low Altitude Air Defense (LAAD).

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify the mission of the LAAD battalion.
2. Identify the structure and task organization of the LAAD battalion.
3. Identify the primary vehicle and surface-to-air weapon used by the LAAD Battalion.

4. Define the LAAD employed guidelines.
5. List the LAAD weapon applications.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 LAAD Class
2. MCWP 3-25.10 LAAD BN Handbook
3. MCWP 3-25.10A LAAD Gunner's Handbook

ACPM-8008 4.0 * B (N) G

Goal. Demonstrate an understanding of the Marine Wing Communications Squadron (MWCS).

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify the mission of the MWCS.
2. Identify the structure and task organization of the MWCS.
3. Identify the Mission Essential Tasks (METs) for the MWCS.
4. Identify the major end items and their characteristics used by MWCS.
5. Identify the capabilities and limitations of the MWCS.
6. Identify how the MWCS is doctrinally employed as part of the MACCS.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 MWCS Employment Class
2. MCRP 3-30B.2 MAGTF Communications Systems
3. NAVMC 3500.56 Communications Training and Readiness Manual

ACPM-8020 1.0 * B (N) G

Goal. Demonstrate an understanding of the ACE stage of the MACCS ACPM.

Requirement. Pass a closed book examination that encompasses all learning objectives contained in the prerequisites.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. 8021, 8022, 8023, 8024, 8025, 8026, 8027, 8028.

Reference. C3 Course Catalog.

ACPM-8021 4.0 * B (N) G

Goal. Demonstrate an understanding of USMC aviation operations doctrine.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify the six functions of Marine aviation to include all their subsets.
2. Identify the organization and mission of the Marine Aircraft Wing (MAW), to include each type of group and squadron.
3. Define who has operational control of organic MAGTF aviation assets during Joint operations.
4. List the four types of sorties the MAGTF Commander makes available to the Joint Force.
5. Identify the purpose of the Air Tasking Order (ATO).
6. Identify the six phases of the air tasking cycle.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

Reference. MCWP 3-2 Aviation Operations

ACPM-8022 4.0 * B (N) G

Goal. Demonstrate an understanding of USMC doctrine for the control of aircraft and missiles.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify how the control of aircraft and missiles relates to the other five functions of USMC aviation.
2. Identify distinctions between Marine aviation philosophy and that of the other services.
3. Identify the principle objectives of the Marine Air Command and Control System (MACCS).
4. Describe how the COMMARFOR may serve as the Joint Force Air
5. Component Commander (JFACC), Airspace Control Authority (ACA), and Area Air Defense Commander (AADC).

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 Control of Aircraft and Missiles Class
2. MCWP 3-25 Control of Aircraft and Missiles

ACPM-8023 4.0 * B (N) G

Goal. Demonstrate an understanding of USMC Offensive Air Support (OAS) doctrine.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify the purpose of the MAGTF Commanders Single Battle Concept.
2. Define the subcategories of OAS.
3. Define the requirements for effective OAS.
4. Define the three types of Deep Air Support (DAS).
5. Define the capabilities and limitations of the OAS function.
6. Identify the elements of a Joint Tactical Air Strike Request (JTAR).
7. Identify the three types of control of Close Air Support (CAS).

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 OAS Class
2. MCWP 3-23 Offensive Air Support

ACPM-8024 4.0 * B (N) G

Goal. Demonstrate an understanding of USMC Assault Support doctrine.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Define the types of assault support operations.
2. Identify which aircraft conduct each of the types of assault support operations.
3. Identify the elements of an Assault Support Request (ASR).
4. List assault support capabilities and limitations.
5. Define the role of the air mission commander and the assault force commander during air assault operations.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 Assault Support Class
2. MAWTS-1 Direct Air Support Requests Class

ACPM-8025 4.0 * B (N) G

Goal. Demonstrate an understanding of USMC Air Reconnaissance doctrine.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify the three categories of air reconnaissance.
2. Identify the four principals of air reconnaissance.
3. Identify the five prerequisites for effective air reconnaissance.
4. Identify the current USMC aircraft that have the mission of air reconnaissance.
5. Identify the form used to request air reconnaissance.
6. Identify the five supporting operations for effective air reconnaissance.
7. Identify the capabilities and limitations of air reconnaissance.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

Reference. MCWP 3-26 Air Reconnaissance

ACPM-8026 4.0 * B (N) G

Goal. Demonstrate an understanding of USMC Electronic Warfare (EW) doctrine.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Define radar.
2. List the three basic radar types.
3. Identify the limitations and characteristics of radar systems.
4. Identify the six guidance systems and how they work.
5. List the three subdivisions of Electronic Warfare (EW).

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 (S) Electronic Warfare Class—for additional training only, secret courseware should not to be used for testing purposesMAWTS-1 Direct Air Support Requests Class
2. MCWP 3-40.5 Electronic Warfare

ACPM-8027 4.0 * B (N) G

Goal. Demonstrate an understanding of USMC Antiair Warfare (AAW) doctrine.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Define AAW.
2. Define the two subsets of AAW.
3. Identify the principles of AAW.
4. Identify the types of Offensive Antiair Warfare (OAAW).
5. Identify the active air defense functions.
6. List three examples of passive air defense measures.
7. Define a Joint Engagement Zone (JEZ), Fighter Engagement Zone (FEZ), Missile Engagement Zone (MEZ), and Base Defense Zone (BDZ).
8. Define the air defense warning conditions.
9. Define the weapons control statuses.
10. Identify the responsibilities of the Regional Air Defense Commander (RADC) and the Sector Air Defense Commander (SADC).

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 Air Defense Class
2. MAWTS-1 Air Defense Commanders Class
3. MAWTS-1 Offensive Antiair Warfare Class
4. MCWP 3-22 Antiair Warfare

ACPM-8028 4.0 * B (N) G

Goal. Demonstrate an understanding of USMC Ground Support (AGS) doctrine.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify the organization responsible for providing AGS to the Marine Aircraft Wing (MAW).
2. Identify the 13 functions of AGS.
3. Identify the five activities that the Marine Wing Support Squadron (MWSS) performs for the ACE when deployed.
4. Identify the four basing concepts for MAGTF Forward Operating Bases (FOBs).
5. List the four classifications of FOBs.
6. Differentiate the distinguishing characteristics of FOBs.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 AGS Class
2. MCWP 3-21.1 Aviation Ground Support

ACPM-8040 1.0 * B (N) G

Goal. Demonstrate an understanding of the Threat stage of the MACCS ACPM

Requirement. Pass a closed book examination that encompasses all learning objectives contained in the prerequisites.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. SI.

Prerequisite. 8041, 8042, 8043, 8044.

Reference. C3 Course Catalog.

ACPM-8041 4.0 * B (N) G

Goal. Demonstrate an understanding of the surface-to-air threat to the MAGTF.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Match the system name with the guidance and target aspect for the following Man Portable Air Defense Systems (MANPADS):
 - a. SA-7
 - b. SA-14
 - c. SA-16
 - d. SA-18
2. Match the system name with the guidance and associated radars for the following Radio Frequency Surface-to-Air Missile Systems (RF SAMS):
 - a. SA-2
 - b. SA-6
 - c. SA-8
 - d. SA-10
 - e. SA-11

- f. SA-15
 - g. SA-20
 - h. Roland-III
3. Match the system name with the type and associated radar for the following Air Defense Artillery (AAA):
- a. ZPU 1, 2, 4
 - b. ZSU-23-4
 - c. 2S6
 - d. S-60

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

Reference. MAWTS-1 Marine Aviation Intelligence Reference
(<https://vcepub.tecom.usmc.mil/sites/msc/magtftc/mawts1/departments1/newc3/default.aspx>)

ACPM-8042 4.0 * B (N) G

Goal. Demonstrate an understanding of the fixed wing threat to the MAGTF.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

- 1. Identify the role of the AN-2 Colt.
- 2. Identify the role of the MIG-23 Flogger.
- 3. Identify the role of the MIG-29 Fulcrum.
- 4. Identify the role of the MIG-31 Foxhound.
- 5. Identify the role of the Su-24 Fencer.
- 6. Identify the role of the Su-25 Frogfoot.
- 7. Identify the role of the Su-27 Flanker.
- 8. Identify the role of the Su-30 Flanker.
- 9. Identify the role of the Tu-22M Backfire.
- 10. Identify the role of the Tu-95 Bear.
- 11. Identify the role of the Tu-160 Blackjack.
- 12. Identify the role of the J-7 Fishbed.
- 13. Identify the role of the JH-7 Flounder.
- 14. Identify the role of the J-8 Finback.
- 15. Identify the role of the J-10 Firebird.
- 16. Identify the role of the H-6 Badger.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

Reference. MAWTS-1 Marine Aviation Intelligence Reference
(<https://vcepub.tecom.usmc.mil/sites/msc/magtftc/mawts1/departments1/newc3/default.aspx>)

ACPM-8043 4.0 * B (N) G

Goal. Demonstrate an understanding of the rotary wing threat to the MAGTF.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify the role of the Mi-24 Hind.
2. Identify the role of the SA 342 Gazelle.
3. Identify the role of the Ka-25 Hormone.
4. Identify the role of the Mi-6 Hook.
5. Identify the role of the Mi-28 Havoc.
6. Identify the role of the Mi-8 Hip.
7. Identify the role of the Ka-50 Kokum.
8. Identify the role of the Ka-29 Helix B.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

Reference. MAWTS-1 Marine Aviation Intelligence Reference
(<https://vcepub.tecom.usmc.mil/sites/msc/magtftc/mawts1/departments1/newc3/default.aspx>)

ACPM-8044 4.0 * B (N) G

Goal. Demonstrate an understanding of the missile and Unmanned Aircraft System (UAS) threat to the MAGTF.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Match the system name with the terminal guidance for the following Air-to-Surface Missiles:
 - a. AS-10 Karen
 - b. AS-11 Kilter
 - c. AS-12 Kegler
 - d. AS-14 Kedge
 - e. AS-17 Krypton
2. Match the system name with the warhead and guidance for the following Surface-to-Surface Missiles:
 - a. FROG-7
 - b. SCUD-B
 - c. SCUD-C
 - d. Nodong 1
 - e. C 801
 - f. C 802
3. Identify the mission of the following threat UAS:
 - a. Ababil
 - b. Mohajer
 - c. Harpy
 - d. Heron
 - e. ASN-206
 - f. Pchela-1T

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 Marine Aviation Intelligence Reference

2. <https://vcepub.tecom.usmc.mil/sites/msc/magtftc/mawts1/departments1/ne>
3. [wc3/default.aspx](https://vcepub.tecom.usmc.mil/sites/msc/magtftc/mawts1/departments1/ne/wc3/default.aspx)
4. Marine Corps Intelligence Activity Iran Country Handbook (appendix A)
5. Marine Corps Intelligence Activity North Korea Country Handbook (page 86)
6. Marine Corps Intelligence Activity China Country Handbook (appendix A)
<https://www.intelink.gov/mcia/handbook.htm>
7. MCIA UAV Recognition Guide <https://www.intelink.gov/mcia/index.htm>

ACPM-8060 1.0 * B (N) G

Goal. Demonstrate an understanding of the MAGTF stage of the MACCS ACPM.

Requirement. Pass a closed book examination that encompasses all learning objectives contained in the prerequisites.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. SI.

Prerequisite. 8061, 8062, 8063, 8064, 8065.

Reference. C3 Course Catalog.

ACPM-8061 4.0 * B (N) G

Goal. Demonstrate an understanding of the MAGTF ground combat operations.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify how the Ground Combat Element (GCE) is employed as part of the MAGTF and the capabilities the GCE provides to the MAGTF commander
2. Define the following items related to command and control of ground combat operations:
 - a. Echelons of the GCE headquarters
 - b. Battlespace Organization
 - c. Battlespace Framework
3. Define the five types of amphibious operations.
4. Identify the following items related to offensive operations:
 - a. Types of offensive operations
 - b. Types of attack
 - c. Forms of maneuver
 - d. Distribution of forces
5. Identify the following items related to defensive operations:
 - a. Organization of the defense
 - b. Distribution of forces
 - c. Types of defensive operations
 - d. Defensive methods

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MCDP 1-0 Marine Corps Operations

2. MCWP 3-1 Ground Combat Operations

ACPM-8062 4.0 * B (N) G

Goal. Demonstrate an understanding of fire support coordination in the Ground Combat Element (GCE).

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify the four fire support tasks.
2. List the functions of the senior fire support coordination center (FSCC) in the GCE.
3. List the four steps of the MAGTF Targeting Process.
4. Define the purpose of essential fire support tasks (EFST).

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 MAGTF Targeting and Fire Support Planning Class
2. MCWP 3-16 Fire Support Coordination in the GCE

ACPM-8063 4.0 * B (N) G

Goal. Demonstrate an understanding of MAGTF command and control.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify MAGTF command and support relationships.
2. Identify the purpose and role of the command and control centers in the CE, ACE, GCE, and LCE.
3. Identify the purpose and role of the amphibious command and control facilities.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

Reference. MCWP 3-40.1 MAGTF C2

ACPM-8064 4.0 * B (N) G

Goal. Demonstrate an understanding of MAGTF communications.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify the six characteristics of communications and information systems.
2. Identify the mission and organizational structure of the Communications Battalion.
3. Identify the purpose of the Communications-Electronics Operating Instructions (CEOI) and what information is usually included in it.
4. Identify what information can be found in Annex K of an operations order.
5. Identify the purpose of select fires, support, and ACE specific radio nets.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

Reference. MCWP 3-40.3 MAGTF Communications System

ACPM-8065 4.0 * B (N) G

Goal. Demonstrate an understanding of phasing control ashore.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify types of amphibious operations and how command relationships may change during the conduct of each.
2. Identify how disputes among commanders during amphibious operations are resolved.
3. Identify the key commanders and command relationships.
4. Identify the key characteristics of each phase in phasing the MACCS ashore.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 Phasing Control Ashore Class
2. JP 3-02 Joint Doctrine for Amphibious Operations (Ch 2)
3. MCWP 3-25 Control of Aircraft and Missiles (Appendix C)

ACPM-8066 4.0 * B (N) G

Goal. Demonstrate an understanding of information management.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Match the principles of information management with their descriptions.
2. Define each of the classes of information within an information hierarchy.
3. List the characteristics of quality information.
4. Identify the role and responsibilities of an Information Management Officer (IMO).
5. Define C2 support structure and the three steps followed to develop one.
6. Identify the purpose of an information management matrix and the information management plan.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

Reference. MCWP 3-40.2 Information Management

ACPM-8067 4.0 * B (N) G

Goal. Demonstrate an understanding of Unmanned Aircraft Systems in support of MAGTF operations.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify the four types of payloads.
2. Identify the three attributes that determine UAS Groups.
3. Identify the five different UAS Group Categories.
4. Identify the two types of VMU operational employment.
5. Identify the three components of the RQ-7B Communications Relay Package.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 UAS In Support of MAGTF Operations
2. MCRP 3-42.1A
3. NTP 3-22.3-VMU

ACPM-8080 1.0 * B (N) G

Goal. Demonstrate an understanding of the MAGTF stage of the joint air operations stage of the MACCS ACPM.

Requirement. Pass a closed book examination that encompasses all learning objectives contained in the prerequisites.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. SI.

Prerequisite. 8081, 8082, 8083, 8084, 8085, 8086, 8087, 8088.

Reference. C3 Course Catalog.

ACPM-8081 4.0 * B (N) G

Goal. Demonstrate an understanding of the command and control of joint air operations.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify the definition of joint air operations.
2. Identify the Joint Force Air Component Commander's responsibilities.
3. Identify the five sections that comprise the Joint Air Operations Center.
4. Identify the six phases of the Joint Air Tasking Cycle.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives or pass the DOCNET course listed below with a score of 80% or higher.

Instructor. BI.

Prerequisite. None.

References.

1. DOCNET Course 3-30 (<http://www.dtic.mil/doctrine/docnet/>)
2. MAWTS-1 Joint Air Operations Class
3. JP 3-30 C2 of Joint Air Operations

ACPM-8082 4.0 * B (N) G

Goal. Demonstrate an understanding of the theater air ground system (TAGS).

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. List the primary characteristics of the Theater Air Ground System (TAGS).
2. Identify the elements within the Air Force's Theater Air Control System (TACS) and their primary responsibilities.
3. Identify the aviation command and control elements with the Army Air and Ground System (AAGS) and their primary responsibilities.
4. Identify the aviation elements within the Navy's Composite Warfare Commander (CWC) architecture.
5. Identify the Amphibious Task Force (ATF) construct and its primary responsibilities.
6. Identify the aviation command and control elements within the Special Operations Air-Ground System.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 TAGS ClassMAWTS-1 Joint Air Operations Class
2. ALSA TAGS Pub. (<https://wwwmil.alsa.mil/default.aspx>)

ACPM-8083 4.0 * B (N) G

Goal. Demonstrate an understanding of joint fire support doctrine.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Define joint fires.
2. Define joint fire support.
3. Identify the steps of the joint fire support planning process.
4. List the various elements of the component commander's fires command and control system.
5. Define the various joint control and coordination measures associated with joint fire support.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives or pass the DOCNET course listed below with a score of 80% or higher.

Instructor. BI.

Prerequisite. None.

References.

1. DOCNET Course 3-09 (<http://www.dtic.mil/doctrine/docnet/>)
2. JP 3-09 Joint Fire Support

ACPM-8084 4.0 * B (N) G

Goal. Demonstrate an understanding of close air support (CAS) doctrine.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Explain key roles and responsibilities related to the planning and execution of CAS.

2. Detail key steps in the planning and execution of CAS.
3. Describe various coordination measures used in the planning and conduct of CAS.
4. Describe the manner in which the two types of CAS requests are fulfilled.
5. Identify the goal and purpose of synchronizing CAS with surface fires.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives or pass the DOCNET course listed below with a score of 80% or higher.

Instructor. BI.

Prerequisite. None.

References.

1. DOCNET Course 3-09 (<http://www.dtic.mil/doctrine/docnet/>)
2. MAWTS-1 CAS Class
3. JP 3-09.3 Close Air Support

ACPM-8085 4.0 * B (N) G

Goal. Demonstrate an understanding of joint targeting doctrine.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify types of targets.
2. Identify and describe the six phases of the joint targeting cycle.
3. Identify characteristics of a target.
4. Identify and describe steps in dynamic targeting.
5. Describe roles and responsibilities related to the joint targeting process.
6. Describe key products and processes of the joint targeting cycle.
7. Identify key terms related to the joint targeting process.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives or pass the DOCNET course listed below with a score of 80% or higher.

Instructor. BI.

Prerequisite. None.

Reference.

1. DOCNET Course 3-09 (<http://www.dtic.mil/doctrine/docnet/>)
2. JP 3-60 Joint Targeting

ACPM-8086 4.0 * B (N) G

Goal. Demonstrate an understanding of the North Atlantic Treaty Organization (NATO).

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify the composition of the NATO alliance.
2. Identify the three key articles of the NATO alliance.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 NATO Class
2. "What is NATO" Brief (http://www.nato.int/welcome/intro_to_NATO_en.ppt)
3. AJP-01(D)

ACPM-8087 4.0 * B (N) G

Goal. Demonstrate an understanding of joint airspace control doctrine.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify the responsibilities of the airspace control authority (ACA).
2. Identify the basic principles for airspace control.
3. Identify the purpose of the airspace control plan (ACP).
4. Identify the purpose of the airspace control order (ACO).
5. Identify the methods of airspace control.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 Airspace Control Authority and Airspace Class
2. JP 3-52 Joint Airspace Control

12.15 T&R SYLLABUS MATRIX

5970 T&R SYLLABUS MATRIX										
SKILL	CODE	TITLE	POI	DEVICE	COND	PROFICIENCY PERIOD	E-CODE	LIVE TIME	PREREQ	CHAIN
CORE INTRODUCTION PHASE (1000)										
AIR SCHOOL (AIRS) STAGE										
AIRS	1002	Conduct an inspection of maintenance functional areas	B	G	(N)	*	*	0	*	*
AIRS	1003	Identify the key elements of Operational Orders (OPORD)	B	G	(N)	*	*	0	*	*
AIRS	1004	Reconcile Global Combat Support Systems-Marine Corps (GCSS-MC) automated reports	B	G	(N)	*	*	0	*	*
AIRS	1005	Identify the services provided by Marine Wing Communications Squadron	B	G	(N)	*	*	0	*	*
AIRS	1006	Identify cyber security requirements for tactical employment of information systems	B	G	(N)	*	*	0	*	*
AIRS	1007	Identify TAOC and EW/C communications information exchange requirements	B	G	(N)	*	*	0	*	*
AIRS	1008	Identify TACC Communications information exchange requirements	B	G	(N)	*	*	0	*	*
AIRS	1009	Identify DASC communications information exchange requirements	B	G	(N)	*	*	0	*	*
AIRS	1010	Analyze the TO/E	B	G	(N)	*	*	0	*	*
AIRS	1011	Identify spectrum management procedures	B	G	(N)	*	*	0	*	*
AIRS	1012	Identify the embarkation requirements for the major end items of the TACC, DASC, TAOC, and EW/C	B	G	(N)	*	*	0	*	*
AIRS	1013	Identify LAAD Communications information exchange requirements	B	G	(N)	*	*	0	*	*
AIRS	1014	Identify MATC communications information exchange requirements	B	G	(N)	*	*	0	*	*
AIRS	1016	Identify the Marine Corps Urgent Needs Process (MCUNP)	B	G	(N)	*	*	0	*	*
AIRS	1017	Validate induction of new equipment into service	B	G	(N)	*	*	0	*	*
AIRS	1018	Demonstrate the process to phase out obsolete equipment	B	G	(N)	*	*	0	*	*
AIRS	1019	Identify maintenance funding requirements	B	G	(N)	*	*	0	*	*

5970 T&R SYLLABUS MATRIX										
SKILL	CODE	TITLE	POI	DEVICE	COND	PROFICIENCY PERIOD	E-CODE	LIVE TIME	PREREQ	CHAIN
AIRS	1020	Identify the SECREP management process	B	G	(N)	*	*	0	*	*
AIRS	1021	Identify DOD cyber security workforce structure	B	G	(N)	*	*	0	*	*
AIRS	1022	Access published information within TFSMS	B	G	(N)	*	*	0	*	*
AIRS	1023	Describe readiness ratings within DRRS-MC	B	G	(N)	*	*	0	*	*
AIRS	1024	Explain the product quality deficiency report (PQDR)	B	G	(N)	*	*	0	*	*
AIRS	1025	Identify major funding lines	B	G	(N)	*	*	0	*	*
AIRS	1026	State the duties of a CMR responsible officer	B	G	(N)	*	*	0	*	*
TOTAL AIR SCHOOL (AIRS) STAGE			EVENTS	24		HOURS		0		
INSTRUCTOR TRAINING PHASE (5000)										
INSTRUCTOR UNDER TRAINING (IUT) SKILL										
IUT	5000	Introduce principles of instruction	B	L	(N)	*	*	2	*	*
IUT	5010	Describe individual T&R requirements	B	G	(N)	*	*	2	*	*
IUT	5020	Conduct T&R instruction.	B,R,M	L	(N)	90	*	12	5000, 5010	*
IUT	5100	Describe the Aviation Training and Readiness (T&R) Program	B	G	(N)	*	*	2	*	*
IUT	5110	Conduct instructor evaluations	B,R,M	L	(N)	365	*	4	5100	*
IUT	5120	Perform T&R administration	B	L	(N)	*	*	2	5100, 5110	*
IUT	5130	Develop a training plan	B	L	(N)	*	*	2	5100, 5110, 5120	*
INSTRUCTOR UNDER TRAINING (IUT)			EVENTS	7		HOURS		26		
CERTIFICATIONS, QUALIFICATIONS, AND DESIGNATION PHASE (6000)										
DESIGNATIONS (DESG)										
DESG	6320	Basic Instructor (BI)	B	G	(N)	*	*	.5	5000, 5010, 5020	*

5970 T&R SYLLABUS MATRIX										
SKILL	CODE	TITLE	POI	DEVICE	COND	PROFICIENCY PERIOD	E-CODE	LIVE TIME	PREREQ	CHAIN
DESG	6321	Senior Instructor (SI)	B	G	(N)	*	*	.5	5000, 5010, 5020, 5100, 5110, 5120, 5130, 6320	*
DESG	6322	WTI	B	G	(N)	*	*	.5	6000, 6320, 6321	*
DESG	6334	Data Systems Maintenance Officer (DSMO)	B	G	(N)	*	*	.5	*	*
DESIGNATIONS (DESG)			EVENTS	4		HOURS		2.0		
SCHOOL CODES (SCHL)										
SCHL	6000	WTI Course	B	G	(N)	*	*	0.5	6320, 6321, 8000, 8020, 8040, 8060, 8080	
SCHL	6013	System Administrator Course (AOC IQT)	B	G	(N)	*	*	0.5	*	*
SCHL	6014	Network Administrator Course (AOC IQT)	B	G	(N)	*	*	0.5	*	*
SCHL	6020	Link 16 Basics Course (JT-100)	B	G	(N)	*	*	0.5	*	*
SCHL	6021	Intro to Multi TDL Network (JT-101) Course	B	G	(N)	*	*	0.5	*	*
SCHL	6022	Multi-TDL Advanced Joint Interoperability Course (MAJIC) (JT-102)	B	G	(N)	*	*	0.5	6021	*
SCHL	6023	Link 16 Joint Interoperability Course (US-109)	B	G	(N)	*	*	0.5	*	*
SCHL	6024	Multi TDL Planner Course (JT-201)	B	G	(N)	*	*	0.5	*	*
SCHL	6025	Link 16 Unit Manager (LUM) Course (JT-220)	B	G	(N)	*	*	0.5	*	*
SCHL	6026	Joint Interface Control Officer (JICO) (JT-301)	B	G	(N)	*	*	0.5	6021, 2022, 6024	*
SCHL	6027	Advanced JICC Operator Course (JT-310)	B	G	(N)	*	*	0.5	*	*
SCHL	6031	MATC Maintenance Manager’s Course	B	G	(N)	*	*	0.5	*	*
SCHL	6073	Microminiature Electronic Repair Course	B	G	(N)	*	*	0.5	*	*

5970 T&R SYLLABUS MATRIX										
SKILL	CODE	TITLE	POI	DEVICE	COND	PROFICIENCY PERIOD	E-CODE	LIVE TIME	PREREQ	CHAIN
SCHL	6093	Micro-miniature/Automated Test Equipment Repair Course	B	G	(N)	*	*	0.5	*	*
SCHL	6094	Advanced Electronics Course.	B	G	(N)	*	*	0.5	*	*
SCHL	6095	Ground Electronics Maintenance NCO Course.	B	G	(N)	*	*	0.5	*	*
SCHL	6097	Mountain Command Control Communications Course.	B	G	(N)	*	*	0.5	*	*
SCHOOL (SCHL)			EVENTS	17		HOURS		8.5		
MISSION ESSENTIAL TASK PHASE (7000)										
TACC CONDITION (COND)										
COND	7001	Establish communications	B,R,M	L	(N)	730	E	4	*	*
COND	7003	Display the Common Tactical Picture	B,R,M	L/S	(N)	730	E	8	*	*
COND	7004	Coordinate air operations between the MACCS and Joint /Combined/Coalition/Host Nation command and control agencies	B,R,M	L/S	(N)	730	E	18	*	*
COND	7005	Manage the current air tasking order	B,R,M	L/S	(N)	730	E	8	*	*
COND	7007	Maintain a facility and associated command and control systems for the TACC	B,R,M	L/S	(N)	730	E	16	*	*
COND	7009	Coordinate Airspace Management in Current Operations	B,R,M	S/L	(N)	730	E	2	*	*
TACC CONDITION (COND)			EVENTS	6		HOURS		56		
DASC CONDITION (COND)										
COND	7400	Employ an ASLT	B,R,M	L/S	(N)	730	E	3	*	*
COND	7405	Employ an ASE	B,R,M	L/S	(N)	730	E	3	*	*
COND	7410	Employ a DASC	B,R,M	L/S	(N)	730	E	3	*	*
COND	7415	Conduct a Reconnaissance, selection, and Occupation of Position (RSOP) for the DASC	B,R,M	L/S	(N)	730	E	3	*	*
COND	7420	Conduct Echelon Operations	B,R,M	L/S	(N)	730	E	3	*	*
COND	7425	Conduct Phasing of Control Ashore	B,R,M	L/S	(N)	730	E	3	*	*
DASC CONDITION (COND)			EVENTS	6		HOURS		18		

5970 T&R SYLLABUS MATRIX										
SKILL	CODE	TITLE	POI	DEVICE	COND	PROFICIENCY PERIOD	E-CODE	LIVE TIME	PREREQ	CHAIN
TAOC CONDITION (COND)										
COND	7000	Conduct Airspace Surveillance	B,R,M	L	(N)	730	E	16	*	*
COND	7001	Conduct Positive Control	B,R,M	L/S	(N)	730	E	16	*	*
COND	7002	Coordinate Air Defense Actions	B,R,M	L/S	(N)	730	E	16	*	*
COND	7003	Conduct Dual Site Air Defense Operations	B,R,M	L/S	(N)	730	E	16	*	*
COND	7004	Integrate Operational Air Defense Capabilities	B,R,M	L/S	(N)	730	E	16	*	*
TAOC CONDITION (COND)			EVENTS	5		HOURS		80		
AVIATION CAREER PROGRESSION MODEL (8000)										
AVIATION CAREER PROGRESSION MODEL (ACPM)										
ACPM	8000	MACCS	B	G	(N)	*	*	1	8001, 8002, 8003, 8004, 8005, 8006, 8008	*
ACPM	8001	Marine Air Command and Control System	B	G	(N)	*	*	4	*	*
ACPM	8002	Tactical Air Command Center (TACC)	B	G	(N)	*	*	4	*	*
ACPM	8003	Direct Air Support Center (DASC)	B	G	(N)	*	*	4	*	*
ACPM	8004	Tactical Air Operations Center (TAOC)	B	G	(N)	*	*	4	*	*
ACPM	8005	Marine Air Traffic Control (MATC)	B	G	(N)	*	*	4	*	*
ACPM	8006	Low Altitude Air Defense (LAAD)	B	G	(N)	*	*	4	*	*
ACPM	8008	Marine Wing Communications Squadron (MWCS)	B	G	(N)	*	*	4	*	*
ACPM	8020	ACE	B	G	(N)	*	*	1	8021, 8022, 8023, 8024, 8025, 8026, 8027, 8028	*
ACPM	8021	Aviation Operations	B	G	(N)	*	*	4	*	*
ACPM	8022	Control of Aircraft and Missiles	B	G	(N)	*	*	4	*	*
ACPM	8023	Offensive Air Support (OAS)	B	G	(N)	*	*	4	*	*
ACPM	8024	Assault Support (AS)	B	G	(N)	*	*	4	*	*
ACPM	8025	Air Reconnaissance	B	G	(N)	*	*	4	*	*

5970 T&R SYLLABUS MATRIX										
SKILL	CODE	TITLE	POI	DEVICE	COND	PROFICIENCY PERIOD	E-CODE	LIVE TIME	PREREQ	CHAIN
ACPM	8026	Electronic Warfare (EW)	B	G	(N)	*	*	1	*	*
ACPM	8027	Anti-Air Warfare (AAW)	B	G	(N)	*	*	4	*	*
ACPM	8028	Aviation Ground Support	B	G	(N)	*	*	4	*	*
ACPM	8040	Threat	B	G	(N)	*	*	1	8041, 8042, 8043, 8044	*
ACPM	8041	Surface to Air threat to the MAGTF	B	G	(N)	*	*	4	*	*
ACPM	8042	Fixed Wing threat to the MAGTF	B	G	(N)	*	*	4	*	*
ACPM	8043	Rotary Wing threat to the MAGTF	B	G	(N)	*	*	4	*	*
ACPM	8044	Missile and UAS threat to the MAGTF	B	G	(N)	*	*	4	*	*
ACPM	8060	MAGTF	B	G	(N)	*	*	1	8061, 8062, 8063, 8064, 8065, 8066, 8067	*
ACPM	8061	Ground Combat Operations	B	G	(N)	*	*	4	*	*
ACPM	8062	Fire Support Coordination in the GCE	B	G	(N)	*	*	4	*	*
ACPM	8063	MAGTF Command and Control	B	G	(N)	*	*	4	*	*
ACPM	8064	MAGTF Communications	B	G	(N)	*	*	4	*	*
ACPM	8065	Phasing Control Ashore	B	G	(N)	*	*	4	*	*
ACPM	8066	Information Management	B	G	(N)	*	*	4	*	*
ACPM	8067	UAS support of the MAGTF	B	G	(N)	*	*	4	*	*
ACPM	8080	Joint Air Operations	B	G	(N)	*	*	1	8081, 8082, 8083, 8084, 8085, 8086, 8087, 8088	*
ACPM	8081	Command and Control of Joint Air Operations	B	G	(N)	*	*	4	*	*
ACPM	8082	Theater Air Ground System (TAGS)	B	G	(N)	*	*	4	*	*
ACPM	8083	Joint Fire Support	B	G	(N)	*	*	4	*	*
ACPM	8084	Close Air Support (CAS)	B	G	(N)	*	*	4	*	*
ACPM	8085	Joint Targeting	B	G	(N)	*	*	4	*	*
ACPM	8086	North Atlantic Treaty Organization (NATO)	B	G	(N)	*	*	4	*	*

5970 T&R SYLLABUS MATRIX										
SKILL	CODE	TITLE	POI	DEVICE	COND	PROFICIENCY PERIOD	E-CODE	LIVE TIME	PREREQ	CHAIN
ACPM	8087	Joint Airspace Control	B	G	(N)	*	*	4	*	*
ACPM	8088	Countering Air and Missile Threats	B	G	(N)	*	*	4	*	*
AVIATION CAREER PROGRESSION MODEL (ACPM)			EVENTS	39		HOURS		138		

CHAPTER 13

TACTICAL DATA SYSTEMS ADMINISTRATOR (MOS 5974) INDIVIDUAL TRAINING AND READINESS REQUIREMENTS

	<u>PARAGRAPH</u>	<u>PAGE</u>
CREW MEMBER T&R SYLLABUS REQUIREMENTS	13.0	13-3
TRAINING PROGRESSION MODEL.....	13.1	13-3
PROGRAMS OF INSTRUCTION (POI).....	13.2	13-3
PROFICIENCY AND CURRENCY.....	13.3	13-4
CERTIFICATION, QUALIFICATION AND DESIGNATION TABLES	13.4	13-4
SYLLABUS NOTES.....	13.5	13-5
CORE INTRODUCTION PHASE (0000)	13.6	13-6
CORE PHASE (2000)	13.7	13-19
MISSION PHASE (3000)	13.8	13-40
CORE PLUS PHASE (4000)	13.9	13-52
MISSION PLUS PHASE (4500)	13.10	13-53
INSTRUCTOR TRAINING PHASE (5000)	13.11	13-54
CERTIFICATIONS, QUALIFICATIONS, AND DESIGNATIONS (CQD) PHASE (6000)	13.12	13-59
MISSION ESSENTIAL TASK (MET) PHASE (7000)	13.13	13-68
AVIATION CAREER PROGRESSION MODEL (8000)	13.14	13-81
T&R SYLLABUS MATRIX.....	13.15	13-99

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CHAPTER 13

TACTICAL DATA SYSTEMS ADMINISTRATOR (MOS 5974) INDIVIDUAL TRAINING AND READINESS REQUIREMENTS

13.0 CREW MEMBER T&R SYLLABUS REQUIREMENTS. This T&R Syllabus is based on specific goals and performance standards designed to ensure individual proficiency in Core and Mission Skills. The goal of this chapter is to develop individual and unit warfighting capabilities.

13.1 TRAINING PROGRESSION MODEL. This model represents the recommended average training progression for the Tactical Data Systems Administrator. Units should use the model as a point of departure to generate individual training plans.

13.2 PROGRAMS OF INSTRUCTION (POI). These tables reflect average time-to-train versus the minimum to maximum time-to-train parameters in the Training Progression Model.

MOS 5974 CAREER PROGRESSION MODEL																								
					B I					S I														

MACCS MAINTENANCE MOS 5974 REFRESHER POI		
WEEKS	PHASE OF INSTRUCTION	UNIT RESPONSIBLE
VARIES	CORE PHASE	TACTICAL SQUADRON
VARIES	MISSION PHASE	TACTICAL SQUADRON
VARIES	CORE PLUS PHASE	TACTICAL SQUADRON

NOTE 1: TRAINING DURATIONS VARIES BY POSITION BEING TRAINED. SEE PROGRESSION MODEL FOR NOTIONAL TRAINING TIMES.

13.3 PROFICIENCY AND CURRENCY.

13.3.1 Event Proficiency. Event proficiency is defined as successful completion of the performance standard as determined by the instructor or evaluator. Event completion is predicated upon demonstrated proficiency. Once completed, it is logged in M-SHARP by entering the appropriate event code. M-SHARP automatically updates the event proficiency date to reflect the completion date.

13.3.2 Skill Proficiency. Proficiency is a measure of achievement of a specific skill. To attain Individual Skill proficiency, an individual must be simultaneously proficient in all events for that Skill. Individuals may be attaining proficiency in some skills while maintaining proficiency in others. Refresher training is required once an individual has been absent from a technician billet for 36 months or longer. Upon return, the individual will complete R-coded events.

13.3.2.1 Maintaining Skill Proficiency. Once attained, skill proficiency is maintained by executing those events which have a Proficiency Period (Maintain events). Proficiency Periods establish the maximum time between event demonstrations. Should proficiency be lost in any maintain event, for a specific skill, that skill proficiency is temporarily lost. Skill proficiency can be re-attained by again demonstrating proficiency in the event(s) that are not proficient. For flying communities, an individual shall complete delinquent events with a proficient instructor, crewman/flight lead as delineated by the T/M/S Syllabus Sponsor (see Chapter 3 of the Program Manual on specific instructor requirements for Low Altitude Flight, Night Systems, ACM, DM, DACM, DCM, FAC(A)).

13.3.2.2 Loss of Individual Skill Proficiency. Should an individual lose proficiency in all maintain events in a skill, the individual will be assigned to the Refresher POI for the skill. To regain skill proficiency, the individual must demonstrate proficiency in all R-coded events for the skill. .

13.3.2.3 Loss of Unit Skill Proficiency. If an entire unit loses proficiency in an Event, unit instructors shall regain proficiency by completing the event with an instructor from a like unit. If not feasible, the instructor shall regain proficiency by completing the event with another instructor. For flying communities, if a unit has only one instructor and cannot complete the event with an instructor from another unit, the instructor shall regain proficiency with another aircraft commander or as designated by the commanding officer.

13.3.2.4 Proficiency Status. Proficiency is a "Yes/No" status by skill assigned to an individual. When an individual attains and maintains Core Skill Proficiency (CSP), Mission Skill Proficiency (MSP), Core Plus Skill Proficiency (CPSP), or Mission Plus Skill Proficiency (MPSP), the individual may count towards CMMR or CMTS.

13.3.3 Skill Currency. Currency is a control measure used to provide an additional margin of safety based on exposure frequency to a particular skill and applies to all MOS's that must comply with NATOPS and OPNAV requirements. It is a measure of time since the last event demanding that specific skill. Specific currency requirements for aircrew individual type mission profiles can be found in Chapter 3

13.4 CERTIFICATION, QUALIFICATION, AND DESIGNATION TABLES. The tables below delineate T&R events required to be completed to attain proficiency for select certifications and designations. In addition to event requirements, all required stage lectures, briefs, squadron training, prerequisites, and other criteria shall be completed prior to completing final events. Certification and designation letters signed by the commanding officer

shall be placed in training Performance Records and NATOPS. See Chapter 6 of the Aviation T&R Program Manual on regaining lost qualifications.

13.4.1 INSTRUCTOR DESIGNATIONS.

MOS 5974 INSTRUCTOR DESIGNATIONS	
INSTRUCTOR DESIGNATION	EVENTS
BASIC INSTRUCTOR (BI)	5000, 5010, 5020, 6320
SENIOR INSTRUCTOR (SI)	5000, 5010, 5020, 5100, 5110, 5120, 5130, 6320, 6321
WEAPONS AND TACTICS INSTRUCTOR (WTI)	6000, 6320, 6321, 6322, 8000, 8020, 8040, 8060, 8080
FORMAL LEARNING CENTER INSTRUCTOR (FLCI)	6096, 6330

13.4.2 CERTIFICATIONS, QUALIFICATIONS, AND DESIGNATIONS.

MOS 5974	
CERTIFICATIONS, QUALIFICATIONS, AND DESIGNATIONS (CQD)	
CERTIFICATION	EVENTS
CSWF TECHNICAL SUPPORT SPECIALIST	6260
CSWF IT SPECIALIST	6261
CSWF SYSTEM ADMINISTRATOR	6262
DESIGNATIONS	EVENTS
SYSTEM CONFIGURATION COORDINATOR	6323

13.5 SYLLABUS NOTES.

13.5.1 Environmental Conditions Matrix.

Environmental Conditions	
Code	Meaning
(N)	May be conducted day or night. If at night, may be aided or unaided.

13.5.2 Device Matrix.

DEVICE

SYMBOL	MEANING
L	Conducted using Unit T/E equipment.
L/S	Live preferred/Simulator optional.
S/L	Simulator preferred/Live optional.
G	Ground/academic training. May include Distance Learning, CBT, and lectures, self-paced.

13.5.3 Program of Instruction Matrix.

PROGRAM OF INSTRUCTION MATRIX		
PROGRAM OF INSTRUCTION (POI)	SYMBOL	AVIATION GROUND
Basic	B	Initial MOS Training
Refresher	R	Return to community from non (MOS/Skill) associated tour
Maintain	M	All individuals who have attained CSP/MSP/CPD by initial POI assignment are re-assigned to the M POI to maintain proficiency.

13.5.4 Event Terms.

EVENT TERMS	
TERM	DESCRIPTION
Discuss	An explanation of systems, procedures, or tactics during the brief, exercise, or debrief. Student is responsible for knowledge of procedures.
Demonstrate	The description and performance of a particular event by the instructor, observed by the student. The student is responsible for knowledge of the procedures prior to the demonstration of a required event.
Introduce	The instructor may demonstrate a procedure or event to a student, or may coach the student through the maneuver without demonstration. The student performs the procedures or maneuver with coaching as necessary. The student is responsible for knowledge of the procedures.
Practice	The performance of a maneuver or procedure by the student that may have been previously introduced in order to attain a specified level of performance.
Review	Demonstrated proficiency of an event by the student.
Evaluate	Any event designed to evaluate team/crew standardization that does not fit another category.

13.6 CORE INTRODUCTION PHASE (0000)

13.6.1 Purpose. To provide entry level instruction to develop the basic skills necessary to become a MOS 5974 Tactical Data Systems Administrator. This training is completed upon graduation from the Tactical Data Systems Administrator Course.

13.6.2 General.

13.6.2.1 Admin Notes. None.

13.6.2.2 Prerequisite. Meet the requirement delineated in the MOS Manual (NAVMC 1200).

13.6.2.3 Stages. The following stages are included in the Core Introduction Phase of training.

PAR NO.	STAGE NAME	PAGE NUMBER
13.6.3	5900 COMMONS (59CM) STAGE	13-6
13.6.4	AIR SCHOOLS (AIRS)	13-11

13.6.3 5900 COMMONS (59CM) STAGE

13.6.3.1 Purpose. To provide entry-level instruction to 5900 personnel to develop the basic skills necessary to safely setup, operate, and maintain Marine Air Command and Control System (MACCS) Systems. This training phase is complete upon graduation of the 5900 commons course.

13.6.3.2 General.

Admin Notes. 5900 Commons Course (CID: M091J31), MCCES, located in 29 Palms, CA.

Prerequisites. Meet the 5974 requirements delineated in the MOS Manual (NAVMC 1200).

Crew Requirements. None.

59CM-0001 0 * B (N) G

Goal. Describe the characteristics of the Marine Air Command and Control System (MACCS).

Requirement. Given the references:

1. Describe the six functions of Marine Aviation.
2. Describe the mission of the MACCS.
3. Describe the organization of the MACCS tactical agencies resident within the Marine Air Control Group (MACG).
4. Describe the function(s) of each MACCS agency within the MACG.
5. Describe the MACCS specific equipment systems within the MACG.
6. Describe the characteristics of the Multi-Tactical Data Link network used within the MACG.

Performance Standard. Pass an exam.

Instructor. FLCI.

Prerequisite. None.

References.

Control of Aircraft and Missiles MCWP 3-25
Direct Air Support Center Handbook MCRP 3-20F.5
Antenna Handbook MCRP 8-10B.11
Harris Radio Communications in the Digital Age, Volume Two: VHF/UHF Technology 00 132465
Interoperability Standard for the Joint Range Extension Applications Protocol (JREAP) STANAG 5518
Joint Multi-Tactical Digital Information Link (TADIL) Operating Procedures CJCSM 6120.01A
Joint Range Extension Application Protocol (JREAP), Interoperability Standard MIL-STD-3011
Low Altitude Air Defense (LAAD) Gunner's Handbook MCRP 3-20F.9
Aviation Operations MCWP 3-20
Marine Air Traffic Control Detachment Handbook MCRP 3-20F.7
Radio Communications in the Digital Age: HF Technology Vol 1
Radio Operators Handbook MCRP 8-10B.10
Marine Tactical Air Command Center Handbook MCRP 3-20F.2
Tactical Air Operations Center Handbooks MCRP 3-20F.6
Tactical Data Link (TDL) Link-11 Message Standard (U) MIL-STD-6011
Tactical Data Link (TDL) Link-16, DoD Interoperability Standard MIL-STD-6016

59CM-0002 0 * B (N) G

Goal. Measure circuit performance.

Requirement. Given the references:

1. Observe safety precautions.
2. Measure electronic parameters (voltage, current, resistance, time).

3. Calculate electronic parameters.
4. Identify electronic components.
5. Read schematics.

Performance Standard. Pass an exam.

Instructor. FLCI.

Prerequisite. None.

References.

Electronics Technician: Volume 1 – Safety NAVEDTRA 12411-A
Getting Started in Electronics (Forrest M. Mims III) ISBN: 0-94-505328-2
Navy Electricity and Electronics Training Series, Module 2- Alternating Current and Transformers
NAVEDTRA 14174A 2012 edition
Navy Electricity and Electronics Training Series, Module 3- Circuit Protection, Control, and Measurement
NAVEDTRA 14175A 2013 edition

59CM-0003 0 * B (N) G

Goal. Configure MACCS radios for secure RF communications.

Requirement.

1. Describe the characteristics of RF propagation.
2. Describe the capabilities and limitations of the radio.
3. Configure radio.
4. Assemble radio.
5. Disassemble radio.
6. Demonstrate safe handling of controlled items.
7. Load crypto.
8. Load a frequency.
9. Load time.

Performance Standard. Pass an exam.

Instructor. FLCI.

Prerequisite. None.

Reference.

Antenna Handbook MCRP 8-10B.11
Harris Radio Communications in the Digital Age, Volume Two: VHF/UHF Technology 00 132465
Radio Communications in the Digital Age: HF Technology Vol 1
Radio Operators Handbook MCRP 8-10B.10

59CM-0004 0 * B (N) G

Goal. Describe proper handling and storage of classified materials.

Requirement.

1. State the different levels of classification.
2. State the marking Requirements for each level of classification.
3. State the Two-Person Integrity (TPI) rule.
4. State storage procedures for each level of classification.
5. Identify transportation Requirements for classified material.
6. Identify the approved security containers utilized for storage.

7. Identify the procedures for handling Controlled Cryptographic Items (CCIs).

Performance Standard. Pass an exam.

Instructor. FLCI.

Prerequisite. None.

References.

Antenna Handbook MCRP 8-10B.11

Harris Radio Communications in the Digital Age, Volume Two: VHF/UHF Technology 00 132465

Radio Communications in the Digital Age: HF Technology Vol 1

Radio Operators Handbook MCRP 8-10B.10

United States Marine Corps Information and Personnel Security Program Manual MCO 5510.18B

59CM-0005 0 * B (N) G

Goal. Provide cybersecurity technical support for MACCS specific equipment.

Requirement. Provided the references and appropriate equipment:

1. Install and configure hardware, software, and peripheral equipment.
2. Manage accounts, networks, and access to systems and equipment.
3. Monitor client-level computer system performance.
4. Diagnose and resolve operator reported system incidents.
5. Troubleshoot system hardware and software.
6. Assist in the execution of disaster recovery continuity of operations plans.

Performance Standard. Pass an exam.

Instructor. FLCI.

Prerequisite. None.

Reference.

IT Essentials PC Hardware and Software Companion Guide 3rd Edition ISBN-13:978-1-58713-199-8

59CM-0006 0 * B (N) G

Goal. Repair common cables.

Requirement. Provided the appropriate equipment repair:

1. Ethernet/RJ-45 cable.
2. BNC cable.
3. RF cable.
4. Power cable.
5. Data cable.

Performance Standard. Pass an exam.

Instructor. FLCI.

Prerequisite. None.

References.

IT Essentials PC Hardware and Software Companion Guide 3rd Edition ISBN-13:978-1-58713-199-8

Standard Maintenance Practices Miniature/Microminiature (2M) Electronic Assembly Repair
Organizational/Intermediate/Depot Level TM 5895-45/1_
TIA/EIA-568-B.1-2001
Twisted Pair Cable test set 33-933NV Operator Manual 6510-00-5037
User's Manual for Cable Analyzer, DSP-4300/AN TM 10704B-OI/1

59CM-0007 0 * B (N) G

Goal. Demonstrate an earth ground installation.

Requirement. Given the references, grounding kit and PPE, perform the following:

1. Identify ground tolerances for equipment and personnel.
2. Identify methods of grounding.
3. Identify a method for improving a ground.
4. Identify proper location to test a ground.
5. Install an earth ground.
6. Verify proper grounding reading utilizing appropriate test equipment.

Performance Standard. Pass an exam.

Instructor. FLCI.

Prerequisite. None.

References.

Earth Grounding Pamphlet CECOM TR-96-2
Getting Down to Earth: A Practical Guide to Earth Resistance Testing (Megger, 2005)
MEG-456/MIL/5M/11.2005
Grounding Procedures for Electromagnetic Interference Control and Safety TM 9406-15_
Grounding Techniques TC 11-6
Grounding, Bonding, and Shielding for Electronic Equipment and Facilities (DEC 1987) MIL-HDBK-419A
Intermediate and Depot Maintenance Manual for 6470-BM Kit 300FT TM 10069B-ID/1
Operation and Maintenance Instructions with Illustrated Parts Breakdown for Ground Resistance Ohmmeter Model R1L-C TM 10069A-14
User Manual for Clamp-On Ground Resistance Tester, Models 3711 and 3731 TM 10096B-10/1

59CM-0008 0 * B (N) G

Goal. Inspect common cables.

Requirement. Provided the appropriate equipment:

1. Ethernet/RJ-45 cable.
2. BNC cable.
3. RF cable.
4. Power cable.
5. Data cable.
6. Fiber optic cable.

Performance Standard. Pass an exam.

Instructor. FLCI.

Prerequisite. None.

References.

Fiber Optics Technicians Manual 3rd Edition ISBN-1-4018-9699-5
IT Essentials PC Hardware and Software Companion Guide 3rd Edition ISBN-13:978-1-58713-199-8
Standard Maintenance Practices Miniature/Microminiature (2M) Electronic Assembly Repair
Organizational/Intermediate/Depot Level TM 5895-45/1_
TIA/EIA-568-B.1-2001
Twisted Pair Cable test set 33-933NV Operator Manual 6510-00-5037
Understanding Fiber Optics 5th Edition ISBN 0-13-117429-0
User's Manual for Cable Analyzer, DSP-4300/AN TM 10704B-OI/1

13.6.4 AIR SCHOOLS (AIRS) STAGE

13.6.4.1 Purpose. To provide entry-level instruction to develop the basic skills necessary to configure and setup equipment, conduct preventive maintenance and limited technical inspections on assigned equipment. This training phase is complete upon graduation and assigned primary MOS.

13.6.4.2 General.

Admin Notes. Hours are not utilized in the header information for each of the blocks of training provided by MCCES. Tactical Data Systems Administrator's course (CID: M09DZC1), MCCES, located in 29 Palms, CA. Training track includes:

Prerequisites.

1. Graduate from the 5900 Commons course (CID: M091J31)
2. Meet the 5974 requirements delineated in the MOS Manual.

Crew Requirements. None.

AIRS-1069	0	*	B	(N)	G

Goal. Integrate Advanced Field Artillery Tactical Data System (AFATDS).

Requirement. With the aid of reference, perform the following:

1. Establish AFATDS communications.

Performance Standard. Pass an exam.

Instructor. FLCI.

Prerequisite. None.

Reference.

1. TM 7025-OR/1
2. TM 7025-OR/2
3. TM 7025-OR/3

AIRS-1070	0	*	B	(N)	G

Goal. Configure the Aviation Command and Control System (AC2S).

Requirement. Given the references, an AC2S with a simulated communication plan; configure the following:

1. Initialize system for operations.
2. Perform corrective maintenance.
3. Configure servers.
4. Configure client workstations
5. Perform fault check procedures.

6. Configure equipment for digital communications.
7. Perform digital communications operational checks.
8. Perform system shutdown procedures.

Performance Standard. Pass an exam.

Instructor. FLCI.

Prerequisite. None.

References.

1. TM 11402B/12506A/12714A-15/110 Operator and Field Maintenance Manual for Aviation Command and Control System (AC2S)
2. TM 11402B/12506A/12714A-15/111 Software Administrator Manual for Aviation Command and Control System (AC2S)
3. TM 11402B/12506A/12714A-15/112 Software User's Manual for Aviation Command and Control System (AC2S)

AIRS-1072 0 * B (N) G

Goal. Manage Windows based systems.

Requirement. Conduct the following:

1. Manipulate the Windows file system.
2. Set owner permissions on Windows objects.
3. Set file permissions on Windows objects.
4. Configure the BIOS.
5. Configure on board RAID controller.
6. Install Windows Operating System.
7. Manage memory on Windows systems.
8. Manage processes on Windows systems.
9. Manage local users.
10. Create Windows back-ups.
11. Perform recovery of Windows from backup.

Performance Standard. Pass an exam.

Instructor. FLCI.

Prerequisite. None.

References.

1. MCWP 3-25.3
2. MCWP 3-25.4
3. DNS on windows 2000 ISBN #0-596-00230-0
4. Windows Server Cookbook ISBN #0-596-00633-0
5. Windows NT in a Nutshell ISBN #1-56592-251-4
6. Essential Windows NT ISBN #1-56592-274-3
7. TCP/IP Network Administration ISBN #1-56592-322-7
8. Active Directory ISBN #0-596-00466-4

AIRS-1074 0 * B (N) G

Goal. Administrate Linux based systems.

Requirement. Conduct the following:

1. Describe the Linux file structure.
2. Navigate a Linux file system.
3. Set up the equipment.
4. Configure the BIOS.
5. Install Operating System.
6. Manipulate a Linux file.
7. Perform text editing on a Linux file.
8. Establish user accounts.
9. Create back-ups.
10. Perform recovery from backup.

Performance Standard. Pass an exam.

Instructor. FLCI.

Prerequisite. None.

References.

1. UNIX in a Nutshell ISBN # 1-56592-001-5
2. Essential System Administration 3rd edition ISBN # 0-596-0034-9
3. Essential System Administration 2nd edition ISBN #0-937175-80-3
4. Essential System Administration ISBN # 0-937175-80-3
5. Solaris System Administration Guide 2nd edition ISBN 1-57870-40-x
6. MarineNet Course "CompTIA A+ 220-801: Memory - Expansion Cards and Storage Devices" course code - CSAPELA02
7. MarineNet Course "CompTIA A+ 220-801: CPUs - Connections - and Power Supplies" course code - CSAPELA03

AIRS-1077 0 * B (N) G

Goal. Configure virtualized server computing environment.

Requirement. Conduct the following:

1. Configure ESXi.
2. Install the host operating system.
3. Configure the host operating system.
4. Install the guest operating system.
5. Configure the guest operating system.
6. Create a virtual machine snapshot.
7. Create virtual machine back up.
8. Perform a migration of a virtual machine.

Performance Standard. Pass an exam.

Instructor. FLCI.

Prerequisite. None.

References.

1. TM 128802A/128806-OD/1 System Administrator Maintenance Manual (SAMM)
2. TM 128802A/128806-OD/2 System Users Manual (SUM)
3. Introduction to VMware vSphere http://www.vmware.com/pdf/vsphere4/r41/vsp_41_intro_vs.pdf
4. Installation Guide for the Combat Operations Center Virtual Center Server 1.0.0.0 Build 7 for AN/TSQ-239(V)2, (V)3, and (V)4 Software Release Package 5.3.0.0 Build 1 Restore Media
5. Intelligence Analysis System (IAS) Intelligence Server – UNIX (IS-U) 5.0.2.0 System Administrator's Manual (SAM) for the Sun SPARC T5140 and Sun Netra T2000

AIRS-1078 0 * B (N) G

Goal. Configure the workstation.

Requirement. Configure the following:

1. Set up the equipment.
2. Configure the BIOS.
3. Install Operating System.
4. Establish user accounts.
5. Join workstation to domain.

Performance Standard. Pass an exam.

Instructor. FLCI.

Prerequisite. None.

References.

1. SysAd Training Lessons TBMCS Version 1.1.3 System Administration SUM
2. TBMCS Software User's Manual
3. LOAD APP C – TACC
4. TBMCS Spiral 1.1.3 Sums

AIRS-1080 0 * B (N) G

Goal. Configure Tactical Common Operational Picture Server (TCS).

Requirement. Configure the following:

1. Install software.
2. Configure the server.
3. Configure CST channels.
4. Configure COP application.

Performance Standard. Pass an exam.

Instructor. FLCI.

Prerequisite. None.

Reference.

1. TM-09858A/10275A-13/1

AIRS-1083 0 * B (N) G

Goal. Configure AFATDS.

Requirement. With the aid of reference, perform the following:

1. Install AFATDS software.
2. Configure the AFATDS.

Performance Standard. Pass an exam.

Instructor. FLCI.

Prerequisite. None.

References.

1. TM 7025-OR/1
2. TM 7025-OR/2
3. TM 7025-OR/3

AIRS-1091 0 * B (N) G

Goal. Describe Windows based systems.

Requirement. Conduct the following:

1. Identify different versions of Windows.
2. Identify capabilities of Windows versions.
3. Describe the Windows file system.
4. Describe the BIOS.
5. Explain the Windows boot process.
6. Describe the Windows administrative tools.
7. Describe installation procedures for Windows Operating System.
8. Describe memory management on Windows systems.
9. Describe process management on Windows systems.
10. Describe procedures to create local users.
11. Describe procedures to create back-ups of Windows.
12. Describe procedures to recover Windows from backup.

Performance Standard. Pass an exam.

Instructor. FLCI.

Prerequisite. None.

References.

1. DNS on Windows 2000 ISBN #0-596-00230-0
2. Windows Server Cookbook ISBN #0-596-00633-0
3. Windows NT in a Nutshell ISBN #1-56592-251-4
4. Essential Windows NT ISBN #1-56592-274-3
5. TCP/IP Network Administration ISBN #1-56592-322-7
6. Active Directory ISBN #0-596-00466-4

AIRS-1092 0 * B (N) G

Goal. Describe UNIX based systems.

Requirement. Conduct the following:

1. Identify different versions of UNIX.
2. Identify capabilities of different UNIX versions.
3. Describe the UNIX file system.
4. Describe UNIX shells.
5. Describe text editing with UNIX Software.
6. Describe the Solaris OpenBoot PROM.
7. Describe the Solaris boot process.
8. Describe UNIX administrative tools.
9. Describe Installation of UNIX Operating System.
10. Describe memory management on UNIX systems.
11. Describe process management on UNIX systems.
12. Describe back-up procedures for UNIX.
13. Describe the recovery procedures for UNIX systems.

14. Describe UNIX script files.
15. Identify Linux similarities.
16. Identify Linux differences.
17. Describe local user accounts.

Performance Standard. Pass an exam.

Instructor. FLCI.

Prerequisite. None.

References.

1. UNIX in a Nutshell ISBN # 1-56592-001-5
2. Essential System Administration 3rd edition ISBN # 0-596-0034-9
3. Essential System Administration 2nd edition ISBN #0-937175-80-3
4. Essential System Administration ISBN # 0-937175-80-3
5. Solaris System Administration Guide 2nd edition ISBN 1-57870-40-x
6. Marine Net- Memory, Motherboards, and Processors course code- 123905

AIRS-1093 0 * B (N) G

Goal. Describe Tactical Data Systems (TDS) Networks.

Requirement. Conduct the following:

1. Identify Transfer Control Protocol/Internet Protocol (TCP/IP) layers.
2. Identify TCP/IP protocols.
3. Identify TCP/IP ports.
4. Identify TCP/IP sockets.
5. Describe site diagrams.
6. Describe network topologies.
7. Describe network cables.
8. Describe switches.
9. Describe Ethernet communication.
10. Describe Internet Protocol Version (IPV_) network addresses.
11. Describe routers.
12. Describe static routing.
13. Describe Enhanced Interior Gateway Routing Protocol (EIGRP).
14. Describe Class C subnetting.
15. Describe Classless Inter-Domain Routing (CIDR) notation.
16. Describe Variable Length Subnetting Mask (VLSM).
17. Describe Virtual Local Area Network (VLANs).

Performance Standard. Pass an exam.

Instructor. FLCI.

Prerequisite. None.

References.

1. TCP/IP Network Administration ISBN #1-56592-322-7
2. Computer Network and Internets
3. Data Communication Network Devices ISBN #0-471-97515-x
4. Essential System Administration ISBN #0-596-00343-9
5. Cisco Router 24 Seven Sybex manual

AIRS-1101 0 * B (N) G

Goal. Describe TCS.

Requirement. Describe the following:

1. Describe COP server.
2. Describe COP Synch Tool (CST) feed.
3. Describe COP application.

Performance Standard. Pass an exam.

Instructor. FLCI.

Prerequisite. None.

References.

1. TM-09858A/10275A-13/1
2. SL-3-10753C

AIRS-1102 0 * B (N) G

Goal. Describe TBMCS.

Requirement. Describe the following:

1. Describe TBMCS functions.
2. Describe TBMCS hardware.
3. Describe TBMCS databases.
4. Describe TBMCS applications.
5. Describe TBMCS virtual servers.

Performance Standard. Pass an exam.

Instructor. FLCI.

Prerequisite. None.

References.

1. SysAd Training Lessons TBMCS Version 1.1.3 System Administration SUM
2. TBMCS Software Users Manual
3. LOAD APP C – TACC
4. TBMCS Spiral 1.1.3 Sums

AIRS-1103 0 * B (N) G

Goal. Describe a virtualized environment.

Requirement. Describe the following:

1. Describe the characteristics of a host operating system.
2. Describe the characteristics of a guest operating system.
3. Describe the menus of the host management utility.
4. Describe high availability.
5. Describe a cluster.
6. Describe virtual machine migration.
7. Describe a virtual machine snapshot.
8. Describe a virtual machine backup.

Performance Standard. Pass an exam.

Instructor. FLCI.

Prerequisite. None.

References.

1. TM 128802A/128806-OD/1 System Administrator Maintenance Manual (SAMM)
2. TM 128802A/128806-OD/2 System Users Manual (SUM)
3. Introduction to VMware vSphere http://www.vmware.com/pdf/vsphere4/r41/vsp_41_intro_vs.pdf
4. Intelligence Analysis System (IAS) Intelligence Server – UNIX (IS-U) 5.0.2.0 System Administrator's Manual (SAM) for the Sun SPARC T5140 and Sun Netra T2000

AIRS-1105 0 * B (N) G

Goal. Describe AC2S.

Requirement. Describe the following:

1. Describe AC2S functions.
2. Describe AC2S hardware.
3. Describe AC2S applications.
4. Describe AC2S virtual servers.

Performance Standard. Pass an exam.

Instructor. FLCI.

Prerequisite. None.

References.

1. 32-bit Server: Build 3 Ver 1.1.2.1
2. 64-bit Server: Build 3 Ver 2.1.2.1
3. Collaboration Server: Build 3 Ver 2.1.2.1
4. CPoF Backup Server: Build 3 Ver 1.2.2.1
5. CPoF Master Server: Build 3 Ver 2.1.2.1
6. CPoF Midtier Server: Build 3 Ver 1.2.2.1
7. DC/Exchange Server: Build 3 Ver 1.1.1.0
8. IOS V3 Server: Build 3 Build Ver 1.1.2.1
9. Maintenance Server: Build 3 Ver 1.2.2.1
10. Domain Server: Build 3 Ver 1.1.2.1
11. Exchange Server: Build 3 Ver 1.1.2.1
12. Virtual Center Server: Build 3 Ver 1.0.2.1
13. Windows Baseline Client: Build 3 Ver 2.1.2.1
14. Network Administrator Client: Build 3 Ver 1.2.2.1
15. Intelligence Client: Build 3 Ver 2.1.2.1
16. Operations Client: Build 3 Ver 1.2.2.1
17. Logistics Client: Build 3 Ver 1.2.2.1
18. COBRA3 Operations Client: Build 3 Ver 1.0.2.1
19. COBRA3 Windows Client: Build 3 Ver 1.0.2.1

AIRS-1106 0 * B (N) G

Goal. Describe AFATDS.

Requirement. Describe the following:

1. Describe AFATDS function.
2. Describe AFATDS configuration.

Performance Standard. Pass an exam.

Instructor. FLCI.

Prerequisite. None.

References.

1. TM 7025-OR/1
2. TM 7025-OR/2
3. TM 7025-OR/3
4. SL-3-11069A

AIRS-1108 0 * B (N) G

Goal. Maintain C2 Systems.

Requirement. Given the references and a C2 system:

1. Describe the PMCS process.
2. Locate applicable technical manual.
3. Isolate a fault in network equipment.
4. Isolate a fault in active directory.
5. Isolate a fault in Windows based systems.
6. Isolate a fault in UNIX based systems.
7. Isolate a fault in data links.
8. Restore system to an operational state.
9. Document maintenance actions.

Performance Standard. Pass an exam.

Instructor. FLCI.

Prerequisite. None.

Reference. None.

13.7 CORE PHASE (2000)

13.7.1 Purpose. To develop core skill proficiency for 5974 personnel to be able to perform duties while assigned to the MACCS.821101

13.7.2 General.

13.7.2.1 Admin Notes.

1. Training in this phase does not preclude simultaneous training in the mission and core plus phases provided applicable prerequisites have been met.

2. Individual core skills are learned and mastered using a varied combination of written exams, scenarios and practical demonstrations of proficiency.

13.7.2.2 Prerequisite. None.

13.7.2.3 Stages. The following stages are included in the Core Skill Introduction Phase of training.

PAR NO.	STAGE NAME	PAGE NUMBER
13.7.3	MACCS MAINTENANCE COMMON (MMCN)	13-20
13.7.4	MAINTENANCE MANAGEMENT (MMGT)	13-23
13.7.5	DEPLOYMENT (DEPL)	13-25
13.7.6	SYSTEM ADMINISTRATION (SYSAD) STAGE	13-28
13.7.7	THEATER BATTLE MANAGEMENT CORE SYSTEM (TBMCS) STAGE	13-33
13.7.8	CONFIGURATION (CONFIG) STAGE	13-35
13.7.9	EQUIPMENT (EQUIP) STAGE	13-36
13.7.10	CYBER SECURITY WORKFORCE (CSWF)	13-36

13.7.3 MACCS MAINTENANCE COMMON (MMCN)

13.7.3.1 Purpose. To provide entry-level skills that are common to all 5900 occupational field technicians that will be used in the performance of assigned duties within the Marine Air Command and Control System (MACCS).

13.7.3.2 General.

1. Meet the requirements delineated in the MOS Manual.

Admin Notes. The following events establish the foundational skills required to be successful in the cyber security workforce.

Crew Requirements. None

MMCN-2000 2.0 * B, R (N) L

Goal. Operate a common fill device.

Requirement. Given two loaded common fill devices and a zeroized cryptographic device, perform the following:

1. Describe the purpose of a common fill device
2. Define the common fill device loading procedure
3. Configure the common fill device
4. Identify common fill device indicators and messages
5. Transfer key material to Controlled Cryptographic Item (CCI) equipment
6. Transfer cryptographic information from common fill device to common fill device
7. Destroy superseded key material within the cryptographic fill device

Performance Standard. With the aid of reference, load key material into appropriate COMSEC equipment using a fill device and destroy superseded key material without error.

Instructor. BI

Prerequisite. None.

Reference.

1. EKMS-1, Electronic Key Management System

MMCN-2001 1.0 * B, R (N) G

Goal. State the physical security requirements for classified areas.

Requirement. Given a tactical scenario and references, identify the following:

1. Purpose of a guard schedule.
2. Purpose of access control.
3. Purpose of the entry control point.
4. Perimeter barrier requirements.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. BI

Prerequisite. None.

Reference.

1. MCO P5530.14_, Marine Corps Physical Security Program Manual

MMCN-2002 2.0 * B, R (N) G

Goal. Extract key material information from COMSEC callout.

Requirement. Given a COMSEC callout and references, perform the following:

1. State the purpose of the COMSEC callout.
2. Identify the five main pieces of key information:
 - a. Short Title
 - b. Edition
 - c. Segment
 - d. Classification
 - e. Supersession date
3. Identify segment roll over dates and time.
4. Identify short titles applicable to specific implementations within the unit.

Performance Standard. With the aid of reference, state the purpose and identify the key information on the callout. Minor errors corrected by the trainee are acceptable.

Instructor. BI

Prerequisite. None.

References.

1. EKMS-1_, Electronic Key Management System
2. MCWP 3-40.3, MAGTF Communications System

MMCN-2003 2.0 * B, R (N) L

Goal. Create a classified area physical security diagram.

Requirement. Given a tactical scenario and references, create a diagram that includes the following:

1. Entry control point(s)
2. Perimeter barrier
3. Communication lines
4. Storage area locations

Performance Standard. With the aid of reference, draw a diagram depicting the information listed in the requirement. Instructor will validate that the diagram supports the scenario. Minor errors corrected by the trainee are acceptable.

Instructor. BI

Prerequisite. 2001

References.

1. MCO P5530.14, Marine Corps Physical Security Program Manual
2. FM 5-34, Engineer Field Data

MMCN-2004 2.0 * B, R (N) L

Goal. Operate the handheld GPS.

Requirement. Perform the following:

1. State the purpose of the handheld GPS.
2. State the characteristics of the handheld GPS.
3. Find current location (coordinates including elevation).
 - a. MGRS
 - b. LAT/LONG
 - c. UTM/UPS
4. Plot a way point.
5. Given coordinates, navigate to a location.
6. Load TOD into a radio.

Performance Standard. Given a handheld GPS, complete the requirements without error. Navigation part of requirement will be three points within a one mile radius within one hour.

Instructor. BI.

Prerequisite. None.

Reference.

1. TM 11-5820-1172-13, Defense Advanced GPS Receiver (DAGR), AN/PSN-13

MMCN-2005 1.0 1095 B,R,M (N) L

Goal. Demonstrate an earth ground installation.

Requirement. Given a grounding kit and the reference:

1. Identify ground tolerances for equipment and personnel.
2. Identify methods of grounding.
3. Identify a method for improving a ground.
4. Identify proper location to test a ground.
5. Install an earth ground.
6. Create grounding pits.
7. Connect grounding braids/cables.
8. Test grounds with TMDE.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable

Instructor. BI

Prerequisite. None.

Reference.

1. TM 9406-15, Ground Procedures Manual

2. MIL-STD-188-125
3. TM 5-690

MMCN-2006 2.0 1095 B, R, M (N) L/S

Goal. Develop an embarkation plan.

Requirement. Given the references and an operational scenario, perform the following:

1. State the purpose of an embarkation plan.
2. Produce an Equipment Density List (EDL).
3. Produce logistics documents as required.
4. Identify heavy equipment required to move EDL items.
5. Identify the modes of transportation required to move EDL items.

Performance Standard. With the aid of reference, complete the requirement and develop an embarkation plan to support the scenario. Minor corrections by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

References.

1. Applicable TM
2. Unit SOP

MMCN-2007 2.0 1095 B, R, M (N) G

Goal. Identify spectrum management procedures.

Requirement. Given the references and a scenario with operational requirements, perform the following:

1. Identify frequency requirements.
 - a. Identify submission timelines.
 - b. Identify data elements (Frequency, Location, Power, Dates).
2. Identify Satellite Access requirements.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

References.

1. MCRP 3-40B, Tactical Level Logistics
2. MCO 2400.2, Marine Corps Management of the Radio Frequency Spectrum

13.7.4 MAINTENANCE MANAGEMENT (MMGT) STAGE

13.7.4.1 Purpose. To provide the core skills necessary to manage maintenance activities and administrative responsibilities within the maintenance section.

13.7.4.2 General.

Admin Notes. None.

Prerequisite. None.

Crew Requirements. None.

MMGT-2070 4.0 * B, R (N) G

Goal. Complete Maintenance Management Program familiarization.

Requirement. Complete the following maintenance management program Indoctrination training:

1. Describe the eight functional areas of maintenance management.
2. Define desk-top procedure.
3. Define turn-over folder.
4. Identify collateral duties required IAW MMSOP.
5. Identify the objectives of maintenance management program.
6. Describe the information contained in the maintenance management program references.
 - a. MMSOP
 - b. UM 4000-125 GCSS User's Manual
 - c. MCO 4790.2
 - d. MCO 4400.201
 - e. MCO P4400.16 UMMIPS
7. Identify the responsibilities of maintenance management personnel.
 - a. Commanding Officer
 - b. Maintenance Management Officer
 - c. Maintenance Officer
 - d. Supply Officer
 - e. Maintenance Chief
 - f. Supply Clerks
 - g. Maintenance Management Office Clerks
 - h. Maintenance Marines

Performance Standard. With the aid of reference, complete the requirements, minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

References.

1. MMSOP
2. MCO 4790.2
3. MCO 4400.150
4. MCO 4400.16 UMMIPS
5. UM 4000-125 GCSS-MC User's Manual
6. TM-4700-15/1H
7. Desktop/Turnover
8. FSMAO Checklist
9. MCO 4400.160

MMGT-2071 2.0 * B (N) L

Goal. Conduct an SL-3 inventory.

Requirement. Given the references and a piece of equipment with its record jacket containing an SL-3 extract, perform the following:

1. Validate inventory reference in SL 1-2.
2. Verify Using Unit Responsibility Items (UURI) authorization.
3. Identify and document on-hand, missing, or unserviceable components.

4. Document completed inventory findings in the record jacket.
5. Initiate supply action to replace missing and/or unserviceable components.

Performance Standard. With the aid of reference, complete the requirements, minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. 2070

References.

1. MCO 4400.150
2. MCO 4790.2
3. Applicable equipment SL-3 or TM

13.7.5 DEPLOYMENT (DEPL) STAGE

13.7.5.1 Purpose. To provide the core skills required to deploy Marine Air Command and Control Systems (MACCS) equipment, to include planning, crew management, system configuration management, and setup procedures.

13.7.5.2 General.

Prerequisite. None.

Admin Notes. None.

Crew Requirements. None.

DEPL-2100	2.0	*	B, R	(N)	L

Goal. Write a packing list.

Requirement. Given the references, perform the following:

1. Define the purpose of a packing list.
2. Describe essential packing list contents.
3. Complete a packing list.

Performance Standard. With the aid of reference, complete the requirements, minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

Reference.

1. Unit SOP

DEPL-2101	2.0	*	B	(N)	L

Goal. Extract key information from communication planning documents.

Requirement. For each of the following documents, identify the purpose of and the location of key information contained within:

1. Guard chart

2. Communication Electronic Operating Instruction (CEOI)
3. Operations Order (OPORD)
4. Annex K of the OPORD
5. Annex U of the OPORD
6. Site Diagram
7. Operational Tasking Data Link (OPTASKLINK)
8. Identify who is responsible for creating and disseminating the OPTASKLINK.
9. KMI Callout
10. Satellite Access Authorization (SAA)

Performance Standard. With the aid of reference, complete the requirements, minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

References.

1. MCWP 5-1
2. MCWP 3-40.3
3. ACEOI
4. OPTASKLINK
5. KMI Callout
6. Operational Order
7. SAA
8. Guard Chart

DEPL-2102	4.0	*	B	(N)	L/S

Goal. Determine supply support requirements.

Requirement. Given the reference and a 30-day operational scenario, perform the following:

1. Determine supply needs with consideration of the following:
 - a. Location
 - b. Equipment
 - c. Daily operations
 - d. Climate
2. Identify SECREP requirements and deficiencies.
3. Identify Bill of Material (BOM) requirements.

Performance Standard. With the aid of reference, complete the requirements, minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

References.

1. Technical Manuals
2. Operational Order
3. CMR

DEPL-2103	4.0	*	B, R	(N)	L

Goal. Identify power requirements.

Requirement. Given a scenario and references:

1. Determine total power requirements.

Performance Standard. With the aid of reference, complete the requirements, minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

Reference.

1. Technical Manuals

DEPL-2104	3.0	*	B,R	(N)	G

Goal. Describe common agency doctrinal nets.

Requirement. Given a list of doctrinal net names in acronym format and references, perform the following:

1. Define each net acronym.
2. Describe function for each net.
3. State the frequency spectrum doctrinally used for each net.
4. Identify agencies required to guard each net.

Performance Standard. With the aid of reference, complete the requirements, minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

Reference.

1. MCWP 3-40.3

DEPL-2105	8.0	*	B,R	(N)	G

Goal. Identify communication service requirements.

Requirement. Given the references and a scenario with operational requirements, perform the following:

1. Identify submission timelines.
2. Identify data elements.
 - a. Internet protocol addresses
 - b. Location, user accounts
 - c. Dates
 - d. Phone lines
 - e. C2 application support
 - (1) Identify mission specific software requirements.
 - (2) Verify software version compatibility (JAVA, browsers, etc.).
 - f. Data network services (NIPR/SIPR/theater specific).
 - g. Firewall exemptions
 - h. Provide Authority to Connect (ATC)/Authority to Operate (ATO) documentation for all required systems.

Performance Standard. With the aid of reference, complete the requirements, minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

References.

1. MCRP 3-40.3B Radio Operator's Handbook
2. Operational Order
3. MCWP 3-40.3
4. Unit SOP

DEPL-2106 2.0 * B (N) G

Goal. Identify crew requirements and write a crew schedule.

Requirement. Given operational tasking, references, section roster, and MSHARP crew report, perform the following:

1. Determine the duration of operations.
2. Determine total crews required to support the mission.
3. Determine the crew composition/requirements.
4. Write the crew schedule.
5. Submit the crew schedule to the instructor.
6. Describe the process to publish crew schedule once validated.

Performance Standard. With the aid of reference, complete the requirements, minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

References.

1. T&R Manual
2. MCWP 3-25.4

13.7.6 SYSTEM ADMINISTRATION (SYSAD) STAGE

13.7.6.1 Purpose. To provide the core skills necessary to safely embark, setup, operate, maintain, administer, and integrate tactical data systems within the Marine Air Command and Control System (MACCS) and external agencies.

13.7.6.2 General.

Admin Notes. None.

Prerequisite. None.

Crew Requirements. None.

SYSAD-2250 4.0 * B, R (N) L

Goal. Configure workstation.

Requirement. Given an emplaced system and an operational requirement or scenario, perform the following:

1. Energize workstation.
2. Configure workstation.
 - a. Host name

- b. IP address
- c. Mission required software/applications
- 3. Conduct operational status check.
- 4. Document any changes to system configuration as required.

Performance Standard. With the aid of reference, complete the requirements, minor errors corrected by the trainee are acceptable.

Instructor. BI

Prerequisite. 2302

References.

- 1. TM 11402B/12506A/12714A-15/111 Software Administrator Manual for Aviation Command and Control System (AC2S)
- 2. TM 11402B/12506A/12714A-15/112 Software Users Manual for Aviation Command and Control System (AC2S)

SYSAD-2251 2.0 * B, R (N) L

Goal. Configure peripherals.

Requirement. Given an emplaced system, perform the following:

- 1. Energize peripherals.
- 2. Configure peripherals.
 - a. Host name, as required.
 - b. IP address, as required.
- 3. Conduct operational status check.
- 4. Document any changes to system configuration as required.
- 5. Explain the differences between the various printer types and summarize the associated imaging process.

Performance Standard. With the aid of reference, complete the requirements, minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

References.

- 1. TM 11402B/12506A/12714A-15/111 Software Administrator Manual for Aviation Command and Control System (AC2S)
- 2. TM 11402B/12506A/12714A-15/112 Software Users Manual for Aviation Command and Control System (AC2S)

SYSAD-2252 2.0 * B, R (N) L

Goal. Perform logfile management on a tactical data system.

Requirement. With the aid of reference, perform the following:

- 1. Monitor logfiles.
- 2. Save logfiles.
- 3. Empty logfiles.
- 4. Document as required.

Performance Standard. With the aid of reference, complete the requirements, minor errors corrected by the

trainee are acceptable.

Instructor. BI.

Prerequisite. None.

References.

1. TM 11402B/12506A/12714A-15/111 Software Administrator Manual for Aviation Command and Control System (AC2S)
2. TM 11402B/12506A/12714A-15/112 Software Users Manual for Aviation Command and Control System (AC2S)

SYSAD-2253 4.0 * B, R (N) L

Goal. Apply software release updates for tactical data systems.

Requirement. With the aid of reference, perform the following:

1. Schedule software release installation.
2. Install software release updates.
3. Test system software and applications.
4. Backup systems as required.
5. Document as required.

Performance Standard. With the aid of reference, complete the requirements, minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

References.

1. TM 11402B/12506A/12714A-15/111 Software Administrator Manual for Aviation Command and Control System (AC2S)
2. TM 11402B/12506A/12714A-15/112 Software Users Manual for Aviation Command and Control System (AC2S)

SYSAD-2254 3.0 * B, R (N) L

Goal. Update firmware for tactical data systems.

Requirement. With the aid of reference, perform the following:

1. Verify version of firmware on equipment.
2. Update to current fielded firmware version as required.
3. Document changes as required.

Performance Standard. With the aid of reference, complete the requirements, minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

References.

1. TM 11402B/12506A/12714A-15/111 Software Administrator Manual for Aviation Command and Control System (AC2S)

Instructor. BI.

Prerequisite. None.

References.

1. TM 11402B/12506A/12714A-15/110 Operator and Field Maintenance Manual for Aviation Command and Control System (AC2S)
2. TM 11402B/12506A/12714A-15/111 Software Administrator Manual for Aviation Command and Control System (AC2S)
3. TM 11402B/12506A/12714A-15/112 Software Users Manual for Aviation Command and Control System (AC2S)

SYSAD-2257 4.0 B, R (N) L

Goal. Maintain the AC2S data system.

Requirement. Given an AC2S, applicable references, materials, and equipment:

1. Update DNS.
2. Update Active Directory.
3. Verify Windows Services are running.
4. Verify Global Share availability.
5. Update system passwords.
6. Terminate stale connections.
7. Make changes to display system.
8. Perform system backups.
9. Logfiles check.
10. Network time check.
11. Troubleshoot error(s).
12. Conduct an operational status check.
13. Perform PMCS.
14. Initiate corrective maintenance action if required.

Performance Standard. With the aid of reference, complete the requirements, minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. 2047, 2256

References.

1. TM 11402B/12506A/12714A-15/110 Operator and Field Maintenance Manual for Aviation Command and Control System (AC2S)
2. TM 11402B/12506A/12714A-15/111 Software Administrator Manual for Aviation Command and Control System (AC2S)
3. TM 11402B/12506A/12714A-15/112 Software Users Manual for Aviation Command and Control System (AC2S)

SYSAD-2258 8.0 * B (N) L

Goal. Setup Tactical COP Workstation (TCW).

Requirement. Given a locally developed site diagram, applicable references, materials, and required equipment:

1. Emplace components.
2. Cable components.
3. Energize components.

4. Install software.
5. Verify installation.
6. Configure network settings.
7. Configure time settings.
8. Configure C2PC gateway.
9. Maintain the C2PC connections.
 - a. Client connection(s)
 - b. Gateway connection

Performance Standard. With the aid of reference, complete the requirements, minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

References.

1. JTCW Documentation and Install Guide.

SYSAD-2259 6.0 * B _____ (N) L

Goal. Setup Blue Force Tracker (BFT) Tactical Operations Center (TOC) Kit.

Requirement. Given a locally developed site diagram, applicable references, materials, and required equipment:

1. Emplace components.
2. Cable components
3. Energize components.
4. Install software/firmware.
5. Verify installation.
6. Configure network settings.
7. Configure time settings.
8. Configure system specific software.
9. Maintain the GPS connection.
10. Maintain the network connection.
11. Conduct PMCS.
12. Verify modifications and technical instructions.

Performance Standard. With the aid of reference, complete the requirements, minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

References.

1. TM-11180B-OR/1 Operator/Crew Manual with components and repair list
2. TM-11180A-IN/1 Field Maintenance Manual including Repair Parts and Special Tool List

13.7.7 THEATER BATTLE MANAGEMENT CORE SYSTEM (TBMCS) STAGE

13.7.7.1 Purpose. To provide the core skills required to configure TBMCS within the Marine Air Command and Control System.

13.7.7.2 General.

Admin Notes. None.

Prerequisites. None.

Crew Requirements. None.

TBMCS-2060	4.0	*	B	(N)	L

Goal. Setup TBMCS Equipment.

Requirement. Given a locally developed site diagram, applicable references, materials, and required equipment:

1. Emplace components.
2. Cable components.
3. Energize components.

Performance Standard. With the aid of reference, complete the requirements, minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

References.

1. Site diagram
2. TBMCS SUMs
3. TBMCS SAMs
4. TBMCS Load Guides
5. Network Diagram

TBMCS-2061	40.0	*	B	(N)	L

Goal. Install TBMCS Software.

Requirement. Perform the following:

1. Configure ESXi boards.
2. Configure network devices.
3. Install Software.
4. Build clients.
 - a. Virtual machine client
 - b. Personal Computer client
4. Configure virtual machines.
5. Configure DNS.

Performance Standard. With the aid of reference, complete the requirements, minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. 2060

References.

1. Site diagram
2. TBMCS SUMs
3. TBMCS SAMs
4. TBMCS Load Guides

- Control System (AC2S)
3. TM 11402B/12506A/12714A-15/112 Software Users Manual for Aviation Command and Control System (AC2S)

13.7.9 EQUIPMENT (EQUIP) STAGE

13.7.9.1 Purpose. To instruct the trainee on MACCS unique electronic equipment.

13.7.9.2 General.

Admin Notes. None.

Prerequisite. None.

Crew Requirements. None.

EQUIP-2401	6.0	*	B	(N)	L

Goal. Displace the Aviation Command and Control System (AC2S).

Requirement. As a member of a crew, given an AC2S, PPE, and the reference, complete the following steps:

1. De-energize the AC2S.
2. Remove grounding cables/braids.
3. Disconnect power cables.
4. Take down antennas and disconnect RF cables.
5. Pack-up Operational Facility (OPFAC).
6. Pack-up AC2S.

Performance Standard. Perform the requirement to a proficient level (correct, efficient and skillful execution of tasks requiring minimal input from the instructor). Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

References.

1. TM 11402B/12506A/12714A-15/110 Operator and Field Maintenance Manual for Aviation Command and Control System (AC2S)
2. TM 11402B/12506A/12714A-15/111 Software Administrator Manual for Aviation Command and Control System (AC2S)
3. TM 11402B/12506A/12714A-15/112 Software Users Manual for Aviation Command and Control System (AC2S)

13.7.10 CYBER SECURITY WORKFORCE (CSWF) STAGE

13.7.10.1 Purpose. To provide entry-level skills in cyber security workforce related tasks that are common to all 5900 occupational field technicians that will be used in the performance of assigned duties within the Marine Air Command and Control System (MACCS).

13.7.10.2 General.

Admin Notes. None.

Prerequisite. None.

Crew Requirements. None.

CSWF-2040 4.0 1095 B, R, M (N) G

Goal. Explain Information Security Principles.

Requirement. With the aid of references, perform the following:

1. Explain common threats and vulnerabilities.
 - a. Malware
 - b. Ransomware
 - c. Viruses
 - d. Denial of Service
 - e. Insider threats
2. Explain the function and purpose of authentication services.
3. Explain data and network security tools.
 - a. Firewall
 - b. Access Control Lists
 - c. Port security
 - d. Anti-Virus
 - e. Logfiles
 - f. Network monitoring application(s)
4. Describe cyber security, privacy principles, and organizational requirements to provide Confidentiality, Integrity, and Availability (CIA).

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

References.

1. NIST Special Publication 800-__
2. Applicable User's Manuals
3. Current industry-standard curriculum and references

CSWF-2041 2.0 1095 B, R, M (N) L

Goal. Perform account management.

Requirement. With the aid of reference, perform the following:

1. Plan user accounts.
2. Create user accounts IAW naming convention.
3. Create groups IAW naming convention.
4. Set account permissions.
5. Manage user accounts.
6. Document as required.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

References.

1. NIST Special Publication 800-__
2. Applicable User's Manuals
3. Current industry-standard curriculum and references

CSWF-2042 4.0 1095 B, R, M (N) G

Goal. Explain risk management involved in operational security

Requirement. With the aid of reference, perform the following:

1. Explain risk related concepts.
2. Explain appropriate risk mitigation strategies.
3. Explain appropriate incident response procedures.
4. Explain the importance of security related awareness and training.
5. Compare aspects of business continuity.
6. Explain the impact and proper use of environmental controls.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

References.

1. NIST Special Publication 800-__
2. Applicable User's Manuals
3. Current industry-standard curriculum and references

CSWF-2043 4.0 1095 B, R, M (N) G

Goal. Explain computer and network cryptography.

Requirement. With the aid of reference, perform the following:

1. Explain symmetric key rotation techniques.
2. Explain symmetric key concepts.
3. Explain cryptographic security models (e.g. Bell-LaPadula model, Biba integrity model, Clark-Wilson integrity model).
4. Explain the core concepts of Public Key Infrastructure (PKI).
5. Explain the implementation of PKI, certificate management and associated components.
6. Explain the appropriate cryptographic tools and products.

Performance Standard. With the aid of reference, complete the requirements, minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

References.

1. NIST Special Publication 800-__
2. Applicable User's Manuals
3. Current industry-standard curriculum and references

CSWF-2044 4.0 1095 B, R (N) G

Goal. Explain computer and networking equipment.

Requirement. With the aid of references, perform the following:

1. State the purpose and functions of:
 - a. Network switch
 - b. Router
 - c. Server
 - d. Virtual Machine
 - e. Workstation
2. Explain the installation and configuration of peripheral devices.
3. Explain installation and configuration of storage devices and appropriate media.
4. Explain the purpose of connection interfaces and transmission media.

Performance Standard. With the aid of reference, complete the requirements, minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

References.

1. NIST Special Publication 800-__
2. Applicable User's Manuals
3. Current industry-standard curriculum and references

CSWF-2045	4.0	*	B, R	(N)	G

Goal. Explain Networking Concepts.

Requirement. With the aid of references, perform the following:

1. Identify types of network cables and connectors.
2. Categorize characteristics of connectors and cabling.
3. Compare the layers of the OSI and TCP/IP models.
4. Classify how applications, devices, and protocols relate to the OSI model layers.
5. Explain the purpose and properties of IP addressing.
6. Explain the purpose and properties of routing and switching.
7. Identify common TCP and UDP default ports.
8. Explain the function of common networking protocols.
9. Summarize DNS concepts and its components.
10. Identify virtual network components.
11. Identify appropriate network monitoring tools.
12. Explain the purpose and properties of DHCP.
13. Explain the purpose and properties of Network Address Translation (NAT).
14. Explain the purpose and properties of Port Address Translation (PAT).

Performance Standard. With the aid of reference, complete the requirements, minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

References.

1. NIST Special Publication 800-__
2. Applicable User's Manuals
3. Current industry-standard curriculum and references

CSWF-2046 4.0 * B, R (N) G

Goal. Explain Network Media and Topologies.

Requirement. With the aid of references, explain the following:

1. Describe different network topologies.
2. Compare different LAN technologies.
3. Identify components of wiring distribution.
4. Explain different methods and rationales for network performance optimization.

Performance Standard. With the aid of reference, complete the requirements, minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

References.

1. NIST Special Publication 800-__
2. Applicable User's Manuals
3. Current industry-standard curriculum and references

CSWF-2047 4.0 * B, R (N) G

Goal. Explain troubleshooting of computer and network equipment.

Requirement. Given the references, explain the following:

1. Troubleshooting theory.
2. Troubleshooting common problems related to motherboards, RAM, BIOS, CPU and power with appropriate tools.
3. Troubleshooting hard drives and RAID arrays with appropriate tools.
4. Troubleshooting common video and display issues.
5. Troubleshooting wired networks with appropriate tools.
6. Troubleshooting operating system problems with appropriate tools.
7. Troubleshooting common security issues with appropriate tools and best practices.
8. Troubleshooting of common laptop issues while adhering to the appropriate procedures.
9. Troubleshooting of common peripheral devices with appropriate tools.

Performance Standard. With the aid of reference, complete the requirements, minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. 2044, 2045, 2046

References.

1. NIST Special Publication 800-__
2. Applicable User's Manuals
3. Current industry-standard curriculum and references

13.8 MISSION PHASE (3000)

13.8.1 Purpose. To provide the requisite advanced skills and working knowledge to employ the MACCS and ancillary equipment in order to accomplish the Marine Air Command and Control System missions.

13.8.2 General.

13.8.2.1 Admin Notes.

1. Training in this phase does not preclude simultaneous training in Core and Core Plus phases.

2. If crew members are required to assist in the conduct of an event, the crew shall be core capable in the role they will play, as applicable. Training will be executed as individual training with appropriate assistance at the crew level as needed and as dictated by the conditions listed for each event. Crew member assistance must be restricted to those actions required to support or facilitate individual training so as not to detract from the individual properly demonstrating the event performance standard.

13.8.2.2 Prerequisite.

13.8.2.3 Stages. The following stages are included in the Mission Skill Phase of training.

PAR NO.	STAGE NAME	PAGE NUMBER
13.8.3	MACCS MAINTENANCE COMMON (MMCN)	13-41
13.8.4	MAINTENANCE MANAGEMENT (MMGT)	13-43
13.8.5	DEPLOYMENT (DEPL)	13-44
13.8.6	SYSTEM ADMINISTRATION (SYSAD)	13-45
13.8.7	EQUIPMENT (EQUIP)	13-48
13.8.8	THEATER BATTLE MANAGEMENT CORE SYSTEM (TBMCS)	13-48
13.8.9	CYBER SECURITY WORK FORCE (CSWF)	13-50

13.8.3 MACCS MAINTENANCE COMMON (MMCN) STAGE

13.8.3.1 Purpose. To provide mission level skills that are common to all 5900 occupational field technicians that will be used in the performance of assigned duties within the Marine Air Command and Control System (MACCS).

13.8.3.2 General.

Prerequisite. None

Admin Notes. None

Crew Requirements. None.

MMCN-3030 8.0 1095 B, R, M (N) L

Goal. Deploy a MACCS capability.

Requirement. Given an operational requirement and commander's guidance, conduct the following:

1. Review operational requirements and develop an EDL.
2. Coordinate for support equipment as required.
3. Verify and complete BOM.
4. Establish float requirements as required.
5. Conduct inspections on listed equipment.
6. Supervise pack-up and securing of equipment and validate EDL accuracy.
7. Create a packing list.
8. Placard/label the shelters for embark.

9. Ensure correct execution of the load plan for equipment handling and safety.
10. Ensure maintenance crews are formed and prepared for deployment.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. SI.

Prerequisite. 2006, 2100, 2101, 2102, 2103, 2104, 2105, 2106, 3060

References.

1. MCO 3120.6_, Standard Embarkation Management System
2. Applicable TMs/UMs

MMCN-3031	8.0	1095	B, R, M	(N)	L/S

Goal. Conduct a site survey.

Requirement. Given a scenario, applicable references, a TO/E and operational tasking, determine an appropriate site for system emplacement by performing the following:

1. Use planning tools to determine terrain masking and line of sight connectivity.
2. Determine a primary and secondary site location.
3. Identify obstructions and hazards.
4. Determine tactical orientation and equipment emplacement.
 - a. Ensure emitters are emplaced IAW Hazardous Electronic Radiation to Fuels (HERF) regulations.
 - b. Ensure emitters are emplaced IAW Hazardous Electronic Radiation to Ordinance (HERO) regulations.
 - c. Ensure emitters are emplaced IAW Hazardous Electronic Radiation to Personnel (HERP) regulations.
 - d. Ensure emitters are emplaced to support working area.
5. Identify the placement for equipment.
6. Identify the placement for antennas.
7. Identify required internal/external equipment requirements.
8. Determine communications obstacles.
8. Determine system grounding requirements.
9. Identify utility requirements to include power and fuel requirements.
10. Describe environmental considerations.
11. Determine protection from the elements.
11. Determine terrain requirements/masking.
12. Determine operational footprint.
13. Design a site layout and submit to the instructor.
14. Develop a brief that addresses all event requirement items.

Performance Standard. With the aid of reference, complete the requirements, minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. 2103

References.

1. Technical Manuals
2. Operational Order
3. CMR
4. MCWP 3-25.4
5. MCWP 5-1
6. MCO 5104.2

7. MCO 5104.3B

MMCN-3044 2.0 1095 B, R, M (N) L

Goal. Fill the handheld GPS with the appropriate crypto.

Requirement. Perform the following:

1. Identify the proper crypto load
2. Load crypto into GPS
3. Verify crypto load

Performance Standard. With the aid of reference, perform the requirements. Minor corrections by the trainee are acceptable.

Instructor. BI.

Prerequisite. 2000, 2004

Reference.

1. TM 11-5820-1172-13, Defense Advanced GPS Receiver (DAGR), AN/PSN-13

13.8.4 MAINTENANCE MANAGEMENT (MMGT) STAGE

13.8.4.1 Purpose. To provide the mission skills necessary to manage maintenance activities and administrative responsibilities within the maintenance section.

13.8.4.2 General.

Admin Notes. None.

Prerequisite. None.

Crew Requirements. None.

MMGT-3050 6.0 1095 B, R, M (N) L

Goal. Conduct QC procedures.

Requirement. Ensure the timely performance of all corrective maintenance actions per the references.

1. Verify the induction process:
 - a. Confirm SL-3 accountability.
 - b. Ensure visual inspection occurs.
 - c. Verify record jacket.
 - d. Verify proper organizational PM.
 - e. Verify NAVMC 1018.
 - f. Verify if warranty procedures apply.
2. Determine availability of resources.
3. Ensure proper troubleshooting of faulty item.
4. Ensure repair parts are ordered.
5. Ensure faulty item is repaired to code A status.
6. Ensure safety measures are adhered to during repair process.
7. Conduct quality control procedures:
 - a. Review quality control procedures.
 - b. Verify quality control inspectors based on individual qualifications on equipment are assigned in writing.
8. Verification of MI and TI.

9. Verify proper closeout of SR.
10. Ensure equipment record jacket is updated.

Performance Standard. Complete the requirement items IAW the references. Minor errors corrected by the trainee are acceptable.

Instructor. SI.

Prerequisite. 2070, 2071

References.

1. MCO 4790.2
2. TM-4700-15/1H
3. MCO 4400.16
4. MCBUL 3000
5. Associated Equipment TM
6. UM 4000-125 GCSS-MC User's Manual
7. MCO 4400.150
8. MMSOP

13.8.5 DEPLOYMENT (DEPL) STAGE

13.8.5.1 Purpose. To provide the mission skills required to deploy Marine Air Command and Control Systems (MACCS) equipment, to include planning, crew management, system configuration management, and employment procedures.

13.8.5.2 General.

Admin Notes. None.

Prerequisite. None.

Crew Requirements. None.

DEPL-3060	8.0	1095	B, R, M	(N)	L

Goal. Prepare system for embark.

Requirement. Given an EDL that supports the mission, prepare system for embark/retrograde:

1. Conduct proper system power down/teardown.
2. Layout and conduct a SL-3 inventory of the equipment.
3. Conduct Limited Technical Inspections on listed equipment.
4. Pack and secure equipment.
5. Create a packing list.
6. Placard/label the shelters for embark.

Performance Standard. Complete the requirement items IAW the references. Minor errors corrected by the trainee are acceptable.

Instructor. SI.

Prerequisite. 2071, 2100

References.

1. MCO 3120.6 (Standard Embarkation Management System)
2. TM 128802A/15050A-OD/2 CAC2S System User Manual

3. Unit SOP

DEPL-3061 6.0 1095 B, R, M (N) G

Goal. Identify operational requirements.

Requirement. Given an OPORD and lessons learned, determine the operational requirement of the maintenance section to support the mission, to include:

1. Communication electronics equipment required.
 - a. Radio requirements
 - b. Network requirements
 - c. TMDE
 - d. Tools
2. Engineering equipment.
 - a. Air conditioners
 - b. Heavy equipment
 - c. Generators
3. Personnel required.
 - a. Identify minimum number of mission skilled maintainers per crew required to support the mission.
 - b. Identify minimum number of designated leaders required to support the mission.
 - c. List the administrative requirements for crew.
 - (1) Tactical license
 - (2) Security Clearances/Couriers
 - (3) Personnel packing list requirements
4. KMI required.
5. Logistics support required.
6. Supply support required.
 - a. BOM requirements
 - b. SECREP requirements
7. Frequencies required.
 - a. Draft a frequency request.
 - b. Draft a satellite access request.
8. Develop an EDL for primary end items.
9. Draw a site layout plan.
10. Draft a brief covering addressing the deployment and emplacement plan to support the mission.
11. Submit the site layout and brief the plan.

Performance Standard. Complete the requirement items IAW the references. Minor errors corrected by the trainee are acceptable.

Instructor. SI.

Prerequisite. 2003, 2006, 2007, 2100, 2101, 2102, 2103, 2104, 2105, 2106

References.

1. Planning MCWP 5-1
2. MOS Manual
3. Unit T/O and T/E
4. MCWP 3-40.3
5. Warning Order
6. Operational Order
7. T&R Manual

13.8.6 SYSTEM ADMINISTRATION (SYSAD) STAGE

13.8.6.1 Purpose. To provide the mission skills necessary to safely embark, setup, operate, maintain,

administrate, and integrate tactical data systems within the Marine Air Command and Control System (MACCS) and external agencies.

13.8.6.2 General.

Admin Notes. None.

Prerequisite. None.

Crew Requirements. None.

SYSAD-3140 2.0 1095 B, R, M (N) L

Goal. Employ AFATDS.

Requirement. Given an AFATDS, applicable references, materials, and required equipment:

1. Add users as appropriate.
2. Develop AFATDS network topology.

Performance Standard. With the aid of reference, complete the requirements, minor errors corrected by the trainee are acceptable.

Instructor. SI.

Prerequisite. 2255

References.

1. TM 7025-OR/ Series
2. MarineNet AFATDS course AFATAA0000
3. Site diagram

SYSAD-3141 6.0 1095 B, R, M (N) L

Goal. Employ AC2S.

Requirement. Given a system, applicable references, materials, and required equipment:

1. Set up AC2S.
2. Create user accounts.
3. Monitor system performance.

Performance Standard. With the aid of reference, complete the requirements, minor errors corrected by the trainee are acceptable.

Instructor. SI.

Prerequisite. 2005, 2040, 2041, 2043, 2045, 2047, 2256, 2257, 2302, 3001, 3060

References.

1. TM 11402B/12506A/12714A-15/110 Operator and Field Maintenance Manual for Aviation Command and Control System (AC2S)
2. TM 11402B/12506A/12714A-15/111 Software Administrator Manual for Aviation Command and Control System (AC2S)
3. TM 11402B/12506A/12714A-15/112 Software Users Manual for Aviation Command and Control System (AC2S)

SYSAD-3142 2.0 1095 B, R, M (N) L

Goal. Employ the BFT TOC Kit.

Requirement. Given a BFT TOC Kit, applicable references, materials, and required equipment:

1. Ensure logistical support is confirmed.
 - a. Generator support
 - b. Supply support
2. Verify BFT TOC Kit network connection to the WAN.

Performance Standard. With the aid of reference, complete the requirements, minor errors corrected by the trainee are acceptable.

Instructor. SI.

Prerequisite. 2259

References.

1. TM-11180B-OR/1 Operator/Crew Manual with components and repair list
2. TM-11180A-IN/1 Field Maintenance Manual including Repair Parts and Special Tool List

SYSAD-3143 4.0 1095 B, R, M (N) L

Goal. Perform system administrator functions.

Requirement. Given a scenario, ensure the following:

1. Manage data recovery plan.
2. Manage logfiles.
3. Manage user accounts.
4. Verify software/firmware are up to date.
5. Manage system passwords.
6. Manage system software.

Performance Standard. With the aid of reference, complete the requirements, minor errors corrected by the trainee are acceptable.

Instructor. SI.

Prerequisite. 2041, 2250, 2251, 2252, 2253, 2254, 3000

Reference.

1. Applicable user manuals.

SYSAD-3144 4.0 1095 B, R, M (N) L

Goal. Develop data recovery management plan.

Requirement. With the aid of reference, develop a data management plan including:

1. Purpose for data backup
2. Backup frequency
3. Scheduling/deconfliction
4. Backup storage locations
5. Levels of backup
6. Backup disposition
7. Document as required

Performance Standard. With the aid of reference, complete the requirements, minor errors corrected by the

trainee are acceptable.

Instructor. SI.

Prerequisite. 2040, 2042

References.

1. Applicable user manuals.
2. Commercial resources.

13.8.7 EQUIPMENT (EQUIP) STAGE

13.8.7.1 Purpose. To provide mission skill necessary to perform maintenance on MACCS unique electronic equipment.

13.8.7.2 General.

Admin Notes. None.

Prerequisite. None.

Crew Requirements. None.

EQUIP-3465	6.0	*	B	(N)	L

Goal. Perform maintenance within the AC2S.

Requirement. Given the references, TMDE, and tools, perform the following:

1. Perform PMCS.
2. Perform corrective maintenance to the LRU.
3. Verify correct operation.
4. Document maintenance actions.

Performance Standard. Perform the requirement to a proficient level (correct, efficient and skillful execution of tasks requiring minimal input from the instructor). Minor errors corrected by the trainee are acceptable.

Instructor. SI

Prerequisite. 2070, 2257, 2302

References.

1. TM 11402B/12506A/12714A-15/110 Operator and Field Maintenance Manual for Aviation Command and Control System (AC2S)
2. TM 11402B/12506A/12714A-15/111 Software Administrator Manual for Aviation Command and Control System (AC2S)
3. TM 11402B/12506A/12714A-15/112 Software Users Manual for Aviation Command and Control System (AC2S)
4. Applicable manufacturer's manuals

13.8.8 THEATER BATTLE MANAGEMENT CORE SYSTEM (TBMCS) STAGE

13.8.8.1 Purpose. To provide the mission skills required to configure TBMCS within the Marine Air Command and Control System.

13.8.8.2 General.

Admin Notes. None.

Prerequisites. None.

Crew Requirements. None.

TBMCS-3200	4.0	*	B,R	(N)	L

Goal. Configure TBMCS.

Requirement. Perform the following:

1. Perform Post-configuration.
2. Configure external system interfaces as applicable.
3. Perform system validation/verification.

Performance Standard. With the aid of reference, complete the requirements, minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. 2060, 2061

References.

1. Site diagram
2. TBMCS SUMs
3. TBMCS SAMs
4. TBMCS Load Guides
5. Network Diagram

TBMCS-3201	12.0	*	B, R	(N)	L

Goal. Maintain TBMCS.

Requirement. Given TBMCS, applicable references, materials, and equipment complete the following:

1. Update DNS.
2. Update Active Directory.
3. Update Microsoft exchange services.
4. Update Licensing.
5. Verify IRIS Services are running.
6. Verify Windows Services are running.
7. Verify DMD services are running.
8. Verify Global Share availability.
9. Verify Web-Logic Servers are running.
10. Update webpage status.
11. Update system passwords.
12. Terminate stale connections.
13. Perform offline database backup.
14. Perform database cleanup.
15. Perform system backups.
16. Logfiles check.
17. Network time check.
18. Troubleshoot error(s).
19. Initiate corrective maintenance action if required.
20. Conduct an operational status check.
21. Verify Linux services are running.

22. Maintain virtual environment.
23. Conduct PMCS.

Performance Standard. With the aid of reference, complete the requirements, minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. 3200

References.

1. Site diagram
2. TBMCS SUMs
3. TBMCS SAMs
4. TBMCS Load Guides
5. Network Diagram

TBMCS-3203 12.0 1095 B, R, M (N) L

Goal. Employ TBMCS.

Requirement. Given the references, tools, TMDE, and TBMCS with a fault (live preferred) or a simulated scenario describing a fault in this subsystem and evaluator feedback, complete the following:

1. Conduct detailed planning of the area of operations.
2. Ensure logistical support is confirmed.
 - a. Generator support
 - b. ECU support
 - c. Supply support
3. Develop TBMCS network topology.
4. Manage user accounts.

Performance Standard. Complete the requirement items IAW the references. Minor errors corrected by the trainee are acceptable.

Instructor. SI.

Prerequisite. 3201

References.

1. Site diagram
2. TBMCS SUMs
3. TBMCS SAMs
4. TBMCS Load Guides
5. Network Diagram

13.8.9 CYBER SECURITY WORKFORCE (CSWF) STAGE

13.8.9.1 Purpose. To provide mission skills in computing and networking that will be used in the performance of assigned duties within the Marine Air Command and Control System (MACCS).

13.8.9.2 General.

Admin Notes. None.

Prerequisite. None.

Crew Requirements. None.

CSWF-3000 4.0 1095 B, R, M (N) L

Goal. Administer data system host security measures.

Requirement. Given a configured network, demonstrate the following:

1. Install current anti-virus definitions and service packs.
2. Configure firewalls.
3. Troubleshoot system faults.
4. Initiate corrective actions as required.
5. Document changes

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. SI.

Prerequisite. 2040, 2042, 2043, 2044, 2045, 2046, 2047

References.

1. NIST Special Publication 800-__
2. Applicable User's Manuals.
3. Current industry-standard curriculum and references.

CSWF-3001 4.0 1095 B, R, M (N) L

Goal. Perform network management.

Requirement. Given a LAN, references, and required equipment, perform the following:

1. Monitor the LAN for connectivity.
2. Assist with troubleshooting connectivity issues with external agencies.
3. Troubleshoot Network error(s).
4. Document changes

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. SI.

Prerequisite. 2040, 2042, 2044, 2045, 2046, 2047

References.

1. NIST Special Publication 800-__
2. Applicable User's Manuals
3. Current industry-standard curriculum and references

CSWF-3002 4.0 1095 B, R, M (N) L

Goal. Design network architecture.

Requirement. Given an operational scenario conduct the following:

1. Identify network requirements
 - a. External interfaces
 - b. VLANs
 - c. IP Class

2. Assign Internet Protocol (IP) addresses, subnets, and netmasks.
3. Identify notation of domain.
4. Identify asset locations
5. Assign computer hostnames.
6. Implement security measures.
7. Record network configuration.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. SI.

Prerequisite. 2040, 2042, 2043, 2044, 2045, 2046, 2047

References.

1. NIST Special Publication 800-__
2. Applicable User's Manuals
3. Current industry-standard curriculum and references

13.9 CORE PLUS PHASE (4000)

13.9.1 Purpose. To provide Core Plus training. The Marine is exposed to advanced MACCS integration and employment of MACCS equipment within a joint environment.

13.9.2 General.

13.9.2.1 Admin Notes. The following information is provided to guide the Marine in the training of this Phase:

1. Training in this phase does not preclude simultaneous training in the Mission and Core advanced phases.
2. Individual Core Skills are learned and mastered using a varied combination of written exams, scenarios and practical demonstrations of proficiency.
3. If crew members are required to assist in the conduct of an event, the crew shall be core capable in the role they will play, as applicable. Training will be executed as individual training with appropriate assistance at the crew level as needed and as dictated by the conditions listed for each event. Crewmember assistance must be restricted to those actions required to support or facilitate individual training so as not to detract from the individual properly demonstrating the event performance standard.

13.9.2.2 Prerequisites. None.

13.9.2.3 Stages. The following stages are included in the Core Plus Skill Introduction Phase of training.

PAR NO.	STAGE NAME	PAGE NUMBER
13.9.3	MAINTENANCE MANAGEMENT (MMGT)	13-52

13.9.3 MAINTENANCE MANAGEMENT (MMGT) STAGE

13.9.3.1 Purpose. To train the trainee on the advanced skills necessary to perform as a member of a maintenance shop.

13.9.3.2 General.

Admin Notes. None.

Prerequisite. None.

Crew Requirements. None.

MMGT-4250 4.0 1095 B, R, M (N) L

Goal. Assess maintenance shop performance.

Requirement. Given the references, perform the following:

1. Determine key performance indicators.
2. Determine functional areas to be inspected.
3. Develop an inspection plan.
4. Assign personnel to conduct inspections.
5. Review results.
6. Assess strengths and weaknesses.
7. Develop/implement a corrective plan.

Performance Standard. Complete the requirement items IAW the references. Minor errors corrected by the trainee are acceptable.

Instructor. SI.

Prerequisite. None.

References.

1. FSMAO Checklist
2. CGI Checklist
3. Unit SOP
4. MMSOP
5. MCO 4790.2
6. UM 4000-125 GCSS-MC User's Manual

MMGT-4251 2.0 1095 B, R, M (N) L

Goal. Assess maintenance section funding requirements.

Requirement. With the aid of references and given equipment maintenance history, projected TEEP, and anticipated maintenance shortfalls, propose funding allocations for maintenance activities.

1. Identify and prioritize funding requirements.
2. Provide a maintenance funding request based on requirements and prior year utilization.
3. Provide an anticipated maintenance funding request based on the unit's TEEP.
4. Identify personnel travel requirements.
5. Identify unit-funded training requirements.

Performance Standard. Complete the requirement items IAW the references. Minor errors corrected by the trainee are acceptable.

Instructor. SI.

Prerequisite. None.

References.

1. MCO 4400.150
2. MCO 7300.21A

2.10 MISSION PLUS PHASE (4500)

2.10.1 Purpose. **RESERVED FOR FUTURE USE.**

2.10.2 General.

2.10.2.1 Admin Notes.

2.10.2.2 Prerequisite.

2.10.2.3 Stages.

13.11 INSTRUCTOR TRAINING PHASE (5000)

13.11.1 Purpose. To provide technicians the additional skills necessary to instruct, evaluate and approve event completions. Upon completion of the required training, an individual may be approved for instructor designation by the commanding officer.

13.11.2 General.

13.11.2.1 Admin Notes.

1. The MACCS instructor concept is a means to standardize all instructors across the MACCS in regards to the concepts of managing a WTTP, properly conducting training, performing evaluations, and recommending training plans.

2. There are different instructor designations (listed below). The intent is to train individuals with different levels and areas of experience to instruct personnel. Instructor experience is also gained while progressing through the different instructor designations.

- a. Basic Instructor (BI)
- b. Senior Instructor (SI)
- c. Weapons and Tactics Instructor (WTI)

3. The MAWTS-1 C3 Course catalog contains the training requirements for the above listed instructors. The catalog is located at the MAWTS-1 website,
[https://mceits.usmc.mil/sites/mawts1/C3 WTI Resources/C3 Course Catalog 24 Aug 2015.pdf](https://mceits.usmc.mil/sites/mawts1/C3%20WTI%20Resources/C3%20Course%20Catalog%2024%20Aug%202015.pdf)

13.11.2.2 Prerequisite. None.

13.11.2.3 Stages. The following stages are included in the Instructor Under Training Skill Phase of training.

PAR NO.	STAGE NAME	PAGE NUMBER
13.11.3	INSTRUCTOR UNDER TRAINING (IUT)	13-54

13.11.3 INSTRUCTOR UNDER TRAINING (IUT) STAGE

13.11.3.1 Purpose. To train Aviation Communication System Technicians in the fundamentals of instructing and training processes.

13.11.3.2 General.

Admin Notes. None.

Prerequisite. None.

Crew Requirements. None.

T&R CODE	EVENT DESCRIPTION	INSTRUCTOR
5000	Introduce principles of instruction.	SI
5010	Describe individual T&R requirements.	SI
5020	Conduct T&R instruction.	SI
5100	Describe the Aviation Training and Readiness (T&R) Program.	SI
5110	Conduct instructor evaluations.	SI
5120	Perform T&R administration	SI
5130	Develop a training plan.	SI

IUT-5000 2.0 * B (N) L

Goal. Introduce principals of instruction.

Requirement. Given the reference, the BIUT will demonstrate the following with the assistance of a unit instructor:

1. Adult learning principles.
 - a. Pedagogy to andragogy
 - b. Characteristics of the adult learner
 - c. Learning styles
 - d. How adults learn
 - e. Domains of learning
 - f. Group dynamics
 - g. Motivation
 - h. Constructivist learning environments
2. Introduce, discuss, and demonstrate instruction techniques.
3. Introduce, discuss, and demonstrate class management techniques.
 - a. How to select teaching resources to accommodate student learning styles.
 - b. How to properly organize the instructional environment for effective learning.

Performance Standard. With the aid of references, the BIUT shall demonstrate principles of instruction. During this session, the instructor shall discuss the event content and question the student throughout the training session to ensure understanding.

Instructor. SI.

Prerequisite. None.

References.

1. Adult Learning section, Systems Approach to Training Manual (2004)
2. NAVMC 3500.14
3. NAVMC 1553.1

IUT-5010 2.0 * B (N) G

Goal. Describe individual T&R requirements.

Requirement. Using the Aviation T&R Program Manual, discuss the purpose of each of the following items with an instructor:

1. Training progression model.
2. Programs of Instruction.
 - a. Basic

- b. Refresher
 - c. Conversion
 - d. Series Conversion
 - e. Transition
 - f. Maintain
3. T&R attain and maintain tables.
4. Syllabus notes.
5. T&R syllabus structure.
- a. Phase
 - b. Stage
 - c. Event
 - d. Skill
 - e. Syllabus
6. Event format.
- a. Header
 - (1) Event prefix - event code
 - (2) Projected event duration
 - (3) Proficiency period
 - (4) Programs of instruction (POI)
 - (5) Event conditions
 - (6) Device options
 - (7) Device number
 - (8) Device type
 - b. Body
 - (1) Goal
 - (2) Requirement
 - (3) Performance standard
 - (4) Equipment

Performance Standard. Without the aid of references and during a discussion session, the BIUT shall describe Individual T&R requirements. During this session, the instructor shall discuss the event content and question the student throughout the training session to ensure understanding.

Instructor. SI.

Prerequisite. None.

References.

- 1. NAVMC 3500.14
- 2. NAVMC 1553.1

IUT-5020	12.0	90	B, R, M	(N)	L

Goal. Conduct T&R instruction.

Requirement. The BIUT, under the supervision of an instructor, will conduct three periods of instruction on three different T&R events selected by the instructor and should include as many different methods of instruction as possible (lecture or academic, demonstration, and practical application). The event must be one the BIUT is current and proficient in. The BIUT will complete the following for each of the three events instructed:

- 1. Prepare to train the event.
 - a. Review a trainee's performance record to identify required training for the event selected.
 - b. Ensure the student has met prerequisites for the event to be trained.
 - c. Gather the resources necessary to conduct the training (i.e., instructional materials, references, and equipment).
 - d. Conduct task analysis on each event to ensure all intended requirements and prerequisite skills,

- specified or implied, are trained IAW applicable references.
- e. Schedule the training event (facilities and students).
- f. Prepare an evaluation form for each student to be evaluated.
- 2. Conduct training on the event selected:
 - a. Ensure all training resources are properly staged/equipment if set up properly for training.
 - b. Instruct the student in a thorough manner so as to cover all requirements for the event.
 - c. Ensure continuous, objective assessment of the student's progress during training.
- 3. Assess student performance:
 - a. Assess the student's performance to the performance standard.
 - b. Correct student deficiencies in a timely manner and provide the student feedback.
 - c. Complete the evaluation form on for each student trained.
 - d. Debrief student on the performance and provide corrective action.
- 4. Route evaluation form as required.

Performance Standard. Complete the requirement items IAW the reference and ensure training is doctrinally and technically current. Instructor shall use the instructor evaluation form from the SAT User's Guide for each class and a mark of satisfactory must be achieved for each of the three classes.

Instructor. SI.

Prerequisite. 5000, 5010

References.

- 1. NAVMC 3500.14, Ch 6
- 2. NAVMC 1553.1
- 3. MCO 1553.2B, Appendix O

IUT-5100	2.0	*	B	(N)	G

Goal. Describe the Aviation Training and Readiness (T&R) Program.

Requirement. Using the community T&R manual discuss the following with an instructor:

- 1. Describe the Weapons and Tactics Training Program (WTPP).
- 2. Define each element of the core Model:
 - a. Mission statements
 - b. Core Mission Essential Task List (METL)
 - c. Output standards
 - d. Core skills (How to attain and maintain)
 - e. Mission skills (How to attain and maintain)
 - f. Combat leadership
- 3. Define each of the following elements of unit training:
 - a. Training Exercise Employment Plan (TEEP)
 - b. Core Model Minimum Requirements (CMMR)
 - c. Instructors
 - d. Core Model Training Report (CMTR)
 - e. T&R manual connection to readiness reporting
- 4. Define each of the following elements of training:
 - a. Certification
 - b. Qualification
 - c. Designation
 - d. Performance record
- 5. Explain how changes are made to the Program Manual:
 - a. Explain T&R conference procedures.
 - b. Explain correspondence change procedures.

Performance Standard. Complete the requirements IAW the reference. Instructor will question the SIUT

to check for thorough understanding of the Aviation T&R Program.

Instructor. SI.

Prerequisite. None.

References.

1. NAVMC 3500.14
2. MCO 3500.109

IUT-5110 4.0 365 B, R, M (N) L

Goal. Conduct instructor evaluations.

Requirement. Using the instructor evaluation checklist from the SAT manual, conduct two evaluations on instructors of equal or lower designation.

1. Provide notification of evaluation to the instructor being evaluated.
2. Do not interfere with or disrupt the instruction while taking place.
3. Thoroughly document observed items on the checklist.
4. Ensure student evaluation form is filled out correctly and the appropriate debrief took place.
5. Debrief the instructor being evaluated on their preparation, instruction, evaluation, and documentation.
6. Have the evaluated instructor complete the instructor improvement plan section and sign.
7. File a copy of the completed evaluation form in both the evaluator's and evaluated instructor's performance record.

Performance Standard. Complete the requirements IAW the reference.

Instructor. SI.

Prerequisite. 5100

References.

1. NAVMC 3500.14
2. Applicable community T&R Manual
3. MCO1553.2B, Appendix O

IUT-5120 2.0 * B (N) L

Goal. Perform T&R administration.

Requirement. Document training to include:

1. Performance records.
2. Ensure MSHARP is updated appropriately.
3. Assemble recommendation package for certifications, qualifications, and designations IAW T&R manual.

Performance Standard. Complete the requirement items IAW the references. Instructor will question the trainee to check for understanding of the administration process.

Instructor. SI.

Prerequisite. 5100, 5110

References.

1. NAVMC 3500.14
2. Local WTTP SOP

3. <http://msharpsupport.com>

IUT-5130 2.0 * B (N) L

Goal. Develop a training plan.

Requirement. Given a deployment scenario develop a training plan to determine individual, and crew training needed to meet CMMR by completing the following:

1. Review Commander's training guidance.
2. Analyze the CMTR to determine training deficiencies and how to achieve CMMR.
3. Identify and schedule T&R training opportunities IAW the TEEP to achieve requirements.
4. Determine instructors required.
5. Determine equipment required.
6. Determine external support required.
7. Deliver a brief to the instructor that shows:
 - a. Crew manning and training requirements.
 - b. Current training status.
 - c. Identify the training deficiencies and resource shortfalls.
 - d. Explain the training plan to correct the training deficiencies.
 - e. Training plan meets commander's guidance.

Performance Standard. Complete the requirement items IAW the references and commander's training guidance. Training plan will ensure adequate time is allocated to include preparation, instruction, assessment, documentation, and remediation.

Instructor. SI.

Prerequisite. 5100, 5110, 5120

References.

1. NAVMC 3500.14
2. Applicable Community T&R manuals

13.12 CERTIFICATIONS, QUALIFICATIONS, AND DESIGNATIONS (CQD) PHASE (6000

13.12.1 Purpose. This phase provides community standardization of technician designations, combat leadership, instructor designations and training. This syllabus does not contain "one time" certification training requirements.

13.12.2 General.

13.12.2.1 Admin Notes.

1. This section enables units to document and track combat leaders, instructors, and technician assignments. All syllabus training and administration requirements must be complete prior to being qualified or designated. A qualification or designation is not effective until all administration is completed.

2. Only once an individual is qualified or designated in writing, the signed letter is filed in the IPR, and all administrative actions are completed, and the event code has been logged in M-SHARP shall the qualification or designation be effective.

13.12.2.2 Prerequisite. None.

13.12.2.3 Stages. The following stages are included in the Instructor Under Training Skill Phase of training.

PAR NO.	STAGE NAME	PAGE NUMBER

13.12.3	CERTIFICATIONS (CERT)	13-60
13.12.4	DESIGNATION (DESG)	13-61
13.12.5	SCHOOL CODES (SCHL)	13-62

13.12.3 CERTIFICATIONS (CERT) STAGE

13.13.3.1 Purpose. To provide for certifications of Information Assurance Work Force personnel.

13.12.3.2 General.

Admin Notes. Policies and rules for attaining and maintaining certification are detailed in the Aviation T&R Program Manual and this Manual.

Prerequisite. None.

Crew Requirements. None.

CERT-6260 4.0 * B (N) L

Goal. CSWF Technical Support Specialist.

Requirement. Complete the prerequisites. Be recommended for certification and approved in writing by the Commanding Officer.

Performance Standard. Complete requirements in accordance with the reference.

Instructor. SI.

Prerequisite. 2040, 2041, 2042, 2044, 2045, 2046, 2047, 3001

Reference.

1. DOD 8570.01_, Information Assurance Workforce Improvement Program

CERT-6261 4.0 * B (N) L

Goal. CSWF IT Specialist.

Requirement. Complete the prerequisites. Be recommended for certification and approved in writing by the Commanding Officer.

Performance Standard. Complete requirements in accordance with the reference.

Instructor. SI.

Prerequisite. 2040, 2042, 2043, 2044, 2045, 2046, 2047, 3000, 3001, 3002

Reference.

1. DOD 8570.01_, Information Assurance Workforce Improvement Program

CERT-6262 4.0 * B (N) L

Goal. CSWF System Administrator.

Requirement. Complete the prerequisites. Be recommended for certification and approved in writing by the Commanding Officer.

Performance Standard. Complete requirements in accordance with the reference.

Instructor. SIs

Prerequisite. 2040, 2041, 2042, 2043, 2044, 2045, 2046, 2047, 3000, 3001, 3002

Reference.

1. DOD 8570.01_, Information Assurance Workforce Improvement Program

13.12.4 DESIGNATIONS (DESG) STAGE

13.12.4.1 Purpose. To provide for designation of combat leaders and instructors. Designations are command specific and expire when an individual transfers out of a command.

13.12.4.2 General.

Admin Notes. Policies and rules for attaining and maintaining designations are detailed in the Aviation T&R Program Manual and this Manual.

Prerequisite. None.

Crew Requirements. None.

DESG-6323	0.5	*	B	(N)	L

Goal. Designation as a System Configuration Coordinator.

Requirement. Complete required System Configuration Coordinator training POI and be approved in writing by the Commanding Officer.

Performance Standard. N/A.

Instructor. WTI.

Prerequisite. 2001, 2040, 2041, 2044, 2046, 2047, 2250, 2251, 2256, 2257, 2302

Reference.

1. Unit TO/E

DESG-6320	0.5	*	B	(N)	G

Goal. Designation as a Basic Instructor (BI).

Requirement. Be recommended for designation by a WTI and designated in writing by the commanding officer.

Performance Standard. N/A

Instructor. WTI.

Prerequisite. 5000, 5010, 5020

Reference.

1. NAVMC 3500.14, Naval Aviation Program Manual

DESG-6321 0.5 * B (N) G

Goal. Designation as a Senior Instructor (SI).

Requirement. Be recommended for designation by a WTI and designated in writing by the commanding officer.

Performance Standard. N/A

Instructor. WTI.

Prerequisite. 5100, 5110, 5120, 5130

Reference.

1. NAVMC 3500.14, Naval Aviation Program Manual

DESG-6322 0.5 * B (N) G

Goal. Designation as a WTI

Requirement. Be certified by MAWTS-1 as a WTI, designated by the Commanding Officer in writing.

Performance Standard. N/A.

Instructor. WTI.

Prerequisite. 6000

Reference.

1. NAVMC 3500.14, Naval Aviation Program Manual

DESG-6330 0.5 * B (N) G

Goal. Designation as a Formal Learning Center Instructor.

Requirement. Complete the formal learning center's instructor requirements, designated by the Commanding Officer in writing.

Performance Standard. N/A.

Instructor. WTI.

Prerequisite. 6096.

Reference.

1. NAVMC 3500.14, Naval Aviation Program Manual

13.12.5 SCHOOL CODES (SCHL) STAGE

13.12.5.1 Purpose. To provide tracking codes for schools that are pertinent to the training of the 5974 in the skill progression of the Marine.

13.12.5.2 General.

Admin Notes. Policies and prerequisites for attending the listed schools are maintained within MCTIMS.

Prerequisite. None.

Crew Requirements. None.

T&R CODE	COURSE NAME	LOCATION	CID/CIN
SCHL-6000	Weapons and Tactics Instructor (WTI) course	MCAS Yuma, AZ	M149731
SCHL-6013	(AOC IQT) System Administrator	Hurlburt Field, FL	F19L2U2
SCHL-6014	(AOC IQT) Network Administrator	Hurlburt Field, FL	F19L9W2
SCHL-6020	Link 16 Basics Course (JT-100)	Joint Knowledge Online (JKO)	N/A
SCHL-6021	Intro to Multi TDL Network (JT-101)	Fort Bragg, NC	N/A
SCHL-6022	Multi-TDL Advanced Joint Interoperability Course (MAJIC) (JT-102)	Fort Bragg, NC	A05L6Z1
SCHL-6024	Multi TDL Planner Course (JT-201)	Fort Bragg, NC	A05KHY1
SCHL-6025	Complete Link 16 Unit Manager (LUM) Course (JT-220)	Fort Bragg, NC	A05A111
SCHL-6026	Joint Interface Control Officer (JICO) (JT-301)	Fort Bragg, NC	A05FH21
SCHL-6027	Advanced JICC Operator Course (JT-310)	Fort Bragg, NC	A05FH11
SCHL-6030	Work Center Supervisor's Course	NATTC, FL	N23KCM2
SCHL-6031	MATC Maintenance Manager's Course	NATTC, FL	N23KCN2
SCHL-6073	Micro-Miniature Electronic Repair Course	San Diego, CA	N01A351
		Norfolk, VA	N02A351
SCHL-6093	Micro-miniature/Automated Test Equipment Repair Course	29 Palms, CA	M09E2D1
SCHL-6094	Advanced Electronics Course	29 Palms, CA	M09DSK1
SCHL-6095	Ground Electronics Maintenance NCO Course	Camp Johnson, NC	M03DNSG
SCHL-6096	Respective instructor development course.	MCB Camp Lejeune, NC	M03WJBA
		MCB Camp Lejeune, NC (MTT)	M03WJBM
		MCB Camp Pendleton, CA	M10WJB1
		MCB Camp Pendleton, CA (MTT)	M10WJBM
		NAS Pensacola, FL	N23X991
SCHL-6097	Mountain Command Control Communications Course	Bridgeport, CA	M24CXJ1
SCHL-6098	Electromagnetic Spectrum Manager Course	Biloxi, MS	F0224L1

SCHL-6000 0.5 * B (N) G

Goal. Complete WTI Course.

Requirement. Successfully complete course curriculum.

Performance Standard. N/A.

Instructor. N/A.

Prerequisite. 6320, 6321, 8000, 8020, 8040, 8060, 8080

Reference. None.

SCHL-6013	0.5	*	B	(N)	G

Goal. Complete (AOC IQT) System Administrator.

Requirement. Successfully complete course curriculum.

Performance Standard. N/A.

Instructor. N/A.

Prerequisite. None.

Reference. None.

SCHL-6014	0.5	*	B	(N)	G

Goal. Complete (AOC IQT) Network Administrator.

Requirement. Successfully complete course curriculum.

Performance Standard. N/A.

Instructor. N/A.

Prerequisite. None.

Reference. None.

SCHL-6020	0.5	*	B	(N)	G

Goal. Complete Link 16 Basic Course (JT-100).

Requirement. Successfully complete course curriculum.

Performance Standard. N/A.

Instructor. N/A.

Prerequisite. None.

Reference. None.

SCHL-6021	0.5	*	B	(N)	G

Goal. Complete Intro to Multi TDL Network (JT-101).

Requirement. Successfully complete course curriculum.

Performance Standard. N/A.

Instructor. N/A.

Prerequisite. None.

Reference. None.

SCHL-6022 0.5 * B (N) G

Goal. Complete Multi-TDL Advanced Joint Interoperability Course (MAJIC) (JT-102).

Requirement. Successfully complete course curriculum.

Performance Standard. N/A

Instructor. None.

Prerequisite. 6021.

Reference. None.

SCHL-6024 0.5 * B (N) G

Goal. Complete Multi TDL Planner Course (JT-201).

Requirement. Successfully complete course curriculum.

Performance Standard. N/A

Instructor. N/A

Prerequisite. None.

Reference. None.

SCHL-6025 0.5 * B (N) G

Goal. Complete Link 16 Unit Manager (LUM) Course (JT-220).

Requirement. Successfully complete course curriculum.

Performance Standard. N/A.

Instructor. N/A.

Prerequisite. None.

Reference. None.

SCHL-6026 0.5 * B (N) G

Goal. Complete Joint Interface Control Officer (JICO) (JT-301).

Requirement. Successfully complete course curriculum.

Performance Standard. N/A.

Instructor. N/A.

Prerequisite. 6021, 6022, 6024

Reference. None.

SCHL-6027	0.5	*	B	(N)	G

Goal. Complete Advanced JICC Operator Course (JT-310).

Requirement. Successfully complete course curriculum.

Performance Standard. N/A.

Instructor. N/A.

Prerequisite. None.

Reference. None.

SCHL-6030	0.5	*	B	(N)	G

Goal. Complete Work Center Supervisor's Course.

Requirement. Successfully complete course curriculum.

Performance Standard. N/A.

Instructor. N/A.

Prerequisite. None.

Reference. None.

SCHL-6031	0.5	*	B	(N)	G

Goal. Complete MATC Maintenance Manager's Course.

Requirement. Successfully complete course curriculum.

Performance Standard. N/A.

Instructor. N/A.

Prerequisite. None.

Reference. None.

SCHL-6073	0.5	*	B	(N)	G

Goal. Complete Micro-Miniature Electronics Repair Course.

Requirement. Successfully complete course curriculum.

Performance Standard. N/A.

Instructor. N/A.

Prerequisite. None.

Reference. None.

SCHL-6093 0.5 * B (N) G

Goal. Complete Micro-miniature/Automated Test Equipment Repair Course.

Requirement. Successfully complete course curriculum.

Performance Standard. N/A.

Instructor. N/A.

Prerequisite. None.

Reference. None.

SCHL-6094 0.5 * B (N) G

Goal. Complete Advanced Electronics Course.

Requirement. Successfully complete course curriculum.

Performance Standard. N/A.

Instructor. N/A.

Prerequisite. None.

Reference. None.

SCHL-6095 0.5 * B (N) G

Goal. Complete Ground Electronics Maintenance NCO Course.

Requirement. Successfully complete course curriculum.

Performance Standard. N/A.

Instructor. N/A.

Prerequisite. None.

Reference. None.

SCHL-6096 0.5 * B (N) G

Goal. Complete respective instructor development course.

Requirement. Successfully complete course curriculum.

Performance Standard. N/A.

Instructor. N/A.

Prerequisite. None.

Reference. None.

SCHL-6097 0.5 * B (N) G

Goal. Complete Mountain Command Control Communications Course.

Requirement. Successfully complete course curriculum.

Performance Standard. N/A.

Instructor. N/A.

Prerequisite. None.

Reference. None.

SCHL-6098 0.5 * B (N) G

Goal. Complete Electromagnetic Spectrum Manager Course.

Requirement. Successfully complete course curriculum.

Performance Standard. N/A.

Instructor. N/A.

Prerequisite. None.

Reference. None.

13.13 MISSION ESSENTIAL TASK (MET) PHASE (7000)

13.13.1 Purpose. This phase takes CMMR proficient Marines from multiple PMOS, puts them in CMMR representative crews, and trains them as combat effective teams in combined events.

13.13.2 General.

13.13.2.1 Admin Notes. Prerequisites for this phase of training cannot be waived. Multiple events can be trained at the same time as long as separate evaluations are being conducted.

13.13.2.2 Prerequisite. Marines must either be CMMR crew position or non-aviation PMOS proficient to train in this phase. For those events requiring combat leaders, only Marines currently designated as such can train in this phase.

13.13.2.3 Stages. The following stages are included in the Mission Essential Task (MET) Phase of training.

PAR NO.	STAGE NAME	PAGE NUMBER
13.13.3	TACC CONDITION (COND)	3-69
13.13.4	TAOC CONDITION (COND)	3-72

13.13.5	DASC CONDITION (COND)	3-75

13.13.3 TACC CONDITION (COND) STAGE

13.13.3.1 Purpose. To train unit level teams in executing community specific MET(s) or MET preparatory events.

13.13.3.2 General.

Admin Notes. All events in this stage will require the following administrative/operational documents to be identified or created:

1. Letter Of Intent (LOI)
2. Personnel Roster
3. Bill of Material (BOM)
4. Equipment Density List (EDL)

Prerequisite. If an event requires prerequisites in addition to those listed for the MET Phase, they will be covered in the individual event.

Crew Requirements. This stage requires that all crew members and combat leaders be qualified/designated and proficient (current) in the position they are assigned for the following events. Crews shall be task organized to meet the mission.

COND-7001 4.0 730 B, R, M (N) E L

Goal. Establish communications.

Requirement. Perform the following:

1. Establish communication nets in accordance with SOPs, published communications plan.
2. Communications are available for standby operational contingency actions; e.g., SAR.
3. Communications plan reflects correct key lists and edition numbers, and they are verified as correct.
4. Post communications status to include delineated alternate paths and current EMCON status.
5. Ensure operations personnel are aware of alternate communications paths to assure constant contact with higher, adjacent and subordinate commands when required.
6. Communication restoration priorities have been published and provided to communication maintenance personnel.
7. Detect instances of communications jamming, potential cyber intrusion, or imitative deceptions and provide reports in accordance with appropriate annex of the Op Order.
8. Direct changes in EMCON conditions to subordinate agencies when processed intelligence or combat information reveals a change in the enemy's threat capabilities.
9. Enact restoration procedures.
10. Ensure communication plan includes communications requirements for succession of command or control in case of catastrophic failure of any major air control agency (TADC/TACC, DASC, TAOC).
11. Crew members understand crew procedures to change communications nets and/or radio configurations.
12. Crew members perform net control station duties by initiating radio checks on appropriate nets.

Performance Standard. Establish voice and data connectivity with subordinate MACCS agencies and higher headquarters IAW ANNEX K, COMSEC Callout, ACEOI, and OPTASK LINK.

Instructor. WTI.

Prerequisite. None.

External Syllabus Support. External C3 Agencies

References.

1. MCWP 3-20F.2, Marine TACC Handbook
2. TACC Primer

COND-7003 8.0 730 B, R, M (N) E L/S

Goal. Display the Common Tactical Picture.

Requirement. Perform the following:

1. Maintain a connection to higher headquarters Common Tactical Picture per the exercise or operation's Annex U.
2. Ensure applicable ground tactical picture, maritime tactical picture, and map overlays are received from higher headquarters.
3. Provide the ACE's Common Tactical Picture to higher headquarters.
4. Manage, receive, display, and disseminate the common tactical picture.
5. Update the Battle Command Display.

Performance Standard. Complete the required items.

Instructor. WTI.

Prerequisite. None.

External Syllabus Support. HHQ to provide Common Tactical Picture. MWCS support for digital backbone.

References.

1. Exercise or Operation's OPOD Annex U
2. CJCSM 3115.01_, Common Tactical Picture Reporting Requirements

COND-7004 18.0 730 B, R, M (N) E L/S

Goal. Coordinate air operations between the MACCS and Joint /Combined/Coalition/Host Nation command and control agencies.

Requirement. Perform the following:

1. Establish liaison necessary to request additional aviation assets from any theater/national sources.
2. Coordinate airspace de-confliction.
3. Integrate joint, coalition, and host nation requirements/elements into the COPS floor.

Performance Standard. Complete the required items.

Instructor. WTI.

Prerequisite. None.

External Syllabus Support. None.

References.

1. MCWP 3-20F.2, Marine TACC Handbook
2. TACC Primer

COND-7003 8.0 730 B, R, M (N) E L/S

Goal. Manage the current air tasking order.

Requirement. Perform the following:

1. Coordinate the recovery of isolated personnel and aircraft.
2. Coordinate air defense operations of MACCS agencies with external agencies.
3. Coordinate theater missile defense operations with external agencies.
4. Manage MAGTF air assets in support of the close, rear, and deep battle areas.
5. Monitor the equipment status and operational posture of MACCS agencies.
6. Monitor, supervise, and direct the control of aircraft and missiles by subordinate MACCS agencies.
7. Process air support requests in accordance with the MAGTF and ACE Commander's priorities.
8. Coordinate the establishment and dissemination of Air Defense Warning Conditions (ADWCs) and Weapons Control Statuses (WCS).
9. Current ATO missions executed in accordance with the MAGTF and ACE Commanders priorities, to include changing or altering pre-schedule missions as required.

Performance Standard. Complete the required items.

Instructor. WTI.

Prerequisite. None.

External Syllabus Support. External C3 agencies, ACE Battlestaff, MWCS.

References.

1. MCWP 3-20F.2, Marine TACC Handbook
2. TACC Primer

COND-7007 16.0 730 B, R, M (N) E L/S

Goal. Maintain a facility and associated command and control systems for the TACC.

Requirement. Given the references, a Table of Equipment (T/E) and/or an Equipment Density List, a mission statement, commander's guidance,

and an operation plan's initiating order, provide a TACC infrastructure to include the following:

1. Provide required support personnel to set up and maintain the TACC infrastructure.
2. Provide equipment and facilities for current operation (COPS).
3. Provide equipment and facilities for future operations (FOPS).
4. Provide equipment and facilities for future plans (FPLANS).
5. Provide facilities for air combat intelligence (ACI).

Performance Standard. Perform the requirement items listed.

Instructor. WTI.

Prerequisite. None.

External Syllabus Support. MTACS Commander and representatives from the S-1, S-2, S-3, S-4, S-6. Simulation execution will require coordination with external agencies.

References.

1. U-TACC-PCL-0350, TACC Pocket Checklist
2. MCWP 3-20F.2, Marine Tactical Air Command Center Handbook
3. Squadron SOP

COND-7009 2.0 730 B, R, M (N) E S/L

Goal. Coordinate Airspace Coordinating Measures in support of the MAGTF.

Requirement. Given the references, an operational TACC and an operations order, and airspace control plan coordinate airspace requirements in support of the MAGTF:

1. Coordinate and employ the use of air defense control measures.
2. Coordinate through the Ground Watch Section for the deconfliction of FSCMs and immediate Airspace Control Measures.
3. Coordinate with subordinate MACCS agencies for immediate Airspace Management issues.
4. Coordinate with the Air and Space Operations Center for immediate Airspace Management issues that affect the joint force.
5. Update and monitor changes to the ACP/ACO/SPINS as applicable.

Performance Standard. Perform the requirement items listed during live, virtual, or constructed exercise or real world operation.

Instructor. WTI.

Prerequisite. None.

Reference.

1. JP 3-52, Joint Airspace Control

13.13.4 TAOC CONDITION (COND) STAGE

13.13.4.1 Purpose. To train unit level teams in executing community specific MET(s) or MET preparatory events.

13.13.4.2 General.

Admin Notes. All events in this stage will require the following administrative/operational documents to be identified or created:

1. Letter of Intent (LOI)
2. Personnel Roster
3. Bill of Material (BOM)
4. Equipment Density List (EDL)

Prerequisite. If an event requires prerequisites in addition to those listed for the MET Phase, they will be covered in the individual event.

Crew Requirements. This stage requires that all crew members and combat leaders be qualified/designated and proficient (current) in the position they are assigned for the following events. Crews shall be task organized to meet the mission.

COND-7000	16.0	730	B, R, M	(N)	E	L

Goal. Conduct Airspace Surveillance.

Requirement. Given organic C2 systems, radars, and a minimum of two CMMR surveillance crews, perform the following:

1. Plan for the emplacement, setup, operation, and maintenance of TAOC radar(s) and C2 equipment within the MAGTF and/or joint assigned airspace.
2. Extract tactical data link (TDL) architecture information from MAGTF and joint documents.
3. Extract required surveillance operations information exchange requirements from source MAGTF and/or joint documents.
4. Plan for TAOC airspace surveillance operations.
5. Conduct the emplacement, setup, operation, and maintenance of TAOC radar(s) and C2 equipment.
6. Detect and track aircraft and missiles within MAGTF and/or joint assigned airspace using organic TAOC radar(s).

7. Conduct combat identification on objects detected and tracked using information extracted from surveillance operations source documents.
8. Disseminate air/ground surveillance information to adjacent, higher, and subordinate agencies and aircraft identified in surveillance operations source documents.
9. Demonstrate proficiency during crew changeover.

Performance Standard. Complete the requirements conducting TAOC operations in support of MAGTF and/or joint exercises or operations.

Instructor. WTI.

Prerequisite. None.

External Syllabus Support. TDSM, RDR, AVRAD, UT. Live execution will require specific T/M/S aviation assets.

Reference. None.

COND-7001	16.0	730	B, R, M	(N)	E	L/S

Goal. Conduct Positive Control.

Requirement. Given organic C2 systems, radars, and a minimum of two CMMR weapons crews, perform the following:

1. Plan for the emplacement, setup, operation, and maintenance of TAOC radar(s) and C2 equipment within the MAGTF and/or joint assigned airspace.
2. Conduct the emplacement, setup, operation, and maintenance of TAOC radar(s) and C2 equipment.
3. Extract airspace control measures within TAOC assigned airspace from MAGTF and/or joint source documents.
4. Conduct airspace management using MEF/MAW sustained sortie generation rates.
5. Conduct airspace control using MEF/MAW sustained sortie generation rates.
6. Conduct positive control using MEF/MAW sustained sortie generation rates.
7. Demonstrate proficiency during crew changeover.

Performance Standard. Complete the requirements conducting TAOC operations in support of MAGTF and/or joint exercises or operations.

Instructor. WTI.

Prerequisite. None.

External Syllabus Support. TDSM, RDR, AVRAD, UT. Live execution will require specific T/M/S aviation assets.

Reference. None.

COND-7002	16.0	730	B, R, M	(N)	E	L/S

Goal. Coordinate Air Defense Actions.

Requirement. Given organic C2 systems, radars, and a minimum of two CMMR weapons crews, perform the following:

1. Plan for the emplacement, setup, operation, and maintenance of TAOC radar(s) and C2 equipment within the MAGTF and/or joint assigned airspace.
2. Conduct the emplacement, setup, operation, and maintenance of TAOC radar(s) and C2 equipment.
3. Extract air defense requirements from MAGTF and/or joint air defense documents.

4. Create a plan for the TAOC to manage and control AAW aircraft engagements, expenditures, and employment using MEF/MAW sortie generation rates.
5. Create a plan for the TAOC to provide management of GBAD engagements, expenditures, and employment.
6. Manage and control AAW aircraft engagements, expenditures, and employment using MEF/MAW sortie generation rates.
7. Provide management of GBAD engagements, expenditures, and employment.
8. Detect potential threat aircraft and/or missiles using TAOC organic radars.
9. Disseminate threat information to higher, adjacent, and subordinate MACCS agencies.
10. Demonstrate proficiency during crew changeover.

Performance Standard. Complete the requirements conducting TAOC operations in support of MAGTF and/or joint exercises or operations.

Instructor. WTI.

Prerequisite. None.

External Syllabus Support. TDSM, RDR, AVRAD, UT. Live execution will require specific T/M/S aviation assets.

Reference. None.

COND-7003	16.0	730	B, R, M	(N)	E	L/S

Goal. Conduct Dual Site Air Defense Operations.

Requirement. Given organic C2 systems, radars, and a minimum of four CMMR air defense crews, perform the following at two geographically disparate sites:

1. Plan for the emplacement, setup, operation, and maintenance of TAOC radar(s) and C2 equipment within the MAGTF and/or joint assigned airspace.
2. Conduct the emplacement, setup, operation, and maintenance of TAOC radar(s) and C2 equipment.
3. Conduct airspace surveillance.
4. Conduct positive control.
5. Coordinate air defense actions.
6. Demonstrate proficiency during crew changeover.

Performance Standard. Complete the requirements conducting TAOC operations in support of MAGTF and/or joint exercises or operations.

Instructor. WTI.

Prerequisite. None.

External Syllabus Support. TDSM, RDR, AVRAD, UT. Live execution will require specific T/M/S aviation assets.

Reference. None.

COND-7004	16.0	730	B, R, M	(N)	E	L/S

Goal. Integrate Operational Air Defense Capabilities.

Requirement. Given organic C2 systems, radars, and a minimum of two core plus proficient SADC crews, perform the following:

1. Plan for the emplacement, setup, operation, and maintenance of TAOC radar(s) and C2 equipment

- within the MAGTF and/or joint assigned airspace.
2. Conduct the emplacement, setup, operation, and maintenance of TAOC radar(s) and C2 equipment
 3. Extract air defense requirements from MAGTF and joint air defense documents.
 4. Create a plan for the TAOC to manage air defense operations within MAGTF and/or joint assigned region/sector.
 6. Manage air defense operations within the MAGTF and/or joint assigned region/sector.
 7. Extract tactical data link (TDL) architecture information from MAGTF and joint documents.
 8. Create a plan for TAOC to assist the (Joint) Interface Control Officer J/ICO with the management of TDLs.
 9. Manage TDLs for the TAOC in support of MAGTF and joint operations.
 10. Demonstrate proficiency during crew changeover.

Performance Standard. Complete the requirements conducting TAOC operations in support of MAGTF AAW and/or joint DCA exercises or operations.

Instructor. WTI.

Prerequisite. None.

External Syllabus Support. TDSM, RDR, AVRAD, UT. Live execution will require specific T/M/S aviation assets.

Reference. None.

13.13.5 DASC CONDITION (COND) STAGE

13.13.5.1 Purpose. To train unit level teams in executing community specific MET(s) or MET preparatory events.

13.13.5.2 General.

Admin Notes. All events in this stage will require the following administrative/operational documents to be identified or created:

1. Letter of Intent (LOI)
2. Personnel Roster
3. Bill of Material (BOM)
4. Equipment Density List (EDL)

Prerequisite. If an event requires prerequisites in addition to those listed for the MET Phase, they will be covered in the individual event.

Crew Requirements. This stage requires that all crew members and combat leaders be qualified/designated and proficient (current) in the position they are assigned for the following events. Crews shall be task organized to meet the mission.

COND-7400 3.0 730 B, R, M (N) E L/S

Goal. Employ an ASLT.

Requirement. Given the references, a Table of Equipment (T/E) and/or Equipment Density List (EDL), Commander's guidance, and an operations order/initiating directive, employ an ASLT to include the following:

1. Plan for employment of an ASLT:
 - a. Conduct problem framing.
 - (1) Identify level of support Required of MASS unit.
 - (2) Develop mission statement/Commander's Intent.

- b. Create employment plan.
 - (1) Coordinate with external entities (and/or agencies).
 - (2) Identify required personnel and equipment.
 - (3) Conduct site reconnaissance and selection.
 - (4) Identify and coordinate external support requirements.
- c. Create supporting planning products.
 - (1) Create/publish POA&M/LOI.
 - (2) Create necessary manning documents/EDL/BOM/Load Plan (MDSS).
 - (3) Conduct required briefs. (IPC/MPC, Confirmation Brief, etc.)
- 2. Deploy an ASLT:
 - a. Conduct movement.
 - (1) Conduct embarkation (unit to APOE).
 - (2) Conduct convoy operations (APOD to TAA to tactical site).
 - b. Establish ASLT site.
 - (1) Establish and maintain site security.
 - (2) Establish communications and connectivity.
 - (3) Establish administrative and logistics functions.
- 3. Operate an ASLT:
 - a. Conduct ASLT operations.
- 4. Sustain an ASLT:
 - a. Conduct staff functions.
 - (1) Conduct administrative functions.
 - (2) Conduct intelligence functions.
 - (3) Conduct operations and training.
 - (4) Conduct logistical functions.
 - (5) Conduct communications functions.
- 5. Re-Deploy an ASLT:
 - a. Plan for re-deployment.
 - (1) Identify logistics requirements.
 - (2) Identify external support requirements.
 - (3) Identify maintenance functions and requirements.
 - (4) Identify administration requirements and functions.
 - b. Conduct movement
 - (1) Conduct convoy operations (tactical site to TAA to APOE).
 - (2) Conduct embarkation (APOD to the unit).

Performance Standard. Perform the requirement items listed and conduct ASLT operations supporting the DASC during a minimum operational tempo three (3) real world operation or training simulation.

Prerequisite. (1) CMMR ASLT Crew.

Range. Range space capable of hosting ground and air fires.

External Syllabus Support. FSCC, air and fire support missions as defined by operational tempo level three, a DASC, S-1, S-2, S-3, S-4, S-6.

References.

- 1. MCWP 3-25.5, DASC Handbook
- 2. Squadron SOP

COND-7405 3.0 730 B, R, M (N) E L/S

Goal. Employ an ASE.

Requirement. Given the references, a Table of Equipment (T/E) and/or Equipment Density List (EDL), Commander's guidance, and an operations order/initiating directive, employ an ASE to include the

following:

1. Plan for Employment of an ASE:
 - a. Conduct problem framing.
 - (1) Identify level of support required of MASS unit.
 - (2) Develop Mission Statement/Commander's Intent.
 - b. Create employment plan.
 - (1) Coordinate with external entities (and/or agencies).
 - (2) Identify required personnel and equipment.
 - (3) Conduct site reconnaissance and selection.
 - (4) Identify and coordinate external support requirements.
 - c. Create supporting planning products.
 - (1) Create/publish POA&M/LOI.
 - (2) Create necessary manning documents/EDL/BOM/load plan (MDSS).
 - (3) Conduct required briefs. (IPC/MPC, Confirmation Brief, etc.)
2. Deploy an ASE:
 - a. Conduct movement.
 - (1) Conduct embarkation (unit to APOE).
 - (2) Conduct convoy operations (APOD to TAA to tactical site).
 - b. Establish ASE Site.
 - (1) Establish and maintain site security.
 - (2) Establish external ASE infrastructure.
 - (3) Establish internal ASE infrastructure.
 - (4) Establish communications and connectivity.
 - (5) Establish administrative and logistics functions.
3. Operate an ASE:
 - a. Conduct ASE operations.
 - (1) Process Immediate Air Support Requests.
 - (2) Integrate aircraft employment with other supporting arms.
 - (3) Manage terminal control assets.
 - (4) Procedurally control aircraft within Assigned Area of Operations.
4. Sustain an ASE:
 - a. Conduct staff functions.
 - (1) Conduct administrative functions.
 - (2) Conduct intelligence functions.
 - (3) Conduct operations and training.
 - (4) Conduct logistical functions.
 - (5) Conduct communications functions.
5. Re-Deploy an ASE:
 - a. Plan for re-deployment.
 - (1) Identify logistics requirements.
 - (2) Identify external support requirements.
 - (3) Identify maintenance functions and requirements.
 - (4) Identify administration requirements and functions.
 - b. Conduct movement.
 - (1) Conduct convoy operations (tactical site to TAA to APOE).
 - (2) Conduct embarkation (APOD to the unit).

Performance Standard. Perform the requirement items listed and conduct ASE operations during a minimum operational tempo three (3) real world operation or training simulation.

Prerequisite. (1) CMMR ASE Crew.

Range. Range space capable of hosting ground and air fires.

External Syllabus Support. S-1, S-2, S-3, S-4, S-6, air and fire support missions as defined by operational tempo three, FFCC/FSCC, and if required, a SACC and NTACC/HCS.

References.

1. MCWP 3-25.5, DASC Handbook
2. Squadron SOP

COND-740 3.0 730 B, R, M (N) L/S

Goal. Employ a DASC.

Requirement. Requirement. Given the references, a Table of Equipment (T/E) and/or Equipment Density List (EDL), Commander's guidance, and an operations order/ initiating directive, employ a DASC to include the following:

1. Plan for employment of a DASC:
 - a. Conduct problem framing.
 - (1) Identify level of support required of MASS Unit.
 - (2) Identify potential need for DASC Extensions.
 - (3) Develop Mission Statement/Commander's Intent.
 - b. Create employment plan.
 - (1) Coordinate with external entities (and/or agencies).
 - (2) Identify required personnel and equipment.
 - (3) Conduct site reconnaissance and selection.
 - (4) Identify and coordinate external support requirements.
 - (5) Plan for any/all required DASC extensions.
 - c. Create supporting planning products.
 - (1) Create/publish POA&M/LOI.
 - (2) Create necessary manning documents/EDL/BOM/load plan (MDSS).
 - (3) Conduct required briefs (IPC/MPC, Confirmation Brief, etc.).
2. Deploy a DASC:
 - a. Conduct movement.
 - (1) Conduct embarkation (unit to APOE).
 - (2) Conduct convoy operations (APOD to TAA to tactical site).
 - b. Establish DASC Site.
 - (1) Establish and maintain site security.
 - (2) Establish external DASC infrastructure.
 - (3) Establish internal DASC infrastructure.
 - (4) Establish communications and connectivity.
 - (5) Establish administrative and logistics functions.
3. Operate a DASC:
 - a. Conduct DASC operations.
 - (1) Process Immediate Air Support Requests.
 - (2) Integrate aircraft employment with other supporting arms.
 - (3) Manage terminal control assets.
 - (4) Procedurally control aircraft within Assigned Area of Operations.
 - b. Manage DASC extensions.
4. Sustain a DASC:
 - a. Conduct staff functions.
 - (1) Conduct administrative functions.
 - (2) Conduct intelligence functions.
 - (3) Conduct operations and training.
 - (4) Conduct logistical functions.
 - (5) Conduct communications functions.
5. Re-Deploy a DASC:
 - a. Plan for re-deployment.
 - (1) Identify logistics requirements.
 - (2) Identify external support requirements.
 - (3) Identify maintenance functions and requirements.

- (4) Identify administration functions and requirements.
- b. Conduct movement.
 - (1) Conduct convoy operations (tactical site to TAA to APOE).
 - (2) Conduct embarkation (APOD to the unit).

Performance Standard. Perform the requirement items listed and conduct DASC operations during a minimum operational tempo three (3) real world operation or training simulation.

Prerequisite. Two (2) CMMR DASC crews.

Range. Range space capable of hosting ground and air fires.

External Syllabus Support. S-1, S-2, S-3, S-4, S-6, MHE, air and fire support missions as defined by operational tempo three (3), digital backbone, FFCC/FSCC, and if required, aircraft designated to provide an airborne DASC capability.

References.

- 1. MCWP 3-25.5, DASC handbook
- 2. Squadron SOP

COND-7415 3.0 730 B, R, M (N) E L/S

Goal. Conduct a Reconnaissance, Selection, and Occupation of Position (RSOP) for the DASC.

Requirement. Given the references, a Table of Equipment (T/E) and/or Equipment Density List (EDL) and an operations order/initiating directive, conduct a RSOP for DASC operations to include the following:

- 1. Conduct a map survey selecting primary and alternate sites.
- 2. Identify environmental concerns that may affect DASC communication.
- 3. Coordinate with the FSCC to provide DASC requirements.
- 4. Coordinate site security, camouflage, dispersion, and determine trafficability.
- 5. Identify locations for emplacement of communications and support equipment.
- 6. Coordinate priorities for equipment emplacement.
- 7. Identify echelon considerations.
- 8. Identify advanced party/RSOP Team.
- 9. Occupy the site.
- 10. Emplace the DASC.

Performance Standard. Perform the requirement items. The RSOP team will be prepared to discuss decisions/actions.

Prerequisite. None.

External Syllabus Support. MASS Detachment Commander, DASC Chief, security team, representatives from the following sections: S-4, S-2, S-6.

References.

- 1. MCWP 3-16.3, TTP for the Field Artillery Cannon Battery
- 2. MCWP 3-25.5, DASC Handbook
- 3. MCWP 3-16.3, Tactics, Techniques, and Procedures for the Field Artillery Cannon Battery, Chapter 2, Reconnaissance, Selection, and Occupation of a Position
- 4. Squadron SOP

COND-7420 3.0 730 B, R, M (N) E L/S

Goal. Conduct Echelon Operations.

Requirement. Given the references, a Table of Equipment (T/E) and/or Equipment Density List (EDL), Commander's guidance, and an operations order/initiating directive, conduct echelon operations to include the following:

1. Continue DASC operations without pause or loss of situational awareness.
2. Checklists for the transfer of control are on hand and are utilized.
3. Deploy the echelon element to the new position.
4. Brief the operational crew concerning their duties for passage of control.
5. Establish and maintain required communications and connectivity.
6. Updated intelligence information, to include the friendly and enemy order of battle and current ATO is on hand and posted.
7. Receive current status of air defense warnings, weapons conditions, anti-air warfare intelligence, and other pertinent data is updated prior to the transfer of control taking place.
8. Receive current status of all fixed wing aircraft to include scheduled events, alert aircraft, and airborne aircraft is verified.
9. Receive current status of all helicopter and assault support aircraft to include scheduled events, alert aircraft, airborne aircraft, MEDEVAC aircraft, and SAR aircraft is verified.
10. Review status of all Tactical Air and Assault Support Requests and ensure they are plotted and on hand.
11. Verify with the FSCC the locations of friendly artillery and active Fire Support Areas (FSAs), for naval gunfire assets.
12. Maintain continuous coordination with adjacent and higher agencies during preparation for and transfer of OAS/AS control, if required.
13. Pass control of DASC functions to the echelon element.
14. Notify the TACC, FSCC, and other agencies, as necessary, control has been passed.
15. Recover the rear element into the DASC when echelon operations have concluded.
16. Debrief with the DASC OIC and DASC Chief.

Performance Standard. Perform the requirement items listed to conduct echelon operations during a minimum operational tempo three (3) real world operation or training simulation.

Prerequisite. Two (2) CMMR DASC crews.

Range. Range space capable of hosting ground and air fires.

External Syllabus Support. S-1, S-2, S-3, S-4, S-6, MHE, air and fire support missions as defined by operational tempo three (3), digital backbone, and if required, aircraft designated to provide an airborne DASC capability.

References.

1. MCWP 3-25.5, DASC Handbook
2. Squadron SOP

COND-7425 3.0 730 B, M, R (N) E S/L

Goal. Conduct Phasing of Control Ashore.

Requirement. Given the references, a Table of Equipment (T/E) and/or Equipment Density List (EDL), Commander's guidance, and an operations order/initiating directive, conduct phasing of control ashore to include the following:

1. Conduct a Map Survey selecting primary and alternate sites.
2. Checklists for the transfer of control ashore are on hand and utilized.
3. Review the procedures delineated in the operation plan/other directives for the phasing of control ashore and keeps the Naval Tactical Air Control Center informed of current status.
4. Deploy ashore.
5. Brief the operational crew concerning their duties for the passage of control.

6. Establish and maintain required communications and connectivity.
7. Updated intelligence information, to include the friendly and enemy order of battle and current ATO is on hand and posted.
8. Receive current status of air defense warnings, weapons conditions, anti-air warfare intelligence, and other pertinent data is updated prior to the transfer of control taking place.
9. Receive current status of all fixed wing aircraft to include scheduled events, alert aircraft, and airborne aircraft.
10. Receive current status of all helicopter and assault support aircraft to include scheduled events, alert aircraft, airborne aircraft, MEDEVAC aircraft, and SAR aircraft.
11. Review status of all Tactical Air and Assault Support Requests and ensure they are plotted and on hand.
12. Verify with the FSCC the locations of friendly artillery and active Fire Support Areas (FSAs), for naval gunfire assets.
13. Ensure all requirements have been met and then advise the TACC (afloat) and FSCC that the DASC is prepared for the phasing of control of OAS/AS ashore.
14. Ensure the preplanned sequence of phasing control of OAS/AS ashore is completed and the SAD acknowledges/produces any reports required.
15. Advise CLF when ready to assume control of all or a portion of direct air support ashore (specify OAS, Assault Support, Air Recce, EW) at a specified date and time.
16. Advise CLF that control has been transferred and the date/time group that transfer was accomplished.
17. Advise the TACC (afloat)/TADC (ashore) and FSCC that the DASC now has control referencing date and time (local).
18. Maintain continuous coordination with adjacent and higher agencies.
19. Notify all adjacent agencies when transfer of control is completed.
20. As necessary, DASC/SACC liaison team provides further updates of information upon arrival at DASC site.

Performance Standard. Perform the requirement items listed to conduct phasing control ashore during a minimum operational tempo three (3) real world operation or training simulation.

Prerequisite. (1) CMMR ASE crew or (1) CMMR DASC crew.

Range. Range space capable of hosting ground and air fires.

External Syllabus Support. S-1, S-2, S-3, S-4, S-6, MHE, air and fire support missions as defined by operational tempo three (3), digital backbone, Navy TACC, FSCC, Marine TACC, LFOC, SACC/HCS.

References.

1. JP 3-02.1, Joint Doctrine for Landing Forces Operations
2. MCWP 3-16.3, Tactics, Techniques, and Procedures for the Field Artillery Cannon Battery, Chapter 2, Reconnaissance, Selection, and Occupation of a Position
3. MCWP 3-25.5, DASC Handbook
4. MCWP 3-40.3, MAGTF Communications System
5. Squadron SOP

13.14 AVIATION CAREER PROGRESSION MODEL (ACPM) (8000).

13.14.1 Purpose. To enhance professional understanding of Marine Aviation and the MAGTF, and to ensure individuals possess the requisite skills to fill battle command and battle staff positions in support of the ACE and the MAGTF in a joint environment. The focus of training in the Aviation Career Progression Model (ACPM) is on academic events in the following areas:

Marine Air Command and Control System (MACCS)
Aviation Ground Support
Joint Air Operations
ACE Battle Staff

MAGTF
Seabased Operations
Combatant Commander Organizations

13.14.2 General. The ACPM is intended to be an integrated series of academic events contained within each phase of training. Accordingly, ACPM academic events are like any other academic event in that they serve as prerequisites to selected flight events or stages. Additionally, several ACPM academic events are integrated as prerequisites for flight leadership syllabi.

ACPM events may be conducted in group session with an assigned instructor teaching the period of instruction or they may be accomplished by self-paced instruction.

MAWTS-1 is responsible for the update and validity of the ACPM periods of instruction. In the future, courses may be consolidated or revised to meet changing requirements. Refer to the MAWTS-1 ACPM link for the current ACPM program of instruction: <https://mcalms.usmc.mil/>

13.14.3 ACPM (ACPM) STAGE

13.14.3.1 Purpose. To enhance professional understanding of Marine Aviation and the MAGTF, and to ensure individuals possess the requisite skills to fill battle command and battle staff positions in support of the ACE and the MAGTF in a joint environment.

13.14.3.2 General

Prerequisite. None.

Admin Notes. None

Crew Requirements. None.

ACPM-8000	1.0	*	B	(N)	G

Goal. Demonstrate an understanding of the MACCS stage.

Requirement. Pass a closed book examination that encompasses all learning objectives contained in the prerequisites.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. SI.

Prerequisite. 8001, 8002, 8003, 8004, 8005, 8006, 8008.

Reference. C3 Course Catalog.

ACPM-8001	4.0	*	B	(N)	G

Goal. Demonstrate an understanding of the Marine Air Command and Control System (MACCS).

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Describe how the control of aircraft and missiles relates to the other five functions of USMC aviation.
2. Define the control of aircraft and missiles and each of its subcomponents.
3. Define the Marine aviation's philosophy of centralized command and decentralized control.
4. Differentiate between Marine aviation philosophy and Joint aviation philosophy.
5. Identify the principle objectives of the MACCS.
6. Recall the primary role of each agency of the MACCS.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 MACCS Agencies, Functions and the Control of Aircraft and Missiles Class
2. MCWP 3-25.3 MACCS Handbook
3. MCWP 3-25 Control of Aircraft and Missiles

ACPM-8002 4.0 * B (N) G

Goal. Demonstrate an understanding of the Tactical Air Command Center (TACC).

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. State the mission of the TACC.
2. Identify the four organizations of the TACC.
3. List the primary responsibilities of Air Combat Intelligence (ACI).
4. List the primary responsibilities of Future Operations (FOPS).
5. List the primary responsibilities of Future Plans (FPLANS).
6. List the primary responsibilities of Current Operations (COPS).
7. List the major end items used by the TACC.
8. List the system limitations of the TACC.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 TACC Class
2. MAWTS-1 MTACS Class
3. MCWP 3-25.4 TACC Handbook

ACPM-8003 4.0 * B (N) G

Goal. Demonstrate an understanding of the Direct Air Support Center (DASC).

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify the role of the DASC.
2. List the structure and task organization of the DASC.
3. Identify the major end items and their characteristics used by the DASC.
4. List the capabilities and limitations of the DASC.
5. Identify how the DASC is doctrinally employed as part of the MACCS.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 DASC Class
2. MCWP 3-25.5 DASC Handbook

ACPM-8004 4.0 * B (N) G

Goal. Demonstrate an understanding of the Tactical Air Operations Center (TAOC).

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Define the mission of the TAOC.
2. Identify the Mission Essential Tasks (METs) for the TAOC.
3. Identify the structure and task organization of the TAOC.
4. Identify the major end items and their characteristics used by the TAOC.
5. Identify the capabilities and limitations of the TAOC.
6. Identify how the TAOC is doctrinally employed as part of the MACCS.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

3. MAWTS-1 TAOC Class
4. MCWP 3-25.7 TAOC Handbook

ACPM-8005 4.0 * B (N) G

Goal. Demonstrate an understanding of the Marine Air Traffic Control (MATC).

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify the mission of MATC.
2. Identify the Mission Essential Tasks (METs) for MATC.
3. List the structure and task organization of MATC.
4. Identify the major end items and their characteristics used by MATC.
5. Identify the capabilities and limitations of MATC.
6. Identify how MATC is doctrinally employed as part of the MACCS.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 MATC Class
2. MAWTS-1 MMT Class
3. MCWP 3-25.8 MATC Detachment Handbook

ACPM-8006 4.0 * B (N) G

Goal. Demonstrate an understanding of the Low Altitude Air Defense (LAAD).

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify the mission of the LAAD battalion.
2. Identify the structure and task organization of the LAAD battalion.
3. Identify the primary vehicle and surface-to-air weapon used by the LAAD Battalion.
4. Define the LAAD employed guidelines.
5. List the LAAD weapon applications.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 LAAD Class
2. MCWP 3-25.10 LAAD BN Handbook
3. MCWP 3-25.10A LAAD Gunner's Handbook

ACPM-8008 4.0 * B (N) G

Goal. Demonstrate an understanding of the Marine Wing Communications Squadron (MWCS).

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify the mission of the MWCS.
2. Identify the structure and task organization of the MWCS.
3. Identify the Mission Essential Tasks (METs) for the MWCS.
4. Identify the major end items and their characteristics used by MWCS.
5. Identify the capabilities and limitations of the MWCS.
6. Identify how the MWCS is doctrinally employed as part of the MACCS.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 MWCS Employment Class
2. MCRP 3-30B.2 MAGTF Communications Systems
3. NAVMC 3500.56 Communications Training and Readiness Manual

ACPM-8020 1.0 * B (N) G

Goal. Demonstrate an understanding of the ACE stage of the MACCS ACPM.

Requirement. Pass a closed book examination that encompasses all learning objectives contained in the prerequisites.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. 8021, 8022, 8023, 8024, 8025, 8026, 8027, 8028.

Reference. C3 Course Catalog.

ACPM-8021 4.0 * B (N) G

Goal. Demonstrate an understanding of USMC aviation operations doctrine.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify the six functions of Marine aviation to include all their subsets.
2. Identify the organization and mission of the Marine Aircraft Wing (MAW), to include each type of group and squadron.
3. Define who has operational control of organic MAGTF aviation assets during Joint operations.
4. List the four types of sorties the MAGTF Commander makes available to the Joint Force.
5. Identify the purpose of the Air Tasking Order (ATO).
6. Identify the six phases of the air tasking cycle.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

Reference. MCWP 3-2 Aviation Operations

ACPM-8022 4.0 * B (N) G

Goal. Demonstrate an understanding of USMC doctrine for the control of aircraft and missiles.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify how the control of aircraft and missiles relates to the other five functions of USMC aviation.
2. Identify distinctions between Marine aviation philosophy and that of the other services.
3. Identify the principle objectives of the Marine Air Command and Control System (MACCS).
4. Describe how the COMMARFOR may serve as the Joint Force Air
5. Component Commander (JFACC), Airspace Control Authority (ACA), and Area Air Defense Commander (AADC).

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 Control of Aircraft and Missiles Class
2. MCWP 3-25 Control of Aircraft and Missiles

ACPM-8023 4.0 * B (N) G

Goal. Demonstrate an understanding of USMC Offensive Air Support (OAS) doctrine.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify the purpose of the MAGTF Commanders Single Battle Concept.
2. Define the subcategories of OAS.
3. Define the requirements for effective OAS.

4. Define the three types of Deep Air Support (DAS).
5. Define the capabilities and limitations of the OAS function.
6. Identify the elements of a Joint Tactical Air Strike Request (JTAR).
7. Identify the three types of control of Close Air Support (CAS).

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 OAS Class
2. MCWP 3-23 Offensive Air Support

ACPM-8024 4.0 * B (N) G

Goal. Demonstrate an understanding of USMC Assault Support doctrine.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Define the types of assault support operations.
2. Identify which aircraft conduct each of the types of assault support operations.
3. Identify the elements of an Assault Support Request (ASR).
4. List assault support capabilities and limitations.
5. Define the role of the air mission commander and the assault force commander during air assault operations.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 Assault Support Class
2. MAWTS-1 Direct Air Support Requests Class

ACPM-8025 4.0 * B (N) G

Goal. Demonstrate an understanding of USMC Air Reconnaissance doctrine.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify the three categories of air reconnaissance.
2. Identify the four principals of air reconnaissance.
3. Identify the five prerequisites for effective air reconnaissance.
4. Identify the current USMC aircraft that have the mission of air reconnaissance.
5. Identify the form used to request air reconnaissance.
6. Identify the five supporting operations for effective air reconnaissance.
7. Identify the capabilities and limitations of air reconnaissance.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

Reference. MCWP 3-26 Air Reconnaissance

ACPM-8026 4.0 * B (N) G

Goal. Demonstrate an understanding of USMC Electronic Warfare (EW) doctrine.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Define radar.
2. List the three basic radar types.
3. Identify the limitations and characteristics of radar systems.
4. Identify the six guidance systems and how they work.
5. List the three subdivisions of Electronic Warfare (EW).

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 (S) Electronic Warfare Class—for additional training only, secret courseware should not to be used for testing purposesMAWTS-1 Direct Air Support Requests Class
2. MCWP 3-40.5 Electronic Warfare

ACPM-8027 4.0 * B (N) G

Goal. Demonstrate an understanding of USMC Antiair Warfare (AAW) doctrine.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Define AAW.
2. Define the two subsets of AAW.
3. Identify the principles of AAW.
4. Identify the types of Offensive Antiair Warfare (OAAW).
5. Identify the active air defense functions.
6. List three examples of passive air defense measures.
7. Define a Joint Engagement Zone (JEZ), Fighter Engagement Zone (FEZ), Missile Engagement Zone (MEZ), and Base Defense Zone (BDZ).
8. Define the air defense warning conditions.
9. Define the weapons control statuses.
10. Identify the responsibilities of the Regional Air Defense Commander (RADC) and the Sector Air Defense Commander (SADC).

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 Air Defense Class
2. MAWTS-1 Air Defense Commanders Class
3. MAWTS-1 Offensive Antiair Warfare Class

4. MCWP 3-22 Antiair Warfare

ACPM-8028 4.0 * B (N) G

Goal. Demonstrate an understanding of USMC Ground Support (AGS) doctrine.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify the organization responsible for providing AGS to the Marine Aircraft Wing (MAW).
2. Identify the 13 functions of AGS.
3. Identify the five activities that the Marine Wing Support Squadron (MWSS) performs for the ACE when deployed.
4. Identify the four basing concepts for MAGTF Forward Operating Bases (FOBs).
5. List the four classifications of FOBs.
6. Differentiate the distinguishing characteristics of FOBs.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 AGS Class
2. MCWP 3-21.1 Aviation Ground Support

ACPM-8040 1.0 * B (N) G

Goal. Demonstrate an understanding of the Threat stage of the MACCS ACPM

Requirement. Pass a closed book examination that encompasses all learning objectives contained in the prerequisites.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. SI.

Prerequisite. 8041, 8042, 8043, 8044.

Reference. C3 Course Catalog.

ACPM-8041 4.0 * B (N) G

Goal. Demonstrate an understanding of the surface-to-antiair threat to the MAGTF.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Match the system name with the guidance and target aspect for the following Man Portable Air Defense Systems (MANPADS):
 - a. SA-7
 - b. SA-14
 - c. SA-16
 - d. SA-18
2. Match the system name with the guidance and associated radars for the following Radio Frequency Surface-to-Air Missile Systems (RF SAMS):
 - a. SA-2

- b. SA-6
 - c. SA-8
 - d. SA-10
 - e. SA-11
 - f. SA-15
 - g. SA-20
 - h. Roland-III
3. Match the system name with the type and associated radar for the following Air Defense Artillery (AAA):
- a. ZPU 1, 2, 4
 - b. ZSU-23-4
 - c. 2S6
 - d. S-60

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

Reference. MAWTS-1 Marine Aviation Intelligence Reference
(<https://vcepub.tecom.usmc.mil/sites/msc/magtftc/mawts1/departments1/newc3/default.aspx>)

ACPM-8042 4.0 * B (N) G

Goal. Demonstrate an understanding of the fixed wing threat to the MAGTF.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

- 1. Identify the role of the AN-2 Colt.
- 2. Identify the role of the MIG-23 Flogger.
- 3. Identify the role of the MIG-29 Fulcrum.
- 4. Identify the role of the MIG-31 Foxhound.
- 5. Identify the role of the Su-24 Fencer.
- 6. Identify the role of the Su-25 Frogfoot.
- 7. Identify the role of the Su-27 Flanker.
- 8. Identify the role of the Su-30 Flanker.
- 9. Identify the role of the Tu-22M Backfire.
- 10. Identify the role of the Tu-95 Bear.
- 11. Identify the role of the Tu-160 Blackjack.
- 12. Identify the role of the J-7 Fishbed.
- 13. Identify the role of the JH-7 Flounder.
- 14. Identify the role of the J-8 Finback.
- 15. Identify the role of the J-10 Firebird.
- 16. Identify the role of the H-6 Badger.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

Reference. MAWTS-1 Marine Aviation Intelligence Reference
(<https://vcepub.tecom.usmc.mil/sites/msc/magtftc/mawts1/departments1/newc3/default.aspx>)

ACPM-8043 4.0 * B (N) G

Goal. Demonstrate an understanding of the rotary wing threat to the MAGTF.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify the role of the Mi-24 Hind.
2. Identify the role of the SA 342 Gazelle.
3. Identify the role of the Ka-25 Hormone.
4. Identify the role of the Mi-6 Hook.
5. Identify the role of the Mi-28 Havoc.
6. Identify the role of the Mi-8 Hip.
7. Identify the role of the Ka-50 Kokum.
8. Identify the role of the Ka-29 Helix B.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

Reference. MAWTS-1 Marine Aviation Intelligence Reference
(<https://vcepub.tecom.usmc.mil/sites/msc/magtftc/mawts1/departments1/newc3/default.aspx>)

ACPM-8044 4.0 * B (N) G

Goal. Demonstrate an understanding of the missile and Unmanned Aircraft System (UAS) threat to the MAGTF.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Match the system name with the terminal guidance for the following Air-to-Surface Missiles:
 - a. AS-10 Karen
 - b. AS-11 Kilter
 - c. AS-12 Kegler
 - d. AS-14 Kedge
 - e. AS-17 Krypton
2. Match the system name with the warhead and guidance for the following Surface-to-Surface Missiles:
 - a. FROG-7
 - b. SCUD-B
 - c. SCUD-C
 - d. Nodong 1
 - e. C 801
 - f. C 802
3. Identify the mission of the following threat UAS:
 - a. Ababil
 - b. Mohajer
 - c. Harpy
 - d. Heron
 - e. ASN-206
 - f. Pchela-1T

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 Marine Aviation Intelligence Reference
2. <https://vcepub.tecom.usmc.mil/sites/msc/magtftc/mawts1/departments1/ne>
3. [wc3/default.aspx](https://vcepub.tecom.usmc.mil/sites/msc/magtftc/mawts1/departments1/ne)
4. Marine Corps Intelligence Activity Iran Country Handbook (appendix A)
5. Marine Corps Intelligence Activity North Korea Country Handbook (page 86)
6. Marine Corps Intelligence Activity China Country Handbook (appendix A)
<https://www.intelink.gov/mcia/handbook.htm>
7. MCIA UAV Recognition Guide <https://www.intelink.gov/mcia/index.htm>

ACPM-8060 1.0 * B (N) G

Goal. Demonstrate an understanding of the MAGTF stage of the MACCS ACPM.

Requirement. Pass a closed book examination that encompasses all learning objectives contained in the prerequisites.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. SI.

Prerequisite. 8061, 8062, 8063, 8064, 8065.

References. C3 Course Catalog.

ACPM-8061 4.0 * B (N) G

Goal. Demonstrate an understanding of the MAGTF ground combat operations.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify how the Ground Combat Element (GCE) is employed as part of the MAGTF and the capabilities the GCE provides to the MAGTF commander
2. Define the following items related to command and control of ground combat operations:
 - a. Echelons of the GCE headquarters
 - b. Battlespace Organization
 - c. Battlespace Framework
3. Define the five types of amphibious operations.
4. Identify the following items related to offensive operations:
 - a. Types of offensive operations
 - b. Types of attack
 - c. Forms of maneuver
 - d. Distribution of forces
5. Identify the following items related to defensive operations:
 - a. Organization of the defense
 - b. Distribution of forces
 - c. Types of defensive operations
 - d. Defensive methods

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MCDP 1-0 Marine Corps Operations
2. MCWP 3-1 Ground Combat Operations

ACPM-8062 4.0 * B (N) G

Goal. Demonstrate an understanding of fire support coordination in the Ground Combat Element (GCE).

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify the four fire support tasks.
2. List the functions of the senior fire support coordination center (FSCC) in the GCE.
3. List the four steps of the MAGTF Targeting Process.
4. Define the purpose of essential fire support tasks (EFST).

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 MAGTF Targeting and Fire Support Planning Class
2. MCWP 3-16 Fire Support Coordination in the GCE

ACPM-8063 4.0 * B (N) G

Goal. Demonstrate an understanding of MAGTF command and control.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify MAGTF command and support relationships.
2. Identify the purpose and role of the command and control centers in the CE, ACE, GCE, and LCE.
3. Identify the purpose and role of the amphibious command and control facilities.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

Reference. MCWP 3-40.1 MAGTF C2

ACPM-8064 4.0 * B (N) G

Goal. Demonstrate an understanding of MAGTF communications.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify the six characteristics of communications and information systems.
2. Identify the mission and organizational structure of the Communications Battalion.
3. Identify the purpose of the Communications-Electronics Operating Instructions (CEOI) and what information is usually included in it.
4. Identify what information can be found in Annex K of an operations order.
5. Identify the purpose of select fires, support, and ACE specific radio nets.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

Reference. MCWP 3-40.3 MAGTF Communications System

ACPM-8065 4.0 * B (N) G

Goal. Demonstrate an understanding of phasing control ashore.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify types of amphibious operations and how command relationships may change during the conduct of each.
2. Identify how disputes among commanders during amphibious operations are resolved.
3. Identify the key commanders and command relationships.
4. Identify the key characteristics of each phase in phasing the MACCS ashore.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 Phasing Control Ashore Class
2. JP 3-02 Joint Doctrine for Amphibious Operations (Ch 2)
3. MCWP 3-25 Control of Aircraft and Missiles (Appendix C)

ACPM-8066 4.0 * B (N) G

Goal. Demonstrate an understanding of information management.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Match the principles of information management with their descriptions.
2. Define each of the classes of information within an information hierarchy.
3. List the characteristics of quality information.
4. Identify the role and responsibilities of an Information Management Officer (IMO).
5. Define C2 support structure and the three steps followed to develop one.
6. Identify the purpose of an information management matrix and the information management plan.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

Reference. MCWP 3-40.2 Information Management

ACPM-8067 4.0 * B (N) G

Goal. Demonstrate an understanding of Unmanned Aircraft Systems in support of MAGTF operations.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify the four types of payloads.
2. Identify the three attributes that determine UAS Groups.
3. Identify the five different UAS Group Categories.
4. Identify the two types of VMU operational employment.
5. Identify the three components of the RQ-7B Communications Relay Package.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

Reference.

1. MAWTS-1 UAS In Support of MAGTF Operations
2. MCRP 3-42.1A
3. NTP 3-22.3-VMU

ACPM-8080 1.0 * B (N) G

Goal. Demonstrate an understanding of the MAGTF stage of the joint air operations stage of the MACCS ACPM.

Requirement. Pass a closed book examination that encompasses all learning objectives contained in the prerequisites.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. SI.

Prerequisite. 8081, 8082, 8083, 8084, 8085, 8086, 8087, 8088.

Reference. C3 Course Catalog.

ACPM-8081 4.0 * B (N) G

Goal. Demonstrate an understanding of the command and control of joint air operations.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify the definition of joint air operations.
2. Identify the Joint Force Air Component Commander's responsibilities.
3. Identify the five sections that comprise the Joint Air Operations Center.
4. Identify the six phases of the Joint Air Tasking Cycle.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives or pass the DOCNET course listed below with a score of 80% or higher.

Instructor. BI.

Prerequisite. None.

References.

1. DOCNET Course 3-30 (<http://www.dtic.mil/doctrine/docnet/>)

2. MAWTS-1 Joint Air Operations Class
3. JP 3-30 C2 of Joint Air Operations

ACPM-8082 4.0 * B (N) G

Goal. Demonstrate an understanding of the theater air ground system (TAGS).

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. List the primary characteristics of the Theater Air Ground System (TAGS).
2. Identify the elements within the Air Force's Theater Air Control System (TACS) and their primary responsibilities.
3. Identify the aviation command and control elements with the Army Air and Ground System (AAGS) and their primary responsibilities.
4. Identify the aviation elements within the Navy's Composite Warfare Commander (CWC) architecture.
5. Identify the Amphibious Task Force (ATF) construct and its primary responsibilities.
6. Identify the aviation command and control elements within the Special Operations Air-Ground System.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 TAGS ClassMAWTS-1 Joint Air Operations Class
2. ALSA TAGS Pub. (<https://wwwmil.alsa.mil/default.aspx>)

ACPM-8083 4.0 * B (N) G

Goal. Demonstrate an understanding of joint fire support doctrine.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Define joint fires.
2. Define joint fire support.
3. Identify the steps of the joint fire support planning process.
4. List the various elements of the component commander's fires command and control system.
5. Define the various joint control and coordination measures associated with joint fire support.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives or pass the DOCNET course listed below with a score of 80% or higher.

Instructor. BI.

Prerequisite. None.

References.

1. DOCNET Course 3-09 (<http://www.dtic.mil/doctrine/docnet/>)
2. JP 3-09 Joint Fire Support

ACPM-8084 4.0 * B (N) G

Goal. Demonstrate an understanding of close air support (CAS) doctrine.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Explain key roles and responsibilities related to the planning and execution of CAS.
2. Detail key steps in the planning and execution of CAS.
3. Describe various coordination measures used in the planning and conduct of CAS.
4. Describe the manner in which the two types of CAS requests are fulfilled.
5. Identify the goal and purpose of synchronizing CAS with surface fires.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives or pass the DOCNET course listed below with a score of 80% or higher.

Instructor. BI.

Prerequisite. None.

References.

1. DOCNET Course 3-09 (<http://www.dtic.mil/doctrine/docnet/>)
2. MAWTS-1 CAS Class
3. JP 3-09.3 Close Air Support

ACPM-8085 4.0 * B (N) G

Goal. Demonstrate an understanding of joint targeting doctrine.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify types of targets.
2. Identify and describe the six phases of the joint targeting cycle.
3. Identify characteristics of a target.
4. Identify and describe steps in dynamic targeting.
5. Describe roles and responsibilities related to the joint targeting process.
6. Describe key products and processes of the joint targeting cycle.
7. Identify key terms related to the joint targeting process.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives or pass the DOCNET course listed below with a score of 80% or higher.

Instructor. BI.

Prerequisite. None.

References.

4. DOCNET Course 3-09 (<http://www.dtic.mil/doctrine/docnet/>)
5. JP 3-60 Joint Targeting

ACPM-8086 4.0 * B (N) G

Goal. Demonstrate an understanding of the North Atlantic Treaty Organization (NATO).

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify the composition of the NATO alliance.
2. Identify the three key articles of the NATO alliance.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 NATO Class
2. "What is NATO" Brief (http://www.nato.int/welcome/intro_to_NATO_en.ppt)
3. AJP-01(D)

ACPM-8087 4.0 * B (N) G

Goal. Demonstrate an understanding of joint airspace control doctrine.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify the responsibilities of the airspace control authority (ACA).
2. Identify the basic principles for airspace control.
3. Identify the purpose of the airspace control plan (ACP).
4. Identify the purpose of the airspace control order (ACO).
5. Identify the methods of airspace control.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 Airspace Control Authority and Airspace Class
2. JP 3-52 Joint Airspace Control

13.15 T&R SYLLABUS MATRIX.

5974 T&R SYLLABUS MATRIX										
SKILL	CODE	TITLE	POI	DEVICE	COND	PROFICIENCY PERIOD	E-CODE	TIME	PREREQ	CHAIN
CORE SKILL INTRODUCTION (0000 PHASE)										
5900 COMMONS (59CM) STAGE										
59CM	0001	Describe the characteristics of the Marine Air Command and Control System (MACCS).	B	G	(N)	*	*	0	*	*
59CM	0002	Measure circuit performance.	B	G	(N)	*	*	0	*	*
59CM	0003	Configure MACCS radios for secure RF communications.	B	G	(N)	*	*	0	*	*
59CM	0004	Describe proper handling and storage of classified materials.	B	G	(N)	*	*	0	*	*
59CM	0005	Provide cybersecurity technical support for MACCS specific equipment.	B	G	(N)	*	*	0	*	*
59CM	0006	Repair common cables.	B	G	(N)	*	*	0	*	*
59CM	0007	Demonstrate an earth ground installation.	B	G	(N)	*	*	0	*	*
59CM	0008	Inspect common cables.	B	G	(N)	*	*	0	*	*
TOTAL 5900 COMMONS (59CM) STAGE			EVENTS	8		HOURS		0		
AIR SCHOOL (AIRS) STAGE										
AIRS	1069	Integrate Advanced Field Artillery Tactical Data System (AFATDS)	B	G	(N)	*	*	0	*	*
AIRS	1070	Configure the Aviation Command and Control System (AC2S)	B	G	(N)	*	*	0	*	*
AIRS	1072	Manage Windows based systems	B	G	(N)	*	*	0	*	*
AIRS	1074	Administrate LINUX based systems	B	G	(N)	*	*	0	*	*
AIRS	1077	Configure virtualized server computing environment	B	G	(N)	*	*	0	*	*
AIRS	1078	Configure the workstation	B	G	(N)	*	*	0	*	*
AIRS	1080	Configure Tactical Common Operational Picture Server (TCS)	B	G	(N)	*	*	0	*	*
AIRS	1083	Configure Advanced Field Artillery Tactical Data System (AFATDS).	B	G	(N)	*	*	0	*	*
AIRS	1091	Describe Windows based systems	B	G	(N)	*	*	0	*	*
AIRS	1092	Describe UNIX based systems	B	G	(N)	*	*	0	*	*
AIRS	1093	Describe Tactical Data Systems (TDS) Networks	B	G	(N)	*	*	0	*	*

5974 T&R SYLLABUS MATRIX										
SKILL	CODE	TITLE	POI	DEVICE	COND	PROFICIENCY PERIOD	E-CODE	TIME	PREREQ	CHAIN
AIRS	1101	Describe TCS	B	G	(N)	*	*	0	*	*
AIRS	1102	Describe TBMCS	B	G	(N)	*	*	0	*	*
AIRS	1103	Describe a virtualized environment	B	G	(N)	*	*	0	*	*
AIRS	1105	Describe AC2S	B	G	(N)	*	*	0	*	*
AIRS	1106	Describe Advanced Field Artillery Tactical Data System (AFATDS)	B	G	(N)	*	*	0	*	*
AIRS	1108	Maintain C2 Systems	B	G	(N)	*	*	0	*	*
TOTAL AIR SCHOOL (AIRS) STAGE			EVENTS	19		HOURS		0		
CORE SKILL (2000 PHASE)										
EQUIPMENT MANAGEMENT (EM) SKILL										
MMCN	2001	State the physical security requirements for classified areas.	B,R	G	(N)	*	*	1	*	*
MMGT	2070	Complete Maintenance Management Program familiarization.	B,R	G	(N)	*	*	4	*	*
MMGT	2071	Conduct an SL-3 inventory	B	L	(N)	*	*	2	2070	*
DEPL	2100	Write a packing list	B,R	L	(N)	*	*	2	*	*
SYSAD	2256	Setup AC2S	B	L	(N)	*	*	6	*	*
EQUIP	2401	Displace the Aviation Command and Control System (AC2S)	B	L	(N)	*	*	6	*	*
MMCN	2005	Demonstrate an earth ground installation.	B,R,M	L	(N)	1095	*	1	*	*
CSWF	2044	Explain computer and networking equipment	B,R	G	(N)	1095	*	4	*	*
TOTAL EQUIPMENT MANAGEMENT (EM) SKILL			EVENTS	8		HOURS		26		
SYSTEM CONFIGURATION COORDINATOR										
MMCN	2001	State the physical security requirements for classified areas	B,R	G	(N)	*	*	1	*	*
CSWF	2040	Explain Information Security Principles	B,R,M	G	(N)	1095	*	4	*	*
CSWF	2041	Perform account management	B,R,M	L	(N)	1095	*	2	*	*
CSWF	2044	Explain computer and networking equipment	B,R,	G	(N)	1095	*	4	*	*
CSWF	2046	Explain Network Media and Topologies	B,R,	G	(N)	*	*	4	*	*
CSWF	2047	Explain Troubleshooting of Computer and Network equipment	B,R	G	(N)	*	*	4	2044, 2045, 2046	*

5974 T&R SYLLABUS MATRIX										
SKILL	CODE	TITLE	POI	DEVICE	COND	PROFICIENCY PERIOD	E-CODE	TIME	PREREQ	CHAIN
SYSAD	2250	Configure workstation	B,R	L	(N)	*	*	4	2302	*
SYSAD	2251	Configure Peripherals	B,R	L	(N)	*	*	2	*	*
SYSAD	2256	Setup AC2S	B	L	(N)	*	*	6	*	*
SYSAD	2257	Maintain the AC2S data system	B,R	L	(N)	*	*	4	2047, 2256	*
CONFIG	2302	Monitor AC2S system performance	B,R	L	(N)	*	*	2	2047, 2257	*
TOTAL SYSTEM CONFIGURATION COORDINATOR			EVENTS	11	HOURS			37		
MISSION SKILL (3000 PHASE)										
SERVER ADMINISTRATION (SA) SKILL										
MMCN	2000	Operate a common fill device	B,R	L	(N)	*	*	2	*	*
MMCN	2004	Operate the handheld GPS	B,R	L	(N)	*	*	2	*	*
CSWF	2040	Explain Information Security Principles	B,R,M	G	(N)	1095	*	4	*	*
CSWF	2041	Perform account management	B,R,M	L	(N)	1095	*	2	*	*
CSWF	2045	Explain Networking Concepts	B,R	G	(N)	*	*	4	*	*
CSWF	2046	Explain Network Media and Topologies	B,R	G	(N)	*	*	4	*	*
CSWF	2047	Explain Troubleshooting of Computer and Network equipment	B,R	G	(N)	*	*	4	2044, 2045, 2046	*
SYSAD	2250	Configure workstation	B,R	L	(N)	*	*	4	2302	*
SYSAD	2251	Configure Peripherals.	B,R	L	(N)	*	*	2	*	*
SYSAD	2253	Apply Software release updates for tactical data systems	B,R	L	(N)	*	*	4	*	*
SYSAD	2254	Update firmware for tactical data systems.	B,R	L	(N)	*	*	3	*	*
SYSAD	2255	Setup AFATDS	B	L	(N)	*	*	4	*	*
SYSAD	2257	Maintain the AC2S data system	B,R	L	(N)	*	*	4	2047, 2256	*
SYSAD	2258	Setup Tactical COP Workstation (TCW)	B	L	(N)	*	*	8	*	*
SYSAD	2259	Setup Blue Force Tracker (BFT) Tactical Operations Center (TOC) Kit	B	L	(N)	*	*	6	*	*
CONFIG	2301	Perform data recovery on organic C2 systems.	B,R	L	(N)	*	*	4	*	*
CSWF	3000	Administer data system host security measures	B,R,M	L	(N)	1095	*	4	2040, 2042, 2043, 2044, 2045, 2046, 2047	*
CSWF	3001	Perform network management	B,R,M	L	(N)	1095	*	4	2040, 2042, 2044, 2045, 2046, 2047	2040, 2041
MMCN	3044	Fill the handheld GPS with the appropriate crypto	B,R,M	L	(N)	1095	*	2	2000, 2004	*

5974 T&R SYLLABUS MATRIX										
SKILL	CODE	TITLE	POI	DEVICE	COND	PROFICIENCY PERIOD	E-CODE	TIME	PREREQ	CHAIN
EQUIP	3465	Perform maintenance within the AC2S.	B	L	(N)	*	*	6	2070, 2257, 2302	*
TOTAL SERVER ADMINISTRATION			EVENTS	20		HOURS		77		
C2 SYSTEM ADMINISTRATION (C2SA)										
CSWF	2042	Explain risk management involved in operational security	B,R,M	G	(N)	1095	*	4	*	*
CSWF	2043	Explain computer and network cryptography	B,R,M	G	(N)	1095	*	4	*	*
SYSAD	2252	Perform log file management on a tactical data system	B,R	L	(N)	*	*	2	*	*
CONFIG	2302	Monitor AC2S system performance.	B,R	L	(N)	*	*	2	2257	*
DEPL	3060	Prepare system for embark.	B,R,M	L	(N)	1095	*	8	2071, 2100	*
SYSAD	3140	Employ AFATDS	B,R,M	L	(N)	1095	*	2	2255	*
SYSAD	3141	Employ AC2S	B,R,M	L	(N)	1095	*	6	2005, 2040, 2041, 2043, 2045, 2047, 2256, 2257, 2302, 3001, 3060	2040, 2041, 2043, 2045, 2005, 3001, 3060
SYSAD	3142	Employ the BFT TOC Kit	B,R,M	L	(N)	1095	*	2	2259	*
SYSAD	3143	Perform system administrator functions.	B,R,M	L	(N)	1095	*	4	2041, 2250, 2251, 2252, 2253, 2254, 3000	2041, 3001
ACPM	8000	MACCS	B	G	(N)	*	*	1	8001, 8002, 8003, 8004, 8005, 8006, 8008	*
TOTAL C2 SYSTEM ADMINISTRATION (C2SA)			EVENTS	10		HOURS		35		
TDS MANAGEMENT (TDSM)										
MMCN	2002	Extract key material information from COMSEC callout.	B,R	G	(N)	*	*	2	*	*
MMCN	2003	Create a classified area physical security diagram.	B,R	L	(N)	*	*	2	2001	*
DEPL	2101	Extract key information from communication planning documents.	B	L	(N)	*	*	2	*	*
DEPL	2102	Determine supply support requirements.	B	L/S	(N)	*	*	4	*	*
DEPL	2103	Identify power requirements	B,R	L	(N)	*	*	4	*	*
DEPL	2104	Describe common agency doctrinal nets.	B,R	G	(N)	*	*	3	*	*

5974 T&R SYLLABUS MATRIX										
SKILL	CODE	TITLE	POI	DEVICE	COND	PROFICIENCY PERIOD	E-CODE	TIME	PREREQ	CHAIN
MMCN	2006	Develop an embarkation plan.	B,R,M	L/S	(N)	1095	*	2	*	*
MMCN	2007	Identify spectrum management procedures.	B,R,M	G	(N)	1095	*	2	*	*
DEPL	2105	Identify communication service requirements	B,R	G	(N)	*	*	8	*	*
CSWF	3001	Perform network management.	B,R,M	L	(N)	1095	*	4	2040, 2042, 2044, 2045, 2046, 2047	2040, 2041
CSWF	3002	Design network architecture.	B,R,M	L	(N)	1095	*	4	2040, 2042, 2043, 2044, 2045, 2046, 2047	*
DEPL	2106	Identify crew requirements and write a crew schedule	B	G	(N)	*	*	2	*	*
MMGT	3050	Conduct QC procedures.	B,R,M	L	(N)	1095	*	6	2070, 2071	*
DEPL	3061	Identify Operational Requirements.	B,R,M	G	(N)	1095	*	6	2003, 2006, 2007, 2100, 2101, 2102, 2103, 2104, 2105, 2106	*
MMCN	3031	Conduct a site survey	B,R,M	L/S	(N)	1095	*	8	2103	*
MMCN	3030	Deploy a MACCS capability	B,R,M	L	(N)	1095	*	8	2006, 2100, 2101, 2102, 2103, 2104, 2105, 2106, 3060	*
SYSAD	3144	Develop data recovery management plan	B,R,M	L	(N)	1095	*	4	2040, 2042	*
ACPM	8020	ACE	B	G	(N)	*	*	1	8021, 8022, 8023, 8024, 8025, 8026, 8027, 8028	*
TOTAL TDS MANAGEMENT (TDSM)			EVENTS	18		HOURS		72		
TBMCS ADMINISTRATION (TBMCSA)										
TBMCS	2060	Setup TBMCS Equipment	B	L	(N)	*	*	4	*	*
TBMCS	2061	Install TBMCS Software	B	L	(N)	*	*	40	2060	*
TBMCS	3200	Configure TBMCS	B,R	L	(N)	*	*	4	2060, 2061	*
TBMCS	3201	Maintain TBMCS	B,R	L	(N)	*	*	12	3200	*
TBMCS	3203	Employ TBMCS	B,R,M	L	(N)	1095	*	12	3201	*
TOTAL TBMCS ADMINISTRATION (TBMCSA)			EVENTS	5		HOURS		72		
CORE PLUS SKILL (4000 PHASE)										
MAINTENANCE MANAGEMENT										

5974 T&R SYLLABUS MATRIX										
SKILL	CODE	TITLE	POI	DEVICE	COND	PROFICIENCY PERIOD	E-CODE	TIME	PREREQ	CHAIN
MMGT	4250	Assess maintenance shop performance.	B,R,M	L	(N)	1095	*	4	*	*
MMGT	4251	Assess maintenance section funding requirements.	B,R,M	L	(N)	1095	*	2	*	*
TOTAL MAINTENANC MANAGEMENT			EVENTS	2		HOURS		6		
INSTRUCTOR TRAINING (5000 PHASE)										
INSTRUCTOR UNDER TRAINING (IUT) SKILL										
IUT	5000	Introduce principles of instruction	B	L	(N)	*	*	2	*	*
IUT	5010	Describe individual T&R requirements	B	G	(N)	*	*	2	*	*
IUT	5020	Conduct T&R instruction.	B,R,M	L	(N)	90	*	12	5000, 5010	*
IUT	5100	Describe the Aviation Training and Readiness (T&R) Program	B	G	(N)	*	*	2	*	*
IUT	5110	Conduct instructor evaluations	B,R,M	L	(N)	365	*	4	5100	*
IUT	5120	Perform T&R administration	B	L	(N)	*	*	2	5100, 5110	*
IUT	5130	Develop a training plan	B	L	(N)	*	*	2	5100, 5110, 5120	*
INSTRUCTOR UNDER TRAINING (IUT)			EVENTS	7		HOURS		26		
RCQD (6000 PHASE)										
CERTIFICATIONS (CERT)										
CERT	6260	CSWF Technical Support Specialist.	B	L	(N)	*	*	4	2040, 2041, 2042, 2044, 2045, 2046, 2047, 3001	*
CERT	6261	CSWF IT Specialist	B	L	(N)	*	*	4	2040, 2042, 2043, 2044, 2045, 2046, 2047, 3000, 3001, 3002	*
CERT	6262	CSWF System Administrator.	B	L	(N)	*	*	4	2040, 2041, 2042, 2043, 2044, 2045, 2046, 2047, 3000, 3001, 3002	*
CERTIFICATIONS (CERTS)			EVENTS	3		HOURS		12		
DESIGNATIONS (DESG)										
DESG	6320	Basic Instructor (BI)	B	G	(N)	*	*	0.5	5000, 5010, 5020	*
DESG	6321	Senior Instructor (SI)	B	G	(N)	*	*	0.5	5100, 5110, 5120, 5130	*

5974 T&R SYLLABUS MATRIX										
SKILL	CODE	TITLE	POI	DEVICE	COND	PROFICIENCY PERIOD	E-CODE	TIME	PREREQ	CHAIN
DESG	6322	WTI	B	L	(N)	*	*	0.5	6000	*
DESG	6323	Designation as a System Configuration Coordinator	B	G	(N)	*	*	0.5	2001, 2040, 2041, 2044, 2046, 2047, 2250, 2251, 2256, 2257, 2302	*
DESG	6330	Designation as Formal Learning Center (FLC) Instructor.	B	G	(N)	*	*	0.5	6096	*
DESIGNATION (DESG)			EVENTS	5	HOURS			2.5		
SCHOOL (SCHL)										
SCHL	6000	WTI Course	B	G	(N)	*	*	0.5	6320, 6321, 8000, 8020, 8040, 8060, 8080	2002, 3044
SCHL	6013	Complete (AOC IQT) System Administrator Course	B	G	(N)	*	*	0.5	*	*
SCHL	6014	Complete (AOC IQT) Network Administrator Course	B	G	(N)	*	*	0.5	*	*
SCHL	6020	Complete Link 16 Basics Course (JT-100)	B	G	(N)	*	*	0.5	*	*
SCHL	6021	Complete Intro to Multi TDL Network (JT-101) Course	B	G	(N)	*	*	0.5	*	*
SCHL	6022	Complete Multi-TDL Advanced Joint Interoperability Course (MAJIC) (JT-102)	B	G	(N)	*	*	0.5	6021	*
SCHL	6024	Complete Multi TDL Planner Course (JT-201)	B	G	(N)	*	*	0.5	*	*
SCHL	6025	Complete Link 16 Unit Manager (LUM) Course (JT-220)	B	G	(N)	*	*	0.5	*	*
SCHL	6026	Joint Interface Control Officer (JICO) (JT-301)	B	G	(N)	*	*	0.5	6021, 6024	*
SCHL	6027	Advanced JICC Operator Course (JT-310)	B	G	(N)	*	*	0.5	*	*
SCHL	6030	Work Center Supervisor's Course	B	G	(N)	*	*	0.5	*	*
SCHL	6031	MATC Maintenance Manager's Course	B	G	(N)	*	*	0.5	*	*
SCHL	6073	Complete Microminiature Electronic Repair Course	B	G	(N)	*	*	0.5	*	*
SCHL	6093	Micro-miniature/Automated Test Equipment Repair Course	B	G	(N)	*	*	0.5	*	*
SCHL	6094	Advanced Electronics Course.	B	G	(N)	*	*	0.5	*	*

5974 T&R SYLLABUS MATRIX										
SKILL	CODE	TITLE	POI	DEVICE	COND	PROFICIENCY PERIOD	E-CODE	TIME	PREREQ	CHAIN
SCHL	6095	Ground Electronics Maintenance NCO Course.	B	G	(N)	*	*	0.5	*	*
SCHL	6096	Respective instructor development course.	B	G	(N)	*	*	0.5	*	*
SCHL	6097	Mountain Command Control Communications Course.	B	G	(N)	*	*	0.5	*	*
SCHL	6098	Electromagnetic Spectrum Manager Course.	B	G	(N)	*	*	0.5	*	*
SCHOOL (SCHL)			EVENTS	19		HOURS		9.5		
MISSION ESSENTIAL TASK (7000 PHASE)										
TACC CONDITION (TACC)										
COND	7001	Establish communications	B,R,M	L	(N)	730	E	4	*	*
COND	7003	Display the Common Tactical Picture	B,R,M	L/S	(N)	730	E	8	*	*
COND	7004	Coordinate air operations between the MACCS and Joint /Combined/Coalition/Host Nation command and control agencies	B,R,M	L/S	(N)	730	E	18	*	*
COND	7005	Manage the current air tasking order	B,R,M	L/S	(N)	730	E	8	*	*
COND	7007	Maintain a facility and associated command and control systems for the TACC	B,R,M	L/S	(N)	730	E	16	*	*
COND	7009	Coordinate Airspace Coordinating Measures in support of the MAGTF	B,R,M	S/L	(N)	730	E	2	*	*
TACC CONDITION (TACC)			EVENTS	6		HOURS		56		
TAOC CONDITION (TAOC)										
COND	7000	Conduct Airspace Surveillance	B, R, M	L	(N)	730	E	16	*	*
COND	7001	Conduct Positive Control	B, R, M	L/S	(N)	730	E	16	*	*
COND	7002	Coordinate Air Defense Actions	B, R, M	L/S	(N)	730	E	16	*	*
COND	7003	Conduct Dual Site Air Defense Operations	B, R, M	L/S	(N)	730	E	16	*	*
COND	7004	Integrate Operational Air Defense Capabilities	B, R, M	L/S	(N)	730	E	16	*	*
TAOC CONDITION (TAOC)			EVENTS	5		HOURS		80		
DASC CONDITION (DASC)										
COND	7400	Employ an ASLT	B,R,M	L/S	(N)	730	E	3	*	*
COND	7405	Employ an ASE	B,R,M	L/S	(N)	730	E	3	*	*
COND	7410	Employ a DASC	B,R,M	L/S	(N)	730	E	3	*	*
COND	7415	Conduct a Reconnaissance, selection, and Occupation of Position (RSOP) for the DASC	B,R,M	L/S	(N)	730	E	3	*	*
COND	7420	Conduct Echelon Operations	B,R,M	L/S	(N)	730	E	3	*	*

5974 T&R SYLLABUS MATRIX										
SKILL	CODE	TITLE	POI	DEVICE	COND	PROFICIENCY PERIOD	E-CODE	TIME	PREREQ	CHAIN
COND	7425	Conduct Phasing of Control Ashore	B,R,M	L/S	(N)	730	E	3	*	*
DASC CONDITION (DASC)			EVENTS	6		HOURS		18		
ACPM										
AVIATION CAREER PROGRESSION MODEL (ACPM)										
ACPM	8000	MACCS	B	G	(N)	*	*	1	8001, 8002, 8003, 8004, 8005, 8006, 8008	*
ACPM	8001	Marine Air Command and Control System	B	G	(N)	*	*	4	*	*
ACPM	8002	Tactical Air Command Center (TACC)	B	G	(N)	*	*	4	*	*
ACPM	8003	Direct Air Support Center (DASC)	B	G	(N)	*	*	4	*	*
ACPM	8004	Tactical Air Operations Center (TAOC)	B	G	(N)	*	*	4	*	*
ACPM	8005	Marine Air Traffic Control (MATC)	B	G	(N)	*	*	4	*	*
ACPM	8006	Low Altitude Air Defense (LAAD)	B	G	(N)	*	*	4	*	*
ACPM	8008	Marine Wing Communications Squadron (MWCS)	B	G	(N)	*	*	4	*	*
ACPM	8020	ACE	B	G	(N)	*	*	1	8021, 8022, 8023, 8024, 8025, 8026, 8027, 8028	*
ACPM	8021	Aviation Operations	B	G	(N)	*	*	4	*	*
ACPM	8022	Control of Aircraft and Missiles	B	G	(N)	*	*	4	*	*
ACPM	8023	Offensive Air Support (OAS)	B	G	(N)	*	*	4	*	*
ACPM	8024	Assault Support (AS)	B	G	(N)	*	*	4	*	*
ACPM	8025	Air Reconnaissance	B	G	(N)	*	*	4	*	*
ACPM	8026	Electronic Warfare (EW)	B	G	(N)	*	*	1	*	*
ACPM	8027	Anti-Air Warfare (AAW)	B	G	(N)	*	*	4	*	*
ACPM	8028	Aviation Ground Support	B	G	(N)	*	*	4	*	*
ACPM	8040	Threat	B	G	(N)	*	*	1	8041, 8042, 8043, 8044	*
ACPM	8041	Surface to Air threat to the MAGTF	B	G	(N)	*	*	4	*	*
ACPM	8042	Fixed Wing threat to the MAGTF	B	G	(N)	*	*	4	*	*
ACPM	8043	Rotary Wing threat to the MAGTF	B	G	(N)	*	*	4	*	*
ACPM	8044	Missile and UAS threat to the MAGTF	B	G	(N)	*	*	4	*	*
ACPM	8060	MAGTF	B	G	(N)	*	*	1	8061, 8062, 8063, 8064, 8065, 8066, 8067	*
ACPM	8061	Ground Combat Operations	B	G	(N)	*	*	4	*	*
ACPM	8062	Fire Support Coordination in the GCE	B	G	(N)	*	*	4	*	*
ACPM	8063	MAGTF Command and Control	B	G	(N)	*	*	4	*	*
ACPM	8064	MAGTF Communications	B	G	(N)	*	*	4	*	*

5974 T&R SYLLABUS MATRIX										
SKILL	CODE	TITLE	POI	DEVICE	COND	PROFICIENCY PERIOD	E-CODE	TIME	PREREQ	CHAIN
ACPM	8065	Phasing Control Ashore	B	G	(N)	*	*	4	*	*
ACPM	8066	Information Management	B	G	(N)	*	*	4	*	*
ACPM	8067	UAS support of the MAGTF	B	G	(N)	*	*	4	*	*
ACPM	8080	Joint Air Operations	B	G	(N)	*	*	1	8081, 8082, 8083, 8084, 8085, 8086, 8087, 8088	*
ACPM	8081	Command and Control of Joint Air Operations	B	G	(N)	*	*	4	*	*
ACPM	8082	Theater Air Ground System (TAGS)	B	G	(N)	*	*	4	*	*
ACPM	8083	Joint Fire Support	B	G	(N)	*	*	4	*	*
ACPM	8084	Close Air Support (CAS)	B	G	(N)	*	*	4	*	*
ACPM	8085	Joint Targeting	B	G	(N)	*	*	4	*	*
ACPM	8086	North Atlantic Treaty Organization (NATO)	B	G	(N)	*	*	4	*	*
ACPM	8087	Joint Airspace Control	B	G	(N)	*	*	4	*	*
ACPM	8088	Countering Air and Missile Threats	B	G	(N)	*	*	4	*	*
AVIATION CAREER PROGRESSION MODEL (ACPM)			EVENTS	39	HOURS			138		

13.15.1 MIRRORING TABLE.

5974 MIRRORING TABLE			
NEW EVENT	TACC	TAOC	DASC
MMCN-2000	SEC-2001	SEC-2001	SEC-2001
MMCN-2001	SEC-2002	SEC-2002	SEC-2002
MMCN-2002	SEC-2003	SEC-2003	SEC-2003
MMCN-2003	SEC-2004	SEC-2004	SEC-2004
MMCN-2004	FAM-2021	FAM-2022	FAM-2023
MMCN-2005	MMCN-2055		
MMCN-2006		DEPL-2137	DEPL-2137
MMCN-2007		DEPL-2140	DEPL-2140
MMGT-2070	MMGT-2100	MMGT-2100	MMGT-2100
MMGT-2071	MMGT-2101	MMGT-2101	MMGT-2101
DEPL-2100		DEPL-2130	DEPL-2130
DEPL-2101		DEPL-2131	DEPL-2131
DEPL-2102		DEPL-2132	DEPL-2132
DEPL-2103		DEPL-2133	DEPL-2133
DEPL-2104		DEPL-2139	DEPL-2139
DEPL-2105		DEPL-2141	DEPL-2141
DEPL-2106		DEPL-2142	DEPL-2142
SYSAD-2250	SYSAD-2250	SYSAD-2250	SYSAD-2250
SYSAD-2251	SYSAD-2251	SYSAD-2251	SYSAD-2251
SYSAD-2252	SYSAD-2252	SYSAD-2252	SYSAD-2252
SYSAD-2253	SYSAD-2253	SYSAD-2253	SYSAD-2253
SYSAD-2254	SYSAD-2254	SYSAD-2254	SYSAD-2254
SYSAD-2255	SYSAD-2256	SYSAD-2256	SYSAD-2256
SYSAD-2256		SYSAD-2276	SYSAD-2276
SYSAD-2257		SYSAD-2279	SYSAD-2279
SYSAD-2258		SYSAD-2280	SYSAD-2280
SYSAD-2259		SYSAD-2284	SYSAD-2284
TBMCS-2060		SYSAD-4264	SYSAD-4264
TBMCS-2061		SYSAD-4265	SYSAD-4265

5974 MIRRORING TABLE			
NEW EVENT	TACC	TAOC	DASC
CONFIG-2301		CONFIG-2303	
CONFIG-2302		CONFIG-2304	
EQUIP-2401		EQUIP-2425	
CSWF-2040		CSWF-2040	CSWF-2040
CSWF-2041		CSWF-2041	CSWF-2041
CSWF-2042		CSWF-2042	CSWF-2042
CSWF-2043		CSWF-2043	CSWF-2043
CSWF-2044		CSWF-2044	CSWF-2044
CSWF-2045		CSWF-2045	CSWF-2045
CSWF-2046		CSWF-2046	CSWF-2046
CSWF-2047			
CSWF-3000		CANT-3000	CANT-3000
CSWF-3001		CANT-3001	CANT-3001
CSWF-3002		CANT-3002	CANT-3002
MMCN-3030		DEPL-3045	DEPL-3045
MMCN-3031		DEPL-3043	DEPL-3043
MMGT-3050		MMGT-3020	MMGT-3020
MMCN-3044		MMCN-3044	MMCN-3044
DEPL-3060		DEPL-3040	DEPL-3040
DEPL-3061		DEPL-3041	DEPL-3041
SYSAD-3140		SYSAD-3144	SYSAD-3144
SYSAD-3141		SYSAS-3145	SYSAS-3145
SYSAD-3142		SYSAD-3147	SYSAD-3147
SYSAD-3143		SYSAD-3148	SYSAD-3148
EQUIP-3465		EQUIP-3465	
SYSAD-3144	SYSAD-3605		
TBMCS-3200			
TBMCS-3201			
TBMCS-3203			
MMGT-4250			
MMGT-4251			

CHAPTER 14

TACTICAL AIR OPERATIONS/AIR DEFENSE SYSTEMS TECHNICIAN (MOS 5979) INDIVIDUAL TRAINING AND READINESS REQUIREMENTS

	<u>PARAGRAPH</u>	<u>PAGE</u>
CREWMEMBER T&R SYLLABUS REQUIREMENTS	14.0	14-3
TRAINING PROGRESSION MODEL.....	14.1	14-3
PROGRAMS OF INSTRUCTION (POI).....	14.2	14-3
PROFICIENCY AND CURRENCY	14.3	14-4
CERTIFICATION, QUALIFICATION, AND DESIGNATION TABLES	14.4	14-5
SYLLABUS NOTES.....	14.5	14-5
CORE INTRODUCTION PHASE (0000).....	14.6	14-6
CORE PHASE (2000)	14.7	14-14
MISSION PHASE (3000)	14.8	14-49
CORE PLUS PHASE (4000).....	14.9	14-59
MISSION PLUS PHASE (4500)	14.10	14-60
INSTRUCTOR TRAINING PHASE (5000).....	14.11	14-60
CERTIFICATIONS, QUALIFICATIONS, AND DESIGNATIONS (CQD) PHASE (6000)	14.12	14-66
MISSION ESSENTIAL TASK (MET) PHASE (7000).....	14.13	14-75
AVIATION CAREER PROGRESSION MODEL (8000).....	14.14	14-88
T&R SYLLABUS MATRIX.....	14.15	14-105

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CHAPTER 14

TACTICAL AIR OPERATIONS/AIR DEFENSE SYSTEMS TECHNICIAN (MOS 5979) INDIVIDUAL TRAINING AND READINESS REQUIREMENTS

14.0 CREW MEMBER T&R SYLLABUS REQUIREMENTS. This T&R Syllabus is based on specific goals and performance standards designed to ensure individual proficiency in Core and Mission Skills. The goal of this chapter is to develop individual and unit warfighting capabilities.

14.1 TRAINING PROGRESSION MODEL. This model represents the recommended average training progression for the Tactical Air Operations/Air Defense Systems Technician crewmember. Units should use the model as a point of departure to generate individual training plans.

MOS 5979 Career Progression Model																														
									COMMAND AND CONTROL NETWORK MANAGEMENT (C2NM)																					
									DATA LINK ADMINISTRATION (DLA)																					
									NETWORK ADMINISTRATION (NA)																					
ENTRY LEVEL							BI				EQUIP MGMT (EM)												SI							
2	4	6	8	10	2	4	6	8	10	12	14	16	18	20	22	24	36	38	40	42	44	48	50	52	54	56				

14.2 PROGRAMS OF INSTRUCTION (POI). These tables reflect average time-to-train versus the minimum to maximum time-to-train parameters in the Training Progression Model.

14.2.1 Basic POI.

MACCS MAINTENANCE MOS 5979		
BASIC POI		
WEEKS	PHASE OF INSTRUCTION	UNIT RESPONSIBLE
0-40	CORE INTRODUCTION PHASE	MCCES
41-70	CORE PHASE	TACTICAL SQUADRON
71-119	MISSION PHSAE	TACTICAL SQUADRON
119-123	CORE PLUS PHASE	TACTICAL SQUADRON

14.2.2 Refresher POI.

MACCS MAINTENANCE MOS 5979		
REFRESHER POI		
WEEKS	PHASE OF INSTRUCTION	UNIT RESPONSIBLE
VARIES	CORE PHASE	TACTICAL SQUADRON
VARIES	MISSION PHASE	TACTICAL SQUADRON
VARIES	CORE PLUS PHASE	TACTICAL SQUADRON

NOTE 1: TRAINING DURATIONS VARIES BY POSITION BEING TRAINED. SEE PROGRESSION MODEL FOR NOTIONAL TRAINING TIMES.

14.3 PROFICIENCY AND CURRENCY.

14.3.1 Event Proficiency. Event proficiency is defined as successful completion of the performance standard as determined by the instructor or evaluator. Event completion is predicated upon demonstrated proficiency. Once completed, it is logged in M-SHARP by entering the appropriate event code. M-SHARP automatically updates the event proficiency date to reflect the completion date.

14.3.2 Skill Proficiency. Proficiency is a measure of achievement of a specific skill. To attain Individual Skill proficiency, an individual must be simultaneously proficient in all events for that Skill. Individuals may be attaining proficiency in some skills while maintaining proficiency in others. Refresher training is required once an individual has been absent from a technician billet for 36 months or longer. Upon return, the individual will complete R-coded events.

14.3.2.1 Maintaining Skill Proficiency. Once attained, skill proficiency is maintained by executing those events which have a Proficiency Period (Maintain events). Proficiency Periods establish the maximum time between event demonstrations. Should proficiency be lost in any maintain event, for a specific skill, that skill proficiency is temporarily lost. Skill proficiency can be re-attained by again demonstrating proficiency in the event(s) that are not proficient. For flying communities, an individual shall complete delinquent events with a proficient instructor, crewman/flight lead as delineated by the T/M/S Syllabus Sponsor (see Chapter 3 of the Program Manual on specific instructor requirements for Low Altitude Flight, Night Systems, ACM, DM, DACM, DCM, FAC(A)).

14.3.2.2 Loss of Individual Skill Proficiency. Should an individual lose proficiency in all maintain events in a skill, the individual will be assigned to the Refresher POI for the skill. To regain skill proficiency, the individual must demonstrate proficiency in all R-coded events for the skill.

14.3.2.3 Loss of Unit Skill Proficiency. If an entire unit loses proficiency in an Event, unit instructors shall regain proficiency by completing the event with an instructor from a like unit. If not feasible, the instructor shall regain proficiency by completing the event with another instructor. For flying communities, if a unit has only one instructor and cannot complete the event with an instructor from another unit, the instructor shall regain proficiency with another aircraft commander or as designated by the commanding officer.

14.3.2.4 Proficiency Status. Proficiency is a “Yes/No” status by skill assigned to an individual. When an individual attains and maintains Core Skill Proficiency (CSP), Mission Skill Proficiency (MSP), Core Plus Skill Proficiency (CPSP), or Mission Plus Skill Proficiency (MPSP), the individual may count towards CMMR or CMTS.

14.3.3 Skill Currency. Currency is a control measure used to provide an additional margin of safety based on exposure frequency to a particular skill and applies to all MOS's that must comply with NATOPS and OPNAV requirements. It is a measure of time since the last event demanding that specific skill. Specific currency requirements for aircrew individual type mission profiles can be found in Chapter 3.

14.4 CERTIFICATION, QUALIFICATION AND DESIGNATION TABLES . The tables below delineate T&R events required to be completed to attain proficiency for select certifications, qualifications and designations. In addition to event requirements, all required stage lectures, briefs, squadron training, prerequisites, and other criteria shall be completed prior to completing final events. Certification, qualification and designation letters signed by the commanding officer shall be placed in training Performance Records and NATOPS. See Chapter 3 of the Aviation T&R Program Manual on regaining lost qualifications.

14.4.1 INSTRUCTOR DESIGNATIONS.

MOS 5979 INSTRUCTOR DESIGNATIONS	
INSTRUCTOR DESIGNATION	EVENTS
BASIC INSTRUCTOR (BI)	5000, 5010, 5020, 6320
SENIOR INSTRUCTOR (SI)	5000, 5010, 5020, 5100, 5110, 5120, 5130, 6320, 6321
WEAPONS AND TACTICS INSTRUCTOR (WTI)	6000, 6320, 6321, 6322, 8000, 8020, 8040, 8060, 8080
FORMAL LEARNING CENTER INSTRUCTOR (FLCI)	6330

14.4.2 CERTIFICATIONS, QUALIFICATIONS, AND DESIGNATIONS.

MOS 5979 CERTIFICATIONS, QUALIFICATIONS, AND DESIGNATIONS (CQD)	
DESIGNATIONS	EVENTS
SYSTEM CONFIGURATION COORDINATOR	6324
CERTIFICATION	EVENTS
CSWF TECHNICAL SUPPORT SPECIALIST	CERT-6260
CSWF NETWORK OPERATIONS SPECIALIST	CERT-6261
CSWF SYSTEM ADMINISTRATOR	CERT-6262

14.5 SYLLABUS NOTES.

14.5.1 Environmental Conditions Matrix.

Environmental Conditions	
Code	Meaning
(N)	May be conducted day or night. If at night, may be aided or unaided.

14.5.2 Device Matrix.

DEVICE	
Symbol	Meaning
L	Event shall be conducted live (conducted in the field/garrison, during an exercise, etc). Requires live (non-simulated) execution of the event.
L/S	Event performed live preferred/simulator optional.
S/L	Event performed in simulator preferred/live optional.
G	Ground/academic training. May include Distance Learning, CBT, lectures, self paced.

14.5.3 Program of Instruction Matrix.

PROGRAM OF INSTRUCTION MATRIX		
Program of Instruction (POI)	Symbol	Aviation Ground
Basic	B	Initial MOS Training
Refresher	R	Return to community from non (MOS/Skill) associated tour
Maintain	M	All individuals who have attained CSP/MSP/CPD by initial POI assignment are re-assigned to the M POI to maintain proficiency.

14.5.4 Event Terms.

EVENT TERMS	
TERM	DESCRIPTION
Discuss	An explanation of systems, procedures, or tactics during the brief, exercise, or debrief. Student is responsible for knowledge of procedures.
Demonstrate	The description and performance of a particular event by the instructor, observed by the student. The student is responsible for knowledge of the procedures prior to the demonstration of a required event.
Introduce	The instructor may demonstrate a procedure or event to a student, or may coach the student through the maneuver without demonstration. The student performs the procedures or maneuver with coaching as necessary. The student is responsible for knowledge of the procedures.
Practice	The performance of a maneuver or procedure by the student that may have been previously introduced in order to attain a specified level of performance.
Review	Demonstrated proficiency of an event by the student.
Evaluate	Any event designed to evaluate team/crew standardization that does not fit another category.

14.6 CORE INTRODUCTION PHASE (0000).

14.6.1 Purpose. To provide entry level instruction to develop the basic skills necessary to become a MOS 5979 Tactical Air Operations/Air Defense Systems Technician. This training is completed upon graduation from the Air Defense Systems Technician Course.

14.6.2 General.

14.6.2.1 Admin Notes. None.

14.6.2.2 Prerequisite. Meet the requirement delineated in the MOS Manual (NAVMC 1200).

14.6.2.3 Stages. The following stages are included in the Core Skill Introduction Phase of training.

PAR NO.	STAGE NAME	PAGE NUMBER
14.6.3	5900 COMMONS (59CM) STAGE	14-7
14.6.4	AIRS SCHOOL (AIRS) STAGE	14-11

14.6.3 5900 COMMONS (59CM) STAGE

14.6.3.1 Purpose. To provide entry-level instruction to 5900 personnel to develop the basic skills necessary to safely setup, operate, and maintain Marine Air Command and Control System (MACCS) Systems. This training phase is complete upon graduation of the 5900 commons course.

14.6.3.2 General.

Admin Notes. 5900 Commons Course (CID: M091J31), MCCES, located in 29 Palms, CA.

Prerequisites. None.

Crew Requirements. None.

59CM-0001 0 * B (N) G

Goal. Describe the characteristics of the Marine Air Command and Control System (MACCS).

Requirement. Given the references:

1. Describe the six functions of Marine Aviation.
2. Describe the mission of the MACCS.
3. Describe the organization of the MACCS tactical agencies resident within the Marine Air Control Group (MACG).
4. Describe the function(s) of each MACCS agency within the MACG.
5. Describe the MACCS specific equipment systems within the MACG.
6. Describe the characteristics of the Multi-Tactical Data Link network used within the MACG.

Performance Standard. Pass an exam.

Instructor. FLCI.

Prerequisite. None.

References.

1. Control of Aircraft and Missiles MCWP 3-25
2. Direct Air Support Center Handbook MCRP 3-20F.5
3. Antenna Handbook MCRP 8-10B.11
4. Harris Radio Communications in the Digital Age, Volume Two: VHF/UHF Technology 00 132465
5. Interoperability Standard for the Joint Range Extension Applications Protocol (JREAP) STANAG 5518
6. Joint Multi-Tactical Digital Information Link (TADIL) Operating Procedures CJCSM 6120.01A
7. Joint Range Extension Application Protocol (JREAP), Interoperability Standard MIL-STD-3011
8. Low Altitude Air Defense (LAAD) Gunner's Handbook MCRP 3-20F.9
9. Aviation Operations MCWP 3-20
10. Marine Air Traffic Control Detachment Handbook MCRP 3-20F.7
11. Radio Communications in the Digital Age: HF Technology Vol 1
12. Radio Operators Handbook MCRP 8-10B.10
13. Marine Tactical Air Command Center Handbook MCRP 3-20F.2
14. Tactical Air Operations Center Handbooks MCRP 3-20F.6
15. Tactical Data Link (TDL) Link-11 Message Standard (U) MIL-STD-6011
16. Tactical Data Link (TDL) Link-16, DoD Interoperability Standard MIL-STD-6016

59CM-0002 0 * B (N) G

Goal. Measure circuit performance.

Requirement. Given the references:

1. Observe safety precautions.

2. Measure electronic parameters (voltage, current, resistance, time).
3. Calculate electronic parameters.
4. Identify electronic components.
5. Read schematics.

Performance Standard. Pass an exam.

Instructor. FLCI.

Prerequisite. None.

References.

1. Electronics Technician: Volume 1 – Safety NAVEDTRA 12411-A
2. Getting Started in Electronics (Forrest M. Mims III) ISBN: 0-94-505328-2
3. Navy Electricity and Electronics Training Series, Module 2- Alternating Current and Transformers
4. NAVEDTRA 14174A 2012 edition
5. Navy Electricity and Electronics Training Series, Module 3- Circuit Protection, Control, and Measurement NAVEDTRA 14175A 2013 edition

59CM-0003 0 * B (N) G

Goal. Configure MACCS radios for secure RF communications.

Requirement.

1. Describe the characteristics of RF propagation.
2. Describe the capabilities and limitations of the radio.
3. Configure radio.
4. Assemble radio.
5. Disassemble radio.
6. Demonstrate safe handling of controlled items.
7. Load crypto.
8. Load a frequency.
9. Load time.

Performance Standard. Pass an exam.

Instructor. FLCI.

Prerequisite. None.

References.

1. Antenna Handbook MCRP 8-10B.11
2. Harris Radio Communications in the Digital Age, Volume Two: VHF/UHF Technology 00 132465
3. Radio Communications in the Digital Age: HF Technology Vol 1
4. Radio Operators Handbook MCRP 8-10B.10

59CM-0004 0 * B (N) G

Goal. Describe proper handling and storage of classified materials.

Requirement.

1. State the different levels of classification.
2. State the marking Requirements for each level of classification.
3. State the Two-Person Integrity (TPI) rule.
4. State storage procedures for each level of classification.
5. Identify transportation Requirements for classified material.

6. Identify the approved security containers utilized for storage.
7. Identify the procedures for handling Controlled Cryptographic Items (CCIs).

Performance Standard. Pass an exam.

Instructor. FLCI.

Prerequisite. None.

References.

1. Antenna Handbook MCRP 8-10B.11
2. Harris Radio Communications in the Digital Age, Volume Two: VHF/UHF Technology 00 132465
3. Radio Communications in the Digital Age: HF Technology Vol 1
4. Radio Operators Handbook MCRP 8-10B.10
5. United States Marine Corps Information and Personnel Security Program Manual MCO 5510.18B

59CM-0005 0 * B (N) G

Goal. Provide cybersecurity technical support for MACCS specific equipment.

Requirement. Provided the references and appropriate equipment:

1. Install and configure hardware, software, and peripheral equipment.
2. Manage accounts, networks, and access to systems and equipment.
3. Monitor client-level computer system performance.
4. Diagnose and resolve operator reported system incidents.
5. Troubleshoot system hardware and software.
6. Assist in the execution of disaster recovery continuity of operations plans.

Performance Standard. Pass an exam.

Instructor. FLCI.

Prerequisite. None.

Reference.

IT Essentials PC Hardware and Software Companion Guide 3rd Edition ISBN-13:978-1-58713-199-8

59CM-0006 0 * B (N) G

Goal. Repair common cables.

Requirement. Provided the appropriate equipment repair:

1. Ethernet/RJ-45 cable.
2. BNC cable.
3. RF cable.
4. Power cable.
5. Data cable.

Performance Standard. Pass an exam.

Instructor. FLCI.

Prerequisite. None.

References.

1. IT Essentials PC Hardware and Software Companion Guide 3rd Edition ISBN-13:978-1-58713-199-8

2. Standard Maintenance Practices Miniature/Microminiature (2M) Electronic Assembly Repair Organizational/Intermediate/Depot Level TM 5895-45/1_
3. TIA/EIA-568-B.1-2001
4. Twisted Pair Cable test set 33-933NV Operator Manual 6510-00-5037
5. User's Manual for Cable Analyzer, DSP-4300/AN TM 10704B-OI/1

59CM-0007 0 * B (N) G

Goal. Demonstrate an earth ground installation.

Requirement. Given the references, grounding kit and PPE, perform the following:

1. Identify ground tolerances for equipment and personnel.
2. Identify methods of grounding.
3. Identify a method for improving a ground.
4. Identify proper location to test a ground.
5. Install an earth ground.
6. Verify proper grounding reading utilizing appropriate test equipment.

Performance Standard. Pass an exam.

Instructor. FLCI.

Prerequisite. None.

References.

1. Earth Grounding Pamphlet CECOM TR-96-2
2. Getting Down to Earth: A Practical Guide to Earth Resistance Testing (Megger, 2005) MEG-456/MIL/5M/11.2005
3. Grounding Procedures for Electromagnetic Interference Control and Safety TM 9406-15_ Grounding Techniques TC 11-6
4. Grounding, Bonding, and Shielding for Electronic Equipment and Facilities (DEC 1987) MIL-HDBK-419A
5. Intermediate and Depot Maintenance Manual for 6470-BM Kit 300FT TM 10069B-ID/1
6. Operation and Maintenance Instructions with Illustrated Parts Breakdown for Ground Resistance Ohmmeter Model R1L-C TM 10069A-14
7. User Manual for Clamp-On Ground Resistance Tester, Models 3711 and 3731 TM 10096B-10/1

59CM-0008 0 * B (N) G

Goal. Inspect common cables.

Requirement. Provided the appropriate equipment:

1. Ethernet/RJ-45 cable.
2. BNC cable.
3. RF cable.
4. Power cable.
5. Data cable.
6. Fiber optic cable.

Performance Standard. Pass an exam.

Instructor. FLCI.

Prerequisite. None.

References.

1. Fiber Optics Technicians Manual 3rd Edition ISBN-1-4018-9699-5
2. IT Essentials PC Hardware and Software Companion Guide 3rd Edition ISBN-13:978-1-58713-199-8
3. Standard Maintenance Practices Miniature/Microminiature (2M) Electronic Assembly Repair Organizational/Intermediate/Depot Level TM 5895-45/1_
4. TIA/EIA-568-B.1-2001
5. Twisted Pair Cable test set 33-933NV Operator Manual 6510-00-5037
6. Understanding Fiber Optics 5th Edition ISBN 0-13-117429-0
7. User's Manual for Cable Analyzer, DSP-4300/AN TM 10704B-OI/1

14.6.4 AIRS SCHOOL (AIRS) STAGE

14.6.4.1 Purpose. To provide entry-level instruction to develop the basic skills necessary to configure and setup equipment, conduct preventive maintenance and limited technical inspections on assigned equipment. This training phase is complete upon graduation and assigned primary MOS.

14.6.4.2 General.

Admin Notes. Hours are not utilized in the header information for each of the blocks of training provided by MCCES. Air Defense Systems Technician Course (CID: M09KAS1), MCCES, located in 29 Palms, CA.

Prerequisite.

1. Graduate from the 5900 Commons Course (M091J31).

Crew Requirements. None.

AIRS-1071 0 * B (N) G

Goal. Maintain network circuits with the Aviation Command and Control System (AC2S).

Requirement. Given the references, AC2S, and a simulated communication plan:

1. Perform an operational check of network circuits.
2. Maintain network circuits.
3. Maintain networking devices.

Performance Standard. Pass an exam.

Instructor. FLC instructor.

Prerequisite. None.

Reference.

1. Applicable system manuals

AIRS-1075 0 * B (N) G

Goal. Manage Networked Operating Systems (NOS).

Requirement. Given a network site diagram, conduct the following:

1. Configure networking components.
2. Configure network services.
3. Configure NFS.
4. Configure DFS.

Performance Standard. Pass an exam.

Instructor. FLC instructor.

Prerequisite. None.

References.

1. Active Directory ISBN #0-596-00466-4
2. Managing NFS and NIS ISBN #0-937175-75-7
3. Kerberos the definitive guide ISBN #0-596-00403-6
4. The Official Samba-3 how to and reference guide ISBN #0-13-145355-6
5. Solaris Performance administration ISBN #0-07-011768-3
6. Essential System Administration 3rd edition ISBN # 0-596-0034-9
7. Essential System Administration 2nd edition ISBN #0-937175-80-3
8. Essential System Administration ISBN # 0-937175-80-3
9. Solaris 2.6 Administration certification part 1 ISBN #1-57870-085-x
10. Solaris Essential reference ISBN #0-7357-0023-0
11. Solaris 2.x for Managers and Administrators ISBN #1-56690-150-2
12. MarineNet Course "CompTIA Network+ 2012: Networking Concepts Part 1" Course code - CSCTMTA01
13. MarineNet Course "CompTIA Network+ 2012: Networking Concepts Part 2" Course code - CSCTMTA01

AIRS-1079 0 * B (N) G

Goal. Configure Network Security.

Requirement. Given a network diagram and networking devices conduct the following:

1. Configure computer security components.
2. Configure security on switches.
3. Configure security on routers.
4. Construct Access Control List (ACL).
5. Configure / verify group policy settings.
6. Configure firewall.
7. Verify connectivity.

Performance Standard. Pass an exam.

Instructor. FLC instructor.

Prerequisite. None.

References.

1. Cisco IOS in a nutshell ISBN #0-596-00869-4
2. Managing NFS and NIS ISBN #0-937175-75-7
3. Networking for dummies ISBN #0-7645-0498-3
4. Exchange Server Cook Book ISBN #0-596-00717-5

AIRS-1109 0 * B (N) G

Goal. Utilize the Common Interactive Broadcast (CIB).

Requirement. Given the references and equipment:

1. Describe the CIB.
2. Emplace CIB equipment for operations.
3. Fill CIB equipment crypto.
4. Operate CIB equipment.

Performance Standard. Pass an exam.

Instructor. FLC instructor.

Prerequisite. None.

Reference.

1. Applicable manuals.

AIRS-1110 0 * B (N) G

Goal. Configure the Aviation Command and Control System (AC2S).

Requirement. Given the references, an AC2S with a simulated communication plan; configure the following:

1. Initialize system for operations.
2. Perform corrective maintenance.
3. Configure data links.
 - a. Link 16
 - b. JREAP A
 - c. JREAP B
 - d. JREAP C
4. Perform data link maintenance.
5. Configure network devices.
6. Perform fault check procedures.
7. Configure equipment for digital communications.
8. Perform digital communications operational checks.
9. Perform system shutdown procedures.

Performance Standard. Pass an exam.

Instructor. FLC instructor.

Prerequisite. None.

Reference.

1. Applicable system manuals

AIRS-1111 0 * B (N) G

Goal. Operate the Cooperative Engagement Capability (CEC) equipment.

Requirement. Given the references and equipment:

1. Describe CEC.
 1. Initialize CEC equipment for operations.
 2. Perform corrective maintenance on CEC equipment.
 3. Perform system shutdown procedures.

Performance Standard. Pass an exam.

Instructor. FLC instructor.

Prerequisite. None.

References.

1. TM 11406B-OR/2

2. TM 11406B-OI/1

AIRS-1116 0 * B (N) G

Goal. Perform basic Linux functions.

Requirement. Given the references:

1. Describe the Linux file structure.
2. Navigate a Linux file system.
3. Manipulate a Linux file.
4. Perform text editing on a Linux file.

Performance Standard. Pass an exam.

Instructor. FLC instructor.

Prerequisite. None.

References.

1. ISBN 978-0-131-48005-6 UNIX and Linux System Administration Handbook
2. ISBN 978-0-321-99754-8 UNIX and Linux: Visual Quickstart Guide

14.6 CORE PHASE (2000)

14.6.1 Purpose. To develop core skill proficiency for 5979 personnel to be able to perform duties while assigned to the MACCS.

1. Basic Technicians will gain core skill proficiency in basic tactical data system operations and maintenance.
2. Advanced Technicians will gain proficiency in advanced tactical data system maintenance and maintenance management concepts.
3. Crew Chiefs will gain core skill proficiency in managing crew level communications operations to include radio operations, communications systems operations and maintenance, SATCOM operations, and maintenance management. This training will provide the crew chief the skills necessary to run a Tactical Data Systems crew.

14.6.2 General.

14.6.2.1 Admin Notes.

1. Training in this phase does not preclude simultaneous training in the mission skill and core plus phases provided applicable prerequisites have been met.
2. Individual core skills are learned and mastered using a varied combination of written exams, scenarios and practical demonstrations of proficiency.

14.6.2.2 Prerequisite. None.

14.6.2.3 Stages. The following stages are included in the Core Skill Introduction Phase of training.

PAR NO.	STAGE NAME	PAGE NUMBER
14.6.3	MACCS MAINTENANCE COMMON (MMCN)	14-15
14.6.4	CYBER SECURITY WORKFORCE (CSWF)	14-18

14.6.5	MAINTENANCE MANAGEMENT (MMGT)	14-22
14.6.6	DEPLOYMENT (DEPL)	14-24
14.6.7	SYSTEM ADMINISTRATION (SYSAD)	14-27
14.6.8	NETWORK ADMINISTRATION (NETAD)	14-28
14.6.9	CONFIGURATION (CONFIG)	14-31
14.6.10	EQUIPMENT (EQUIP)	14-34
14.6.11	TACTICAL DATA LINK (TDL)	14-36

14.6.3 MACCS MAINTENANCE COMMON (MMCN) STAGE

14.6.3.1 Purpose. To provide entry-level skills that are common to all 5900 occupational field technicians that will be used in the performance of assigned duties within the Marine Air Command and Control System (MACCS).

14.6.3.2 General.

Admin Notes. The following events establish the foundational skills required to be successful in the cyber security workforce.

Prerequisite. None.

Crew Requirements. None.

MMCN-2000 2.0 * B, R (N) L

Goal. Operate a common fill device.

Requirement. Given two loaded common fill devices and a zeroized cryptographic device, perform the following:

1. Describe the purpose of a common fill device.
2. Define the common fill device loading procedure.
3. Configure the common fill device.
4. Identify common fill device indicators and messages.
5. Transfer key material to Controlled Cryptographic Item (CCI) equipment.
6. Transfer cryptographic information from common fill device to common fill device.
7. Destroy superseded key material within the cryptographic fill device.

Performance Standard. With the aid of reference, load key material into appropriate COMSEC equipment using a fill device and destroy superseded key material without error.

Instructor. BI

Prerequisite. None.

Reference.

1. EKMS-1_, Electronic Key Management System

MMCN-2001 1.0 * B, R (N) G

Goal. State the physical security requirements for classified areas.

Requirement. Given a tactical scenario and references, identify the following:

1. Purpose of a guard schedule.
2. Purpose of access control.

3. Purpose of the entry control point.
4. Perimeter barrier requirements.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. BI

Prerequisite. None.

Reference.

1. MCO P5530.14_, Marine Corps Physical Security Program Manual

MMCN-2002	2.0	*	B, R	(N)	G

Goal. Extract key material information from COMSEC callout.

Requirement. Given a COMSEC callout and references, perform the following:

1. State the purpose of the COMSEC callout.
2. Identify the five main pieces of key information:
 - a. Short Title
 - b. Edition
 - c. Segment
 - d. Classification
 - e. Supersession date
3. Identify segment roll over dates and time.
4. Identify short titles applicable to specific implementations within the unit.

Performance Standard. With the aid of reference, state the purpose and identify the key information on the callout. Minor errors corrected by the trainee are acceptable.

Instructor. BI

Prerequisite. None.

References.

1. EKMS-1_, Electronic Key Management System
2. MCWP 3-40.3, MAGTF Communications System

MMCN-2003	2.0	*	B, R	(N)	L

Goal. Create a classified area physical security diagram.

Requirement. Given a tactical scenario and references, create a diagram that includes the following:

1. Entry control point(s).
2. Perimeter barrier.
3. Communication lines.
4. Storage area locations.

Performance Standard. With the aid of reference, draw a diagram depicting the information listed in the requirement. Instructor will validate that the diagram supports the scenario. Minor errors corrected by the trainee are acceptable.

Instructor. BI

Prerequisite. 2001

References.

1. MCO P5530.14, Marine Corps Physical Security Program Manual
2. FM 5-34, Engineer Field Data

MMCN-2004 2.0 B, R (N) L

Goal. Operate the handheld GPS.

Requirement. Perform the following:

1. State the purpose of the handheld GPS.
2. State the characteristics of the handheld GPS.
3. Find current location (coordinates including elevation).
 - a. MGRS
 - b. LAT/LONG
 - c. UTM/UPS
4. Plot a way point.
5. Given coordinates, navigate to a location.
6. Load TOD into a radio.

Performance Standard. Given a handheld GPS, complete the requirements without error. Navigation part of requirement will be three points within a one mile radius within one hour

Instructor. BI

Prerequisite. 2000

Reference.

1. TM 11-5820-1172-13, Defense Advanced GPS Receiver (DAGR), AN/PSN-13

MMCN-2005 1.0 1095 B,R,M (N) L

Goal. Demonstrate an earth ground installation.

Requirement. Given a grounding kit and the reference:

1. Identify ground tolerances for equipment and personnel.
2. Identify methods of grounding.
3. Identify a method for improving a ground.
4. Identify proper location to test a ground.
5. Install an earth ground.
6. Create grounding pits.
7. Connect grounding braids/cables.
8. Test grounds with TMDE.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. BI

Prerequisite. None.

Reference.

1. TM 9406-15, Ground Procedures Manual
2. MIL-STD-188-125
3. TM 5-690

MMCN-2006 2.0 1095 B, R, M (N) L/S

Goal. Develop an embarkation plan.

Requirement. Given the references and an operational scenario, perform the following:

1. State the purpose of an embarkation plan.
2. Produce an Equipment Density List (EDL).
3. Produce logistics documents as required.
4. Identify heavy equipment required to move EDL items.
5. Identify the modes of transportation required to move EDL items.

Performance Standard. With the aid of reference, complete the requirement and develop an embarkation plan to support the scenario. Minor corrections by the trainee are acceptable.

Instructor. BI

Prerequisite. None.

References.

1. Applicable TM
2. Unit SOP

MMCN-2007 2.0 1095 B, R, M (N) G

Goal. Identify spectrum management procedures.

Requirement. Given the references and a scenario with operational requirements, perform the following:

1. Identify frequency requirements.
 - a. Identify submission timelines
 - b. Identify data elements (Freq, Location, Power, Dates)
2. Identify satellite access requirements.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

References.

1. MCRP 3-40B, Tactical Level Logistics
2. MCO 2400.2, Marine Corps Management of the Radio Frequency Spectrum

14.6.4 CYBER SECURITY WORKFORCE (CSWF) STAGE

14.6.4.1 Purpose. To provide entry-level skills in cyber security workforce related tasks that are common to all 5900 occupational field technicians that will be used in the performance of assigned duties within the Marine Air Command and Control System (MACCS).

14.6.4.2 General.

Admin Notes. None.

Prerequisite. None.

Crew Requirements. None.

CSWF-2040 4.0 1095 B, R, M (N) G

Goal. Explain Information Security Principles.

Requirement. With the aid of references, perform the following:

1. Explain common threats and vulnerabilities.
 - a. Malware
 - b. Ransomware
 - c. Viruses
 - d. Denial of Service
 - e. Insider Threats
2. Explain the function and purpose of authentication services.
3. Explain data and network security tools.
 - a. Firewall
 - b. Access Control Lists
 - c. Port Security
 - d. Anti-Virus
 - e. Log Files
 - f. Network monitoring application(s)
4. Describe cyber security, privacy principles, and organizational requirements to provide Confidentiality, Integrity, and Availability (CIA).

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

References.

1. NIST Special Publication 800-__
2. Applicable User's Manuals.
3. Current industry-standard curriculum and references.

CSWF-2041 2.0 1095 B, R, M (N) L

Goal. Perform account management.

Requirement. With the aid of reference, perform the following:

1. Plan user accounts.
2. Create user accounts IAW naming convention.
3. Create groups IAW naming convention.
4. Set account permissions.
5. Manage user accounts.
6. Document as required.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

References.

1. NIST Special Publication 800-__

2. Applicable User's Manuals.
3. Current industry-standard curriculum and references.

CSWF-2042	4.0	1095	B, R, M	(N)	G

Goal. Explain risk management processes involved with operational security.

Requirement. With the aid of reference, perform the following:

1. Explain risk related concepts.
2. Explain appropriate risk mitigation strategies.
3. Explain appropriate incident response procedures.
4. Explain the importance of security related awareness and training.
5. Compare aspects of business continuity.
6. Explain the impact and proper use of environmental controls.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. BI

Prerequisite. None.

References.

1. NIST Special Publication 800-__
2. Applicable User's Manuals.
3. Current industry-standard curriculum and references.

CSWF-2043	4.0	1095	B, R, M	(N)	G

Goal. Explain computer and network cryptography.

Requirement. With the aid of reference, perform the following:

1. Explain symmetric key rotation techniques.
2. Explain symmetric key concepts.
3. Explain cryptographic security models (e.g. Bell-LaPadula model, Biba integrity model, Clark-Wilson integrity model).
4. Explain the core concepts of Public Key Infrastructure (PKI).
5. Explain the implementation of PKI, certificate management and associated components.
6. Explain the appropriate cryptographic tools and products.

Performance Standard. With the aid of reference, complete the requirements, minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

References.

1. NIST Special Publication 800-__
2. Applicable User's Manuals.
3. Current industry-standard curriculum and references.

CSWF-2044	4.0	*	B, R	(N)	G

Goal. Explain computer and networking equipment.

Requirement. With the aid of references, perform the following:

1. State the purpose and functions of:
 - a. Network switch
 - b. Router
 - c. Server
 - d. Virtual Machine
 - e. Workstation
2. Explain the installation and configuration of peripheral devices.
3. Explain installation and configuration of storage devices and appropriate media.
4. Explain the purpose of connection interfaces and transmission media.

Performance Standard. With the aid of reference, complete the requirements, minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

References.

1. NIST Special Publication 800-__
2. Applicable User's Manuals.
3. Current industry-standard curriculum and references.

CSWF-2045	4.0	*	B, R	(N)	G

Goal. Explain Networking Concepts.

Requirement. With the aid of references, perform the following:

1. Identify types of network cables and connectors.
2. Categorize characteristics of connectors and cabling.
3. Compare the layers of the OSI and TCP/IP models.
4. Classify how applications, devices, and protocols relate to the OSI model layers.
5. Explain the purpose and properties of IP addressing.
6. Explain the purpose and properties of routing and switching.
7. Identify common TCP and UDP default ports.
8. Explain the function of common networking protocols.
9. Summarize DNS concepts and its components.
10. Identify virtual network components.
11. Identify appropriate network monitoring tools.
12. Explain the purpose and properties of DHCP.
13. Explain the purpose and properties of Network Address Translation (NAT).
14. Explain the purpose and properties of Port Address Translation (PAT).

Performance Standard. With the aid of reference, complete the requirements, minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

References.

1. NIST Special Publication 800-__
2. Applicable User's Manuals.
3. Current industry-standard curriculum and references.

CSWF-2046	4.0	*	B, R	(N)	G

Goal. Explain Network Media and Topologies.

Requirement. With the aid of references, explain the following:

1. Describe different network topologies.
2. Compare different LAN technologies.
3. Identify components of wiring distribution.
4. Explain different methods and rationales for network performance optimization.

Performance Standard. With the aid of reference, complete the requirements, minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

References.

1. NIST Special Publication 800-__
2. Applicable User's Manuals.
3. Current industry-standard curriculum and references.

CSWF-2047 4.0 * B, R (N) G

Goal. Explain Troubleshooting of Computer and Network equipment.

Requirement. Given the references, Explain the following:

1. Troubleshooting theory.
2. Troubleshooting common problems related to motherboards, RAM, BIOS, CPU and power with appropriate tools.
3. Troubleshooting hard drives and RAID arrays with appropriate tools.
4. Troubleshooting common video and display issues.
5. Troubleshooting wired networks with appropriate tools.
6. Troubleshooting operating system problems with appropriate tools.
7. Troubleshooting common security issues with appropriate tools and best practices.
8. Troubleshooting of common laptop issues while adhering to the appropriate procedures.
9. Troubleshooting of common peripheral devices with appropriate tools.

Performance Standard. With the aid of reference, complete the requirements, minor errors corrected by the trainee are acceptable.

Instructor. BI

Prerequisite. 2044, 2045, 2046

References.

1. NIST Special Publication 800-__
2. Applicable User's Manuals.
3. Current industry-standard curriculum and references.

14.6.5 MAINTENANCE MANAGEMENT (MMGT) STAGE

14.6.5.1 Purpose. To provide the core skills necessary to manage maintenance activities and administrative responsibilities within the maintenance section.

14.6.5.2 General.

Prerequisite. None.

Admin Notes. None.

Crew Requirements. None.

MMGT-2070 4.0 * B,R (N) G

Goal. Complete Maintenance Management Program familiarization.

Requirement. Complete the following maintenance management program Indoctrination training:

1. Describe the eight functional areas of maintenance management.
2. Define Desk-top procedure.
3. Define Turn-Over folder.
4. Identify Collateral Duties Required IAW Local MMSOP.
5. Identify the objectives of maintenance management program.
6. Describe the information contained in the maintenance management program references.
 - a. MMSOP.
 - b. UM 4000-125 GCSS User's Manual.
 - c. MCO 4790.2.
 - d. MCO 4400.201.
 - e. MCO P4400.16 UMMIPS.
7. Identify the responsibilities of maintenance management personnel.
 - a. Commanding Officer.
 - b. Maintenance Management Officer.
 - c. Maintenance Officer.
 - d. Supply Officer.
 - e. Maintenance Chief.
 - f. Supply Clerks.
 - g. Maintenance Management Office Clerks.
 - h. Maintenance Marines.

Performance Standard. With the aid of reference, complete the requirements, minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

References.

1. MMSOP
2. MCO 4790.2 Field Level Maintenance Management Policy
3. MCO P4400.150, Consumer level Supply Policy Manual
4. MCO 4400.16 Uniform Material Movement and Issue Priority System Uniform Material Movement and Issue Priority System
5. UM 4000-125 GCSS-MC User's Manual
6. TM-4700-15/1H
7. Desktop/Turnover
8. FSMAO Checklist
9. MCO 4400.16 Uniform Material Movement and Issue Priority System

MMGT-2071 2.0 * B (N) L

Goal. Conduct an SL-3 inventory.

Requirement. Given the references and a piece of equipment with its record jacket containing an SL-3 extract, perform the following:

1. Validate inventory reference in SL 1-2.
2. Verify UURI authorization.
3. Identify and document on-hand, missing, or unserviceable components.
4. Document completed inventory findings in the record jacket.
5. Initiate supply action to replace missing and/or unserviceable components.
6. Obtain a “supervised by” signature.

Performance Standard. With the aid of reference, complete the requirements, minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. 2070

References.

1. MCO P4400.150
2. MCO 4790.2
3. Applicable equipment SL-3 or TM

14.6.6 DEPLOYMENT (DEPL) STAGE

14.6.6.1 Purpose. To provide the core skills required to deploy Marine Air Command and Control Systems (MACCS) equipment, to include planning, crew management, system configuration management, and setup procedures.

14.6.6.2 General.

Prerequisite. None.

Admin Notes. None.

Crew Requirements. None.

DEPL-2100	2.0	*	B, R	(N)	L

Goal. Write a packing list.

Requirement. Given the references, perform the following:

1. Define the purpose of a packing list.
2. Describe essential packing list contents.
3. Complete a packing list.

Performance Standard. With the aid of reference, complete the requirements, minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

Reference.

1. Unit SOP

DEPL-2101	2.0	*	B	(N)	L

Goal. Extract key information from communication planning documents.

Requirement. For each of the following documents, identify the purpose of and the location of key information contained within:

1. Guard Chart.
2. Communication Electronic Operating Instruction (CEOI).
3. Operations Order.
4. Annex K of the Operations Order.
5. Annex U of the Operations Order.
6. Site Diagram.
7. Operational Tasking Data Link (OPTASKLINK).
8. Identify who is responsible for creating and disseminating the OPTASKLINK.
9. KMI Callout.
10. Satellite Access Authorization (SAA).
11. Operational Tasking Cooperative Engagement Capability (OPTASKCEC).

Performance Standard. With the aid of reference, complete the requirements, minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

References.

1. MCWP 5-10 Marine Corps Planning Process Marine Corps Planning Process
2. MCRP 3-30B.2 MAGTF Communications Systems
3. ACEOI
4. OPTASKLINK
5. KMI Callout
6. Operational Order
7. SAA
8. Guard Chart
9. OPTASKCEC

DEPL-2102 4.0 * B (N) L

Goal. Determine supply support requirements.

Requirement. Given the reference and a 30 day operational scenario, perform the following:

1. Determine supply needs with consideration of the following:
 - a. Location
 - b. Equipment
 - c. Daily operations
 - d. Climate
2. Identify SECREP requirements and deficiencies.
3. Identify Bill of Material (BOM) requirements.

Performance Standard. With the aid of reference, complete the requirements, minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

References.

1. Technical Manuals

2. Operational Order
3. CMR

DEPL-2103 4.0 * B, R (N) L

Goal. Identify power requirements.

Requirement. Given a scenario and references:

1. Determine total power requirements.

Performance Standard. With the aid of reference, complete the requirements, minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

Reference.

1. Technical Manuals

DEPL-2104 3.0 * B (N) G

Goal. Describe common agency doctrinal nets.

Requirement. Given a list of doctrinal net names in acronym format and references, perform the following:

1. Define each net acronym.
2. Describe function for each net.
3. State the frequency spectrum doctrinally used for each net.
4. Identify agencies required to guard each net.

Performance Standard. With the aid of reference, complete the requirements, minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

Reference.

1. MCRP 3-30B.2 MAGTF Communications Systems

DEPL-2105 8.0 * B (N) G

Goal. Identify communication service requirements.

Requirement. Given the references and a scenario with operational requirements, perform the following:

1. Identify submission timelines.
2. Identify data elements.
 - a. Internet protocol addresses.
 - b. Location, user accounts.
 - c. Dates.
 - d. Phone lines.
 - e. C2 application support.
 - (1) Identify mission specific software requirements
 - (2) Verify software version compatibility (JAVA, Browsers, etc.)
 - f. Data network services (NIPR/SIPR/Theater specific).

- g. Firewall exemptions.
- h. Provide Authority to Connect (ATC)/Authority to Operate (ATO) documentation for all required systems.

Performance Standard. With the aid of reference, complete the requirements, minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

References.

1. MCRP 3-40B, Tactical Level Logistics.3B Radio Operator's Handbook
2. Operational Order
3. MCRP 3-30B.2 MAGTF Communications Systems
4. Unit SOP

DEPL-2106 2.0 * B (N) G

Goal. Identify crew requirements and write a crew schedule.

Requirement. Given operational tasking, references, section roster, and MSHARP crew report, perform the following:

1. Determine the duration of operations.
2. Determine total crews required to support the mission.
3. Determine the crew composition/requirements.
4. Write the crew schedule.
5. Submit the crew schedule to the instructor.
6. Describe the process to publish crew schedule once validated.

Performance Standard. With the aid of reference, complete the requirements, minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

References.

1. T&R Manual
2. MCRP 3-20F.7, Marine Air Traffic Control Detachment Handbook

14.6.7 SYSTEM ADMINISTRATION (SYSAD) STAGE

14.6.7.1 Purpose. To provide the core skills necessary to safely embark, setup, operate, maintain, administer, and integrate tactical data systems within the Marine Air Command and Control System (MACCS) and external agencies.

14.6.7.2 General.

Admin Notes. None.

Prerequisite. None.

Crew Requirements. None.

SYSAD-2250 4.0 * B, R (N) L

Goal. Configure workstation.

Requirement. Given an emplaced system and an operational requirement or scenario, perform the following:

1. Energize workstation.
2. Configure workstation.
 - a. Host name.
 - b. IP address.
 - c. Mission required software/applications.
3. Conduct operational status check.
4. Document any changes to system configuration as required.

Performance Standard. With the aid of reference, complete the requirements, minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. 2300

References.

1. TM 128802A/15050A-OD/2 CAC2S System User Manual
2. TM 128802A/15050A-OD/1 CAC2S System Maintenance Manual

SYSAD-2251	2.0	*	B, R	(N)	L

Goal. Configure Peripherals.

Requirement. Given an emplaced system, perform the following:

1. Energize peripherals.
2. Configure peripherals.
 - a. Host name, as required.
 - b. IP address, as required.
3. Conduct operational status check.
4. Document any changes to system configuration as required.
5. Explain the differences between the various printer types and summarize the associated imaging process.

Performance Standard. With the aid of reference, complete the requirements, minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

References.

1. TM 128802A/15050A-OD/2 CAC2S System User Manual
2. TM 128802A/15050A-OD/1 CAC2S System Maintenance Manual

14.6.8 NETWORK ADMINISTRATION (NETAD)

14.6.8.1 Purpose. To provide the core skills necessary to safely embark, setup, operate, maintain, administrate, and integrate tactical data systems within the Marine Air Command and Control System (MACCS) and external agencies.

14.6.8.2 General.

Prerequisite. None.

Admin Notes. None.

Crew Requirements. None.

NETAD-2292	2.0	*	B, R	(N)	L

Goal. Perform network logfile management.

Requirement. With the aid of reference, perform the following:

1. Monitor logfiles.
2. Save logfiles.
3. Empty logfiles.
4. Document as required.

Performance Standard. With the aid of reference, complete the requirements, minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

References.

1. TM 12041A/15050A-OD/2 CAC2S System User Manual
2. TM 12041A/15050A-OD/1 CAC2S System Maintenance Manual

NETAD-2293	4.0	*	B, R	(N)	L

Goal. Apply Software release updates for networking devices.

Requirement. With the aid of reference, perform the following:

1. Schedule software release installation.
2. Install software release updates.
3. Test system software and applications.
4. Backup systems as required.
5. Document as required.

Performance Standard. With the aid of reference, complete the requirements, minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

Reference.

1. Applicable TMs

NETAD-2294	3.0	*	B, R	(N)	L

Goal. Update firmware for networking devices.

Requirement. With the aid of reference, perform the following:

1. Verify version of firmware on equipment.
2. Update to current fielded firmware version as required.

3. Document changes as required.

Performance Standard. With the aid of reference, complete the requirements, minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

Reference.

1. Applicable TMs

NETAD-2295	6.0	*	B	(N)	L

Goal. Setup AC2S.

Requirement. As a member of a crew, given a locally developed site diagram, references, materials, and required equipment, perform the following:

1. Emplace system.
2. Cable system.
3. Emplace environmental safety equipment.
4. Energize components.
5. Configure system settings.
6. Perform operational checks.

Performance Standard. With the aid of reference, complete the requirements, minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

References.

1. TM 12041A/12045-OD/1 System Administrator Maintenance Manual (SAMM)
2. TM 12041A/12045-OD/1 System Users Manual (SUM)

NETAD-2296	4.0	1095	B, R, M	(N)	L

Goal. Maintain the AC2S interfaces.

Requirement. Given a AC2S, applicable references, materials, and equipment:

1. Integrate sensors (as required).
2. Monitor networks.
3. Terminate stale connections.
4. Perform backups.
5. Log Files Check.
6. Network Time Check.
7. Troubleshoot error(s).
8. Conduct an operational status check.
9. Perform PMCS.
10. Initiate corrective maintenance action if required.

Performance Standard. With the aid of reference, complete the requirements, minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

References.

1. TM 12041A/12045-OD/1 System Administrator Maintenance Manual (SAMM)
2. TM 12041A/12045-OD/1 System Users Manual (SUM)

14.6.9 CONFIGURATION (CONFIG) STAGE

14.6.9.1 Purpose. To provide the core skills required to configure aviation C2 systems within the Marine Air Command and Control System.

14.6.9.2 General.

Admin Notes. None.

Prerequisites. None.

Crew Requirements. None.

CONFIG-2300 4.0 * B (N) L

Goal. Restore system network functions for AC2S.

Requirement. With the aid of reference, perform the following:

1. Restore operating system to currently fielded software version from clone or image.
2. Configure operating system as required.
3. Document changes to system configuration.

Performance Standard. With the aid of references, perform the requirement to a proficient level (correct, efficient and skillful execution of tasks requiring minimal input from the instructor). Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

Reference.

1. Applicable system manuals

CONFIG-2301 4.0 * B, R (N) L

Goal. Perform data recovery on organic C2 systems.

Requirement. With the aid of reference, perform the following:

1. Create data backup.
2. Restore data from backup.
3. Document as required.

Performance Standard. With the aid of references, perform the requirement to a proficient level (correct, efficient and skillful execution of tasks requiring minimal input from the instructor). Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

Performance Standard. With the aid of references, perform the requirement to a proficient level (correct, efficient and skillful execution of tasks requiring minimal input from the instructor). Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

References.

1. Applicable system manuals
2. Applicable modification instructions

CONFIG-2305 8.0 * B, R (N) L

Goal. Configure TDS network equipment.

Requirement. With the aid of reference, perform the following:

1. Energize components.
2. Configure network equipment.
3. Conduct operational status check.
4. Document as required.

Performance Standard. With the aid of references, perform the requirement to a proficient level (correct, efficient and skillful execution of tasks requiring minimal input from the instructor). Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

Reference.

1. Applicable system manuals.

CONFIG-2306 3.0 * B (N) L

Goal. Restore system software for CTN.

Requirement. With the aid of reference, perform the following:

1. Restore operating system to currently fielded software version from goldisk.
2. Configure operating system as required.
3. Document changes to system configuration.

Performance Standard. With the aid of references, perform the requirement to a proficient level (correct, efficient and skillful execution of tasks requiring minimal input from the instructor). Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

Reference.

1. TM 11406B-OR/2

CONFIG-2307 1.0 * B (N) L

Goal. Setup the Common Interactive Broadcast (CIB).

Requirement. Perform the following:

1. Emplace CIB equipment for operations.
2. Fill CIB equipment crypto.
3. Operate CIB equipment.

Performance Standard. With the aid of reference, complete the requirements, minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

References.

1. MCRP 3-20F.7, Marine Air Traffic Control Detachment Handbook, TACC Handbook
2. Integrated Broadcast Service Support Office (IBSSO) SIPR Website

14.6.10 EQUIPMENT (EQUIP) STAGE

14.6.10.1 Purpose. To instruct the trainee on MACCS unique electronic equipment.

14.6.10.2 General.

Admin Notes. None.

Prerequisite. None.

Crew Requirements. None.

EQUIP-2400	1.0	*	B	(N)	G

Goal. Identify the major components of the AN/USQ-140(V)2 Multifunctional Information Distribution System (MIDS).

Requirement. Given the references, perform the following:

1. Describe the major components of the MIDS Terminal.
 - a. The RT.
 - b. The power supply.
 - c. The fan assembly.
 - d. The mount.
2. Describe subsystem interfaces.

Performance Standard. Perform the requirement to a proficient level (correct, efficient and skillful execution of tasks requiring minimal input from the instructor). Minor errors corrected by the trainee are acceptable.

Instructor. BI

Prerequisite. None.

Reference.

1. TM 11-5895-1592-12 MIDS OP/MAINT MAN

EQUIP-2401	6.0	*	B	(N)	L

Goal. Displace the Aviation Command and Control System (AC2S).

Requirement. As a member crew, a AC2S, PPE, and the reference, complete the following steps:

1. De-energize the AC2S.
2. Remove Grounding cables/braids.
3. Disconnect power cables.
4. Take down antennas and disconnect RF cables.
5. Pack-up Operational Facility (OPFAC).
6. Pack-up AC2S.

Performance Standard. Perform the requirement to a proficient level (correct, efficient and skillful execution of tasks requiring minimal input from the instructor). Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

Reference.

1. Applicable system manuals

EQUIP-2402 6.0 730 B, R, M (N) L

Goal. Set-up the Composite Tracking Network (CTN).

Requirement. As a member of a crew, a AC2S, PPE, and the reference, complete the following steps:

1. Unpack CTN.
2. Ground CTN and generator.
3. Connect power cables.
4. Employ generator.
5. Erect antennas and connect RF cables.
6. Connect fiber optic cables.
7. Energize the system.
8. Configure CTN for operations.

Performance Standard. Perform the requirement to a proficient level (correct, efficient and skillful execution of tasks requiring minimal input from the instructor). Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

References.

1. TM 9406-15 Grounding Procedures Manual
2. TM 11406B-OR/2
3. TM 11406B-OI/1

EQUIP-2403 6.0 730 B, R, M (N) L

Goal. Tear-down the Composite Tracking Network (CTN).

Requirement. As a member of a crew, an AC2S, PPE, and the reference, complete the following steps:

1. Shutdown CTN.
2. Shutdown generator.
3. Remove and store classified hardware.
4. Remove Grounding cables/braids.

5. Disconnect power cables.
6. Take down antennas and disconnect RF cables.
7. Disconnect fiber optic cables.
8. Pack-up CTN.

Performance Standard. Perform the requirement to a proficient level (correct, efficient and skillful execution of tasks requiring minimal input from the instructor). Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

References.

1. TM 11406B-OR/2
2. TM 11406B-OI/1

EQUIP-2404	6.0	730	B, R, M	(N)	L

Goal. Integrate sensors into C2 Systems.

Requirement. As a member of a crew, a C2 system, PPE, and the references, complete the following steps:

1. Cable sensor.
2. Validate sensor connection.

Performance Standard. Perform the requirement to a proficient level (correct, efficient and skillful execution of tasks requiring minimal input from the instructor). Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

References.

1. TM 11406B-OR/2
2. TM 11406B-OI/1

14.6.11 TACTICAL DATA LINK (TDL) STAGE

14.6.11.1 Purpose. These events will instruct MACCS agency watch standers on TDL's. To provide the core TDL skills necessary for operations, maintenance, and management to support mission objectives using current tactical data systems and standardized TDLs.

14.6.11.2 General.

Prerequisite. None.

Admin Notes. None.

Crew Requirements. None.

TDL-2800	1.0	1095	B, R, M	(N)	G

Goal. Identify the purpose of documents that enable Tactical Data Link (TDL) operations.

Requirement. Given the documents below, identify their purpose:

1. Guard Chart.
2. Communication Electronic Operating Instruction (CEOI).
3. Operations Order Annex K.
4. Operations Order Annex U.
5. Link 16 Network Description Document.
6. Communications Security (COMSEC) Callout.
7. Operational Tasking Data Link (OPTASK LINK).
8. Satellite Access Authorization (SAA).
9. Joint Multi-TDL Operating Procedures (JMTOP).
10. Operational Tasking Cooperative Engagement Capability (OPTASKCEC).

Performance Standard. With the aid of reference, state (verbally or written) the required items. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

References.

1. MCWP 5-10 Marine Corps Planning Process Marine Corps Planning Process, Marine Corps Planning Process
2. MCRP 3-30B.2, MAGTF Communications Systems
3. CJCSM 6120.01, Joint Multi-TDL Operating Procedures (JMTOP)

TDL-2808	1.0	*	B	(N)	G

Goal. Describe the Joint Data Network.

Requirement. Explain the following:

1. Define the Joint Data Network (JDN).
2. State the responsibilities of the Joint Data Network Operations Officer (JDNO).
3. State the purpose of the Global Command and Control System (GCCS) Family of Systems (FoS).
4. Define Common Operational Picture (COP).
5. Define Common Tactical Picture (CTP).
6. Define Tactical Picture.
7. State the components of the CTP.
8. Describe track management.

Performance Standard. Without the aid of reference, state (verbally or written) the required items. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

References.

1. CJCSM 3115.01: Volume 1, Joint Data Network Operations
2. CJCSM 3115.02: Volume 2, Common Tactical Picture Data Management
3. CJCSI 3115.01, CTP Reporting Requirements
4. CJCSI 3151.01B, GCCS COP Reporting Requirements

TDL-2809	2.0	1095	B, R, M	(N)	G

Goal. Describe the Multi-Tactical Data Link (TDL) Interface.

Requirement. Perform the following:

1. State the concept and information exchange of the Multi-TDL Interface.
2. State the technical functions of the Multi-TDL Interface.
3. List the three elements of the Multi-TDL Interface.
4. Define the Basic Interface and list its three data links.
5. Identify the characteristics of Link 11.
6. Identify the characteristics of Link 11B.
7. Identify the characteristics of Link 16.
8. Define the Extended Interface.
9. Identify the purpose of the Joint Range Extension Application Protocol (JREAP).
10. Define the following interface voice coordination nets:
 - a. Air Defense Command and Control Net (ADCCN).
 - b. Engagement Control Net (ECN).
 - c. Datalink Coordination Net (DCN).
 - d. Track Supervision Net (TSN).
 - e. Voice Product Net (VPN).
11. Describe the delegation of responsibilities for the conduct of the Multi-TDL operations at the Joint Task Force (JTF) level and below.
12. State the two Interface Control Officer (ICO) execution functions.
13. State the responsibilities of the Link 16 Manager.
14. State the responsibilities of the Link 11/11B Manager.
15. State the responsibilities of the Track Data Coordinator (TDC).
16. List the minimum requirements for Services that operate the Multi-TDL Interface.

Performance Standard. Without the aid of reference, state (verbally or written) the required items. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

References.

1. CJCSM 6120.01, Joint Multi-TDL Operating Procedures (JMTOP)
2. MIL-STD-6011, Department of Defense Interface Standard, Tactical Data Link (TDL) 11/11B
3. MIL-STD-6016, Department of Defense Interface Standard, Tactical Data Link (TDL) 16
4. MIL-STD-3011, JREAP Interface Standard

TDL-2814 2.0 * B (N) G

Goal. Describe Data Filters.

Requirement. Describe the following:

1. Identify the purpose of data filters.
2. State operational factors that may dictate the use of data filters.
3. Describe transmit filters.
4. Describe forwarding filters.
5. Describe receive filters.
6. Explain why receive filters require an equally restrictive transmit filter.
7. Describe display filters.
8. State the difference between a force filter and a unit filter.
9. State the purpose of the following data filter types:
 - a. Geographic filters.
 - b. Fixed or slaved filters.
 - c. Identification filters.
 - d. Environment filters.

- e. Reference point filters.
 - f. EW filters.
 - g. Special Processing Indicator (SPI) filters.
10. Describe how Force Tell and Emergency Data interact with data filters.
 11. State the personnel responsible for data filters.
 12. Describe the characteristics of prearranged and non-prearranged data filters.
 13. List essential information that should be included when establishing a data filter.
 14. State the doctrinal restrictions on the establishment of data filters.
 15. Identify the unique filtering capabilities of different gateways IAW the references.

Performance Standard. Without the aid of reference, state (verbally or written) the required items. Minor errors corrected by the trainee are acceptable.

Instructor. BI

Prerequisite. None.

References.

1. CJCSM 6120.01, Joint Multi-TDL Operating Procedures (JMTOP)
2. MIL-STD-6011, Department of Defense Interface Standard, Tactical Data Link (TDL) 11/11B
3. MIL-STD-6016, Department of Defense Interface Standard, Tactical Data Link (TDL) 16
4. Guide to the USMTF User Formats - OPERATIONAL TASKING DATA LINKS
5. JRE Version 5.3.x Software User Guide
6. ADSI Version 14.1.1 Software Users Guide

TDL-2818	3.0	*	B	(N)	G

Goal. State the characteristics of Link 16.

Requirement. Perform the following:

1. Identify terminal capacity of a Link 16 terminal.
2. Identify spectral capacity of a Link 16 network.
3. Identify the two types of security used by Link 16.
4. Identify the organization of a Secure Data Unit (SDU).
5. Identify the purpose of the JANUS Table.
6. Identify the two range modes associated with Link 16.
7. Define direct connectivity.
8. Define relayed connectivity.
9. Identify the purpose of an Initialization Data Load (IDL).
10. Locate the website and phone number of the USMC Network Design Facility (NDF).
11. Define time division multiple access.
12. Identify the acceptable time error when initializing a Link 16 terminal.
13. Explain the synchronization process and the importance of each message in the synchronization process:
 - a. Precise Participate Location and Identification (PPLI).
 - b. Initial Entry Message (IEM).
 - c. Round Trip Timing (RTT) Message.
14. Identify the two Link 16 duties that transmit the IEM.
15. Identify the frequency range used by Link 16.
16. State the purpose of pulse deconfliction.
 - a. State the purpose of the pulse deconfliction server.

Performance Standard. Without the aid of reference, state (verbally or written) the required items. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. 2809

References.

1. CJCSM 6120.01, Joint Multi-TDL Operating Procedures (JMTOP)
2. MIL-STD-6016, Department of Defense Interface Standard, Tactical Data Link (TDL) 16
3. CJCSI 6232.01, Link 16 Spectrum Deconfliction

TDL-2819 2.0 * B (N) G

Goal. State the characteristics of the Joint Range Extension Application Protocol (JREAP).

Requirement. Perform the following:

1. Describe JREAP A.
2. Select the data rates of JREAP A.
3. Describe JREAP A roles.
4. Describe the JREAP A Transmission Sequence List (TSL).
5. Explain the difference between JREAP A and Satellite J.
6. Describe JREAP B.
7. Describe JREAP B modes of operation.
8. Select JREAP B data rates.
9. Describe JREAP C.
10. Describe JREAP C modes of operation.
11. Define the following terms associated with JREAP:
 - a. Common Time Reference.
 - b. Demand Assigned Multiple Access (DAMA).
 - c. Joint Range Extension (JRE).
 - d. JRE Network Controller.
 - e. JRE Source Track Number.
 - f. Multicast.
 - g. Packet.
 - h. Port.
 - i. Secondary Track Number.
 - j. Token Passing.
 - k. Unicast.

Performance Standard. Without the aid of reference, state (verbally or written) the required items. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. 2809

References.

1. CJCSM 6120.01, Joint Multi-TDL Operating Procedures (JMTOP)
2. MIL-STD-3011, JREAP Interface Standard

TDL-2820 2.0 * B (N) G

Goal. Identify mission essential segments, sets, and fields within the OPTASK LINK message.

Requirement. Given the reference:

1. Identify the purpose of the OPTASK LINK.
2. Identify who is responsible for creating and disseminating the OPTASK LINK.
3. State the purpose of the Common Message Processor (CMP) and discuss its relationship to the OPTASK LINK.

4. Define Segment.
5. Define Set.
6. Define Field.
7. Identify the information contained in the Header of the OPTASK LINK to include the following sets:
 - a. GENTEXT/CONDUCT OF TDL OPERATIONS.
 - b. POCLINK.
 - c. DLRPGRID.
8. Identify the information contained in the IVCCN Segment.
9. Identify the information contained in the CORRDEC set.
10. Identify the information contained in THE HEADING/MULTILINK INTERFACE COORDINATION REQUIREMENTS set to include the following GENTEXT sets:
 - a. FORCE INTERFACE INFORMATION.
 - b. REGIONAL INTERFACE INFORMATION.
 - c. SECTOR INTERFACE INFORMATION.
 - d. CHANGE DATA ORDER AUTHORITIES.
 - e. CONTINGENCY PROCEDURES.
 - f. TRACK PRODUCTION AREA GUIDANCE.
11. Identify the information contained in the MULCDUTY set.
12. Identify the information contained in the Link 11 Segment to include the following sets:
 - a. POLLSEQ.
 - b. LSYSDATA.
 - c. CRYPTDAT.
 - d. DALKFREQ.
 - e. FORCFLTR.
 - f. LPUDATA.
 - g. UNITFLTR.
13. Identify the information contained in the Link 16 Segment to include the following sets:
 - a. JNETWORK.
 - b. CPD.
 - c. JCRYPDAT.
 - d. JTRNMODE.
 - e. JSTNETS
 - f. JUDATA.
 - g. SQDDATA.
14. Identify the information contained in the Joint Range Extension (JRE) Data Segment to include the following sets:
 - a. UNITINFO.
 - b. LNKPROT.
 - c. SECTEL.
 - d. SECINTER.
 - e. SATCONN.
 - f. CONMATRX.
15. Identify the information contained in the 1MANCODE set.

Performance Standard. With the aid of reference, state (verbally or written) the required items.

Instructor. BI.

Prerequisite. 2800, 2809

References.

1. CJCSM 6120.01, Joint Multi-TDL Operating Procedures
2. Guide to the USMTF User Formats - OPERATIONAL TASKING DATA LINKS

TDL-2821 1.0 * B (N) G

Goal. State the purpose of Interface Coordination procedures.

Requirement. Perform the following:

1. Identify the purpose of data link entry/exit procedures.
2. Define data registration.
3. State the purpose of the following data registrations:
 - a. Geodetic registration.
 - b. Sensor registration.
 - c. Remote Interface Unit (IU) registration.
4. List the steps of the data registration test.
5. State which unit will normally be assigned as the data registration reference unit in a Multi-TDL environment.
6. List the five correlation restrictions for reported tracks.
7. List the eight operational contingency constraints (OCCs) for a track.
8. List the six steps for voice resolution of a dual designation.
9. IAW the JMTOP, what is the single most important element of information of the TDL interface.
10. Define an Identification (ID) conflict.
11. Define an environment conflict.
12. Outline the ID difference resolution procedures.
13. Define a Change Data Order (CDO).
14. State who on the interface may originate a CDO.
15. Identify the three detection and tracking reporting techniques.

Performance Standard. Without the aid of reference, state (verbally or written) the required items. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

References.

1. CJCSM 6120.01, Joint Multi-TDL Operating Procedures (JMTOP)
2. MIL-STD-6011, Department of Defense Interface Standard, Tactical Data Link (TDL) 11/11B
3. MIL-STD-6016, Department of Defense Interface Standard, Tactical Data Link (TDL) 16
4. MCRP 3-25E, MTTP for an Integrated Air Defense System

TDL-2823	1.0	*	B	(N)	G

Goal. State the characteristics of the Variable Message Format (VMF).

Requirement. Given the reference, explain:

1. The purpose of VMF messages.
2. The characteristics of VMF messages.
3. VMF message functional areas.
4. Transmission medium options used to exchange VMF messages.
5. Unit Reference Numbers.
6. How URNs are assigned.
7. The purpose of the K01.2 Unit Reference Query/Response message.
8. Position reporting requirements of VMF units.
9. The purpose of a K05.1 Position Report.
10. The purpose of a K04.1 Observation Report.
11. VMF multi-cast groups.
12. K Series and J Series data forwarding.

Performance Standard. With the aid of reference, state (verbally or written) the required items.

Instructor. BI.

Prerequisite. None.

References.

1. CJCSM 3115.0, Joint Data Network Operations
2. CJCSM 6120.0, Joint Multi-TDL Operating Procedures (JMTOP)
3. MIL-STD-188-220, Digital Message Transfer Device Subsystems
4. MIL-STD-2043-47001, Connectionless Data Transfer Application Layer Interface Standard
5. MIL-STD-6016, Department of Defense Interface Standard, Tactical Data Link (TDL) 16
6. MIL-STD-6017, VMF Interface Standard
7. MIL-STD-6020, Data Forwarding Between TDLs

TDL-2826 1.0 * B (N) G

Goal. State the characteristics of Cooperative Engagement Capability (CEC).

Requirement. Given the references:

1. State the purpose of CEC.
2. State the characteristics of the CEC network.
3. Identify the Navy platforms capable of participating in the CEC network.
4. State the Marine Corps equipment required to interface with CEC.

Performance Standard. Pass an exam.

Instructor. BI.

Prerequisite. None.

References.

1. TACMEMO 3-01.3-12 CEC Tactical Employment Guide, Feb 2012
2. USN Capabilities and Limitations website <http://cnl.phdnswc.navy.smil.mil/>
3. Navy CEC Fact Sheet
4. MIL-STD-6016, Department of Defense Interface Standard, Tactical Data Link (TDL) 16

TDL-2835 2.0 * B (N) L

Goal. Setup Link 16 Equipment.

Requirement. Given the references, operational documents, and a C2 system with a MIL-STD-6016 compliant data link management software suite and link 16 radio:

1. Review the operational documents and ensure the correct IDL files for your host system are on hand.
2. Set-up Link-16 antenna.
3. Connect antenna via appropriate RF cable to host system signal entry patch panel or Link 16 radio.
4. Verify that the link-16 radio is properly cabled to itself, the host system and/or data link manager for Link-16 data and voice operations.
5. Energize the link-16 radio.
6. Load the appropriate keying material into the correct slot of the link 16 radio per operational documents.
7. Log into the data link manager and configure data link manager for Link 16 operations per operational documents.
8. Load the correct IDL from the data link manager to the link 16 radio per the operational documents.
9. Load the correct time from the data link manager to the link 16 radio per the operational documents.
10. After confirming with ICO/DLC, initialize the link.
11. Verify link is operating properly.

Performance Standard. Complete the requirement items IAW the reference; minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. 2800

References.

1. CJCSM 6120.01, Joint Multi-TDL Operating Procedures (JMTOP)
2. MIL-STD-6016, Department of Defense Interface Standard, Tactical Data Link (TDL) 16
3. C2 System Technical Manual

TDL-2836	8.0	*	B	(N)	L

Goal. Operate Link 16.

Requirement. Given an OPTASK LINK, Network Description Document (NDD), and a C2 system:

1. Extract required information from the OPTASK LINK.
2. Enter required database entries per the OPTASK LINK.
3. Enter and activate filters per the OPTASK LINK.
4. Identify Stacked Net assignments for voice and air control.
5. Enter and valid stacked net assignments in the database.
6. Obtain the Link 16 initialization data load (IDL) from the USMC Network Design Facility.
7. Perform Link 16 pulse deconfliction.
8. Verify equipment is configured correctly.
9. Verify the cryptographic equipment is keyed.
10. Load the appropriate time.
11. Load the IDL.
12. Enter/exit link IAW published procedures.
13. Achieve fine synchronization with another interface unit.
14. Operate in/as the following:
 - a. Radio Silent or data silent.
 - b. Network Time Reference (NTR).
 - c. Initial Entry JTIDS Unit (IEJU).

Performance Standard. Complete the requirement items IAW the reference; minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. 2800

References.

1. CJCSM 6120.01, Joint Multi-TDL Operating Procedures (JMTOP)
2. MIL-STD-6016, Department of Defense Interface Standard, Tactical Data Link (TDL) 16
3. C2 System Technical Manual

TDL-2837	2.0	*	B	(N)	L

Goal. Setup JREAP-A Equipment.

Requirement. Given a MIL-STD-3011 compliant data link manager, SATCOM radio assets, Satellite Access Authorization (SAA), and OPTASK LINK:

1. Extract satellite communications information from the SAA.
2. Emplace SATCOM antenna at correct azimuth and elevation determined from the SAA.
3. Connect SATCOM antenna to SATCOM radio via appropriate RF cable.

4. Verify that SATCOM radio and data link manager are properly cabled together for JREAP A operations.
5. Energize SATCOM radio.
6. Configure SATCOM radio for JREAP A operations per the SAA.
7. Load appropriate keying material into the SATCOM radio per the SAA.
8. Make a call to the satellite from the SATCOM radio.
9. Determine if call was successful.
10. Log into the data link manager and configure for JREAP A operations per the OPTASK LINK.
11. Verify active connection between Sync2IP and data link manager.
12. After verifying with ICO enter/exit link.

Performance Standard. Complete the requirement items IAW the reference; minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. 2800

References.

1. CJCSM 6120.01, Joint Multi-TDL Operating Procedures (JMTOP)
2. MIL-STD-6016, Department of Defense Interface Standard, Tactical Data Link (TDL) 16
3. C2 System Technical Manual
4. SATCOM Radio Technical Manual
5. MIL-STD-3011, JREAP Interface Standard

TDL-2838	8.0	*	B	(N)	L

Goal. Operate JREAP A.

Requirement. Given a MIL-STD-3011 compliant system, SATCOM radio assets, Satellite Access Authorization (SAA), OPTASK LINK, and assistance from maintenance and communications sections:

1. Extract satellite communications information from the SAA.
2. Verify proper radio configuration for JREAP A operations.
3. Verify cryptographic equipment is keyed.
4. Verify JREAP A equipment is connected.
5. Verify the SATCOM antenna has the correct elevation and azimuth.
6. Build the JREAP A link in the MIL-STD-3011 compliant system.
7. Enter and activate filters in the MIL-STD-3011 compliant system.
8. Enable and disable the correct link connections.
9. Enter/exit link IAW published procedures.
10. Demonstrate the ability to operate in the following modes:
 - a. Network Participant.
 - b. Network Controller.
 - c. Network Listener.
 - d. Network Broadcast.

Performance Standard. Successfully exchange tracks.

Instructor. BI.

Prerequisite. 2800

External Syllabus Support. JREAP-A capable platform(s).

References.

1. CJCSM 6120.01, Joint Multi-TDL Operating Procedures (JMTOP)

2. MIL-STD-6016, Department of Defense Interface Standard, Tactical Data Link (TDL) 16
3. C2 System Technical Manual
4. SATCOM Radio Technical Manual
5. MIL-STD-3011, JREAP Interface Standard

TDL-2839 2.0 * B (N) L

Goal. Setup JREAP-B Equipment.

Requirement. Given a MIL-STD-3011 compliant data link manager, serial line encryption device, OPTASK LINK, and ANNEX K:

1. From ANNEX K determine where appropriate telephone line for JREAP-B is being supplied.
2. Verify the serial line encryption device is connected to the MIL-STD-3011 compliant system and telephone line.
3. Build the JREAP B link in the MIL-STD-3011 compliant system.
4. Enter and activate filters in the MIL-STD-3011 compliant system per the OPTASK LINK.
5. Enable and disable the correct link connections.
6. Enter / exit link IAW published procedures.

Performance Standard. Complete the requirement items IAW the reference; minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. 2800

References.

1. CJCSM 6120.01, Joint Multi-TDL Operating Procedures (JMTOP)
2. MIL-STD-6016, Department of Defense Interface Standard, Tactical Data Link (TDL) 16
3. C2 System Technical Manual
4. MIL-STD-3011, JREAP Interface Standard

TDL-2840 8.0 * B (N) L

Goal. Operate JREAP B.

Requirement. Given a MIL-STD-3011 compliant system, a serial line encryption device, and assistance from maintenance and communications sections:

1. Verify the serial line encryption device is configured for JREAP B operations.
2. Verify the serial line encryption device is connected to the MIL-STD-3011 compliant system and telephone line.
3. Build the JREAP B link in the MIL-STD-3011 compliant system.
4. Enter and activate filters in the MIL-STD-3011 compliant system per the OPTASK LINK.
5. Enable and disable the correct link connections.
6. Enter / exit link IAW published procedures.

Performance Standard. Successfully exchange information/data.

Instructor. BI.

Prerequisite. 2800

External Syllabus Support. JREAP-B capable platform.

References.

1. CJCSM 6120.01, Joint Multi-TDL Operating Procedures (JMTOP)

2. MIL-STD-6016, Department of Defense Interface Standard, Tactical Data Link (TDL) 16
3. C2 System Technical Manual
4. MIL-STD-3011, JREAP Interface Standard

TDL-2841 2.0 * B (N) L

Goal. Setup JREAP-C Equipment.

Requirement. Given a MIL-STD-3011 compliant data link manager, OPTASK LINK, and ANNEX K:

1. Determine the following network information for the JREAP C interface:
 - a. IP Address.
 - b. Subnet Mask.
 - c. Default Gateway.
 - d. TCP/IP Port(s).
 - e. Role (Server or Client).
 - f. TCP/UDP Unicast or Multicast.
2. Configure the required networking devices for JREAP C communication.
3. Build the JREAP C link in the MIL-STD-3011 compliant system.

Performance Standard. Complete the requirement items IAW the reference; minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. 2800

References.

1. CJCSM 6120.01, Joint Multi-TDL Operating Procedures (JMTOP)
2. MIL STD 6016, Department of Defense Interface Standard, Tactical Data Link (TDL) 16
3. MIL STD 3011, JREAP
4. C2 System Technical Manual

TDL-2842 8.0 * B (N) L

Goal. Operate JREAP C.

Requirement. Given a MIL-STD-3011 compliant system, SIPRNET access, and assistance from maintenance and communications sections:

1. Verify the MIL-STD-3011 compliant system is configured with the correct IP address.
2. Verify the MIL-STD-3011 compliant system is connected to the network.
3. Build JREAP C IP links in the MIL-STD-3011 compliant system.
 - a. TCP.
 - b. UDP Unicast.
 - c. UDP Multicast.
4. Enter and activate filters in the MIL-STD-3011 compliant system per the OPTASK LINK.
5. Enable and disable the correct link connections.
6. Activate and exchange information with JREAP-C (either TCP or UDP).

Performance Standard. Successfully exchange information/data.

Instructor. BI.

Prerequisite. 2800

External Syllabus Support. JREAP-C capable platform.

References.

1. CJCSM 6120.01, Joint Multi-TDL Operating Procedures (JMTOP)
2. MIL-STD-6016, Department of Defense Interface Standard, Tactical Data Link (TDL) 16
3. C2 System Technical Manual
4. MIL-STD-3011, JREAP Interface Standard

TDL-2845 3.0 * B (N) L

Goal. Troubleshoot Link 16.

Requirement. Given a C2 system with a malfunctioning Link 16:

1. Determine if the internal data path being used for Link 16 is functional.
2. Verify direct connectivity exists with a Network Time Reference or an Initial Entry JTIDS Unit.
3. Recognize and take appropriate action for incorrect time.
4. Recognize and take appropriate action for incorrect crypto.
5. Recognize and take appropriate action for incorrect IDL.
6. Select and monitor Link 16 messages.
7. Elevate unresolvable issues.

Performance Standard. Complete the requirement items IAW the references. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. 2800, 2835, 2836

References.

1. CJCSM 6120.01, Joint Multi-TDL Operating Procedures (JMTOP)
2. MIL-STD-6016, Department of Defense Interface Standard, Tactical Data Link (TDL) 16
3. C2 System Technical Manual

TDL-2846 3.0 * B (N) L

Goal. Troubleshoot JREAP A.

Requirement. Given a C2 system with a malfunctioning JREAP A:

1. Use the SATCOM radio's receive signal strength orderwire (RSSOW) to troubleshoot antenna elevation and azimuth.
2. Troubleshoot the SATCOM radio's satellite connection status.
3. Determine if the unit's Interface Unit address is in the Network Controller's subscriber list.
4. Elevate unresolvable issues.

Performance Standard. Complete the requirement items IAW the references. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. 2800, 2837, 2838

References.

1. CJCSM 6120.01, Joint Multi-TDL Operating Procedures (JMTOP)
2. MIL-STD-6016, Department of Defense Interface Standard, Tactical Data Link (TDL) 16
3. C2 System Technical Manual
4. SATCOM Radio Technical Manual
5. MIL-STD-3011, JREAP Interface Standard

TDL-2847 3.0 * B (N) L

Goal. Troubleshoot JREAP B.

Requirement. Given a C2 system with a malfunctioning JREAP B:

1. Verify distant end and local settings on the STEs.
2. Verify KSV-21 has the appropriate crypto key.
3. Identify low quality phones lines to the crew chief.
4. Elevate unresolvable issues.

Performance Standard. Complete the requirement items IAW the references. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. 2800, 2839, 2840

References.

1. CJCSM 6120.01, Joint Multi-TDL Operating Procedures (JMTOP)
2. MIL-STD-6016, Department of Defense Interface Standard, Tactical Data Link (TDL) 16
3. C2 System Technical Manual
4. MIL-STD-3011, JREAP Interface Standard

TDL-2848 3.0 * B (N) L

Goal. Troubleshoot JREAP C.

Requirement. Given a C2 system with a malfunctioning JREAP C:

1. Use the ping and trace route functions to determine if a network connection exists between two computers.
2. Identify firewall exemptions to the communication's section to open blocked ports.
3. Elevate unresolvable issues.

Performance Standard. Complete the requirement items IAW the references. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. 2800, 2841, 2842

References.

1. CJCSM 6120.01, Joint Multi-TDL Operating Procedures (JMTOP)
2. MIL-STD-6016, Department of Defense Interface Standard, Tactical Data Link (TDL) 16
3. C2 System Technical Manual
4. MIL-STD-3011, JREAP Interface Standard

14.7 MISSION PHASE (3000)

14.7.1 Purpose. To provide the requisite advanced skills and working knowledge to employ the MACCS and ancillary equipment in order to accomplish the Marine Air Command and Control System missions.

14.7.2 General.

14.7.2.1 Prerequisite.

14.7.2.2 Admin Notes.

1. Training in this phase does not preclude simultaneous training in Core Skill and Core Plus phases.
2. Individual core skills are learned and mastered using a varied combination of written exams, scenarios and practical demonstrations of proficiency.
3. If crew members are required to assist in the conduct of an event, the crew shall be core capable in the role they will play, as applicable. Training will be executed as individual training with appropriate assistance at the crew level as needed and as dictated by the conditions listed for each event. Crew member assistance must be restricted to those actions required to support or facilitate individual training so as not to detract from the individual properly demonstrating the event performance standard.
4. Academic Training. Academic training will be conducted prior to and concurrently with required events. An academic training event, once completed, can be credited as a prerequisite for follow-on training events.
5. Refresher Training. Refresher training is required once an individual has been absent from a technician billet for 36 months or longer. Upon return, the individual will complete R-coded events in the Attain table; else the technician will maintain proficiency by completing the R-coded events in the Maintain table.

14.8.2.3 Stages. The following stages are included in the Mission Skill Phase of training.

PAR NO.	STAGE NAME	PAGE NUMBER
14.7.3	CYBER SECURITY WORK FORCE (CSWF)	14-50
14.7.4	MACCS MAINTENANCE COMMON (MMCN)	14-52
14.7.5	MAINTENANCE MANAGEMENT (MMGT)	14-54
14.7.6	DEPLOYMENT (DEPL)	14-55
14.7.7	NETWORK ADMINISTRATION (NETAD)	14-57
14.7.8	EQUIPMENT (EQUIP)	14-57

14.7.3 CYBER SECURITY WORKFORCE (CSWF) STAGE

14.7.3.1 Purpose. To provide mission level skills in cyber security workforce related tasks that are common to all 5900 occupational field technicians that will be used in the performance of assigned duties within the Marine Air Command and Control System (MACCS).

14.7.3.2 General.

Admin Notes. None.

Prerequisite. None.

Crew Requirements. None.

CSWF-3000 4.0 1095 B, R, M (N) L

Goal. Administer data system host security measures.

Requirement. Given a configured network, demonstrate the following:

1. Install current Anti-virus definitions and service packs.
2. Configure firewalls.
3. Troubleshoot system faults.

4. Initiate corrective actions as required.
5. Document changes.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. SI.

Prerequisite. 2040, 2042, 2043, 2044, 2045, 2046, 2047

References.

1. NIST Special Publication 800-__
2. Applicable User's Manuals.
3. Current industry-standard curriculum and references.

CSWF-3001 4.0 1095 B, R, M (N) L

Goal. Perform network management.

Requirement. Given a LAN, references, and required equipment, perform the following:

1. Monitor the LAN for connectivity.
2. Assist with troubleshooting connectivity issues with external agencies.
3. Troubleshoot Network error(s).
4. Document changes.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. SI.

Prerequisite. 2040, 2042, 2044, 2045, 2046, 2047

References.

1. NIST Special Publication 800-__
2. Applicable User's Manuals
3. Current industry-standard curriculum and references

CSWF-3002 4.0 1095 B, R, M (N) L

Goal. Design network architecture.

Requirement. Given an operational scenario conduct the following:

1. Identify network requirements.
 - a. External interfaces.
 - b. VLANs.
 - c. IP Class.
2. Assign Internet Protocol (IP) addresses, subnets, and netmasks.
3. Identify notation of domain.
4. Identify asset locations
5. Assign computer hostnames.
6. Implement security measures.
7. Record network configuration.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. SI.

Prerequisite. 2040, 2042, 2043, 2044, 2045, 2046, 2047

References.

1. NIST Special Publication 800-__
2. Applicable User's Manuals
3. Current industry-standard curriculum and references

14.7.4 MACCS MAINTENANCE COMMON (MMCN) STAGE

14.7.4.1 Purpose. To provide mission level skills that are common to all 5900 occupational field technicians that will be used in the performance of assigned duties within the Marine Air Command and Control System (MACCS).

14.7.4.2 General.

Prerequisite.

1. Meet the requirements delineated in the MOS Manual.

Admin Notes. None.

Crew Requirements. None.

MMCN-3030 8.0 1095 B, R, M (N) L

Goal. Conduct a site survey.

Requirement. Given a scenario, applicable references, a TO/E and operational tasking, determine an appropriate site for system emplacement by performing the following:

1. Use planning tools to determine terrain masking and line of sight connectivity.
2. Determine a primary and secondary site location.
3. Identify obstructions and hazards.
4. Determine tactical orientation and equipment emplacement.
 - a. Ensure emitters are emplaced IAW Hazardous Electronic Radiation to Fuels (HERF) regulations.
 - b. Ensure emitters are emplaced IAW Hazardous Electronic Radiation to Ordinance (HERO) regulations.
 - c. Ensure emitters are emplaced IAW Hazardous Electronic Radiation to Personnel (HERP) regulations.
 - d. Ensure emitters are emplaced to support working area.
5. Identify the placement for equipment.
6. Identify the placement for antennas.
7. Identify required internal / external equipment requirements.
8. Determine communications obstacles.
9. Determine system grounding requirements.
10. Identify utility requirements to include power and fuel requirements.
11. Describe environmental considerations.
12. Determine protection from the elements.
13. Determine terrain requirements / masking.
14. Determine operational footprint.
15. Design a site layout and submit to the instructor.
16. Develop a brief that addresses all event requirement items.

Performance Standard. With the aid of reference, complete the requirements, minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. 2103

References.

1. Technical Manuals
2. Operational Order
3. CMR
4. MCWP 3-25.4
5. MCWP 5-1
6. MCO 5104.2
7. MCO 5104.3B

MMCN-3031 8.0 1095 B, R, M (N) L

Goal. Deploy a MACCS capability.

Requirement. Given an operational requirement and commander's guidance, conduct the following:

1. Review operational requirements and develop an EDL.
2. Coordinate for support equipment as required.
3. Verify and complete Bill of Materials.
4. Establish float requirements as required.
5. Conduct inspections on listed equipment.
6. Supervise pack-up and securing of equipment and validate EDL accuracy.
7. Create a packing list.
8. Placard/label the shelters for embark.
9. Ensure correct execution of the load plan for equipment handling and safety.
10. Ensure maintenance crews are formed and prepared for deployment.

Performance Standard. With the aid of reference, complete the requirements. Minor errors corrected by the trainee are acceptable.

Instructor. SI.

Prerequisite. 2100, 2102, 2006, 2106, 3060, 3061, 3062

References.

1. MCO 3120.6_, Standard Embarkation Management System
2. Applicable TMs/Ums

MMCN-3032 2.0 * B (N) L

Goal. Fill the handheld GPS with the appropriate crypto.

Requirement. Perform the following:

1. Identify the proper crypto load.
2. Load crypto into GPS.
3. Verify crypto load.

Performance Standard. With the aid of reference, perform the requirements. Minor corrections by the trainee are acceptable.

Instructor. BI.

Prerequisite. 2000, 2004.

Reference.

1. TM 11-5820-1172-13, Defense Advanced GPS Receiver (DAGR), AN/PSN-13

14.7.5 MAINTENANCE MANAGEMENT (MMGT) STAGE

14.7.5.1 Purpose. To provide the mission skills necessary to manage maintenance activities and administrative responsibilities within the maintenance section.

14.7.5.2 General.

Prerequisite. None.

Admin Notes. None.

Crew Requirements. None.

MMGT-3050 6.0 1095 B, R, M (N) L

Goal. Conduct QC procedures.

Requirement. Ensure the timely performance of all corrective maintenance actions per the references.

1. Verify the induction process:
 - a. Confirm SL-3 accountability.
 - b. Ensure visual inspection occurs.
 - c. Verify record jacket.
 - d. Verify proper organizational PM.
 - e. Verify NAVMC 1018.
 - f. Verify if warranty procedures apply.
2. Determine availability of resources.
3. Ensure proper troubleshooting of faulty item.
4. Ensure repair parts are ordered.
5. Ensure faulty item is repaired to code A status.
6. Ensure safety measures are adhered to during repair process.
7. Conduct quality control procedures:
 - a. Review quality control procedures.
 - b. Verify quality control inspectors based on individual qualifications on equipment are assigned in writing.
8. Verification of MI and TI.
9. Verify proper closeout of SR.
10. Ensure equipment record jacket is updated.

Performance Standard. Complete the requirement items IAW the references. Minor errors corrected by the trainee are acceptable.

Instructor. SI.

Prerequisite. 2070, 2071

References.

1. MCO 4790.2 Field Level Maintenance Management Policy
2. TM-4700-15/1H
3. MCO 4400.16 Uniform Material Movement and Issue Priority System
4. MCBUL 3000, Marine Corps Readiness Reportable Ground Equipment
5. Associated Equipment TM
6. UM 4000-125 GCSS-MC User's Manual
7. MCO P4400.150, Consumer level Supply Policy Manual

8. MMSOP

14.7.6 DEPLOYMENT (DEPL) STAGE

14.7.6.1 Purpose. To provide the mission skills required to deploy Marine Air Command and Control Systems (MACCS) equipment, to include planning, crew management, system configuration management, and employment procedures.

14.7.6.2 General.

Prerequisite. None.

Admin Notes. None.

Crew Requirements. None.

DEPL-3060 8.0 1095 B, R, M (N) L

Goal. Prepare system for embark.

Requirement. Given an Equipment Density List (EDL) that supports the mission, prepare system for embark/retrograde:

1. Conduct proper system power down/teardown.
2. Layout and conduct an SL-3 inventory of the equipment.
3. Conduct Limited Technical Inspections on listed equipment.
4. Pack and secure equipment.
5. Create a packing list.
6. Placard/label the shelters for embark.

Performance Standard. Complete the requirement items IAW the references. Minor errors corrected by the trainee are acceptable.

Instructor. SI.

Prerequisite. 2071, 2100, 2006

References.

1. MCO 3120.6 (Standard Embarkation Management System)
2. Applicable TMs
3. Unit SOP

DEPL-3061 6.0 1095 B, R, M (N) L

Goal. Identify Operational Requirements.

Requirement. Given an OPORD and lessons learned, determine the operational requirement of the maintenance section to support the mission, to include:

1. Communication electronics equipment required.
 - a. Radio requirements.
 - b. Network requirements.
 - c. TMDE.
 - d. Tools.
2. Engineering equipment.
 - a. Air conditioners.
 - b. Heavy equipment.
 - c. Generators.

3. Personnel required.
 - a. Identify minimum number of mission skilled maintainers per crew required to support the mission.
 - b. Identify minimum number of designated leaders required to support the mission.
 - c. List the administrative requirements for crew.
 - (1) Tactical license.
 - (2) Security Clearances/Couriers
 - (3) Personnel packing list requirements.
4. KMI required.
5. Logistics support required.
6. Supply support required.
 - a. Bill of Material (BOM) requirements.
 - b. SECREP requirements.
7. Frequencies required.
 - a. Draft a frequency request.
 - b. Draft a satellite access request.
8. Develop an Equipment Density List (EDL) for PEIs.
9. Draw a site layout plan.
10. Draft a brief covering addressing the deployment and emplacement plan to support the mission.
11. Submit the site layout and brief the plan.

Performance Standard. Complete the requirement items IAW the references. Minor errors corrected by the trainee are acceptable.

Instructor. SI.

Prerequisite. 2000, 2001, 2003, 2100, 2101, 2102, 2103, 2006, 2104, 2007, 2105, 2106

References.

1. Planning MCWP 5-10 Marine Corps Planning Process Marine Corps Planning Process
2. MOS Manual
3. Unit T/O and T/E
4. MCRP 3-30B.2 MAGTF Communications Systems
5. Warning Order
6. Operational Order
7. T&R Manual

DEPL-3062 6.0 1095 B, R, M (N) L

Goal. Employ AC2S.

Requirement. Given a system, applicable references, materials, and required equipment:

1. Set up AC2S network
2. Set up AC2S links
3. Monitor system performance.

Performance Standard. With the aid of reference, complete the requirements, minor errors corrected by the trainee are acceptable.

Instructor. SI.

Prerequisite. 2040, 2041, 2042, 2043, 2044, 2045, 2046, 2047, 2005, 2007, 2296, 2300, 2800, 2809, 2835, 2836, 2837, 2838, 2839, 2840, 2841, 3060

Reference.

1. Applicable system manuals

14.7.7 NETWORK ADMINISTRATION (NETAD) STAGE

14.7.7.1 Purpose. To provide the mission skills necessary to safely embark, setup, operate, maintain, administrate, and integrate tactical data systems within the Marine Air Command and Control System (MACCS) and external agencies.

14.7.7.2 General.

Prerequisite. None.

Admin Notes. None.

Crew Requirements. None.

NETAD-3250 4.0 1095 B, R, M (N) L

Goal. Develop data recovery management plan.

Requirement. With the aid of reference, develop a data management plan including:

1. Purpose for data backup.
2. Backup frequency.
3. Scheduling/Deconfliction.
4. Backup storage locations.
5. Levels of backup.
6. Backup disposition.
7. Document as required.

Performance Standard. With the aid of reference, complete the requirements, minor errors corrected by the trainee are acceptable.

Instructor. SI.

Prerequisite. 2042

References.

1. Applicable TMs
2. Commercial resources

14.7.8 EQUIPMENT (EQUIP) STAGE

14.7.8.1 Purpose. To instruct the trainee on MACCS unique electronic equipment.

14.7.8.2 General.

Admin Notes. None.

Prerequisite. None.

Crew Requirements. None.

EQUIP-3300 6.0 * B (N) L

Goal. Perform maintenance within the CTN.

Requirement. Given the references, TMDE, and tools, perform the following:

1. Perform PMCS.
2. Perform Corrective Maintenance to the LRU.
3. Verify correct operation.
4. Document maintenance actions.

Performance Standard. Perform the requirement to a proficient level (correct, efficient and skillful execution of tasks requiring minimal input from the instructor). Minor errors corrected by the trainee are acceptable.

Prerequisite. 2402, 2403, 2826

References.

1. TM 11406A-OR/1 Operational and Organizational Maintenance Manual for the Command System Tactical 26 Meter Telescopic Mast
2. TM 11406B-OR/2
3. TM 11406B-OI/1

EQUIP-3301 2.0 1095 B, R, M (N) L

Goal. Validate operation of C2 sensor integration.

Requirement. Given the references, an emplaced system, and a core capable crew, verify equipment configuration and direct operational assessment within the system to include the following:

1. Verify track source(s).

Performance Standard. Perform the requirement to a proficient level (correct, efficient and skillful execution of tasks requiring minimal input from the instructor). Minor errors corrected by the trainee are acceptable.

Instructor. SI.

Prerequisite. 2404.

References.

1. Applicable system manuals
2. Applicable manufacturer's manuals

EQUIP-3465 6.0 * B (N) L

Goal. Perform maintenance within the AC2S.

Requirement. Given the references, TMDE, and tools, perform the following:

1. Perform PMCS.
2. Perform corrective maintenance to the LRU.
3. Verify correct operation.
4. Document maintenance actions.

Performance Standard. Perform the requirement to a proficient level (correct, efficient and skillful execution of tasks requiring minimal input from the instructor). Minor errors corrected by the trainee are acceptable.

Prerequisite. 2300, 2845, 2846, 2847, 2488

References.

1. Applicable system manuals
2. Applicable manufacturer's manuals

14.8 CORE PLUS PHASE (4000)

14.8.1 Purpose. To provide Core Plus training. The Marine is exposed to advanced MACCS integration and employment of MACCS equipment within a joint environment.

14.8.2 General.

14.8.2.1 Admin Notes. The following information is provided to guide the Marine in the training of this Phase:

1. Training in this phase does not preclude simultaneous training in the Mission and Core Advanced phases.

2. Individual Core skills are learned and mastered using a varied combination of written exams, scenarios and practical demonstrations of proficiency.

3. If crew members are required to assist in the conduct of an event, the crew shall be core capable in the role they will play, as applicable. Training will be executed as individual training with appropriate assistance at the crew level as needed and as dictated by the conditions listed for each event. Crewmember assistance must be restricted to those actions required to support or facilitate individual training so as not to detract from the individual properly demonstrating the event performance standard.

14.8.2.2 Prerequisites. None.

14.8.2.3 Stages. The following stages are included in the Core Plus Introduction Phase of training.

PAR NO.	STAGE NAME	PAGE NUMBER
14.8.3	MAINTENANCE MANAGEMENT (MMGT)	14-59

14.8.3 MAINTENANCE MANAGEMENT (MMGT) STAGE

14.8.3.1 Purpose. To provide the skills necessary to manage maintenance activities and administrative responsibilities within the maintenance section.

14.8.3.2 General.

Prerequisite. None.

Admin Notes. None.

Crew Requirements. None.

MMGT-4250 4.0 1095 B, R, M (N) L

Goal. Assess maintenance shop performance.

Requirement. Given the references, perform the following:

1. Determine key performance indicators.
2. Determine functional areas to be inspected.
3. Develop an inspection plan.
4. Assign personnel to conduct inspections.
5. Review results.
6. Assess strengths and weaknesses.
7. Develop/implement a corrective plan.

Performance Standard. Complete the requirement items IAW the references. Minor errors corrected by the trainee are acceptable.

Instructor. BI

Prerequisite. None.

References.

1. FSMAO Checklist
2. CGI Checklist
3. Unit SOP
4. MMSOP
5. MCO 4790.2
6. UM 4000-125 GCSS-MC User's Manual

MMGT-4251 2.0 * B, R (N) L

Goal. Assess maintenance section funding requirements.

Requirement. With the aid of references and given equipment maintenance history, projected TEEP, and anticipated maintenance shortfalls, propose funding allocations for maintenance activities.

1. Identify and prioritize funding requirements.
2. Provide a maintenance funding request based on requirements and prior year utilization.
3. Provide an anticipated maintenance funding request based on the unit's TEEP.
4. Identify personnel travel requirements.
5. Identify unit-funded training requirements.

Performance Standard. Complete the requirement items IAW the references. Minor errors corrected by the trainee are acceptable.

Instructor. BI.

Prerequisite. None.

References.

1. MCO P4400.150, Consumer level Supply Policy Manual
2. MCO 7300.21_, Marine Corps Financial Management Standard Operating Procedures A

4.10 MISSION PLUS PHASE (4500)

4.10.1 Purpose. **RESERVED FOR FUTURE USE.**

4.10.2 General.

4.10.2.1 Admin Notes.

14.10 INSTRUCTOR TRAINING PHASE (5000)

14.10.1 Purpose. To provide technicians the additional skills necessary to instruct, evaluate and approve event completions. Upon completion of the required training, an individual may be approved for instructor designation by the commanding officer.

14.10.2 General.

14.10.2.1 Prerequisite. None.

14.10.2.2 Admin Notes.

1. The MACCS instructor concept is a means to standardize all instructors across the MACCS in regards to the concepts of managing a WTPP, properly conducting training, performing evaluations, and recommending training plans.

2. There are different instructor designations (listed below). The intent is to train individuals with different levels and areas of experience to instruct personnel. Instructor experience is also gained while progressing through the different instructor designations.

- a. Basic Instructor (BI).
- b. Senior Instructor (SI).
- c. Weapons and Tactics Instructor (WTI).

3. The MAWTS-1 C3 Course catalog contains the training requirements for the above listed instructors. The catalog is located at the MAWTS-1 website, <https://vcepub.tecom.usmc.mil/sites/msc/magtftc/mawts1/departments1/newc3/default.aspx>.

14.10.2.2 Prerequisite. None.

14.10.2.3 Stages. The following stages are included in the Instructor Under Training Skill Phase of training.

PAR NO.	STAGE NAME	PAGE NUMBER
14.10.3	INSTRUCTOR UNDER TRAINING (IUT)	14-61

14.10.3 INSTRUCTOR UNDER TRAINING (IUT) STAGE

14.10.3.1 Purpose. To train Aviation Communication System Technicians in the fundamentals of instructing and training processes.

14.10.3.2 General.

Prerequisite. None.

Admin Notes. None.

Crew Requirements. None.

T&R CODE	EVENT DESCRIPTION	INSTRUCTOR
5000	Introduce principles of instruction	BI
5010	Describe individual T&R requirements	BI
5020	Conduct T&R instruction	BI
5100	Describe the Aviation Training and Readiness (T&R) Program	SI
5110	Conduct instructor evaluations	SI
5120	Perform T&R administration	SI
5130	Develop a training plan	SI

IUT-5000 2.0 * B (N) L

Goal. Introduce principals of instruction.

Requirement. Given the reference, the BIUT will demonstrate the following with the assistance of a unit instructor:

1. Adult learning principles.
 - a. Pedagogy to andragogy.
 - b. Characteristics of the adult learner.
 - c. Learning styles.
 - d. How adults learn.
 - e. Domains of learning.
 - f. Group dynamics.
 - g. Motivation.
 - h. Constructivist learning environments.
2. Introduce, discuss, and demonstrate instruction techniques.
3. Introduce, discuss, and demonstrate class management techniques.
 - a. How to select teaching resources to accommodate student learning styles.
 - b. How to properly organize the instructional environment for effective learning.

Performance Standard. With the aid of references, the BIUT shall demonstrate principles of instruction. During this session, the instructor shall discuss the event content and question the student throughout the training session to ensure understanding.

Instructor. BI

Prerequisite. None.

References.

1. Adult Learning section, Systems Approach to Training Manual (2004)
2. NAVMC 3500.14
3. NAVMC 1553.1

IUT-5010	2.0	*	B	(N)	G

Goal. Describe individual T&R requirements.

Requirement. Using the Aviation T&R Program Manual, discuss the purpose of each of the following items with an instructor:

1. Training progression model.
2. Programs of Instruction.
 - a. Basic.
 - b. Refresher.
 - c. Conversion.
 - d. Series Conversion.
 - e. Transition.
 - f. Maintain.
3. T&R attain and maintain tables.
4. Syllabus notes.
5. T&R syllabus structure.
 - a. Phase.
 - b. Stage.
 - c. Event.
 - d. Skill.
 - e. Syllabus.
6. Event format.
 - a. Header.
 - (1) Event prefix - event code.
 - (2) Projected event duration.
 - (3) Proficiency period.

- (4) Programs of instruction (POI).
- (5) Event conditions.
- (6) Device options.
- (7) Device number.
- (8) Device type.
- b. Body.
 - (1) Goal.
 - (2) Requirement.
 - (3) Performance standard.
 - (4) Equipment.

Performance Standard. Without the aid of references and during a discussion session, the BIUT shall describe Individual T&R requirements. During this session, the instructor shall discuss the event content and question the student throughout the training session to ensure understanding.

Instructor. BI.

Prerequisite. None.

References.

- 1. NAVMC 3500.14
- 2. NAVMC 1553.1

IUT-5020 12.0 90 B, R, M (N) L

Goal. Conduct T&R instruction.

Requirement. The BIUT, under the supervision of an instructor, will conduct three periods of instruction on three different T&R events selected by the instructor and should include as many different methods of instruction as possible (lecture or academic, demonstration, and practical application). The event must be one the BIUT is current and proficient in. The BIUT will complete the following for each of the three events instructed:

- 1. Prepare to train the event.
 - a. Review a trainee's performance record to identify required training for the event selected.
 - b. Ensure the student has met prerequisites for the event to be trained.
 - c. Gather the resources necessary to conduct the training (i.e., instructional materials, references, and equipment).
 - d. Conduct task analysis on each event to ensure all intended requirements and prerequisite skills, specified or implied, are trained IAW applicable references.
 - e. Schedule the training event (facilities and students).
 - f. Prepare an evaluation form for each student to be evaluated.
- 2. Conduct training on the event selected:
 - a. Ensure all training resources are properly staged/equipment if set up properly for training.
 - b. Instruct the student in a thorough manner so as to cover all requirements for the event.
 - c. Ensure continuous, objective assessment of the student's progress during training.
- 3. Assess student performance:
 - a. Assess the student's performance to the performance standard.
 - b. Correct student deficiencies in a timely manner and provide the student feedback.
 - c. Complete the evaluation form on for each student trained.
 - d. Debrief student on the performance and provide corrective action.
- 4. Route evaluation form as required.

Performance Standard. Complete the requirement items IAW the reference and ensure training is doctrinally and technically current. Instructor shall use the instructor evaluation form from the SAT user's guide for each class and a mark of satisfactory must be achieved for each of the three classes.

Instructor. BI.

Prerequisite. 5000, 5010

References.

1. NAVMC 3500.14, Ch 6
2. NAVMC 1553.1
3. MCO 1553.2B, Appendix O

IUT-5100 2.0 * B (N) G

Goal. Describe the Aviation Training and Readiness (T&R) Program.

Requirement. Using the community T&R manual discuss the following with an instructor:

1. Describe the Weapons and Tactics Training Program (WTTP).
2. Define each element of the Core Model:
 - a. Mission statements.
 - b. Core Mission Essential Task List (METL).
 - c. Output standards.
 - d. Core Skills (How to attain and maintain).
 - e. Mission Skills (How to attain and maintain).
 - f. Combat Leadership.
3. Define each of the following elements of unit training:
 - a. Training Exercise Employment Plan (TEEP).
 - b. Core Model Minimum Requirements (CMMR).
 - c. Instructors.
 - d. Core Model Training Report (CMTR).
 - e. T&R manual connection to readiness reporting.
4. Define each of the following elements of training:
 - a. Certification.
 - b. Qualification.
 - c. Designation.
5. PERFORMANCE RECORD Explain how changes are made to the Program manual:
 - a. Explain T&R conference procedures.
 - b. Explain correspondence change procedures.

Performance Standard. Complete the requirements IAW the reference. Instructor will question the SIUT to check for thorough understanding of the Aviation T&R Program.

Instructor. SI.

Prerequisite. None.

References.

1. NAVMC 3500.14
2. MCO 3500.109

IUT-5110 4.0 365 B, R, M (N) L

Goal. Conduct instructor evaluations.

Requirement. Using the instructor evaluation checklist from the SAT manual, conduct two evaluations on instructors of equal or lower designation.

1. Provide notification of evaluation to the instructor being evaluated.
2. Do not interfere with or disrupt the instruction while taking place.

3. Thoroughly document observed items on the checklist.
4. Ensure student evaluation form is filled out correctly and the appropriate debrief took place.
5. Debrief the instructor being evaluated on their preparation, instruction, evaluation, and documentation.
6. Have the evaluated instructor complete the instructor improvement plan section and sign.
7. File a copy of the completed evaluation form in both the evaluator's and evaluated instructor's performance record.

Performance Standard. Complete the requirements IAW the reference.

Instructor. SI.

Prerequisite. 5100

References.

1. NAVMC 3500.14
2. Applicable community T&R Manual
3. MCO1553.2B, Appendix O

IUT-5120 2.0 * B (N) L

Goal. Perform T&R administration.

Requirement. Document training to include:

1. Performance records.
2. Ensure MSHARP is updated appropriately.
3. Assemble recommendation package for certifications, qualifications, and designations IAW T&R manual.

Performance Standard. Complete the requirement items IAW the references. Instructor will question the trainee to check for understanding of the administration process.

Instructor. SI.

Prerequisite. 5100, 5110

References.

1. NAVMC 3500.14
2. Local WTPP SOP
3. <http://msharpsupport.com>

IUT-5130 2.0 * B (N) L

Goal. Develop a training plan.

Requirement. Given a deployment scenario develop a training plan to determine individual, and crew training needed to meet CMMR by completing the following:

1. Review Commander's training guidance.
2. Analyze the CMTR to determine training deficiencies and how to achieve CMMR.
3. Identify and schedule T&R training opportunities IAW the TEEP to achieve requirements.
4. Determine instructors required.
5. Determine equipment required.
6. Determine external support required.
7. Deliver a brief to the instructor that shows:
 - a. Crew manning and training requirements.
 - b. Current training status.
 - c. Identify the training deficiencies and resource shortfalls.

- d. Explain the training plan to correct the training deficiencies.
- e. Training plan meets commander's guidance.

Performance Standard. Complete the requirement items IAW the references and commander's training guidance. Training plan will ensure adequate time is allocated to include preparation, instruction, assessment, documentation, and remediation.

Instructor. SI

Prerequisite. 5100, 5110, 5120

References.

- 1. NAVMC 3500.14
- 2. Applicable Community T&R manuals

14.11 CERTIFICATIONS, QUALIFICATIONS, AND DESIGNATIONS (CQD) (6000)

14.11.1 Purpose. This phase provides community standardization of technician designations, combat leadership, instructor designations and training. This syllabus does not contain "one time" certification training requirements.

14.11.2 General.

14.11.2.1 Prerequisite. None.

14.11.2.2 Admin Notes.

1. This section enables units to document and track combat leaders, instructors, and technician assignments. All syllabus training and administration requirements must be complete prior to being qualified or designated. A qualification or designation is not effective until all administration is completed.

2. Only once an individual is designated in writing, the signed letter is filed in the IPR, and all administrative actions are completed, and the event code has been logged in M-SHARP shall the designation be effective.

14.11.2.3 Stages. The following stages are included in Certification and Designation Skill Phase of training:

PAR NO.	STAGE NAME	PAGE NUMBER
14.11.3	CERTIFICATIONS (CERT)	14-67
14.11.4	DESIGNATIONS (DESG)	14-67
14.11.5	SCHOOL CODES (SCHL)	14-69

14.11.3 CERTIFICATIONS (CERT) STAGE

14.11.3.1 Purpose. To provide for certifications of Information Assurance Work Force personnel. In order to ensure proficiency is maintained, specific events throughout this syllabus have been R-coded. The gaining command shall review the IPR to ensure prerequisite R-coded events for a certification are current prior to approving that certification. If prerequisite R-coded events are delinquent, the individual shall update those events.

14.11.3.2 General.

Admin Notes. Policies and rules for attaining and maintaining certification are detailed in the Aviation T&R Program Manual and this Manual.

Prerequisite. None.

Crew Requirements. None.

CERT-6260 4.0 * B (N) L

Goal. CSWF Technical Support Specialist.

Requirement. Complete the prerequisites. Be recommended for certification and approved in writing by the commanding officer.

Performance Standard. Complete requirements in accordance with the reference.

Instructor. SI.

Prerequisite. 2040, 2041, 2042, 2044, 2045, 2046, 2047.

Reference.

1. DOD 8570.01_, Information Assurance Workforce Improvement Program

CERT-6261 4.0 * B (N) L

Goal. CSWF Network Operations Specialist.

Requirement. Complete the prerequisites. Be recommended for certification and approved in writing by the commanding officer.

Performance Standard. Complete requirements in accordance with the reference.

Instructor. SI.

Prerequisite. 2040, 2042, 2043, 2044, 2045, 2046, 2047, 3000, 3001, 3002

Reference.

1. DOD 8570.01_, Information Assurance Workforce Improvement Program

CERT-6262 4.0 * B (N) L

Goal. CSWF System Administrator.

Requirement. Complete the prerequisites. Be recommended for certification and approved in writing by the commanding officer.

Performance Standard. Complete requirements in accordance with the reference.

Instructor. SI.

Prerequisite. 2040, 2041, 2042, 2043, 2044, 2045, 2046, 2047, 3000, 3001, 3002

Reference.

1. DOD 8570.01_, Information Assurance Workforce Improvement Program

14.11.4 DESIGNATIONS (DESG) STAGE

14.11.4.1 Purpose. To provide combat leadership and instructor designations. Designations are command specific and expire when an individual transfers out of a command. In order to ensure proficiency is maintained,

specific events throughout this syllabus have been R-coded. The gaining command shall review the individual performance record to ensure prerequisite R-coded events for a designation are current prior to approving that designation. If prerequisite R-coded events are delinquent, the individuals shall update those events.

14.11.4.2 General.

Admin Notes. Policies and rules for attaining and maintaining designations are detailed in the Aviation T&R Program Manual and this Manual.

Prerequisite. None.

Crew Requirements. None.

DESG-6324	1.0	*	B	(N)	G

Goal. System Configuration Coordinator.

Requirement. Complete required System Configuration Coordinator training POI and be approved in writing by the commanding officer.

Performance Standard. N/A.

Instructor. WTI.

Prerequisite. 2001, 2040, 2041, 2044, 2047, 2250, 2251, 2296, 2302, 2814, 2818, 2819

Reference.

1. Unit TO/E

DESG-6320	1.0	*	B	(N)	G

Goal. Basic Instructor (BI).

Requirement. Be recommended for designation by a WTI and designated in writing by the commanding officer.

Performance Standard. N/A.

Instructor. WTI.

Prerequisite. 5000, 5010, 5020

Reference.

1. NAVMC 3500.14, Naval Aviation Program Manual

DESG-6321	1.0	*	B	(N)	G

Goal. Senior Instructor (SI).

Requirement. Be recommended for designation by a WTI and designated in writing by the commanding officer.

Performance Standard. N/A.

Instructor. WTI.

Prerequisite. 5000, 5010, 5020, 5100, 5110, 5120, 5130

Reference.

1. NAVMC 3500.14, Naval Aviation Program Manual

DESG-6322 1.0 * B (N) G

Goal. Weapons and Tactics Instructor (WTI).

Requirement. Be certified by MAWTS-1 as a WTI, designated by the commanding officer in writing.

Performance Standard. N/A.

Instructor. WTI.

Prerequisite. 6000

Reference.

1. NAVMC 3500.14, Naval Aviation Program Manual

DESG-6330 0.5 * B (N) G

Goal. Formal Learning Center Instructor.

Requirement. Complete the formal learning center's instructor requirements, designated by the commanding officer in writing.

Performance Standard. N/A.

Instructor. WTI.

Prerequisite. 6096.

Reference.

1. NAVMC 3500.14, Naval Aviation Program Manual

14.11.5 SCHOOL CODES (SCHL) STAGE

14.11.5.1 Purpose. To provide tracking codes for schools that are pertinent to the training of the 5979 in the skill progression of the Marine.

14.11.5.2 General.

Admin Notes. Policies and prerequisites for attending the listed schools are maintained within MCTIMS.

Prerequisite. None.

Crew Requirements. None.

T&R CODE	COURSE NAME	LOCATION	CID/CIN
SCHL-6000	WTI	MCAS Yuma, AZ	M149731
SCHL-6013	(AOC IQT) System Administrator	Hurlburt Field, FL	F19L2U2
SCHL-6014	(AOC IQT) Network Administrator	Hurlburt Field, FL	F19L9W2

SCHL-6020	Link 16 Basics Course (JT-100)	Joint Knowledge Online (JKO)	N/A
SCHL-6021	Intro to Multi TDL Network (JT-101)	Fort Bragg, NC	N/A
SCHL-6022	Multi-TDL Advanced Joint Interoperability Course (MAJIC) (JT-102)	Fort Bragg, NC	A05L6Z1
SCHL-6024	Multi TDL Planner Course (JT-201)	Fort Bragg, NC	A05KHY1
SCHL-6025	Link 16 Unit Manager (LUM) Course (JT-220)	Fort Bragg, NC	A05A111
SCHL-6026	Joint Interface Control Officer (JICO) (JT-301)	Fort Bragg, NC	A05FH21
SCHL-6027	Advanced JICC Operator Course (JT-310)	Fort Bragg, NC	A05FH11
SCHL-6030	MATC Work Center Supervisors Course	NATTC, FL	N23KCM2
SCHL-6031	MATC Maintenance Managers Course	NATTC, FL	N23KCN2
SCHL-6073	Micro miniature Electronic Repair	San Diego CA	N01A351
		Norfolk, VA	
SCHL 6079	JRE-GW Operators' Course	Titan L3	N/A
SCHL-6094	Advanced Electronics Course	29 Palms, CA	M09DSK1
SCHL-6095	Ground Electronics Maintenance NCO Course	Camp Johnson, NC	M03DNSG
SCHL-6096	Respective Instructor Training Course	MCB Camp Lejeune, NC	M03WJBA
		MCB Camp Lejeune, NC (MTT)	M03WJBM
		MCB Camp Pendleton, CA	M10WJB1
		MCB Camp Pendleton, CA (MTT)	M10WJBM
		NAS Pensacola, FL	N23X991
SCHL-6097	Mountain Command Control Communications Course	Bridgeport, CA	M24CXJ1

SCHL-6000 0.5 * B (N) G

Goal. WTI Course.

Requirement. Successfully complete course curriculum.

Performance Standard. N/A

Instructor. FLCI

Prerequisite. 6321, 8000, 8020, 8040, 8060, 8080

Reference. None.

SCHL-6013 0.5 * B (N) G

Goal. Complete (AOC IQT) System Administrator.

Requirement. Successfully complete course curriculum.

Performance Standard. N/A.

Instructor. N/A.

Prerequisite. None.

Reference. None.

SCHL-6014	0.5	*	B	(N)	G

Goal. Complete (AOC IQT) Network Administrator.

Requirement. Successfully complete course curriculum.

Performance Standard. N/A.

Instructor. N/A.

Prerequisite. None.

Reference. None.

SCHL-6020	0.5	*	B	(N)	G

Goal. Link 16 Basics Course (JT-100)

Requirement. Successfully complete course curriculum.

Performance Standard. N/A

Instructor. N/A

Prerequisite. None.

Reference. None.

SCHL-6021	0.5	*	B	(N)	G

Goal. Intro to Multi TDL Network (JT-101).

Requirement. Successfully complete course curriculum.

Performance Standard. N/A

Instructor. N/A

Prerequisite. None.

Reference. None.

SCHL-6022	0.5	*	B	(N)	G

Goal. Multi-TDL Advanced Joint Interoperability Course (MAJIC) (JT-102).

Requirement. Successfully complete course curriculum.

Performance Standard. N/A

Instructor. FLCI

Prerequisite. 6021.

Reference. None.

SCHL-6024	0.5	*	B	(N)	G

Goal. Multi TDL Planner Course (JT-201).

Requirement. Successfully complete course curriculum.

Performance Standard. N/A

Instructor. FLCI

Prerequisite. None.

Reference. None.

SCHL-6025	0.5	*	B	(N)	G

Goal. Link 16 Unit Manager (LUM) Course (JT-220).

Requirement. Successfully complete course curriculum.

Performance Standard. N/A

Instructor. FLCI

Prerequisite. None.

Reference. None.

SCHL-6026	0.5	*	B	(N)	G

Goal. Joint Interface Control Officer (JICO) (JT-301).

Requirement. Successfully complete course curriculum.

Performance Standard. N/A

Instructor. FLCI

Prerequisite. 6021, 6022, 6024.

Reference. None.

SCHL-6027	0.5	*	B	(N)	G

Goal. Advanced JICC Operator Course (JT-310).

Requirement. Successfully complete course curriculum.

Performance Standard. N/A

Instructor. FLCI

Prerequisite. None.

Reference. None.

SCHL-6030	0.5	*	B	(N)	G

Goal. Work Center Supervisor's Course.

Requirement. Successfully complete course curriculum.

Performance Standard. N/A

Instructor. FLCI

Prerequisite. None.

Reference. None.

SCHL-6031	0.5	*	B	(N)	G

Goal. MATC Maintenance Manager's Course.

Requirement. Successfully complete course curriculum.

Performance Standard. N/A

Instructor. FLCI

Prerequisite. None.

Reference. None.

SCHL-6073	0.5	*	B	(N)	G

Goal. Micro-Miniature Electronics Repair Course.

Requirement. Successfully complete course curriculum.

Performance Standard. N/A

Instructor. FLCI

Prerequisite. None.

Reference. None.

SCHL-6079	0.5	*	B	(N)	G

Goal. JRE-GW Operators' Course.

Requirement. Successfully complete course curriculum.

Performance Standard. N/A

Instructor. FLCI

Prerequisite. None.

Reference. None.

SCHL-6094	0.5	*	B	(N)	G

Goal. Advanced Electronics Course.

Requirement. Successfully complete course curriculum.

Performance Standard. N/A

Instructor. FLCI

Prerequisite. None.

Reference. None.

SCHL-6095	0.5	*	B	(N)	G

Goal. Ground Electronics Maintenance NCO Course.

Requirement. Successfully complete course curriculum.

Performance Standard. N/A

Instructor. FLCI

Prerequisite. None.

Reference. None.

SCHL-6096	0.5	*	B	(N)	G

Goal. Attend respective instructor development course.

Requirement. Successfully complete course curriculum.

Performance Standard. N/A

Instructor. FLCI

Prerequisite. None.

Reference. None.

SCHL-6097	0.5	*	B	(N)	G

Goal. Mountain Command Control Communications Course.

Requirement. Successfully complete course curriculum.

Performance Standard. N/A

Instructor. FLCI

Prerequisite. None.

Reference. None.

14.12 MISSION ESSENTIAL TASK (MET) PHASE (7000)

14.12.1 Purpose. This phase takes CMMR proficient Marines from multiple PMOS, puts them in CMMR representative crews, and trains them as combat effective teams in combined events.

14.12.2 General.

14.12.2.1 Admin Notes.

1. Prerequisites for this phase of training cannot be waived. Multiple events can be trained at the same time as long as separate evaluations are being conducted.

2. MACCS maintenance MOSs 5910, 5939, 5948, 5970, 5974, and 5979 may be assigned to TACC, TAOC, and DASC agencies within the Marine Air Control Group which are assigned separate T&R training syllabi. The MET Phase is broken down by agency events and should be utilized based on the agency T&R manual in which this chapter appears.

14.12.2.2 Prerequisite. Marines must either be CMMR crew position or non-aviation PMOS proficient to train in this phase. For those events requiring combat leaders, only Marines currently designated as such can train in this phase.

14.12.2.3 Stages. The following stages are included in the Mission Essential Task (MET) Phase of training.

PAR NO.	STAGE NAME	PAGE NUMBER
14.12.3	TACC CONDITION (COND)	14-75
14.12.4	TAOC CONDITION (COND)	14-78
14.12.5	DASC CONDITION (COND)	14-82

14.12.3 TACC CONDITION (COND) STAGE

14.12.3.1 Purpose. To train unit level teams in executing community specific MET(s) or MET preparatory events.

14.12.3.2 General.

Admin Notes. All events in this stage will require the following administrative/operational documents to be identified or created:

1. Letter Of Intent (LOI).
2. Personnel Roster.
3. Bill of Material (BOM).
4. Equipment Density List (EDL).

Prerequisite. If an event requires prerequisites in addition to those listed for the MET Phase, they will be covered in the individual event.

Crew Requirements. This stage requires that all crew members and combat leaders be qualified/designated and proficient (current) in the position they are assigned for the following events. Crews

shall be task organized to meet the mission.

COND-7001 4.0 730 B, R, M E (N) L

Goal. Establish communications.

Requirement. Perform the following:

1. Establish communication nets in accordance with SOPs, published communications plan.
2. Communications are available for standby operational contingency actions; e.g., SAR.
3. Communications plan reflects correct key lists and edition numbers, and they are verified as correct.
4. Post communications status to include delineated alternate paths and current EMCON status.
5. Ensure operations personnel are aware of alternate communications paths to assure constant contact with higher, adjacent and subordinate commands when required.
6. Communication restoration priorities have been published and provided to communication maintenance personnel.
7. Detect instances of communications jamming, potential cyber intrusion, or imitative deceptions and provide reports in accordance with appropriate annex of the Op Order.
8. Direct changes in EMCON conditions to subordinate agencies when processed intelligence or combat information reveals a change in the enemy's threat capabilities.
9. Enact restoration procedures.
10. Ensure communication plan includes communications requirements for succession of command or control in case of catastrophic failure of any major air control agency (TADC/TACC, DASC, TAOC).
11. Crew members understand crew procedures to change communications nets and/or radio configurations.
12. Crew members perform net control station duties by initiating radio checks on appropriate nets.

Performance Standard. Establish voice and data connectivity with subordinate MACCS agencies and higher headquarters IAW ANNEX K, COMSEC Callout, ACEOI, and OPTASK LINK.

Instructor. WTI.

Prerequisite. None.

External Syllabus Support. External C3 Agencies.

References.

1. MCWP 3-20F.2, Marine TACC Handbook
2. TACC Primer

COND-7003 8.0 730 B, R, M (N) L/S

Goal. Display the Common Tactical Picture.

Requirement. Perform the following:

1. Maintain a connection to higher headquarters Common Tactical Picture per the exercise or operation's Annex U.
2. Ensure applicable ground tactical picture, maritime tactical picture, and map overlays are received from higher headquarters.
3. Provide the ACE's Common Tactical Picture to higher headquarters.
4. Manage, receive, display, and disseminate the common tactical picture.
5. Update the Battle Command Display.

Performance Standard. Complete the required items.

Instructor. WTI.

Prerequisite. None.

External Syllabus Support. HHQ to provide Common Tactical Picture. MWCS support for digital backbone.

References.

1. Exercise or Operation's OPORD Annex U
2. CJCSM 3115.01_, Common Tactical Picture Reporting Requirements

COND-7004 18.0 730 B, R, M (N) L/S

Goal. Coordinate air operations between the MACCS and Joint /Combined/Coalition/Host Nation command and control agencies.

Requirement. Perform the following:

1. Establish liaison necessary to request additional aviation assets from any theater/national sources.
2. Coordinate airspace de-confliction.
3. Integrate joint, coalition, and host nation requirements/elements into the COPS floor.

Performance Standard. Complete the required items.

Instructor. WTI.

Prerequisite. None.

References.

1. MCWP 3-20F.2, Marine TACC Handbook
2. TACC Primer

COND-7005 8.0 730 B, R, M (N) L/S

Goal. Manage the current air tasking order.

Requirement. Perform the following:

1. Coordinate the recovery of isolated personnel and aircraft.
2. Coordinate air defense operations of MACCS agencies with external agencies.
3. Coordinate theater missile defense operations with external agencies.
4. Manage MAGTF air assets in support of the close, rear, and deep battle areas.
5. Monitor the equipment status and operational posture of MACCS agencies.
6. Monitor, supervise, and direct the control of aircraft and missiles by subordinate MACCS agencies.
7. Process air support requests in accordance with the MAGTF and ACE Commander's priorities.
8. Coordinate the establishment and dissemination of Air Defense Warning Conditions (ADWCs) and Weapons Control Statuses (WCS).
9. Current ATO missions executed in accordance with the MAGTF and ACE Commanders priorities, to include changing or altering pre-schedule missions as required.

Performance Standard. Complete the required items.

Instructor. WTI.

Prerequisite. None.

External Syllabus Support. External C3 agencies, ACE Battlestaff, MWCS.

References.

1. MCWP 3-20F.2, Marine TACC Handbook

2. TACC Primer

COND-7007 16.0 730 B, R, M (N) L/S

Goal. Maintain a facility and associated command and control systems for the TACC

Requirement. Given the references, a Table of Equipment (T/E) and/or an Equipment Density List, a mission statement, commander's guidance, and an operation plan's initiating order, provide a TACC infrastructure to include the following:

1. Provide required support personnel to set up and maintain the TACC infrastructure.
2. Provide equipment and facilities for current operation (COPS).
3. Provide equipment and facilities for future operations (FOPS).
4. Provide equipment and facilities for future plans (FPLANS).
5. Provide facilities for air combat intelligence (ACI).

Performance Standard. Perform the requirement items listed.

Instructor. WTI.

Prerequisite. None.

External Syllabus Support. MTACS Commander and representatives from the S-1, S-2, S-3, S-4, S-6. Simulation execution will require coordination with external agencies.

References.

1. U-TACC-PCL-0350, TACC Pocket Checklist
2. MCWP 3-20F.2, Marine Tactical Air Command Center Handbook
3. Squadron SOP

COND-7009 2.0 730 B, R, M (N) S/L

Goal. Coordinate Airspace Management in Current Operations.

Requirement. Given the references, an operational TACC and an operations order, and airspace control plan coordinate airspace requirements in support of the MAGTF:

1. Coordinate and employ the use of air defense control measures.
2. Coordinate through the Ground Watch Section for the deconfliction of FSCMs and immediate Airspace Control Measures.
3. Coordinate with subordinate MACCS agencies for immediate Airspace Management issues.
4. Coordinate with the Air and Space Operations Center for immediate Airspace Management issues that affect the joint force.
5. Update and monitor changes to the ACP/ACO/SPINS as applicable.

Performance Standard. Perform the requirement items listed during live, virtual, or constructed exercise or real world operation.

Instructor. WTI.

Prerequisite. None.

Reference.

1. JP 3-52, Joint Airspace Control

14.12.4 TAOC CONDITION (COND) STAGE

14.12.4.1 Purpose. To train unit level teams in executing community specific MET(s) or MET preparatory events.

14.12.4.2 General.

Admin Notes. All events in this stage will require the following administrative/operational documents to be identified or created:

1. Letter Of Intent (LOI).
2. Personnel Roster.
3. Bill of Material (BOM).
4. Equipment Density List (EDL).

Prerequisite. If an event requires prerequisites in addition to those listed for the MET Phase, they will be covered in the individual event.

Crew Requirements. This stage requires that all crew members and combat leaders be qualified/designated and proficient (current) in the position they are assigned for the following events. Crews shall be task organized to meet the mission.

COND-7000 16.0 730 B, R, M (N) L

Goal. Conduct Airspace Surveillance.

Requirement. Given organic C2 systems, radars, and a minimum of two CMMR surveillance crews, perform the following:

1. Plan for the emplacement, setup, operation, and maintenance of TAOC radar(s) and C2 equipment within the MAGTF and/or joint assigned airspace.
2. Extract tactical data link (TDL) architecture information from MAGTF and joint documents.
3. Extract required surveillance operations information exchange requirements from source MAGTF and/or joint documents.
4. Plan for TAOC airspace surveillance operations.
5. Conduct the emplacement, setup, operation, and maintenance of TAOC radar(s) and C2 equipment.
6. Detect and track aircraft and missiles within MAGTF and/or joint assigned airspace using organic TAOC radar(s).
7. Conduct combat identification on objects detected and tracked using information extracted from surveillance operations source documents.
8. Disseminate air/ground surveillance information to adjacent, higher, and subordinate agencies and aircraft identified in surveillance operations source documents.
9. Demonstrate proficiency during crew changeover.

Performance Standard. Complete the requirements conducting TAOC operations in support of MAGTF and/or joint exercises or operations.

Instructor. WTI.

Prerequisite. None.

External Syllabus Support. TDSM, RDR, AVRAD, UT. Live execution will require specific T/M/S aviation assets.

Reference. None.

COND-7001 16.0 730 B, R, M (N) L/S

Goal. Conduct Positive Control.

Requirement. Given organic C2 systems, radars, and a minimum of two CMMR weapons crews, perform the following:

1. Plan for the emplacement, setup, operation, and maintenance of TAOC radar(s) and C2 equipment within the MAGTF and/or joint assigned airspace.
2. Conduct the emplacement, setup, operation, and maintenance of TAOC radar(s) and C2 equipment.
3. Extract airspace control measures within TAOC assigned airspace from MAGTF and/or joint source documents.
4. Conduct airspace management using MEF/MAW sustained sortie generation rates.
5. Conduct airspace control using MEF/MAW sustained sortie generation rates.
6. Conduct positive control using MEF/MAW sustained sortie generation rates.
7. Demonstrate proficiency during crew changeover.

Performance Standard. Complete the requirements conducting TAOC operations in support of MAGTF and/or joint exercises or operations.

Instructor. WTI

Prerequisite. None.

External Syllabus Support. TDSM, RDR, AVRAD, UT. Live execution will require specific T/M/S aviation assets.

Reference. None.

COND-7002 16.0 730 B, R, M (N) L/S

Goal. Coordinate Air Defense Actions.

Requirement. Given organic C2 systems, radars, and a minimum of two CMMR weapons crews, perform the following:

1. Plan for the emplacement, setup, operation, and maintenance of TAOC radar(s) and C2 equipment within the MAGTF and/or joint assigned airspace.
2. Conduct the emplacement, setup, operation, and maintenance of TAOC radar(s) and C2 equipment.
3. Extract air defense requirements from MAGTF and/or joint air defense documents.
4. Create a plan for the TAOC to manage and control AAW aircraft engagements, expenditures, and employment using MEF/MAW sortie generation rates.
5. Create a plan for the TAOC to provide management of GBAD engagements, expenditures, and employment.
6. Manage and control AAW aircraft engagements, expenditures, and employment using MEF/MAW sortie generation rates.
7. Provide management of GBAD engagements, expenditures, and employment.
8. Detect potential threat aircraft and/or missiles using TAOC organic radars.
9. Disseminate threat information to higher, adjacent, and subordinate MACCS agencies.
10. Demonstrate proficiency during crew changeover.

Performance Standard. Complete the requirements conducting TAOC operations in support of MAGTF and/or joint exercises or operations.

Instructor. WTI.

Prerequisite. None.

External Syllabus Support. TDSM, RDR, AVRAD, UT. Live execution will require specific T/M/S aviation assets.

Reference. None.

COND-7003 16.0 730 B, R, M (N) L/S

Goal. Conduct Dual Site Air Defense Operations.

Requirement. Given organic C2 systems, radars, and a minimum of four CMMR air defense crews, perform the following at two geographically disparate sites:

1. Plan for the emplacement, setup, operation, and maintenance of TAOC radar(s) and C2 equipment within the MAGTF and/or joint assigned airspace.
2. Conduct the emplacement, setup, operation, and maintenance of TAOC radar(s) and C2 equipment.
3. Conduct airspace surveillance.
4. Conduct positive control.
5. Coordinate air defense actions.
6. Demonstrate proficiency during crew changeover.

Performance Standard. Complete the requirements conducting TAOC operations in support of MAGTF and/or joint exercises or operations.

Instructor. WTI.

Prerequisite. None.

External Syllabus Support. TDSM, RDR, AVRAD, UT. Live execution will require specific T/M/S aviation assets.

Reference. None.

COND-7004 16.0 730 B, R, M (N) L/S

Goal. Integrate Operational Air Defense Capabilities.

Requirement. Given organic C2 systems, radars, and a minimum of two core plus proficient SADC crews, perform the following:

1. Plan for the emplacement, setup, operation, and maintenance of TAOC radar(s) and C2 equipment within the MAGTF and/or joint assigned airspace.
2. Conduct the emplacement, setup, operation, and maintenance of TAOC radar(s) and C2 equipment
3. Extract air defense requirements from MAGTF and joint air defense documents.
4. Create a plan for the TAOC to manage air defense operations within MAGTF and/or joint assigned region/sector.
6. Manage air defense operations within the MAGTF and/or joint assigned region/sector.
7. Extract tactical data link (TDL) architecture information from MAGTF and joint documents.
8. Create a plan for TAOC to assist the (Joint) Interface Control Officer J/ICO with the management of TDLs.
9. Manage TDLs for the TAOC in support of MAGTF and joint operations.
10. Demonstrate proficiency during crew changeover.

Performance Standard. Complete the requirements conducting TAOC operations in support of MAGTF AAW and/or joint DCA exercises or operations.

Instructor. WTI.

Prerequisite. None.

External Syllabus Support. TDSM, RDR, AVRAD, UT. Live execution will require specific T/M/S aviation assets.

Reference. None.

14.12.5 DASC CONDITION (COND) STAGE

14.12.5.1 Purpose. To train unit level teams in executing community specific MET(s) or MET preparatory events.

14.12.5.2 General.

Admin Notes. All events in this stage will require the following administrative/operational documents to be identified or created:

1. Letter Of Intent (LOI).
2. Personnel Roster.
3. Bill of Material (BOM).
4. Equipment Density List (EDL).

Prerequisite. If an event requires prerequisites in addition to those listed for the MET Phase, they will be covered in the individual event.

Crew Requirements. This stage requires that all crew members and combat leaders be qualified/designated and proficient (current) in the position they are assigned for the following events. Crews shall be task organized to meet the mission.

COND-7400 3.0 730 B, R, M (N) L/S

Goal. Employ an ASLT.

Requirement. Requirement. Given the references, a Table of Equipment (T/E) and / or EDL, Commander's guidance, and an operations order/ initiating directive, employ a ASLT to include the following:

1. Plan for Employment of a ASLT:
 - a. Conduct Problem Framing.
 - (1) Identify Level of Support Required of MASS Unit.
 - (2) Develop Mission Statement / Commander's Intent.
 - b. Create Employment Plan.
 - (1) Coordinate with External Entities (and / or Agencies).
 - (2) Identify Required Personnel and Equipment.
 - (3) Conduct Site Reconnaissance and Selection.
 - (4) Identify and Coordinate External Support Requirements.
 - c. Create Supporting Planning Products.
 - (1) Create / Publish POA&M / LOI.
 - (2) Create Necessary Manning Documents/EDL/BOM/Load Plan (MDSS).
 - (3) Conduct Required Briefs. (IPC/MPC, Confirmation Brief, etc.)
2. Deploy an ASLT:
 - a. Conduct Movement.
 - (1) Conduct Embarkation (Unit to APOE).
 - (2) Conduct Convoy Operations (APOD to TAA to tactical site).
 - b. Establish ASLT Site.
 - (1) Establish and Maintain Site Security.
 - (2) Establish Communications and Connectivity.
 - (3) Establish Administrative and Logistics Functions.
3. Operate an ASLT:
 - a. Conduct ASLT Operations.
4. Sustain an ASLT:
 - a. Conduct Staff Functions.
 - (1) Conduct Administrative Functions.
 - (2) Conduct Intelligence Functions.
 - (3) Conduct Operations and Training.
 - (4) Conduct Logistical Functions.

- (5) Conduct Communications Functions.
- 5. Re-Deploy an ASLT:
 - a. Plan for Re-Deployment.
 - (1) Identify Logistics Requirements.
 - (2) Identify External Support Requirements.
 - (3) Identify Maintenance functions and Requirements.
 - (4) Identify Administration Requirements and Functions.
 - b. Conduct Movement.
 - (1) Conduct Convoy Operations. (Tactical Site to TAA to APOE).
 - (2) Conduct Embarkation (APOD to the unit).

Performance Standard. Perform the requirement items listed and conduct ASLT operations supporting the DASC during a minimum operational tempo three (3) real world operation or training simulation.

Prerequisite. (1) CMMR ASLT Crew.

Range. Range space capable of hosting ground and air fires.

External Syllabus Support. FSCC, air and fire support missions as defined by operational tempo level three, a DASC, S-1, S-2, S-3, S-4, S-6.

References.

- 1. MCWP 3-25.5, DASC Handbook
- 2. Squadron SOP

COND-7405 3.0 730 B, R, M (N) L/S

Goal. Employ an ASE.

Requirement. Requirement. Given the references, a Table of Equipment (T/E) and / or Equipment Density List (EDL), Commander's guidance, and an operations order/ initiating directive, employ a ASE to include the following:

- 1. Plan for Employment of a ASE:
 - a. Conduct Problem Framing.
 - (1) Identify Level of Support Required of MASS Unit.
 - (2) Develop Mission Statement / Commander's Intent.
 - b. Create Employment Plan.
 - (1) Coordinate with External Entities (and / or Agencies).
 - (2) Identify Required Personnel and Equipment.
 - (3) Conduct Site Reconnaissance and Selection.
 - (4) Identify and Coordinate External Support Requirements.
 - c. Create Supporting Planning Products.
 - (1) Create / Publish POA&M / LOL.
 - (2) Create Necessary Manning Documents/EDL/BOM/Load Plan (MDSS).
 - (3) Conduct Required Briefs. (IPC/MPC, Confirmation Brief, etc.)
- 2. Deploy an ASE:
 - a. Conduct Movement.
 - (1) Conduct Embarkation (Unit to APOE).
 - (2) Conduct Convoy Operations (APOD to TAA to tactical site).
 - b. Establish ASE Site.
 - (1) Establish and Maintain Site Security.
 - (2) Establish External ASE Infrastructure.
 - (3) Establish Internal ASE Infrastructure.
 - (4) Establish Communications and Connectivity.
 - (5) Establish Administrative and Logistics Functions.
- 3. Operate an ASE:

- a. Conduct ASE Operations.
 - (1) Process Immediate Air Support Requests.
 - (2) Integrate Aircraft Employment with Other Supporting Arms.
 - (3) Manage Terminal Control Assets.
 - (4) Procedurally Control Aircraft within Assigned Area of Operations.
4. Sustain an ASE:
 - a. Conduct Staff Functions.
 - (1) Conduct Administrative Functions.
 - (2) Conduct Intelligence Functions.
 - (3) Conduct Operations and Training.
 - (4) Conduct Logistical Functions.
 - (5) Conduct Communications Functions.
5. Re-Deploy an ASE:
 - a. Plan for Re-Deployment.
 - (1) Identify Logistics Requirements.
 - (2) Identify External Support Requirements.
 - (3) Identify Maintenance functions and Requirements.
 - (4) Identify Administration Requirements and Functions.
 - b. Conduct Movement.
 - (1) Conduct Convoy Operations. (Tactical Site to TAA to APOE).
 - (2) Conduct Embarkation (APOD to the unit).

Performance Standard. Perform the requirement items listed and conduct ASE operations during a minimum operational tempo three (3) real world operation or training simulation.

Prerequisite. (1) CMMR ASE Crew.

Range. Range space capable of hosting ground and air fires.

External Syllabus Support. S-1, S-2, S-3, S-4, S-6, air and fire support missions as defined by operational tempo three, FFCC/FSCC, and if required, a SACC and NTACC/HCS.

References.

1. MCWP 3-25.5, DASC Handbook
2. Squadron SOP

COND-7410	3.0	730	B, R, M	(N)	L/S

Goal. Employ a DASC.

Requirement. Requirement. Given the references, a Table of Equipment (T/E) and / or Equipment Density List (EDL), Commander's guidance, and an operations order/ initiating directive, employ a DASC to include the following:

1. Plan for Employment of a DASC:
 - a. Conduct Problem Framing.
 - (1) Identify Level of Support Required of MASS Unit.
 - (2) Identify Potential Need for DASC Extensions.
 - (3) Develop Mission Statement/ Commander's Intent.
 - b. Create Employment Plan.
 - (1) Coordinate With External Entities (and / or Agencies).
 - (2) Identify Required Personnel and Equipment.
 - (3) Conduct Site Reconnaissance and Selection.
 - (4) Identify and Coordinate External Support Requirements.
 - (5) Plan for any/all required DASC Extensions.
 - c. Create Supporting Planning Products.

- (1) Create / Publish POA&M / LOI.
- (2) Create Necessary Manning Documents/EDL/BOM/Load Plan (MDSS).
- (3) Conduct Required Briefs (IPC/MPC, Confirmation Brief, etc.).
2. Deploy a DASC:
 - a. Conduct Movement.
 - (1) Conduct Embarkation (Unit to APOE).
 - (2) Conduct Convoy Operations (APOD to TAA to tactical site).
 - b. Establish DASC Site.
 - (1) Establish and Maintain Site Security.
 - (2) Establish External DASC Infrastructure.
 - (3) Establish Internal DASC Infrastructure.
 - (4) Establish Communications and Connectivity.
 - (5) Establish Administrative and Logistics Functions.
3. Operate a DASC:
 - a. Conduct DASC Operations.
 - (1) Process Immediate Air Support Requests.
 - (2) Integrate Aircraft Employment with Other Supporting Arms.
 - (3) Manage Terminal Control Assets.
 - (4) Procedurally Control Aircraft within Assigned Area of Operations.
 - b. Manage DASC extensions.
4. Sustain a DASC:
 - a. Conduct Staff Functions.
 - (1) Conduct Administrative Functions.
 - (2) Conduct Intelligence Functions.
 - (3) Conduct Operations and Training.
 - (4) Conduct Logistical Functions.
 - (5) Conduct Communications Functions.
5. Re-Deploy a DASC:
 - a. Plan for Re-Deployment.
 - (1) Identify Logistics Requirements.
 - (2) Identify External Support Requirements.
 - (3) Identify Maintenance functions and Requirements.
 - (4) Identify Administration functions and Requirements.
 - b. Conduct Movement.
 - (1) Conduct Convoy Operations (Tactical Site to TAA to APOE).
 - (2) Conduct Embarkation (APOD to the unit).

Performance Standard. Perform the requirement items listed and conduct DASC operations during a minimum operational tempo three (3) real world operation or training simulation.

Prerequisite. Two (2) CMMR DASC crews.

Range. Range space capable of hosting ground and air fires.

External Syllabus Support. S-1, S-2, S-3, S-4, S-6, MHE, air and fire support missions as defined by operational tempo three (3), digital backbone, FFCC/FSCC, and if required, aircraft designated to provide an airborne DASC capability.

References.

1. MCWP 3-25.5, DASC Handbook
2. Squadron SOP

COND-7415 3.0 730 B, R, M (N) L/S

Goal. Conduct a Reconnaissance, Selection, and Occupation of Position (RSOP) for the DASC.

Requirement. Given the references, a Table of Equipment (T/E) and/or Equipment Density List (EDL) and an operations order/initiating directive, conduct a RSOP for DASC operations to include the following:

1. Conduct a Map Survey selecting primary and alternate sites.
2. Identify environmental concerns that may affect DASC communication.
3. Coordinate with the FSCC to provide DASC requirements.
4. Coordinate site security, camouflage, dispersion, and trafficability.
5. Identify locations for emplacement of communications and support equipment.
6. Coordinate priorities for equipment emplacement.
7. Identify echelon considerations.
8. Identify Advanced Party/RSOP Team.
9. Occupy the site.
10. Emplace the DASC.

Performance Standard. Perform the requirement items. The RSOP team will be prepared to discuss decisions/actions.

Prerequisite. None.

External Syllabus Support. MASS Detachment Commander, DASC Chief, security team, Representatives from the following sections: S-4, S-2, S-6.

References.

1. MCWP 3-16.3, TTP for the Field Artillery Cannon Battery
2. MCWP 3-25.5, DASC Handbook
3. MCWP 3-16.3, Tactics, Techniques, and Procedures for the Field Artillery Cannon Battery, Chapter 2, Reconnaissance, Selection, and Occupation of a Position
4. Squadron SOP

COND-7420	3.0	730	B, R, M	(N)	L/S

Goal. Conduct Echelon Operations.

Requirement. Given the references, a Table of Equipment (T/E) and/or Equipment Density List (EDL), Commander's guidance, and an operations order/initiating directive, conduct echelon operations to include the following:

1. Continue DASC operations without pause or loss of situational awareness.
2. Checklists for the transfer of control are on hand and are utilized.
3. Deploy the echelon element to the new position.
4. Brief the operational crew concerning their duties for passage of control.
5. Establish and maintain required communications and connectivity.
6. Updated intelligence information, to include the friendly and enemy order of battle and current ATO is on hand and posted.
7. Receive current status of air defense warnings, weapons conditions, anti-air warfare intelligence, and other pertinent data is updated prior to the transfer of control taking place.
8. Receive current status of all fixed wing aircraft to include scheduled events, alert aircraft, and airborne aircraft is verified.
9. Receive current status of all helicopter and assault support aircraft to include scheduled events, alert aircraft, airborne aircraft, MEDEVAC aircraft, and SAR aircraft is verified.
10. Review status of all Tactical Air and Assault Support Requests and ensure they are plotted and on hand.
11. Verify with the FSCC the locations of friendly artillery and active Fire Support Areas (FSAs), for naval gunfire assets.
12. Maintain continuous coordination with adjacent and higher agencies during preparation for and transfer of OAS/AS control, if required.
13. Pass control of DASC functions to the echelon element.
14. Notify the TACC, FSCC, and other agencies, as necessary, control has been passed.

15. Recover the rear element into the DASC when echelon operations have concluded.
16. Debrief with the DASC OIC and DASC Chief.

Performance Standard. Perform the requirement items listed to conduct echelon operations during a minimum operational tempo three (3) real world operation or training simulation.

Prerequisite. Two (2) CMMR DASC crews.

Range. Range space capable of hosting ground and air fires.

External Syllabus Support. S-1, S-2, S-3, S-4, S-6, MHE, air and fire support missions as defined by operational tempo three (3), digital backbone, and if required, aircraft designated to provide an airborne DASC capability.

References.

1. MCWP 3-25.5, DASC Handbook
2. Squadron SOP

COND-7425 3.0 730 B, M, R (N) S/L

Goal. Conduct Phasing of Control Ashore.

Requirement. Given the references, a Table of Equipment (T/E) and/or Equipment Density List (EDL), Commander's guidance, and an operations order/initiating directive, conduct phasing of control ashore to include the following:

1. Conduct a Map Survey selecting primary and alternate sites.
2. Checklists for the transfer of control ashore are on hand and utilized.
3. Review the procedures delineated in the operation plan/other directives for the phasing of control ashore and keeps the Naval Tactical Air Control Center informed of current status.
4. Deploy ashore.
5. Brief the operational crew concerning their duties for the passage of control.
6. Establish and maintain required communications and connectivity.
7. Updated intelligence information, to include the friendly and enemy order of battle and current ATO is on hand and posted.
8. Receive current status of air defense warnings, weapons conditions, anti-air warfare intelligence, and other pertinent data is updated prior to the transfer of control taking place.
9. Receive current status of all fixed wing aircraft to include scheduled events, alert aircraft, and airborne aircraft.
10. Receive current status of all helicopter and assault support aircraft to include scheduled events, alert aircraft, airborne aircraft, MEDEVAC aircraft, and SAR aircraft.
11. Review status of all Tactical Air and Assault Support Requests and ensure they are plotted and on hand.
12. Verify with the FSCC the locations of friendly artillery and active Fire Support Areas (FSAs), for naval gunfire assets.
13. Ensure all requirements have been met and then advise the TACC (afloat) and FSCC that the DASC is prepared for the phasing of control of OAS/AS ashore.
14. Ensure the preplanned sequence of phasing control of OAS/AS ashore is completed and the SAD acknowledges/produces any reports required.
15. Advise CLF when ready to assume control of all or a portion of direct air support ashore (specify OAS, Assault Support, Air Recce, EW) at a specified date and time.
16. Advise CLF that control has been transferred and the date/time group that transfer was accomplished.
17. Advise the TACC (afloat)/TADC (ashore) and FSCC that the DASC now has control referencing date and time (local).
18. Maintain continuous coordination with adjacent and higher agencies.
19. Notify all adjacent agencies when transfer of control is completed.
20. As necessary, DASC/SACC liaison team provides further updates of information upon arrival at DASC

site.

Performance Standard. Perform the requirement items listed to conduct phasing control ashore during a minimum operational tempo three (3) real world operation or training simulation.

Prerequisite. (1) CMMR ASE crew or (1) CMMR DASC crew.

Range. Range space capable of hosting ground and air fires.

External Syllabus Support. S-1, S-2, S-3, S-4, S-6, MHE, air and fire support missions as defined by operational tempo three (3), digital backbone, Navy TACC, FSCC, Marine TACC, LFOC, SACC/HCS.

References.

1. JP 3-02.1, Joint Doctrine for Landing Forces Operations
2. MCWP 3-16.3, Tactics, Techniques, and Procedures for the Field Artillery Cannon Battery, Chapter 2, Reconnaissance, Selection, and Occupation of a Position
3. MCWP 3-25.5, DASC Handbook
4. MCWP 3-40.3, MAGTF Communications System
5. Squadron SOP

14.13 AVIATION CAREER PROGRESSION MODEL (8000).

14.13.1 Purpose. To enhance professional understanding of Marine Aviation and the MAGTF, and to ensure individuals possess the requisite skills to fill battle command and battle staff positions in support of the ACE and the MAGTF in a joint environment. The focus of training in the Aviation Career Progression Model (ACPM) is on academic events in the following areas:

Marine Air Command and Control System (MACCS)
Aviation Ground Support
Joint Air Operations
ACE Battle Staff
MAGTF
Seabased Operations
Combatant Commander Organizations

14.13.2 General. The ACPM is intended to be an integrated series of academic events contained within each phase of training. Accordingly, ACPM academic events are like any other academic event in that they serve as prerequisites to selected flight events or stages. Additionally, several ACPM academic events are integrated as prerequisites for flight leadership syllabi. ACPM events may be conducted in group session with an assigned instructor teaching the period of instruction or they may be accomplished by self-paced instruction. MAWTS-1 is responsible for the update and validity of the ACPM periods of instruction. In the future, courses may be consolidated or revised to meet changing requirements. Refer to the MAWTS-1 ACPM link for the current ACPM program of instruction:
<https://mcalms.usmc.mil/>

Completed events shall be manually logged and tracked in M-SHARP.

ACPM academic events, along with their identifying prerequisite association with other training phases/stages/events, are listed below.

ACPM-8000 1.0 * B (N) G

Goal. Demonstrate an understanding of the MACCS stage.

Requirement. Pass a closed book examination that encompasses all learning objectives contained in the prerequisites.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. SI.

Prerequisite. 8001, 8002, 8003, 8004, 8005, 8006, 8008.

Reference. C3 Course Catalog.

ACPM-8001	4.0	*	B	(N)	G

Goal. Demonstrate an understanding of the Marine Air Command and Control System (MACCS).

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Describe how the control of aircraft and missiles relates to the other five functions of USMC aviation.
2. Define the control of aircraft and missiles and each of its subcomponents.
3. Define the Marine aviation's philosophy of centralized command and decentralized control.
4. Differentiate between Marine aviation philosophy and Joint aviation philosophy.
5. Identify the principle objectives of the MACCS.
6. Recall the primary role of each agency of the MACCS.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 MACCS Agencies, Functions and the Control of Aircraft and Missiles Class
2. MCWP 3-25.3 MACCS Handbook
3. MCWP 3-25 Control of Aircraft and Missiles

ACPM-8002	4.0	*	B	(N)	G

Goal. Demonstrate an understanding of the Tactical Air Command Center (TACC).

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. State the mission of the TACC.
2. Identify the four organizations of the TACC.
3. List the primary responsibilities of Air Combat Intelligence (ACI).
4. List the primary responsibilities of Future Operations (FOPS).
5. List the primary responsibilities of Future Plans (FPLANS).
6. List the primary responsibilities of Current Operations (COPS).
7. List the major end items used by the TACC.
8. List the system limitations of the TACC.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 TACC Class
2. MAWTS-1 MTACS Class
3. MCWP 3-25.4 TACC Handbook

ACPM-8003 4.0 * B (N) G

Goal. Demonstrate an understanding of the Direct Air Support Center (DASC).

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify the role of the DASC.
2. List the structure and task organization of the DASC.
3. Identify the major end items and their characteristics used by the DASC.
4. List the capabilities and limitations of the DASC.
5. Identify how the DASC is doctrinally employed as part of the MACCS.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 DASC Class
2. MCWP 3-25.5 DASC Handbook

ACPM-8004 4.0 * B (N) G

Goal. Demonstrate an understanding of the Tactical Air Operations Center (TAOC).

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Define the mission of the TAOC.
2. Identify the Mission Essential Tasks (METs) for the TAOC.
3. Identify the structure and task organization of the TAOC.
4. Identify the major end items and their characteristics used by the TAOC.
5. Identify the capabilities and limitations of the TAOC.
6. Identify how the TAOC is doctrinally employed as part of the MACCS.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 TAOC Class
2. MCWP 3-25.7 TAOC Handbook

ACPM-8005 4.0 * B (N) G

Goal. Demonstrate an understanding of the Marine Air Traffic Control (MATC).

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify the mission of MATC.
2. Identify the Mission Essential Tasks (METs) for MATC.
3. List the structure and task organization of MATC.
4. Identify the major end items and their characteristics used by MATC.

5. Identify the capabilities and limitations of MATC.
6. Identify how MATC is doctrinally employed as part of the MACCS.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 MATC Class
2. MAWTS-1 MMT Class
3. MCWP 3-25.8 MATC Detachment Handbook

ACPM-8006 4.0 * B (N) G

Goal. Demonstrate an understanding of the Low Altitude Air Defense (LAAD).

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify the mission of the LAAD battalion.
2. Identify the structure and task organization of the LAAD battalion.
3. Identify the primary vehicle and surface-to-air weapon used by the LAAD Battalion.
4. Define the LAAD employed guidelines.
5. List the LAAD weapon applications.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 LAAD Class
2. MCWP 3-25.10 LAAD BN Handbook
3. MCWP 3-25.10A LAAD Gunner's Handbook

ACPM-8008 4.0 * B (N) G

Goal. Demonstrate an understanding of the Marine Wing Communications Squadron (MWCS).

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify the mission of the MWCS.
2. Identify the structure and task organization of the MWCS.
3. Identify the Mission Essential Tasks (METs) for the MWCS.
4. Identify the major end items and their characteristics used by MWCS.
5. Identify the capabilities and limitations of the MWCS.
6. Identify how the MWCS is doctrinally employed as part of the MACCS.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 MWCS Employment Class
2. MCRP 3-30B.2 MAGTF Communications Systems
3. NAVMC 3500.56 Communications Training and Readiness Manual

ACPM-8020 1.0 * B (N) G

Goal. Demonstrate an understanding of the ACE stage of the MACCS ACPM.

Requirement. Pass a closed book examination that encompasses all learning objectives contained in the prerequisites.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. 8021, 8022, 8023, 8024, 8025, 8026, 8027, 8028.

Reference. C3 Course Catalog.

ACPM-8021 4.0 * B (N) G

Goal. Demonstrate an understanding of USMC aviation operations doctrine.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify the six functions of Marine aviation to include all their subsets.
2. Identify the organization and mission of the Marine Aircraft Wing (MAW), to include each type of group and squadron.
3. Define who has operational control of organic MAGTF aviation assets during Joint operations.
4. List the four types of sorties the MAGTF Commander makes available to the Joint Force.
5. Identify the purpose of the Air Tasking Order (ATO).
6. Identify the six phases of the air tasking cycle.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

Reference. MCWP 3-2 Aviation Operations

ACPM-8022 4.0 * B (N) G

Goal. Demonstrate an understanding of USMC doctrine for the control of aircraft and missiles.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify how the control of aircraft and missiles relates to the other five functions of USMC aviation.
2. Identify distinctions between Marine aviation philosophy and that of the other services.
3. Identify the principle objectives of the Marine Air Command and Control System (MACCS).
4. Describe how the COMMARFOR may serve as the Joint Force Air
5. Component Commander (JFACC), Airspace Control Authority (ACA), and Area Air Defense Commander (AADC).

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 Control of Aircraft and Missiles Class
2. MCWP 3-25 Control of Aircraft and Missiles

ACPM-8023 4.0 * B (N) G

Goal. Demonstrate an understanding of USMC Offensive Air Support (OAS) doctrine.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify the purpose of the MAGTF Commanders Single Battle Concept.
2. Define the subcategories of OAS.
3. Define the requirements for effective OAS.
4. Define the three types of Deep Air Support (DAS).
5. Define the capabilities and limitations of the OAS function.
6. Identify the elements of a Joint Tactical Air Strike Request (JTAR).
7. Identify the three types of control of Close Air Support (CAS).

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 OAS Class
2. MCWP 3-23 Offensive Air Support

ACPM-8024 4.0 * B (N) G

Goal. Demonstrate an understanding of USMC Assault Support doctrine.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Define the types of assault support operations.
2. Identify which aircraft conduct each of the types of assault support operations.
3. Identify the elements of an Assault Support Request (ASR).
4. List assault support capabilities and limitations.
5. Define the role of the air mission commander and the assault force commander during air assault operations.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 Assault Support Class
2. MAWTS-1 Direct Air Support Requests Class

ACPM-8025 4.0 * B (N) G

Goal. Demonstrate an understanding of USMC Air Reconnaissance doctrine.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify the three categories of air reconnaissance.
2. Identify the four principals of air reconnaissance.
3. Identify the five prerequisites for effective air reconnaissance.
4. Identify the current USMC aircraft that have the mission of air reconnaissance.
5. Identify the form used to request air reconnaissance.
6. Identify the five supporting operations for effective air reconnaissance.
7. Identify the capabilities and limitations of air reconnaissance.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

Reference. MCWP 3-26 Air Reconnaissance

ACPM-8026 4.0 * B (N) G

Goal. Demonstrate an understanding of USMC Electronic Warfare (EW) doctrine.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Define radar.
2. List the three basic radar types.
3. Identify the limitations and characteristics of radar systems.
4. Identify the six guidance systems and how they work.
5. List the three subdivisions of Electronic Warfare (EW).

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 (S) Electronic Warfare Class—for additional training only, secret courseware should not to be used for testing purposesMAWTS-1 Direct Air Support Requests Class
2. MCWP 3-40.5 Electronic Warfare

ACPM-8027 4.0 * B (N) G

Goal. Demonstrate an understanding of USMC Antiair Warfare (AAW) doctrine.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Define AAW.
2. Define the two subsets of AAW.
3. Identify the principles of AAW.
4. Identify the types of Offensive Antiair Warfare (OAAW).
5. Identify the active air defense functions.

6. List three examples of passive air defense measures.
7. Define a Joint Engagement Zone (JEZ), Fighter Engagement Zone (FEZ), Missile Engagement Zone (MEZ), and Base Defense Zone (BDZ).
8. Define the air defense warning conditions.
9. Define the weapons control statuses.
10. Identify the responsibilities of the Regional Air Defense Commander (RADC) and the Sector Air Defense Commander (SADC).

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 Air Defense Class
2. MAWTS-1 Air Defense Commanders Class
3. MAWTS-1 Offensive Antiair Warfare Class
4. MCWP 3-22 Antiair Warfare

ACPM-8028	4.0	*	B	(N)	G

Goal. Demonstrate an understanding of USMC Ground Support (AGS) doctrine.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify the organization responsible for providing AGS to the Marine Aircraft Wing (MAW).
2. Identify the 13 functions of AGS.
3. Identify the five activities that the Marine Wing Support Squadron (MWSS) performs for the ACE when deployed.
4. Identify the four basing concepts for MAGTF Forward Operating Bases (FOBs).
5. List the four classifications of FOBs.
6. Differentiate the distinguishing characteristics of FOBs.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 AGS Class
2. MCWP 3-21.1 Aviation Ground Support

ACPM-8040	1.0	*	B	(N)	G

Goal. Demonstrate an understanding of the Threat stage of the MACCS ACPM

Requirement. Pass a closed book examination that encompasses all learning objectives contained in the prerequisites.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. SI.

Prerequisite. 8041, 8042, 8043, 8044.

Reference. C3 Course Catalog.

ACPM-8041 4.0 * B (N) G

Goal. Demonstrate an understanding of the surface-to-air threat to the MAGTF.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Match the system name with the guidance and target aspect for the following Man Portable Air Defense Systems (MANPADS):
 - a. SA-7
 - b. SA-14
 - c. SA-16
 - d. SA-18
2. Match the system name with the guidance and associated radars for the following Radio Frequency Surface-to-Air Missile Systems (RF SAMS):
 - a. SA-2
 - b. SA-6
 - c. SA-8
 - d. SA-10
 - e. SA-11
 - f. SA-15
 - g. SA-20
 - h. Roland-III
3. Match the system name with the type and associated radar for the following Air Defense Artillery (AAA):
 - a. ZPU 1, 2, 4
 - b. ZSU-23-4
 - c. 2S6
 - d. S-60

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

Reference. MAWTS-1 Marine Aviation Intelligence Reference
(<https://vcepub.tecom.usmc.mil/sites/msc/magtftc/mawts1/departments1/newc3/default.aspx>)

ACPM-8042 4.0 * B (N) G

Goal. Demonstrate an understanding of the fixed wing threat to the MAGTF.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify the role of the AN-2 Colt.
2. Identify the role of the MIG-23 Flogger.
3. Identify the role of the MIG-29 Fulcrum.
4. Identify the role of the MIG-31 Foxhound.
5. Identify the role of the Su-24 Fencer.
6. Identify the role of the Su-25 Frogfoot.
7. Identify the role of the Su-27 Flanker.
8. Identify the role of the Su-30 Flanker.

9. Identify the role of the Tu-22M Backfire.
10. Identify the role of the Tu-95 Bear.
11. Identify the role of the Tu-160 Blackjack.
12. Identify the role of the J-7 Fishbed.
13. Identify the role of the JH-7 Flounder.
14. Identify the role of the J-8 Finback.
15. Identify the role of the J-10 Firebird.
16. Identify the role of the H-6 Badger.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

Reference. MAWTS-1 Marine Aviation Intelligence Reference
(<https://vcepub.tecom.usmc.mil/sites/msc/magtftc/mawts1/departments1/newc3/default.aspx>)

ACPM-8043 4.0 * B (N) G

Goal. Demonstrate an understanding of the rotary wing threat to the MAGTF.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify the role of the Mi-24 Hind.
2. Identify the role of the SA 342 Gazelle.
3. Identify the role of the Ka-25 Hormone.
4. Identify the role of the Mi-6 Hook.
5. Identify the role of the Mi-28 Havoc.
6. Identify the role of the Mi-8 Hip.
7. Identify the role of the Ka-50 Kokum.
8. Identify the role of the Ka-29 Helix B.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

Reference. MAWTS-1 Marine Aviation Intelligence Reference
(<https://vcepub.tecom.usmc.mil/sites/msc/magtftc/mawts1/departments1/newc3/default.aspx>)

ACPM-8044 4.0 * B (N) G

Goal. Demonstrate an understanding of the missile and Unmanned Aircraft System (UAS) threat to the MAGTF.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Match the system name with the terminal guidance for the following Air-to-Surface Missiles:
 - a. AS-10 Karen
 - b. AS-11 Kilter
 - c. AS-12 Kegler
 - d. AS-14 Kedge
 - e. AS-17 Krypton
2. Match the system name with the warhead and guidance for the following Surface-to-Surface Missiles:

- a. FROG-7
 - b. SCUD-B
 - c. SCUD-C
 - d. Nodong 1
 - e. C 801
 - f. C 802
3. Identify the mission of the following threat UAS:
 - a. Ababil
 - b. Mohajer
 - c. Harpy
 - d. Heron
 - e. ASN-206
 - f. Pchela-1T

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 Marine Aviation Intelligence Reference
2. <https://vcepub.tecom.usmc.mil/sites/msc/magtftc/mawts1/departments1/ne>
3. [wc3/default.aspx](https://vcepub.tecom.usmc.mil/sites/msc/magtftc/mawts1/departments1/ne/wc3/default.aspx)
4. Marine Corps Intelligence Activity Iran Country Handbook (appendix A)
5. Marine Corps Intelligence Activity North Korea Country Handbook (page 86)
6. Marine Corps Intelligence Activity China Country Handbook (appendix A)
<https://www.intelink.gov/mcia/handbook.htm>
7. MCIA UAV Recognition Guide <https://www.intelink.gov/mcia/index.htm>

ACPM-8060 1.0 * B (N) G

Goal. Demonstrate an understanding of the MAGTF stage of the MACCS ACPM.

Requirement. Pass a closed book examination that encompasses all learning objectives contained in the prerequisites.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. SI.

Prerequisite. 8061, 8062, 8063, 8064, 8065.

References. C3 Course Catalog.

ACPM-8061 4.0 * B (N) G

Goal. Demonstrate an understanding of the MAGTF ground combat operations.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify how the Ground Combat Element (GCE) is employed as part of the MAGTF and the capabilities the GCE provides to the MAGTF commander
2. Define the following items related to command and control of ground combat operations:
 - a. Echelons of the GCE headquarters

- b. Battlespace Organization
 - c. Battlespace Framework
3. Define the five types of amphibious operations.
4. Identify the following items related to offensive operations:
 - a. Types of offensive operations
 - b. Types of attack
 - c. Forms of maneuver
 - d. Distribution of forces
5. Identify the following items related to defensive operations:
 - a. Organization of the defense
 - b. Distribution of forces
 - c. Types of defensive operations
 - d. Defensive methods

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MCDP 1-0 Marine Corps Operations
2. MCWP 3-1 Ground Combat Operations

ACPM-8062	4.0	*	B	(N)	G

Goal. Demonstrate an understanding of fire support coordination in the Ground Combat Element (GCE).

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify the four fire support tasks.
2. List the functions of the senior fire support coordination center (FSCC) in the GCE.
3. List the four steps of the MAGTF Targeting Process.
4. Define the purpose of essential fire support tasks (EFST).

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 MAGTF Targeting and Fire Support Planning Class
2. MCWP 3-16 Fire Support Coordination in the GCE

ACPM-8063	4.0	*	B	(N)	G

Goal. Demonstrate an understanding of MAGTF command and control.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify MAGTF command and support relationships.
2. Identify the purpose and role of the command and control centers in the CE, ACE, GCE, and LCE.
3. Identify the purpose and role of the amphibious command and control facilities.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

Reference. MCWP 3-40.1 MAGTF C2

ACPM-8064	4.0	*	B	(N)	G

Goal. Demonstrate an understanding of MAGTF communications.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify the six characteristics of communications and information systems.
2. Identify the mission and organizational structure of the Communications Battalion.
3. Identify the purpose of the Communications-Electronics Operating Instructions (CEOI) and what information is usually included in it.
4. Identify what information can be found in Annex K of an operations order.
5. Identify the purpose of select fires, support, and ACE specific radio nets.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

Reference. MCWP 3-40.3 MAGTF Communications System

ACPM-8065	4.0	*	B	(N)	G

Goal. Demonstrate an understanding of phasing control ashore.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify types of amphibious operations and how command relationships may change during the conduct of each.
2. Identify how disputes among commanders during amphibious operations are resolved.
3. Identify the key commanders and command relationships.
4. Identify the key characteristics of each phase in phasing the MACCS ashore.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 Phasing Control Ashore Class
2. JP 3-02 Joint Doctrine for Amphibious Operations (Ch 2)
3. MCWP 3-25 Control of Aircraft and Missiles (Appendix C)

ACPM-8066	4.0	*	B	(N)	G

Goal. Demonstrate an understanding of information management.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Match the principles of information management with their descriptions.
2. Define each of the classes of information within an information hierarchy.
3. List the characteristics of quality information.
4. Identify the role and responsibilities of an Information Management Officer (IMO).
5. Define C2 support structure and the three steps followed to develop one.
6. Identify the purpose of an information management matrix and the information management plan.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

Reference. MCWP 3-40.2 Information Management

ACPM-8067 4.0 * B (N) G

Goal. Demonstrate an understanding of Unmanned Aircraft Systems in support of MAGTF operations.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify the four types of payloads.
2. Identify the three attributes that determine UAS Groups.
3. Identify the five different UAS Group Categories.
4. Identify the two types of VMU operational employment.
5. Identify the three components of the RQ-7B Communications Relay Package.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

Reference.

1. MAWTS-1 UAS In Support of MAGTF Operations
2. MCRP 3-42.1A
3. NTPP 3-22.3-VMU

ACPM-8080 1.0 * B (N) G

Goal. Demonstrate an understanding of the MAGTF stage of the joint air operations stage of the MACCS ACPM.

Requirement. Pass a closed book examination that encompasses all learning objectives contained in the prerequisites.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. SI.

Prerequisite. 8081, 8082, 8083, 8084, 8085, 8086, 8087, 8088.

Reference. C3 Course Catalog.

ACPM-8081 4.0 * B (N) G

Goal. Demonstrate an understanding of the command and control of joint air operations.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify the definition of joint air operations.
2. Identify the Joint Force Air Component Commander's responsibilities.
3. Identify the five sections that comprise the Joint Air Operations Center.
4. Identify the six phases of the Joint Air Tasking Cycle.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives or pass the DOCNET course listed below with a score of 80% or higher.

Instructor. BI.

Prerequisite. None.

References.

1. DOCNET Course 3-30 (<http://www.dtic.mil/doctrine/docnet/>)
2. MAWTS-1 Joint Air Operations Class
3. JP 3-30 C2 of Joint Air Operations

ACPM-8082 4.0 * B (N) G

Goal. Demonstrate an understanding of the theater air ground system (TAGS).

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. List the primary characteristics of the Theater Air Ground System (TAGS).
2. Identify the elements within the Air Force's Theater Air Control System (TACS) and their primary responsibilities.
3. Identify the aviation command and control elements with the Army Air and Ground System (AAGS) and their primary responsibilities.
4. Identify the aviation elements within the Navy's Composite Warfare Commander (CWC) architecture.
5. Identify the Amphibious Task Force (ATF) construct and its primary responsibilities.
6. Identify the aviation command and control elements within the Special Operations Air-Ground System.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 TAGS ClassMAWTS-1 Joint Air Operations Class
2. ALSA TAGS Pub. (<https://wwwmil.alsa.mil/default.aspx>)

ACPM-8083 4.0 * B (N) G

Goal. Demonstrate an understanding of joint fire support doctrine.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Define joint fires.

2. Define joint fire support.
3. Identify the steps of the joint fire support planning process.
4. List the various elements of the component commander's fires command and control system.
5. Define the various joint control and coordination measures associated with joint fire support.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives or pass the DOCNET course listed below with a score of 80% or higher.

Instructor. BI.

Prerequisite. None.

References.

1. DOCNET Course 3-09 (<http://www.dtic.mil/doctrine/docnet/>)
2. JP 3-09 Joint Fire Support

ACPM-8084	4.0	*	B	(N)	G

Goal. Demonstrate an understanding of close air support (CAS) doctrine.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Explain key roles and responsibilities related to the planning and execution of CAS.
2. Detail key steps in the planning and execution of CAS.
3. Describe various coordination measures used in the planning and conduct of CAS.
4. Describe the manner in which the two types of CAS requests are fulfilled.
5. Identify the goal and purpose of synchronizing CAS with surface fires.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives or pass the DOCNET course listed below with a score of 80% or higher.

Instructor. BI.

Prerequisite. None.

References.

1. DOCNET Course 3-09 (<http://www.dtic.mil/doctrine/docnet/>)
2. MAWTS-1 CAS Class
3. JP 3-09.3 Close Air Support

ACPM-8085	4.0	*	B	(N)	G

Goal. Demonstrate an understanding of joint targeting doctrine.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify types of targets.
2. Identify and describe the six phases of the joint targeting cycle.
3. Identify characteristics of a target.
4. Identify and describe steps in dynamic targeting.
5. Describe roles and responsibilities related to the joint targeting process.
6. Describe key products and processes of the joint targeting cycle.
7. Identify key terms related to the joint targeting process.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives or pass the DOCNET course listed below with a score of 80% or higher.

Instructor. BI.

Prerequisite. None.

References.

4. DOCNET Course 3-09 (<http://www.dtic.mil/doctrine/docnet/>)
5. JP 3-60 Joint Targeting

ACPM-8086 4.0 * B (N) G

Goal. Demonstrate an understanding of the North Atlantic Treaty Organization (NATO).

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify the composition of the NATO alliance.
2. Identify the three key articles of the NATO alliance.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 NATO Class
2. "What is NATO" Brief (http://www.nato.int/welcome/intro_to_NATO_en.ppt)
3. AJP-01(D)

ACPM-8087 4.0 * B (N) G

Goal. Demonstrate an understanding of joint airspace control doctrine.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify the responsibilities of the airspace control authority (ACA).
2. Identify the basic principles for airspace control.
3. Identify the purpose of the airspace control plan (ACP).
4. Identify the purpose of the airspace control order (ACO).
5. Identify the methods of airspace control.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 Airspace Control Authority and Airspace Class
2. JP 3-52 Joint Airspace Control

14.14 T&R SYLLABUS MATRIX

5979 T&R SYLLABUS MATRIX										
STAGE	CODE	TITLE	POI	DEVICE	COND	PROFICIENCY PERIOD	E-CODED	TIME	PREREQ	CHAIN
CORE INTRODUCTION PHASE (1000)										
59 COMMON AIR SCHOOL (CAIRS)										
59CM	0001	Describe the characteristics of the Marine Air Command and Control System (MACCS).	B	G	(N)	*	*	0	*	*
59CM	0002	Measure circuit performance.	B	G	(N)	*	*	0	*	*
59CM	0003	Configure MACCS radios for secure RF communications.	B	G	(N)	*	*	0	*	*
59CM	0004	Describe proper handling and storage of classified materials.	B	G	(N)	*	*	0	*	*
59CM	0005	Provide cybersecurity technical support for MACCS specific equipment.	B	G	(N)	*	*	0	*	*
59CM	0006	Repair common cables.	B	G	(N)	*	*	0	*	*
59CM	0007	Demonstrate an earth ground installation.	B	G	(N)	*	*	0	*	*
59CM	0008	Inspect common cables.	B	G	(N)	*	*	0	*	*
TOTAL HOURS 59 AIR SCHOOL (AIRS) STAGE			EVENTS		8	HOURS		0		
AIR SCHOOL (AIRS)										
AIRS	1071	Maintain network circuits with the Aviation Command and Control System (AC2S).	B	G	(N)	*	*	0	*	*
AIRS	1075	Manage Networked Operating Systems (NOS).	B	G	(N)	*	*	0	*	*
AIRS	1079	Configure Network Security.	B	G	(N)	*	*	0	*	*
AIRS	1109	Utilize the Common Interactive Broadcast (CIB).	B	G	(N)	*	*	0	*	*
AIRS	1110	Configure the Aviation Command and Control System (AC2S).	B	G	(N)	*	*	0	*	*

5979 T&R SYLLABUS MATRIX										
STAGE	CODE	TITLE	POI	DEVICE	COND	PROFICIENCY PERIOD	E-CODED	TIME	PREREQ	CHAIN
AIRS	1111	Operate the Cooperative Engagement Capability (CEC) equipment.	B	G	(N)	*	*	0	*	*
AIRS	1116	Perform basic LINUX functions.	B	G	(N)	*	*	0	*	*
TOTAL HOURS AIR SCHOOL (AIRS) STAGE			EVENTS		7	HOURS		0		
TOTAL HOURS CORE INTRODUCTION PHASE (1000)								0		
CORE PHASE (2000)										
EQUIPMENT MANAGEMENT SKILL										
MMCN	2001	State the physical security requirements for classified areas.	B,R	G	(N)	*	*	1	*	*
MMCN	2004	Operate the handheld GPS.	B,R	L	(N)	*	*	2	2000	*
CSWF	2044	Explain computer and networking equipment	B,R	G	(N)	*	*	4	*	*
MMCN	2005	Demonstrate an earth ground installation.	B,R,M	L	(N)	1095	*	1	*	*
MMGT	2070	Complete Maintenance Management Program familiarization.	B,R	G	(N)	*	*	4	*	*
MMGT	2071	Conduct an SL-3 inventory.	B	L	(N)	*	*	2	2070	*
EQUIP	2400	Identify the major components of the AN/USQ-140(V)2 Multifunctional Information Distribution System (MIDS)	B	G	(N)	*	*	1	*	*
EQUIP	2401	Displace the Aviation Command and Control System (AC2S)	B	L	(N)	*	*	6	*	*
TOTAL HOURS EQUIP MANAGEMENT SKILL			EVENTS		8	HOURS		22		
TOTAL HOURS CORE PHASE (2000)								22		

5979 T&R SYLLABUS MATRIX

STAGE	CODE	TITLE	POI	DEVICE	COND	PROFICIENCY PERIOD	E-CODED	TIME	PREREQ	CHAIN
MISSION PHASE (3000)										
NETWORK ADMINISTRATION SKILL										
MMCN	2000	Operate a common fill device.	B,R	L	(N)	*	*	2	*	*
CSFW	2040	Explain Information Security Principles.	B,R,M	G	(N)	1095	*	4	*	*
CSFW	2041	Perform account management.	B,R,M	L	(N)	1095	*	2	*	*
CSFW	2042	Explain risk management processes involved with operational security.	B,R,M	G	(N)	1095	*	4	*	*
CSFW	2045	Explain Networking Concepts.	B,R	G	(N)	*	*	4	*	*
DEPL	2100	Write a packing list.	B,R	L	(N)	*	*	2	*	*
SYSAD	2250	Configure workstation.	B,R	L	(N)	*	*	4	2300	*
SYSAD	2251	Configure Peripherals.	B,R	L	(N)	*	*	2	*	*
NETAD	2292	Perform network logfile management.	B,R	L	(N)	*	*	2	*	*
NETAD	2295	Setup AC2S.	B	L	(N)	*	*	6	*	*
NETAD	2296	Maintain the AC2S interfaces.	B,R,M	L	(N)	1095	*	4	*	*
CONFIG	2302	Monitor AC2S system performance.	B,R	L	(N)	*	*	2	*	*
CONFIG	2305	Configure TDS network equipment.	B,R	L	(N)	*	*	8	*	*
MMCN	3032	Fill the handheld GPS with the appropriate crypto.	B	L	(N)	*	*	2	2000, 2004	*
TDL	2818	State the characteristics of Link 16	B	G	(N)	*	*	3	2809	*
TDL	2819	State the characteristics of the Joint Range Extension Application Protocol (JREAP)	B	G	(N)	*	*	2	2809	*
TDL	2835	Setup Link 16 Equipment	B	L	(N)	*	*	2	2800	*
TDL	2841	Setup JREAP-C Equipment	B	L	(N)	*	*	2	2800	*
TDL	2842	Operate JREAP C	B	L	(N)	*	*	8	2800	*

5979 T&R SYLLABUS MATRIX										
STAGE	CODE	TITLE	POI	DEVICE	COND	PROFICIENCY PERIOD	E-CODED	TIME	PREREQ	CHAIN
DEPL	3060	Prepare system for embark	B,R,M	L	(N)	1095	*	8	2006, 2071, 2100	2006
TOTAL HOURS NETWORK ADMIN SKILL			EVENTS		20	HOURS		73		
DATA LINK ADMINISTRATION SKILL										
MMCN	2002	Extract key material information from COMSEC callout.	B,R	G	(N)	*	*	2	*	*
CSWF	2046	Explain Network media and topologies.	B,R	G	(N)	*	*	4	*	*
CSWF	2047	Explain troubleshooting of computer and network equipment.	B,R	G	(N)	*	*	4	2044, 2045, 2046	*
DEPL	2101	Extract key information from communication planning documents.	B	L	(N)	*	*	2	*	*
DEPL	2103	Identify power requirements.	B,R	L	(N)	*	*	4	*	*
NETAD	2293	Apply Software release updates for networking devices.	B,R	L	(N)	*	*	4	*	*
NETAD	2294	Update firmware for networking devices.	B,R	L	(N)	*	*	3	*	*
CONFIG	2300	Restore system network functions for AC2S.	B	L	(N)	*	*	4	*	*
CONFIG	2307	Setup the Common Interactive Broadcast (CIB).	B	L	(N)	*	*	1	*	*
TDL	2800	Identify the purpose of documents that enable Tactical Data Link (TDL) operations.	B,R,M	G	(N)	1095	*	1	*	*
TDL	2808	Describe the Joint Data Network.	B	G	(N)	*	*	1	*	*
TDL	2809	Describe the Multi-Tactical Data Link (TDL) Interface.	B,R,M	G	(N)	1095	*	2	*	*
TDL	2814	Describe Data Filters.	B	G	(N)	*	*	2	*	*

5979 T&R SYLLABUS MATRIX

5979 T&R SYLLABUS MATRIX										
STAGE	CODE	TITLE	POI	DEVICE	COND	PROFICIENCY PERIOD	E-CODED	TIME	PREREQ	CHAIN
TDL	2820	Identify mission essential segments, sets, and fields within the OPTASK LINK message.	B	G	(N)	*	*	2	2800, 2809	*
TDL	2821	State the purpose of Interface Coordination procedures.	B	G	(N)	*	*	1	*	*
TDL	2823	State the characteristics of the Variable Message Format (VMF).	B	G	(N)	*	*	1	*	*
TDL	2836	Operate Link 16.	B	L	(N)	*	*	8	2800	*
TDL	2837	Setup JREAP-A Equipment.	B	L	(N)	*	*	2	2800	*
TDL	2838	Operate JREAP A.	B	L	(N)	*	*	8	2800	*
TDL	2839	Setup JREAP-B Equipment.	B	L	(N)	*	*	2	2800	*
TDL	2840	Operate JREAP B.	B	L	(N)	*	*	8	2800	*
TDL	2845	Troubleshoot Link 16.	B	L	(N)	*	*	3	2800, 2835, 2836	*
TDL	2846	Troubleshoot JREAP A.	B	L	(N)	*	*	3	2800, 2837, 2838	*
TDL	2847	Troubleshoot JREAP B.	B	L	(N)	*	*	3	2800, 2839, 2840	*
TDL	2848	Troubleshoot JREAP C.	B	L	(N)	*	*	3	2800, 2841, 2842	*
EQUIP	3465	Perform maintenance within the AC2S.	B	L	(N)	*	*	6	2300, 2845, 2846, 2847, 2488	2103, 2279, 2302
ACPM	8000	MACCS.	B	G	(N)	*	*	1	8001, 8002, 8003, 8004, 8005, 8006, 8008	*
TOTAL DATA LINK ADMINISTRATION			EVENTS		26	HOURS		85		
C2 NETWORK MANAGEMENT										
MMCN	2003	Create a classified area physical security diagram.	B,R	L	(N)	*	*	2	2001	*
CSWF	2043	Explain computer and network cryptography.	B,R,M	G	(N)	1095	*	4	*	*
DEPL	2102	Determine supply support requirements.	B	L	(N)	*	*	4	*	*

5979 T&R SYLLABUS MATRIX										
STAGE	CODE	TITLE	POI	DEVICE	COND	PROFICIENCY PERIOD	E-CODED	TIME	PREREQ	CHAIN
MMCN	2006	Develop an embarkation plan	B,R,M	L/S	(N)	1095	*	2	*	*
DEPL	2104	Describe common agency doctrinal nets.	B	G	(N)	*	*	3	*	*
MMCN	2007	Identify spectrum management procedures.	B,R,M	G	(N)	1095	*	2	*	*
DEPL	2105	Identify communication service requirements	B	G	(N)	*	*	8	*	*
DEPL	2106	Identify crew requirements and write a crew schedule	B	G	(N)	*	*	2	*	*
CONFIG	2301	Perform data recovery on organic C2 systems	B,R	L	(N)	*	*	4	*	*
CSWF	3001	Perform network management	B,R,M	L	(N)	1095	*	4	2040, 2042, 2044, 2045, 2046, 2047	2040, 2042
CSWF	3002	Design network architecture	B,R,M	L	(N)	1095	*	4	2040, 2042, 2043, 2044, 2045, 2046, 2047	2040, 2042, 2043
MMGT	3050	Conduct QC procedures	B,R,M	L	(N)	1095	*	6	2070, 2071	*
DEPL	3061	Identify Operational Requirements	B,R,M	L	(N)	1095	*	6	2000, 2001, 2003, 2100, 2101, 2102, 2103, 2136, 2006, 2104, 2007, 2105, 2106	2007, 2105
DEPL	3062	Employ AC2S	B,R,M	L	(N)	1095	*	6	2040, 2041, 2042, 2043, 2044, 2045, 2046, 2047, 2005, 2007, 2296, 2300, 2800, 2809, 2835, 2836, 2837, 2838, 2839, 2840, 2841, 3060	2040, 2041, 2042, 2043, 2005, 2007, 2800, 2809, 20400, 20401, 3060
MMCN	3030	Conduct a site survey	B,R,M	L	(N)	1095	*	8	2103	2103
MMCN	3031	Deploy a MACCS capability	B,R,M	L	(N)	1095	*	8	2100, 2102, 2006, 2106, 3060, 3061, 3062	2006, 3060, 3061, 3062

5979 T&R SYLLABUS MATRIX										
STAGE	CODE	TITLE	POI	DEVICE	COND	PROFICIENCY PERIOD	E-CODED	TIME	PREREQ	CHAIN
NETAD	3250	Develop data recovery management plan	B,R,M	L	(N)	1095	*	4	2042	2044, 2251, 2252, 2253, 2254
ACPM	8020	ACE	B	G	(N)	*	*	1	8021, 8022, 8023, 8024, 8025, 8026, 8027, 8028	*
TOTAL C2 NETWORK MANAGEMENT			EVENTS			HOURS		81		
SENSOR INTEGRATION MANAGEMENT										
CONFIG	2303	Apply software release updates for C2 Systems	B,R	L	(N)	*	*	4	*	*
CONFIG	2304	Update firmware within C2 Systems	B,R	L	(N)	*	*	4	*	*
CONFIG	2306	Restore system software for CTN	B	L	(N)	*	*	3	*	*
EQUIP	2402	Set-up the Composite Tracking Network (CTN)	B,R,M	L	(N)	730	*	6	*	*
EQUIP	2403	Tear-down the Composite Tracking Network (CTN)	B,R,M	L	(N)	730	*	6	*	*
EQUIP	2404	Integrate sensors into C2 Systems	B,R,M	L	(N)	730	*	6	*	*
TDL	2826	State the characteristics of Cooperative Engagement Capability (CEC)	B	G	(N)	*	*	1	*	*
EQUIP	3300	Perform maintenance within the CTN	B	L	(N)	*	*	6	2402, 2403, 2826	2402, 2403, 2826
EQUIP	3301	Validate operation of C2 sensor integration	B,R,M	L	(N)	1095	*	2	2404	2404
TOTAL SENSOR INTEGRATION MANAGEMENT								38		
SERVER ADMINISTRATION SKILL										
CSWF	3000	Administer data system host security measures	B,R,M	L	(N)	1095	*	4	2040, 2042, 2043, 2044, 2045, 2046, 2047	2040, 2042, 2043
TOTAL SERVER ADMINISTRATION			EVENTS		1	HOURS		4		

5979 T&R SYLLABUS MATRIX										
STAGE	CODE	TITLE	POI	DEVICE	COND	PROFICIENCY PERIOD	E-CODED	TIME	PREREQ	CHAIN
TOTAL HOURS MISSION PHASE (3000)								281		
CORE PLUS PHASE (4000)										
MAINTENANCE MANAGEMENT (MMGT)										
MMGT	4250	Assess maintenance shop performance.	B,R,M	L	(N)	1095	*	4	*	*
MMGT	4251	Assess maintenance section funding requirements.	B,R	L	(N)	*	*	2	*	*
TOTAL HOURS MAINTENANCE MANAGEMENT (MMGT) STAGE								6		
TOTAL HOURS CORE PLUS PHASE (4000)								6		
INSTRUCTOR TRAINING PHASE (5000)										
INSTRUCTOR TRAINING STAGE										
IUT	5000	Introduce principals of instruction.	B	L	(N)	*	*	2	*	*
IUT	5010	Describe individual T&R requirements.	B	G	(N)	*	*	2	*	*
IUT	5020	Conduct T&R instruction.	B,R,M	L	(N)	90	*	12	5000, 5010	*
IUT	5100	Describe the Aviation Training and Readiness (T&R) Program.	B	G	(N)	*	*	2	*	*
IUT	5110	Conduct instructor evaluations.	B,R,M	L	(N)	365	*	4	5100	*
IUT	5120	Perform T&R administration.	B	L	(N)	*	*	2	5100, 5110	*
IUT	5130	Develop a training plan.	B	L	(N)	*	*	2	5100, 5110, 5120	*
TOTAL HOURS INSTRUCTOR TRAINING STAGE								28		
TOTAL HOURS INSTRUCTOR TRAINING PHASE (5000)								28		
CERTIFICATIONS, QUALIFICATIONS, AND DESIGNATIONS PHASE (CQD) (6000)										
CERTIFICATIONS (CERT) STAGE										

5979 T&R SYLLABUS MATRIX										
STAGE	CODE	TITLE	POI	DEVICE	COND	PROFICIENCY PERIOD	E-CODED	TIME	PREREQ	CHAIN
CERT	6260	CSWF Technical Support Specialist.	B	G	(N)	*	*	4	2040, 2041, 2042, 2044, 2045, 2046, 2047	*
CERT	6261	CSWF Network Operations Specialist.	B	G	(N)	*	*	4	2040, 2042, 2043, 2044, 2045, 2046, 2047, 3000, 3001, 3002	*
CERT	6262	CSWF System Administrator.	B	G	(N)	*	*	4	2040, 2041, 2042, 2043, 2044, 2045, 2046, 2047, 3000, 3001, 3002	*
TOTAL HOURS CERTIFICATIONS (CERT) STAGE								12		
DESIGNATIONS (DESG) STAGE										
DESG	6320	Basic Instructor (BI).	B	G	(N)	*	*	1	5000, 5010, 5020	*
DESG	6321	Senior Instructor (SI).	B	G	(N)	*	*	1	5000, 5010, 5020, 5100, 5110, 5120, 5130	*
DESG	6322	Weapons and Tactics Instructor (WTI).	B	G	(N)	*	*	1	6000	*
DESG	6324	System Configuration Coordinator.	B	G	(N)	*	*	1	2001, 2040, 2041, 2044, 2047, 2250, 2251, 2296, 2302, 2814, 2818, 2819	*
DESG	6330	Formal Learning Center Instructor (FLC).	B	G	(N)	*	*	1	6096	*
TOTAL HOURS DESIGNATIONS (DESG) STAGE			EVENTS		5	HOURS		4		
SCHOOL (SCHL)										
SCHL	6000	Complete WTI Course	B	G	(N)	*	*	0.5	6320, 6321, 8000, 8020, 8040, 8060, 8080	2002, 2800, 2801, 2802, 2803, 2805, 2806, 2808, 3032, 3046
SCHL	6013	Complete (AOC IQT) System Administrator Course	B	G	(N)	*	*	0.5	*	*

5979 T&R SYLLABUS MATRIX										
STAGE	CODE	TITLE	POI	DEVICE	COND	PROFICIENCY PERIOD	E-CODED	TIME	PREREQ	CHAIN
SCHL	6014	Complete (AOC IQT) Network Administrator Course	B	G	(N)	*	*	0.5	*	*
SCHL	6020	Complete Link 16 Basics Course (JT-100)	B	G	(N)	*	*	0.5	*	*
SCHL	6021	Complete Intro to Multi TDL Network (JT-101) Course	B	G	(N)	*	*	0.5	*	*
SCHL	6022	Complete Multi-TDL Advanced Joint Interoperability Course (MAJIC) (JT-102)	B	G	(N)	*	*	0.5	*	*
SCHL	6023	Complete Link 16 Joint Interoperability Course (US-109)	B	G	(N)	*	*	0.5	*	*
SCHL	6024	Complete Multi TDL Planner Course (JT-201)	B	G	(N)	*	*	0.5	*	*
SCHL	6025	Complete Link 16 Unit Manager (LUM) Course (JT-220)	B	G	(N)	*	*	0.5	*	*
SCHL	6026	Joint Interface Control Officer (JICO) (JT-301)	B	G	(N)	*	*	0.5	*	*
SCHL	6027	Advanced JICC Operator Course (JT-310)	B	G	(N)	*	*	0.5	*	*
SCHL	6030	Work Center Supervisor's Course	B	G	(N)	*	*	0.5	*	*
SCHL	6031	MATC Maintenance Manager's Course	B	G	(N)	*	*	0.5	*	*
SCHL	6073	Complete Microminiature Electronic Repair Course	B	G	(N)	*	*	0.5	*	*
SCHL	6093	Micro-miniature/Automated Test Equipment Repair Course	B	G	(N)	*	*	0.5	*	*
SCHL	6094	Advanced Electronics Course.	B	G	(N)	*	*	0.5	*	*
SCHL	6095	Ground Electronics Maintenance NCO Course.	B	G	(N)	*	*	0.5	*	*
SCHL	6096	Attend respective instructor development course.	B	G	(N)	*	*	0.5	*	*
SCHL	6097	Mountain Command Control Communications Course.	B	G	(N)	*	*	0.5	*	*
SCHL	6098	Electromagnetic Spectrum Manager Course.	B	G	(N)	*	*	0.5	*	*
SCHOOL (SCHL)			EVENTS	11		HOURS		6.5		
TOTAL HOURS CERTIFICATION, QUALIFICATION, AND DESIGNATION (CQD) (6000)								16		

5979 T&R SYLLABUS MATRIX

5979 T&R SYLLABUS MATRIX										
STAGE	CODE	TITLE	POI	DEVICE	COND	PROFICIENCY PERIOD	E-CODED	TIME	PREREQ	CHAIN
MISSION ESSENTIAL TASK (MET) PHASE (7000)										
TACC CONDITION (TACC)										
COND	7001	Establish communications	B,R,M	L	(N)	730	E	4	*	*
COND	7003	Display the Common Tactical Picture	B,R,M	L/S	(N)	730	E	8	*	*
COND	7004	Coordinate air operations between the MACCS and Joint /Combined/Coalition/Host Nation command and control agencies	B,R,M	L/S	(N)	730	E	18	*	*
COND	7005	Manage the current air tasking order	B,R,M	L/S	(N)	730	E	8	*	*
COND	7007	Maintain a facility and associated command and control systems for the TACC	B,R,M	L/S	(N)	730	E	16	*	*
COND	7009	Coordinate Airspace Management in Current Operations	B,R,M	S/L	(N)	730	E	2	*	*
TACC CONDITION (TACC)			EVENTS	6		HOURS		56		
TAOC CONDITION (TAOC)										
COND	7000	Conduct Airspace Surveillance	B,R,M	L	(N)	730	E	16	*	*
COND	7001	Conduct Positive Control	B,R,M	L/S	(N)	730	E	16	*	*
COND	7002	Coordinate Air Defense Actions	B,R,M	L/S	(N)	730	E	16	*	*
COND	7003	Conduct Dual Site Air Defense Operations	B,R,M	L/S	(N)	730	E	16	*	*
COND	7004	Integrate Operational Air Defense Capabilities	B,R,M	L/S	(N)	730	E	16	*	*
TAOC CONDITION (TAOC)			EVENTS	5		HOURS		80		
DASC CONDITION (DASC)										
COND	7400	Employ an ASLT	B,R,M	L/S	(N)	730	E	3	*	*
COND	7405	Employ an ASE	B,R,M	L/S	(N)	730	E	3	*	*
COND	7410	Employ a DASC	B,R,M	L/S	(N)	730	E	3	*	*
COND	7415	Conduct a Reconnaissance, selection, and Occupation of Position (RSOP) for the DASC	B,R,M	L/S	(N)	730	E	3	*	*

5979 T&R SYLLABUS MATRIX										
STAGE	CODE	TITLE	POI	DEVICE	COND	PROFICIENCY PERIOD	E-CODED	TIME	PREREQ	CHAIN
COND	7420	Conduct Echelon Operations	B,R,M	L/S	(N)	730	E	3	*	*
COND	7425	Conduct Phasing of Control Ashore	B,R,M	L/S	(N)	730	E	3	*	*
DASC CONDITION (DASC)			EVENTS	6		HOURS		18		
TOTAL HOURS MISSION ESSENTIAL TASK (MET) PHASE (7000)										
AVIATION CAREER PROGRESSION MODEL (ACPM) PHASE (8000)										
AVIATION CAREER PROGRESSION MODEL (ACPM)										
ACPM	8000	MACCS	B	G	(N)	*	*	1	8001, 8002, 8003, 8004, 8005, 8006, 8008	*
ACPM	8001	Marine Air Command and Control System	B	G	(N)	*	*	4	*	*
ACPM	8002	Tactical Air Command Center (TACC)	B	G	(N)	*	*	4	*	*
ACPM	8003	Direct Air Support Center (DASC)	B	G	(N)	*	*	4	*	*
ACPM	8004	Tactical Air Operations Center (TAOC)	B	G	(N)	*	*	4	*	*
ACPM	8005	Marine Air Traffic Control (MATC)	B	G	(N)	*	*	4	*	*
ACPM	8006	Low Altitude Air Defense (LAAD)	B	G	(N)	*	*	4	*	*
ACPM	8008	Marine Wing Communications Squadron (MWCS)	B	G	(N)	*	*	4	*	*
ACPM	8020	ACE	B	G	(N)	*	*	1	8021, 8022, 8023, 8024, 8025, 8026, 8027, 8028	*
ACPM	8021	Aviation Operations	B	G	(N)	*	*	4	*	*
ACPM	8022	Control of Aircraft and Missiles	B	G	(N)	*	*	4	*	*
ACPM	8023	Offensive Air Support (OAS)	B	G	(N)	*	*	4	*	*
ACPM	8024	Assault Support (AS)	B	G	(N)	*	*	4	*	*
ACPM	8025	Air Reconnaissance	B	G	(N)	*	*	4	*	*
ACPM	8026	Electronic Warfare (EW)	B	G	(N)	*	*	1	*	*
ACPM	8027	Anti-Air Warfare (AAW)	B	G	(N)	*	*	4	*	*
ACPM	8028	Aviation Ground Support	B	G	(N)	*	*	4	*	*
ACPM	8040	Threat	B	G	(N)	*	*	1	8041, 8042, 8043, 8044	*

5979 T&R SYLLABUS MATRIX

5979 T&R SYLLABUS MATRIX										
STAGE	CODE	TITLE	POI	DEVICE	COND	PROFICIENCY PERIOD	E-CODED	TIME	PREREQ	CHAIN
ACPM	8041	Surface to Air threat to the MAGTF	B	G	(N)	*	*	4	*	*
ACPM	8042	Fixed Wing threat to the MAGTF	B	G	(N)	*	*	4	*	*
ACPM	8043	Rotary Wing threat to the MAGTF	B	G	(N)	*	*	4	*	*
ACPM	8044	Missile and UAS threat to the MAGTF	B	G	(N)	*	*	4	*	*
ACPM	8060	MAGTF	B	G	(N)	*	*	1	8061, 8062, 8063, 8064, 8065, 8066, 8067	*
ACPM	8061	Ground Combat Operations	B	G	(N)	*	*	4	*	*
ACPM	8062	Fire Support Coordination in the GCE	B	G	(N)	*	*	4	*	*
ACPM	8063	MAGTF Command and Control	B	G	(N)	*	*	4	*	*
ACPM	8064	MAGTF Communications	B	G	(N)	*	*	4	*	*
ACPM	8065	Phasing Control Ashore	B	G	(N)	*	*	4	*	*
ACPM	8066	Information Management	B	G	(N)	*	*	4	*	*
ACPM	8067	UAS support of the MAGTF	B	G	(N)	*	*	4	*	*
ACPM	8080	Joint Air Operations	B	G	(N)	*	*	1	8081, 8082, 8083, 8084, 8085, 8086, 8087, 8088	*
ACPM	8081	Command and Control of Joint Air Operations	B	G	(N)	*	*	4	*	*
ACPM	8082	Theater Air Ground System (TAGS)	B	G	(N)	*	*	4	*	*
ACPM	8083	Joint Fire Support	B	G	(N)	*	*	4	*	*
ACPM	8084	Close Air Support (CAS)	B	G	(N)	*	*	4	*	*
ACPM	8085	Joint Targeting	B	G	(N)	*	*	4	*	*
ACPM	8086	North Atlantic Treaty Organization (NATO)	B	G	(N)	*	*	4	*	*
ACPM	8087	Joint Airspace Control	B	G	(N)	*	*	4	*	*
ACPM	8088	Countering Air and Missile Threats	B	G	(N)	*	*	4	*	*
AVIATION CAREER PROGRESSION MODEL (ACPM)			EVENTS	39		HOURS		138		
TOTAL AVIATION CAREER PROGRESSION MODEL (ACPM) PHASE (8000)								138		

14.14.1 MIRRORING TABLE.

MACCS MAINTENANCE MIRRORING (5979)			
NEW EVENT	TACC	TAOC	DASC
2000		2001	
2001		2002	
2002		2003	
2003		2004	
2004		2021	
2005			
2006			
2007		2140	
2040		2042	
2041		2041	
2042		2043	
2043		2045	
2044			
2045			
2046			
2047			
2070		2100	
2071		2101	
2100		2130	
2101		2131	
2102		2132	
2103		2133	
2104		2139	
2105		2141	
2106		2142	
2250		2308	
2251			
2292			
2293		2306	
2294		2307	
2295		2424	
2296			
2300			
2301		2303	
2302		2304	
2303		2306	

MACCS MAINTENANCE MIRRORING (5979)			
NEW EVENT	TACC	TAOC	DASC
2304		2307	
2305		2308	
2306		2311	
2307			
2400		2381	
2401		2425	
2402		2426	
2403		2427	
2404			
2800		2800	
2808		2808	
2809		2809	
2814		2814	
2818		2818	
2819		2819	
2820			
2821		2821	
2823		2823	
2826		2826	
2835		2835	
2836		2836	
2837		2837	
2838		2838	
2839		2839	
2840		2840	
2841		2841	
2842		2842	
2845		2845	
2846		2846	
2847		2847	
2848		2848	
3000		3001	
3001		3002	
3002		3003	
3030		3043	
3031		3045	
3032			
3050			

MACCS MAINTENANCE MIRRORING (5979)			
NEW EVENT	TACC	TAOC	DASC
3060		3040	
3061		3041	
3062			
3250			
3465		3465	
3300		3466	
3301			
4250		4900	
4251		4901	
6260		6260	
6261		6261	
6262		6262	
6324			
6320		6320	
6321		6321	
6322		6322	

CHAPTER 15

ELECTRONICS MAINTENANCE CHIEF (AVIATION (C2)) MOS 5993 INDIVIDUAL TRAINING AND READINESS REQUIREMENTS

	<u>PARAGRAPH</u>	<u>PAGE</u>
CREWMEMBER T&R SYLLABUS REQUIREMENTS.	15.0	15-3
TRAINING PROGRESSION MODEL.	15.1	15-3
PROGRAMS OF INSTRUCTION (POI)	15.2	15-3
PROFICIENCY AND CURRENCY.	15.3	15-4
CERTIFICATION, QUALIFICATION, AND DESIGNATION TABLES.	15.4	15-5
SYLLABUS NOTES.	15.5	15-5
CORE INTRODUCTION PHASE (0000)	15.6	15-6
CORE PHASE (2000)	15.7	15-16
MISSION PHASE (3000)	15.8	15-16
CORE PLUS PHASE (4000)	15.9	15-16
MISSION PLUS PHASE (4500)	15.10	15-17
INSTRUCTOR TRAINING PHASE (5000)	15.11	15-17
CERTIFICATIONS, QUALIFICATIONS, AND DESIGNATIONS (CQD) PHASE (6000)	15.12	15-22
MISSION ESSENTIAL TASK (MET) PHASE (7000)	15.13	15-28
AVIATION CAREER PROGRESSION MODEL (8000)	15.14	15-41
T&R SYLLABUS MATRIX.	15.15	15-58

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CHAPTER 15

ELECTRONICS MAINTENANCE CHIEF AVIATION COMMAND AND CONTROL
(MOS 5993)/INDIVIDUAL TRAINING AND READINESS REQUIREMENTS

15.0 CREWMEMBER T&R SYLLABUS REQUIREMENTS. This T&R Syllabus is based on specific goals and performance standards designed to ensure individual proficiency in Core and Mission Skills. The goal of this chapter is to develop individual and unit warfighting capabilities.

15.1 TRAINING PROGRESSION MODEL. This model represents the recommended average training progression for the Electronics Maintenance Chief (Aviation (C2)). Units should use the model as a point of departure to generate individual training plans. Marines are not required to hold the 5993 MOS to begin the syllabus.

MOS 5993 TRAINING PROGRESSION MODEL															
								S-6 CHIEF							
5993 MAINTENANCE CHIEF															
198	204	210	216	222	228	234	240	246	252	258	264	270	276	282	288

NOTE: TIME IS EXPRESSED IN TRAINING MONTHS

15.2 PROGRAMS OF INSTRUCTION (POI).

15.2.1 General. Represents the average POI time-to-train by Phase. Note: Each POI built during the syllabus chapter requires a POI Table.

15.2.2 Basic POI.

ELECTRONICS MAINTENANCE CHIEF (AVIATION (C2)) BASIC POI		
WEEKS	PHASE OF INSTRUCTION	UNIT RESPONSIBLE
1-6	CORE PHASE	TACTICAL SQUADRON
7-10	MISSION PHASE	TACTICAL SQUADRON

NOTE 1: TRAINING DURATIONS VARIES BY POSITION BEING TRAINED. SEE PROGRESSION MODEL FOR NOTIONAL TRAINING TIMES.

ELECTRONICS MAINTENANCE CHIEF (AVIATION (C2))		
WEEKS	PHASE OF INSTRUCTION	UNIT RESPONSIBLE
VARIES	CORE PHASE	TACTICAL SQUADRON
VARIES	MISSION PHASE	TACTICAL SQUADRON

15.3 PROFICIENCY AND CURRENCY.

15.3.1 Event Proficiency. Event proficiency is defined as successful completion of the performance standard as determined by the instructor or evaluator. Event completion is predicated upon demonstrated proficiency. Once completed, it is logged in M-SHARP by entering the appropriate event code. M-SHARP automatically updates the event proficiency date to reflect the completion date.

15.3.2 Skill Proficiency. Proficiency is a measure of achievement of a specific skill. To attain Individual Skill proficiency, an individual must be simultaneously proficient in all events for that Skill. Individuals may be attaining proficiency in some skills while maintaining proficiency in others. Refresher training is required once an individual has been absent from a technician billet for 36 months or longer. Upon return, the individual will complete R-coded events..

15.3.2.1 Maintaining Skill Proficiency. Once attained, skill proficiency is maintained by executing those events which have a Proficiency Period (Maintain events). Proficiency Periods establish the maximum time between event demonstration. Should proficiency be lost in any maintain event, for a specific skill, that skill proficiency is temporarily lost. Skill proficiency can be re-attained by again demonstrating proficiency in the event(s) that are not proficient. For flying communities, an individual shall complete delinquent events with a proficient instructor, crewman/flight lead as delineated by the T/M/S Syllabus Sponsor (see Chapter 3 of the Program Manual on specific instructor requirements for Low Altitude Flight, Night Systems, ACM, DM, DACM, DCM, FAC(A)).

15.3.2.2 Loss of Individual Skill Proficiency. Should an individual lose proficiency in all maintain events in a skill, the individual will be assigned to the Refresher POI for the skill. To regain skill proficiency, the individual must demonstrate proficiency in all R-coded events for the skill

15.3.2.3 Loss of Unit Skill Proficiency. If an entire unit loses proficiency in an event, unit instructors shall regain proficiency by completing the event with an instructor from a like unit. If not feasible, the instructor shall regain proficiency by completing the event with another instructor. For flying communities, if a unit has only one instructor and cannot complete the event with an instructor from another unit, the instructor shall regain proficiency with another aircraft commander or as designated by the commanding officer.

15.3.2.4 Proficiency Status. Proficiency is a “Yes/No” status by skill assigned to an individual. When an individual attains and maintains Core Skill Proficiency (CSP), Mission Skill Proficiency (MSP), Core Plus Skill Proficiency (CPSP), or Mission Plus Skill Proficiency (MPSP), the individual may count towards CMMR or CMTS.

15.3.3 Skill Currency. Currency is a control measure used to provide an additional margin of safety based on exposure frequency to a particular skill and applies to all MOS’s that must comply with NATOPS and OPNAV requirements. It is a measure of time since the last event demanding that specific skill. Specific currency requirements for aircrew individual type mission profiles can be found in Chapter 3.

15.4 CERTIFICATION, QUALIFICATION AND DESIGNATION TABLES. The tables below delineate T&R events required to be completed to attain proficiency for select certifications, qualifications and designations. In addition to event requirements, all required stage lectures, briefs, squadron training, prerequisites, and other criteria shall be completed prior to completing final events. Certification, qualification and designation letters signed by the

8 JAN 2021

commanding officer shall be placed in training Performance Records and NATOPS. See Chapter 6 of the Aviation T&R Program Manual on regaining lost qualifications.

15.4.1 INSTRUCTOR DESIGNATIONS.

MOS 5993 INSTRUCTOR DESIGNATIONS	
INSTRUCTOR DESIGNATION	EVENTS
BASIC INSTRUCTOR (BI)	5000, 5010, 5020, 6320
SENIOR INSTRUCTOR (SI)	5000, 5010, 5020, 5100, 5110, 5120, 5130, 6320, 6321
WEAPONS AND TACTICS INSTRUCTOR (WTI)	6320, 6321, 6322, 8000, 8020, 8040, 8060, 8080
FORMAL LEARNING CENTER INSTRUCTOR (FLCI)	6096, 6330

15.4.2 CERTIFICATIONS, QUALIFICATIONS, AND DESIGNATIONS. N/A.

15.5 SYLLABUS NOTES.

15.5.1 Environmental Conditions Matrix.

Environmental Conditions	
Code	Meaning
(N)	May be conducted day or night. If at night, may be aided or unaided.

15.5.2 Device Matrix.

DEVICE	
Symbol	Meaning
L	Conducted using Unit T/E equipment.
L/S	Live preferred/Simulator optional.
S/L	Simulator preferred/Live optional.
G	Ground/academic training. May include Distance Learning, CBT, lectures, self paced.

15.5.3 Program of Instruction Matrix.

PROGRAM OF INSTRUCTION MATRIX		
Program of Instruction (POI)	Symbol	Aviation Ground
Basic	B	Initial MOS Training
Refresher	R	Return to community from non (MOS/Skill) associated tour
Maintain	M	All individuals who have attained CSP/MSP/CPD by initial POI assignment are re-assigned to the M POI to maintain proficiency.

15.5.4 Event Terms.

EVENT TERMS	
TERM	DESCRIPTION
Discuss	An explanation of systems, procedures, or tactics during the brief, exercise, or debrief. Student is responsible for knowledge of procedures.
Demonstrate	The description and performance of a particular event by the instructor, observed by the student. The student is responsible for knowledge of the procedures prior to the demonstration of a required event.
Introduce	The instructor may demonstrate a procedure or event to a student, or may coach the student through the maneuver without demonstration. The student performs the procedures or maneuver with coaching as necessary. The student is responsible for knowledge of the procedures.
Practice	The performance of a maneuver or procedure by the student that may have been previously introduced in order to attain a specified level of performance.
Review	Demonstrated proficiency of an event by the student.
Evaluate	Any event designed to evaluate team/crew standardization that does not fit another category.

15.6 CORE INTRODUCTION PHASE (0000).

15.6.1 Purpose. The 5993 Electronics Maintenance Chief (Aviation (C2)) MOS does not have or require an MOS producing school for granting the MOS. The MOS is allocated to 5939, 5948, 5974 and 5979 Gunnery Sergeants upon promotion to Master Sergeant.

15.6.2 General.

15.6.2.1 Admin Notes. Hours are not utilized in the header information for each of the blocks of training provided by MCCES.

15.6.2.2 Prerequisite. Meet the 5993 requirement delineated in the MOS Manual (NAVMC 1200.1E).

15.6.2.3 Stages. The following stages are included in the Core Introduction Phase of training.

PAR NO.	STAGE NAME	PAGE NUMBER
15.6.3	AIR SCHOOLS (AIRS) STAGE	15-6

15.6.3 AIR SCHOOLS (AIRS) STAGE

15.6.3.1 Purpose. To train Electronics Maintenance Chiefs in core skill introduction phase training events.

15.6.3.2 General.

Admin Notes. Hours are not utilized in the header information for each of the blocks of training provided by MCCES.

Prerequisite. None.

Crew Requirements. None.

AIRS-1002 0 * B (N) G

Goal. Conduct an inspection of maintenance functional areas.

Requirement. Given required references and a current inspection checklist, demonstrate the procedures for inspecting the following functional areas:

1. State the purpose for inspecting the functional areas.
2. Identify and review the references for each functional area and obtain applicable and current inspection lists for all.
3. Conduct an inspection of all areas to familiarize the trainee with the specifics of each.
 - a. Calibration Control Program.
 - b. Publication Control Program.

- c. Quality Assurance Program.
- d. Preventive Maintenance Program.
- e. Modification Control Program.
- f. Tool Control Program.
- g. GCSS-MC.
- h. Training Program.
- i. Records.
- j. Safety Program.
- k. Corrosion Prevention and Control (CPAC).
- l. Warranty Program.
- 4. Explain the inspection procedures.
 - a. Schedule the inspection.
 - b. Inform functional area manager.
 - c. Turn over folders are IAW the references.
 - d. Submit an executive summary at the conclusion of the inspection.

Performance Standard. Pass an exam.

Instructor. FLC instructor

Prerequisite. None.

References.

- 1. FSMAO Checklist
- 2. MMSOP

AIRS-1003 0 * B (N) G

Goal. Identify the key elements of Operational Orders (OPORD).

Requirement. Given an OPORD, identify those key elements pertaining to the unit's communications requirements, perform the following:

- 1. Identify the purpose and major sections of the OPORD.
- 2. State the purpose and content of the Annex K.
 - a. State the purpose and content of the OPTASKLINK.
 - b. State the purpose and content of an KMI Callout.

Performance Standard. Pass an exam.

Instructor. FLC instructor

Prerequisite. None.

Reference.

- 1. MCWP 5-1

AIRS-1004 0 * B (N) G

Goal. Reconcile Global Combat Support Systems-Marine Corps (GCSS-MC) automated reports.

Requirement. Given the reports listed in item 1 below:

- 1. Identify the purpose of:
 - a. Maintenance Production Report (MPR).
 - b. Equipment Status Report (ESR).
 - c. Preventative Maintenance (PM) Report.
 - d. Calibration Report.
 - e. Modification Report.
 - f. Sub-Inventory Report

- g. Maintenance Management Report (MMR).
- h. Due and Status File (DASF) Report.
- i. Mechanized Allowance List (MAL) Report.
- j. Inspection repair tag (NAVMC 1018).
2. Identify the type of information contained in each of the forms listed above.
3. Identify the status of a parts requisition.
4. Identify proper use of a Uniform Material Movement and Issue Priority System (UMMIPS) priorities.
5. State item requisition priorities.
6. State any errors found within each of the forms listed above.
7. Reconcile all items listed above and list all errors found in each form.
8. Explain how to maintain a layette bin.

Performance Standard. Given the GCSS-MC automated reports, reconcile these reports to pass an exam.

Instructor. FLC instructor

Prerequisite. None.

References.

1. MCO 3000.11E Ground Equipment Condition and Supply Material Readiness Reporting (MRR) Policy
2. MCO P4400.16 Uniform Material Movement and Issue Priority System (UMMIPS)
3. MCO 4790.2 Field-Level Maintenance Management Policy (FLMMP)
4. TM 4700-15/1_ Ground Equipment Record Procedures
5. UM 4000-125 Marine Corps User's Manual

AIRS-1005 0 * B (N) G

Goal. Identify the services provided by Marine Wing Communications Squadron.

Requirement. Given the references, describe the following services:

1. Single Channel Radio Communications.
2. Wide Area Networks (WAN) / Local Area Networks (LAN) Communications.
3. Electronic Message Communications.
4. Telephone Communications.
5. Digital Backbone.
6. Communications Control.

Performance Standard. Pass an exam.

Instructor. FLC instructor

References.

1. MCWP 3-40.3
2. MCWP 3-25 Control of Aircraft and Missiles

AIRS-1006 0 * B (N) G

Goal. Identify cyber security requirements for tactical employment of information systems.

Requirement. Given the reference, perform the following:

1. Identify the Accreditation package requirements.
2. Explain the purpose of the Authority to Operate (ATO) / Authority to Connect (ATC).
3. Explain configuration management and its relationship to cyber security.

Performance Standard. Pass an exam.

Instructor. FLC instructor

Prerequisite. None.

References.

1. DOD Directive 5200.28
2. DOD Directive 5200.40
3. MCO 5239.2A
4. DoD 8570.01-M

AIRS-1007 0 * B (N) G

Goal. Identify TAOC and EW/C communications information exchange requirements.

Requirement. Given the references, perform the following:

1. Data systems.
2. Radio systems.
3. Data link systems.

Performance Standard. Pass an exam.

Instructor. FLC instructor

Prerequisite. None.

References.

1. MCRP 5-12D
2. Unit Core METL
3. MCBUL 3000
4. MCWP 3-25.7
5. MCWP 3-25.8
6. MCWP 3-25

AIRS-1008 0 * B (N) G

Goal. Identify TACC Communications information exchange requirements.

Requirement. Given the references, perform the following:

1. Data systems.
2. Radio systems.
3. Data link systems.

Performance Standard. Pass an exam.

Instructor. FLC instructor

Prerequisite. None.

References.

1. MCRP 5-12D
2. MCWP 3-25.4
3. Unit Core METL
4. MCBUL 3000

AIRS-1009 0 * B (N) G

Goal. Identify DASC communications information exchange requirements.

Requirement. Given the references, perform the following:

1. Data systems.

8 JAN 2021

2. Radio systems.
3. Data link systems.

Performance Standard. Pass an exam.

Instructor. FLC instructor

Prerequisite. None.

References.

1. MCRP 5-12D
2. Unit Core METL
3. MCBUL 3000
4. MCWP 3-25.5
5. MCWP 3-25

AIRS-1010 0 * B (N) G

Goal. Analyze the TO/E.

Requirement. Given a TO/E, explain the following:

1. Mission statement.
2. Billet Organization.
3. Equipment Organization.

Performance Standard. Pass an exam.

Instructor. FLC instructor

Prerequisite. None.

References.

1. URL <https://tfsms.mccdc.usmc.mil>
2. MCO 5311.1

AIRS-1011 0 * B (N) G

Goal. Identify spectrum management procedures.

Requirement. Given the references and a scenario with operational requirements, perform the following:

1. Submit frequency requirements.
 - a. Identify submission timelines.
 - b. Identify data elements (Freq, Location, Power, Dates).
2. Submit Satellite Access requirements.

Performance Standard. Pass an exam.

Instructor. FLC instructor

Prerequisite. None.

References.

1. MCRP 3-40
2. MCO 2400.2

AIRS-1012 0 * B (N) G

Goal. Identify the embarkation requirements for the major end items of the TACC, DASC, TAOC, and

EW/C.

Requirement. Given the reference, list:

1. Hazardous Material requirements.
2. Security requirements.
3. Material Handling Equipment requirements.
4. Equipment specific transportation requirements.
5. Identify MAGTF Deployment Support System II (MDSS II) elements.

Performance Standard. Pass an exam.

Instructor. FLC instructor

Prerequisite. None.

References.

1. MCO 4030.33
2. MCRP 4-11C

AIRS-1013 0 * B (N) G

Goal. Identify LAAD Communications information exchange requirements.

Requirement. Given the references, perform the following:

1. Data systems.
2. Radio systems.
3. Data link systems.

Performance Standard. Pass an exam.

Instructor. FLC instructor

Prerequisite. None.

References.

1. MCWP 3-25.10
2. MCWP 3-25
3. Unit Core METL
4. MCBUL 3000

AIRS-1014 0 * B (N) G

Goal. Identify MATC communications information exchange requirements.

Requirement. Given the references, perform the following:

1. Data systems.
2. Radio systems.
3. Data link systems.

Performance Standard. Pass an exam.

Instructor. FLC instructor

Prerequisite. None.

References.

1. MCWP 3-25
2. MCWP 3-25.8

8 JAN 2021

3. Unit Core METL
4. MCBUL 3000

AIRS-1016 0 * B (N) G

Goal. Identify the Marine Corps Urgent Needs Process (MCUNP).

Requirement. Given the references and an equipment requirement, identify the process for submission and complete the MCUNP form.

1. State the purpose of the MCUNP.
2. State the purpose of the urgent Universal Needs Statement (UNS).
3. State the purpose of the deliberate UNS.
4. Describe the process of completing an Urgent UNS form.
5. Describe the process of completing a deliberate UNS form.

Performance Standard. Pass an exam.

Instructor. FLC instructor

Prerequisite. None.

References.

1. NAVMC 11475
2. MCO 3900.17

AIRS-1017 0 * B (N) G

Goal. Validate induction of new equipment into service.

Requirement. Given a Material Fielding Plans (MFP) or Users Logistics Support Summary (ULSS), and applicable references, demonstrate and validate the induction of new equipment into service.

1. Review the Users Logistics Support Summary (ULSS) or Material Fielding Plan (MFP).
2. Validate new equipment is properly placed into service.
 - a. Ensure record jacket was created with proper documentation IAW the reference.
 - b. Ensure initial SL-3 was performed.
 - c. Ensure an initial LTI was performed.
 - d. Ensure induction of new equipment into calibration cycle a required.
 - e. Ensure equipment is accounted for within KMI as required.
 - f. Ensure the equipment and proper documentation was sent to Supply.
 - g. Ensure supply received the proper documentation to add equipment to the CMR.

Performance Standard. Pass an exam.

Instructor. FLC instructor

Prerequisite. None.

References.

1. Supply Instruction (SI)
2. ULSS
3. Equipment SL-3
4. Initial Issuing Provision Inventories
8. UM 4000-125 GCSS User's Manual
9. MMSOP
5. MCO 4790.2
6. MCO 4400.150

AIRS-1018 0 * B (N) G

Goal. Demonstrate the process to phase out obsolete equipment.

Requirement. Given a Phase out Plan (POP) and applicable references, demonstrate and validate phase out of obsolete equipment, to include at minimum:

1. Review the POP and applicable references.
2. State the purpose of:
 - a. Equipment disposition (Formerly WIR).
 - b. Requesting equipment disposition in GCSS-MC.
 - c. Materiel Returns (MTR) program.
3. Validate obsolete equipment was disposed of properly by ensuring the following:
 - a. Ensure a final LTI was performed.
 - b. Ensure a final SL-3 was performed.
 - c. Ensure equipment disposition request was submitted in GCSS-MC.
 - d. Ensure equipment was disposed of IAW instructions in Phase out plan.
 - e. Ensure the record jackets were completed and accompanied equipment.
 - f. Ensure the equipment and proper documentation was sent to Supply for turn-in.
 - g. Ensure supply received the proper documentation to remove equipment from the CMR.

Performance Standard. Pass an exam.

Instructor. FLC instructor

Prerequisite. None.

References.

1. UM 4000-125 GCSS User's Manual
2. MMSOP
3. Supply Instruction (SI)
4. Equipment SL-3
5. Initial Issuing Provision Inventories
6. MCO P4400.82
7. MCO 4790.2
8. MCO 4400.150

AIRS-1019 0 * B (N) G

Goal. Identify maintenance funding requirements.

Requirement. Given a scenario, equipment maintenance history and anticipated maintenance shortfalls, propose funding allocations for maintenance activities to create a maintenance budget.

1. Identify and prioritize funding requirements.
2. Provide a maintenance funding request based on requirement and prior year utilization.
3. Provide an anticipated maintenance funding request based on the unit's TEEP.
4. Submit a budget request to the instructor for validation.

Performance Standard. Pass an exam.

Instructor. FLC instructor

Prerequisite. None.

References.

1. MCO 4400.150
2. MCO 7300.21

AIRS-1020 0 * B (N) G

8 JAN 2021

Goal. Identify the SECREP management process.

Requirement. Given a practical application scenario, applicable maintenance and supply history documents, review and provide recommendations for organizational Low Density SECREP (LD) assets and required on-hand quantities:

1. Define the purpose of the SECREP management process.
2. Define the purpose of the SECREP exchange process.
3. Identify the key components of the SECREP exchange process.
4. Identify the key documentation within each component of the SECREP exchange process.
5. Identify the SECREP management re-computation process.
6. Identify Low Density SECREP assets.

Performance Standard. Pass an exam.

Instructor. FLC instructor

Prerequisite. None.

Reference.

1. MCO 4790.2
2. MCO 4400.150
3. FEDLOG
4. MCO P4400.82F
5. MCO P4400.151B
6. UM 4000-125 GCSS User's Manual
7. MMSOP

AIRS-1021 0 * B (N) G

Goal. Identify DOD cyber security workforce structure.

Requirement. Given the reference, identify:

1. The cyber security categories.
2. Requirements for cyber security categories.

Performance Standard. Pass an exam.

Instructor. FLC instructor

Prerequisite. None.

Reference.

1. DOD 8570.01-M

AIRS-1022 0 * B (N) G

Goal. Access published information within TFSMS.

Requirement. Given access to TFSMS, complete the following:

1. Access unit TO/E.
2. Access standard reports.
3. Create custom reports.
4. Manage custom reports.

Performance Standard. Pass an exam.

Instructor. FLC instructor

Prerequisite. None.

References.

1. URL <https://tfsms.mccdc.usmc.mil>
2. MCO 5311.1

AIRS-1023 0 * B (N) G

Goal. Describe readiness ratings within DRRS-MC.

Requirement. IAW the reference, describe the following:

1. Describe P-rating.
2. Describe S-rating.
3. Describe R-rating.
4. Describe T-rating.
5. Describe C-level assessment.
6. Identify how the Commander will assess their METs.
 - a. Trained.
 - b. Qualified.
 - c. Not Observed.

Performance Standard. Pass an exam.

Instructor. FLC instructor

Prerequisite. None.

References.

1. NAVMC 3500.14C
2. MCO 3000.13 MARINE CORPS READINESS REPORTING STANDARD OPERATING PROCEDURES (SOP)
3. MCO 3000.11E

AIRS-1024 0 * B (N) G

Goal. Explain the product quality deficiency report (PQDR).

Requirement. Given the reference, an item of equipment or a scenario, identify the following:

1. Purpose of the PQDR.
2. Criteria under which a PQDR should be submitted.
3. Information required for submitting a PQDR.

Performance Standard. Pass an exam.

Instructor. FLC instructor

Prerequisite. None.

References.

1. MCO 4790.2
2. UM 4400.125
3. MCO 4855.10B PRODUCT QUALITY DEFICIENCY REPORT (PQDR)
4. SECNAVINST 4855.5, Product Quality Deficiency Report Program
5. <http://www.logcom.usmc.mil/pqdr/files/PQDR%20Users%20Guide.pdf>

AIRS-1025 0 * B (N) G

8 JAN 2021

Goal. Identify major funding lines.

Requirement. Given the references, identify major funding lines:

1. Operation & Maintenance (O&M) Funds.
 - a. Planning Estimate (PE).
 - (1) Direct Support Stock Center (DSSC).
 - (2) Temporary Additional Duty.
 - (3) Fuel.
 - (4) Government-Wide Commercial Purchase Card Program (GCPC).
 - b. Requisition Authority (RA) – Supported Activities Supply System (SASSY).
2. Research, Development, Test & Evaluation (RDT&E).
3. Procurement Marine Corps (PMC).
4. Military Construction (MILCON).
5. Blue Dollars (2F Funds).

Performance Standard. Pass an exam.

Instructor. FLC instructor

Prerequisite. None.

References.

1. MCO 4400.150
2. MCO 7300.21

15.7 CORE PHASE (2000).

15.7.1 Purpose. **RESERVED FOR FUTURE USE.**

15.7.2 General.

15.7.2.1 Admin Notes.

15.7.2.2 Prerequisite.

15.7.2.3 Stages.

15.8 MISSION PHASE (3000).

15.8.1 Purpose. **RESERVED FOR FUTURE USE.**

15.8.2 General.

15.8.2.1 Admin Notes.

15.8.2.2 Prerequisite.

15.8.2.3 Stages. The following stages are included in the Mission Skill Phase of training.

15.9 CORE PLUS PHASE (4000).

15.9.1 Purpose. **RESERVED FOR FUTURE USE.**

15.9.2 General.

15.9.2.1 Admin Notes.

15.9.2.2 Prerequisite.

15.9.2.3 Stages.

15.10 MISSION PLUS PHASE (4500).

15.10.1 Purpose. **RESERVED FOR FUTURE USE.**

15.10.2 General.

15.10.2.1 Admin Notes.

15.10.2.2 Prerequisite.

15.10.2.3 Stages.

15.11 INSTRUCTOR TRAINING PHASE (5000).

15.11.1 Purpose. To provide technicians the additional skills necessary to instruct, evaluate and approve event completions. Upon completion of the required training, an individual may be approved for instructor designation by the commanding officer.

15.11.2 General.

15.11.2.1 Admin Notes.

1. The MACCS instructor concept is a means to standardize all instructors across the MACCS in regards to the concepts of managing a WTTP, properly conducting training, performing evaluations, and recommending training plans.

2. There are different instructor designations (listed below). The intent is to train individuals with different levels and areas of experience to instruct personnel. Instructor experience is also gained while progressing through the different instructor designations.

a. Basic Instructor (BI).

b. Senior Instructor (SI).

c. Weapons and Tactics Instructor (WTI).

d. The MAWTS-1 C3 Course catalog contains the training requirements for the above listed instructors. The catalog is located at the MAWTS-1 website:
<https://vcepub.tecom.usmc.mil/sites/msc/magtftc/mawts1/departments1/newc3/default.aspx>.

e. The table below outlines the events that each instructor can train, evaluate, and approve or recommend for approval.

INSTRUCTOR	Event Training, Evaluation and Approval
BI	Core Phase events in which current and proficient
SI	Core Phase and Mission Phase events
WTI	Mission Phase and Qualification events. - Evaluate and recommend for qualification - Endorse recommendations for position designations The Commanding Officer is the approving authority for qualifications and designations.

15.11.2.2 Prerequisite. None.

15.11.2.3 Stages. The following stages are included in the Instructor Under Training Phase of training.

PAR NO.	STAGE NAME	PAGE NUMBER
15.11.3	INSTRUCTOR UNDER TRAINING (IUT)	15-18

15.11.3 INSTRUCTOR UNDER TRAINING (IUT) STAGE

15.11.3.1 Purpose. To train Electronics Maintenance Chiefs in the fundamentals of instructing and training processes.

15.11.3.2 General.

Admin Notes. None.

Prerequisite. None.

Crew Requirements. None.

T&R CODE	EVENT DESCRIPTION	INSTRUCTOR
5000	Introduce principles of instruction	BI
5010	Describe individual T&R requirements.	BI
5020	Conduct T&R instruction.	BI
5100	Describe the Aviation Training and Readiness (T&R) Program	SI
5110	Conduct instructor evaluations.	SI
5120	Perform T&R administration	SI
5130	Develop a training plan	SI

IUT-5000 2.0 * B (N) L

Goal. Introduce principals of instruction.

Requirement. Given the reference, the BIUT will demonstrate the following with the assistance of a unit instructor:

1. Adult learning principles.
 - a. Pedagogy to andragogy.
 - b. Characteristics of the adult learner.
 - c. Learning styles.
 - d. How adults learn.
 - e. Domains of learning.
 - f. Group dynamics.
 - g. Motivation.
 - h. Constructivist learning environments.
2. Introduce, discuss, and demonstrate instruction techniques.
3. Introduce, discuss, and demonstrate class management techniques.
 - a. How to select teaching resources to accommodate student learning styles.
 - b. How to properly organize the instructional environment for effective learning.

Performance Standard. With the aid of references, the BIUT shall demonstrate principles of instruction. During this session, the instructor shall discuss the event content and question the student throughout the training session to ensure understanding.

Instructor. BI

Prerequisite. None.

References.

1. Adult Learning section, Systems Approach to Training Manual (2004)
2. NAVMC 3500.14
3. NAVMC 1553.1

IUT-5010 2.0 * B (N) G

Goal. Describe individual T&R requirements.

Requirement. Using the Aviation T&R Program Manual, discuss the purpose of each of the following items with an instructor:

1. Training progression model.
2. Programs of Instruction.
 - a. Basic.
 - b. Refresher.
 - c. Conversion.
 - d. Series Conversion.
 - e. Transition.
 - f. Maintain.
3. T&R attain and maintain tables.
4. Syllabus notes.
5. T&R syllabus structure.
 - a. Phase.
 - b. Stage.
 - c. Event.
 - d. Skill.
 - e. Syllabus.
6. Event format.
 - a. Header.
 - (1) Event prefix - event code.
 - (2) Projected event duration.
 - (3) Proficiency period.
 - (4) Programs of instruction (POI).
 - (5) Event conditions.
 - (6) Device options.
 - (7) Device number.
 - (8) Device type.
 - b. Body.
 - (1) Goal.
 - (2) Requirement.
 - (3) Performance standard.
 - (4) Equipment.

Performance Standard. Without the aid of references and during a discussion session, the BIUT shall describe Individual T&R requirements. During this session, the instructor shall discuss the event content and question the student throughout the training session to ensure understanding.

Instructor. BI

Prerequisite. None.

References.

1. NAVMC 3500.14
2. NAVMC 1553.1

IUT-5020 12.0 90 B, R, M (N) L

Goal. Conduct T&R instruction.

Requirement. The BIUT, under the supervision of an instructor, will conduct three periods of instruction on three different T&R events selected by the instructor and should include as many different methods of instruction as possible (lecture or academic, demonstration, and practical application). The event must be one the BIUT is current and proficient in. The BIUT will complete the following for each of the three events instructed:

1. Prepare to train the event.
 - a. Review a trainee's performance record to identify required training for the event selected.
 - b. Ensure the student has met prerequisites for the event to be trained.
 - c. Gather the resources necessary to conduct the training (i.e., instructional materials, references, and equipment).
 - d. Conduct task analysis on each event to ensure all intended requirements and prerequisite skills, specified or implied, are trained IAW applicable references.
 - e. Schedule the training event (facilities and students).
 - f. Prepare an evaluation form for each student to be evaluated.
2. Conduct training on the event selected:
 - a. Ensure all training resources are properly staged/equipment if set up properly for training.
 - b. Instruct the student in a thorough manner so as to cover all requirements for the event.
 - c. Ensure continuous, objective assessment of the student's progress during training.
3. Assess student performance:
 - a. Assess the student's performance to the performance standard.
 - b. Correct student deficiencies in a timely manner and provide the student feedback.
 - c. Complete the evaluation form on for each student trained.
 - d. Debrief student on the performance and provide corrective action.
4. Route evaluation form as required.

Performance Standard. Complete the requirement items IAW the reference and ensure training is doctrinally and technically current. Instructor shall use the instructor evaluation form from the SAT user's guide for each class and a mark of satisfactory must be achieved for each of the three classes.

Instructor. BI

Prerequisite. 5000, 5010

References.

1. NAVMC 3500.14, Ch 6
2. NAVMC 1553.1
3. MCO 1553.2B, Appendix O

IUT-5100	2.0	*	B	(N)	G

Goal. Describe the Aviation Training and Readiness (T&R) Program.

Requirement. Using the community T&R manual discuss the following with an instructor:

1. Describe the Weapons and Tactics Training Program (WTP).
2. Define each element of the Core Model:
 - a. Mission statements.
 - b. Core Mission Essential Task List (METL).
 - c. Output standards.
 - d. Core Skills (How to attain and maintain).
 - e. Mission Skills (How to attain and maintain).
 - f. Combat Leadership.
3. Define each of the following elements of unit training:
 - a. Training Exercise Employment Plan (TEEP).
 - b. Core Model Minimum Requirements (CMMR).
 - c. Instructors.
 - d. Core Model Training Report (CMTR).
 - e. T&R manual connection to readiness reporting.
4. Define each of the following elements of training:

- a. Certification.
 - b. Qualification.
 - c. Designation.
5. PERFORMANCE RECORD Explain how changes are made to the Program manual:
- a. Explain T&R conference procedures.
 - b. Explain correspondence change procedures.

Performance Standard. Complete the requirements IAW the reference. Instructor will question the SIUT to check for thorough understanding of the Aviation T&R Program.

Instructor. SI

Prerequisite. None.

References.

1. NAVMC 3500.14
2. MCO 3500.109

IUT-5110 4.0 365 B, R, M (N) L

Goal. Conduct instructor evaluations.

Requirement. Using the instructor evaluation checklist from the SAT manual, conduct two evaluations on instructors of equal or lower designation.

1. Provide notification of evaluation to the instructor being evaluated.
2. Do not interfere with or disrupt the instruction while taking place.
3. Thoroughly document observed items on the checklist.
4. Ensure student evaluation form is filled out correctly and the appropriate debrief took place.
5. Debrief the instructor being evaluated on their preparation, instruction, evaluation, and documentation.
6. Have the evaluated instructor complete the instructor improvement plan section and sign.
7. File a copy of the completed evaluation form in both the evaluator's and evaluated instructor's performance record.

Performance Standard. Complete the requirements IAW the reference.

Instructor. SI

Prerequisite. 5100.

References.

1. NAVMC 3500.14
2. Applicable community T&R Manual
3. MCO1553.2B, Appendix O

IUT-5120 2.0 * B (N) L

Goal. Perform T&R administration.

Requirement. Document training to include:

1. Performance records.
2. Ensure MSHARP is updated appropriately.
3. Assemble recommendation package for certifications, qualifications, and designations IAW T&R manual.

Performance Standard. Complete the requirement items IAW the references. Instructor will question the trainee to check for understanding of the administration process.

Instructor. SI

Prerequisite. 5100, 5110

References.

1. NAVMC 3500.14
2. Local WTTP SOP
3. <http://msharp.support.com>

IUT-5130 2.0 * B (N) L

Goal. Develop a training plan.

Requirement. Given a deployment scenario develop a training plan to determine individual, and crew training needed to meet CMMR by completing the following:

1. Review Commander's training guidance.
2. Analyze the CMTR to determine training deficiencies and how to achieve CMMR.
3. Identify and schedule T&R training opportunities IAW the TEEP to achieve requirements.
4. Determine instructors required.
5. Determine equipment required.
6. Determine external support required.
7. Deliver a brief to the instructor that shows:
 - a. Crew manning and training requirements.
 - b. Current training status.
 - c. Identify the training deficiencies and resource shortfalls.
 - d. Explain the training plan to correct the training deficiencies.
 - e. Training plan meets commander's guidance.

Performance Standard. Complete the requirement items IAW the references and commander's training guidance. Training plan will ensure adequate time is allocated to include preparation, instruction, assessment, documentation, and remediation.

Instructor. SI

Prerequisite. 5100, 5110, 5120

References.

1. NAVMC 3500.14
2. Applicable Community T&R manuals

15.12 CERTIFICATIONS, QUALIFICATIONS, AND DESIGNATIONS (CQD) PHASE (6000)

15.12.1 Purpose. This phase provides community standardization for Electronics Maintenance Chiefs certifications and designations; combat leaders and instructor designations.

15.12.2 General.

15.12.2.1 Admin Notes.

1. This section enables units to document and track combat leaders, instructors, technician and CD assignments. All syllabus training and administration requirements must be complete prior to being qualified or designated. A qualification or designation is not effective until all administration is completed.

2. Only once an individual is qualified or designated in writing, the signed letter is filed in the IPR, and all administrative actions are completed, and the event code has been logged in M-SHARP shall the qualification or designation be effective.

15.12.2.2 Prerequisite. None.

15.12.2.3 Stages.

PAR NO.	STAGE NAME	PAGE NUMBER
15.12.3	SCHOOL CODES (SCHL)	15-23
15.12.4	DESIGNATION (DESG)	15-26

15.12.3 SCHOOL CODES (SCHL) STAGE

15.12.3.1 Purpose. To provide tracking codes for schools that are pertinent to the training of the 5993 in the skill progression of the Marine.

15.12.3.2 General.

Admin Notes. Policies and prerequisites for attending the listed schools are maintained within MCTIMS.

Prerequisite. None.

Crew Requirements. None.

SCHL CODE	NAME OF COURSE	LOCATION	CID
SCHL-6000	Weapons and Tactics Instructor (WTI)	MCAS Yuma, AZ	M14P2A1
SCHL-6020	Link 16 Basics Course (JT-100)	Joint Knowledge Online (JKO)	N/A
SCHL-6021	Intro to Multi TDL Network (JT-101)	Fort Bragg, NC	N/A
SCHL-6022	Multi-TDL Advanced Joint Interoperability Course (MAJIC) (JT-102)	Fort Bragg, NC	A05L6Z1
SCHL-6023	Link 16 Joint Interoperability Course (US-109)	Joint Knowledge Online (JKO)	N/A
SCHL-6024	Multi TDL Planner Course (JT-201)	Fort Bragg, NC	A05KHY1
SCHL-6025	Link 16 Unit Manager (LUM) Course (JT-220)	Fort Bragg, NC	A05A111
SCHL-6026	Joint Interface Control Officer (JICO) (JT-301)	Fort Bragg, NC	A05FH21
SCHL-6027	Advanced JICC Operator Course (JT-310)	Fort Bragg, NC	A05FH11
SCHL- 6073	Micro-Miniature Electronics Repair Course	San Diego, CA	N01A351
		Norfolk, VA	N02A351
		Oak Harbor, WA	N26A352
SCHL- 6093	Micro-miniature/Automated Test Equipment Repair Course	29 Palms, CA	M09E2D1
SCHL- 6094	Advanced Electronics Course	29 Palms, CA	M09DSK1
SCHL-6096	Respective Instructor development Course.	MCB Camp Lejeune, NC	M03WJBA
		MCB Camp Lejeune, NC (MTT)	M03WJBM
		MCB Camp Pendleton, CA	M10WJB1
		MCB Camp Pendleton, CA (MTT)	M10WJBM
SCHL-6097	Mountain Command Control Communications Course	Bridgeport, CA	M24CXJ1

SCHL-6000 * B G

Goal. Complete WTI Course.

Requirement. Successfully complete course curriculum.

8 JAN 2021

Performance Standard. Successfully complete course requirements.

Prerequisite. 6320, 6321, 8000, 8020, 8040, 8060, 8080

Reference.

SCHL-6020 * B G

Goal. Complete Link 16 Basics Course (JT-100).

Requirement. Successfully complete course curriculum.

Performance Standard. N/A.

Prerequisite. None.

Reference. None.

SCHL-6021 * B G

Goal. Complete Intro to Multi TDL Network (JT-101) Course.

Requirement. Successfully complete course curriculum.

Performance Standard. N/A.

Prerequisite. None.

Reference. None.

SCHL-6022 * B G

Goal. Complete Multi-TDL Advanced Joint Interoperability Course (MAJIC) (JT-102).

Requirement. Successfully complete course curriculum.

Performance Standard. N/A.

Prerequisite. 6021.

Reference. None.

SCHL-6023 * B G

Goal. Complete Link 16 Joint Interoperability Course (US-109).

Requirement. Successfully complete course curriculum.

Performance Standard. N/A.

Prerequisite. None.

Reference. None.

SCHL-6024 * B G

Goal. Complete Multi TDL Planner Course (JT-201).

Requirement. Successfully complete course curriculum.

Performance Standard. N/A.

Prerequisite. None.

Reference. None.

SCHL-6025 * B G

Goal. Complete Link 16 Unit Manager (LUM) Course (JT-220).

Requirement. Successfully complete course curriculum.

Performance Standard. N/A.

Prerequisite. None.

Reference. None.

SCHL-6026 * B G

Goal. Complete Joint Interface Control Officer (JICO) (JT-301).

Requirement. Successfully complete course curriculum.

Performance Standard. N/A.

Prerequisite. 6021, 6022, 6024.

Reference. None.

SCHL-6027 * B G

Goal. Complete Advanced JICC Operator Course (JT-310).

Requirement. Successfully complete course curriculum.

Performance Standard. N/A.

Prerequisite. None.

Reference. None.

SCHL-6073 * B G

Goal. Micro-Miniature Electronics Repair Course.

Requirement. Successfully complete course curriculum.

Performance Standard. N/A.

Prerequisite. None.

Reference. None.

SCHL-6093 * B G

8 JAN 2021

Goal. Micro-miniature/Automated Test Equipment Repair Course.

Requirement. Successfully complete course curriculum.

Performance Standard. N/A.

Prerequisite. None.

Reference. None.

SCHL-6094 * B G

Goal. Advanced Electronics Course.

Requirement. Successfully complete course curriculum.

Performance Standard. N/A.

Prerequisite. None.

Reference. None.

SCHL-6096 0.5 * B (N) G

Goal. Complete respective instructor development course.

Requirement. Successfully complete course curriculum.

Performance Standard. N/A.

Instructor. N/A.

Prerequisite. None.

Reference. None.

SCHL-6097 * B G

Goal. Mountain Command Control Communications Course.

Requirement. Successfully complete course curriculum.

Performance Standard. N/A.

Prerequisite. None.

Reference. None.

15.12.4 DESIGNATIONS (DESG) STAGE

15.12.4.1 Purpose. To provide for designation of combat leaders and instructors. Designations are command specific and expire when an individual transfers out of a command. In order to ensure proficiency is maintained, specific events throughout this syllabus have been R-coded. The gaining command shall review the IPR to ensure prerequisite R-coded events for a designation are current prior to approving that designation. If prerequisite R-coded events are delinquent, the individual shall update those events.

15.12.4.2 General.

Admin Notes. Policies and rules for attaining and maintaining designations are detailed in the Aviation T&R Program Manual and this Manual.

Prerequisite. None.

Crew Requirements. None.

DESG-6320	1.0	*	B	(N)	G

Goal. Basic Instructor (BI).

Requirement. Be recommended for designation by a WTI and designated in writing by the commanding officer.

Performance Standard. N/A.

Instructor. WTI

Prerequisite. 5000, 5010, 5020

Reference. NAVMC 3500.14_

DESG-6321	1.0	*	B	(N)	G

Goal. Senior Instructor (SI).

Requirement. Be recommended for designation by a WTI and designated in writing by the commanding officer.

Performance Standard. N/A

Instructor. WTI

Prerequisite. 5000, 5010, 5020, 5100, 5110, 5120, 5130.

Reference. NAVMC 3500.14_

DESG-6322	1.0	*	B	(N)	G

Goal. Weapons and Tactics Instructor (WTI).

Requirement. Be certified by MAWTS-1 as a WTI and be recommended for designation by the squadron WTI. The commanding officer will designate the WTI in writing.

Performance Standard. N/A

Instructor. WTI

Prerequisite. 6000

Reference. NAVMC 3500.14_

DESG-6330	0.5	*	B	(N)	G

Goal. Designation as a Formal Learning Center Instructor.

Requirement. Complete the formal learning center's instructor requirements, designated by the Commanding Officer in writing.

Performance Standard. N/A.

Instructor. WTI.

Prerequisite. 6096.

Reference.

1. NAVMC 3500.14, Naval Aviation Program Manual

DESG-6334 .5 * B (N) G

Goal. Electronics Maintenance Chief (EMC).

Requirement. Be designated by the commanding officer in writing.

Performance Standard. N/A.

Instructor. WTI.

Prerequisite. None.

Reference.

1. NAVMC 3500.14, Naval Aviation Program Manual

15.13 MISSION ESSENTIAL TASK (MET) PHASE (7000).

15.13.1 Purpose. This phase takes CMMR proficient Marines from multiple PMOS, puts them in CMMR representative crews, and trains them as combat effective teams in combined events.

15.13.2 General.

15.13.2.1 Admin Notes. Prerequisites for this phase of training cannot be waived. Multiple events can be trained at the same time as long as separate evaluations are being conducted.

15.13.2.2 Prerequisite. Marines must either be CMMR crew position or non-aviation PMOS proficient to train in this phase. For those events requiring combat leaders, only Marines currently designated as such can train in this phase.

15.13.2.3 Stages. The following stages are included in the Mission Essential Task (MET) Phase of training.

PAR NO.	STAGE NAME	PAGE NUMBER
15.13.3	TACC CONDITION (COND)	15-28
15.13.4	TAOC CONDITION (COND)	15-32
15.13.5	DASC CONDITION (COND)	15-34

15.13.3 TACC CONDITION (COND)

15.13.3.1 Purpose. To train unit level teams in executing community specific MET(s) or MET preparatory events.

15.13.3.2 General.

Admin Notes. All events in this stage will require the following administrative/operational documents to be identified or created:

1. Letter of Instruction (LOI)

2. Personnel Roster
3. Bill of Material (BOM)
4. Equipment Density List (EDL)

Prerequisite. If an event requires prerequisites in addition to those listed for the MET Phase, they will be covered in the individual event.

Crew Requirements. This stage requires that all crew members and combat leaders be qualified/designated and proficient (current) in the position they are assigned for the following events. Crews shall be task organized to meet the mission.

COND-7001 4.0 730 B, R, M E (N) L

Goal. Establish communications.

Requirement. Perform the following:

1. Establish communication nets in accordance with SOPs, published communications plan.
2. Communications are available for standby operational contingency actions; e.g., SAR.
3. Communications plan reflects correct key lists and edition numbers, and they are verified as correct.
4. Post communications status to include delineated alternate paths and current EMCON status.
5. Ensure operations personnel are aware of alternate communications paths to assure constant contact with higher, adjacent and subordinate commands when required.
6. Communication restoration priorities have been published and provided to communication maintenance personnel.
7. Detect instances of communications jamming, potential cyber intrusion, or imitative deceptions and provide reports in accordance with appropriate annex of the Op Order.
8. Direct changes in EMCON conditions to subordinate agencies when processed intelligence or combat information reveals a change in the enemy's threat capabilities.
9. Enact restoration procedures.
10. Ensure communication plan includes communications requirements for succession of command or control in case of catastrophic failure of any major air control agency (TADC/TACC, DASC, TAOC).
11. Crew members understand crew procedures to change communications nets and/or radio configurations.
12. Crew members perform net control station duties by initiating radio checks on appropriate nets.

Performance Standard. Establish voice and data connectivity with subordinate MACCS agencies and higher headquarters IAW ANNEX K, COMSEC Callout, ACEOI, and OPTASK LINK.

Instructor. WTI

Prerequisite. None.

External Syllabus Support. External C3 Agencies.

References.

1. MCWP 3-20F.2, Marine TACC Handbook
2. TACC Primer

COND-7003 8.0 730 B, R, M E (N) L/S

Goal. Display the Common Tactical Picture.

Requirement. Perform the following:

1. Maintain a connection to higher headquarters Common Tactical Picture per the exercise or operation's Annex U.
2. Ensure applicable ground tactical picture, maritime tactical picture, and map overlays are received from higher headquarters.

8 JAN 2021

3. Provide the ACE's Common Tactical Picture to higher headquarters.
4. Manage, receive, display, and disseminate the common tactical picture.
5. Update the Battle Command Display.

Performance Standard. Complete the required items.

Instructor. WTI

Prerequisite. None.

External Syllabus Support. HHQ to provide Common Tactical Picture. MWCS support for digital backbone.

References.

1. Exercise or Operation's OPOD Annex U
2. CJCSM 3115.01_, Common Tactical Picture Reporting Requirements

COND-7004 18.0 730 B, R, M E (N) L/S

Goal. Coordinate air operations between the MACCS and Joint/Combined/Coalition/Host Nation command and control agencies.

Requirement. Perform the following:

1. Establish liaison necessary to request additional aviation assets from any theater/national sources.
2. Coordinate airspace de-confliction.
3. Integrate joint, coalition, and host nation requirements/elements into the COPS floor.

Performance Standard. Complete the required items.

Instructor. WTI

Prerequisite. None.

References.

1. MCWP 3-20F.2, Marine TACC Handbook
2. TACC Primer

COND-7005 8.0 730 B, R, M E (N) L/S

Goal. Manage the current air tasking order.

Requirement. Perform the following:

1. Coordinate the recovery of isolated personnel and aircraft.
2. Coordinate air defense operations of MACCS agencies with external agencies.
3. Coordinate theater missile defense operations with external agencies.
4. Manage MAGTF air assets in support of the close, rear, and deep battle areas.
5. Monitor the equipment status and operational posture of MACCS agencies.
6. Monitor, supervise, and direct the control of aircraft and missiles by subordinate MACCS agencies.
7. Process air support requests in accordance with the MAGTF and ACE Commander's priorities.
8. Coordinate the establishment and dissemination of Air Defense Warning Conditions (ADWCs) and Weapons Control Statuses (WCS).
9. Current ATO missions executed in accordance with the MAGTF and ACE Commanders priorities, to include changing or altering pre-schedule missions as required.

Performance Standard. Complete the required items.

Instructor. WTI

Prerequisite. None.

External Syllabus Support. External C3 agencies, ACE Battlestaff, MWCS.

References.

1. MCWP 3-20F.2, Marine TACC Handbook
2. TACC Primer

COND-7007 16.0 730 B, R, M E (N) L/S

Goal. Maintain a facility and associated command and control systems for the TACC.

Requirement. Given the references, a Table of Equipment (T/E) and/or an Equipment Density List, a mission statement, commander's guidance, and an operation plan's initiating order, provide a TACC infrastructure to include the following:

1. Provide required support personnel to set up and maintain the TACC infrastructure.
2. Provide equipment and facilities for current operation (COPS).
3. Provide equipment and facilities for future operations (FOPS).
4. Provide equipment and facilities for future plans (FPLANS).
5. Provide facilities for air combat intelligence (ACI).

Performance Standard. Perform the requirement items listed.

Instructor. WTI

Prerequisite. None.

External Syllabus Support. MTACS Commander and representatives from the S-1, S-2, S-3, S-4, S-6. Simulation execution will require coordination with external agencies.

References.

1. U-TACC-PCL-0350, TACC Pocket Checklist
2. MCWP 3-20F.2, Marine Tactical Air Command Center Handbook
3. Squadron SOP

COND-7009 2.0 730 B, R, M E (N) S/L

Goal. Coordinate Airspace Management in Current Operations.

Requirement. Given the references, an operational TACC and an operations order, and airspace control plan coordinate airspace requirements in support of the MAGTF:

1. Coordinate and employ the use of air defense control measures.
2. Coordinate through the Ground Watch Section for the deconfliction of FSCMs and immediate Airspace Control Measures.
3. Coordinate with subordinate MACCS agencies for immediate Airspace Management issues.
4. Coordinate with the Air and Space Operations Center for immediate Airspace Management issues that affect the joint force.
5. Update and monitor changes to the ACP/ACO/SPINS as applicable.

Performance Standard. Perform the requirement items listed during live, virtual, or constructed exercise or real world operation.

Instructor. WTI

Prerequisite. None.

Reference.

1. JP 3-52, Joint Airspace Control

15.13.4 TAOC CONDITION (COND) STAGE

15.13.4.1 Purpose. To train unit level teams in executing community specific MET(s) or MET preparatory events.

15.13.4.2 General.

Admin Notes. All events in this stage will require the following administrative/operational documents to be identified or created:

1. Letter of Intent (LOI)
2. Personnel Roster
3. Bill of Material (BOM)
4. Equipment Density List (EDL)

Prerequisite. If an event requires prerequisites in addition to those listed for the MET Phase, they will be covered in the individual event.

Crew Requirements. This stage requires that all crew members and combat leaders be qualified/designated and proficient (current) in the position they are assigned for the following events. Crews shall be task organized to meet the mission.

COND-7000 16.0 730 B, R, M E (N) L

Goal. Conduct Airspace Surveillance.

Requirement. Given organic C2 systems, radars, and a minimum of two CMMR surveillance crews, perform the following:

1. Plan for the emplacement, setup, operation, and maintenance of TAOC radar(s) and C2 equipment within the MAGTF and/or joint assigned airspace.
2. Extract tactical data link (TDL) architecture information from MAGTF and joint documents.
3. Extract required surveillance operations information exchange requirements from source MAGTF and/or joint documents.
4. Plan for TAOC airspace surveillance operations.
5. Conduct the emplacement, setup, operation, and maintenance of TAOC radar(s) and C2 equipment.
6. Detect and track aircraft and missiles within MAGTF and/or joint assigned airspace using organic TAOC radar(s).
7. Conduct combat identification on objects detected and tracked using information extracted from surveillance operations source documents.
8. Disseminate air/ground surveillance information to adjacent, higher, and subordinate agencies and aircraft identified in surveillance operations source documents.
9. Demonstrate proficiency during crew changeover.

Performance Standard. Complete the requirements conducting TAOC operations in support of MAGTF and/or joint exercises or operations.

Instructor. WTI

Prerequisite. None.

External Syllabus Support. TDSM, RDR, AVRAD, UT. Live execution will require specific T/M/S aviation assets.

Reference. None.

COND-7001 16.0 730 B, R, M E (N) L/S

Goal. Conduct Positive Control.

Requirement. Given organic C2 systems, radars, and a minimum of two CMMR weapons crews, perform the following:

1. Plan for the emplacement, setup, operation, and maintenance of TAOC radar(s) and C2 equipment within the MAGTF and/or joint assigned airspace.
2. Conduct the emplacement, setup, operation, and maintenance of TAOC radar(s) and C2 equipment.
3. Extract airspace control measures within TAOC assigned airspace from MAGTF and/or joint source documents.
4. Conduct airspace management using MEF/MAW sustained sortie generation rates.
5. Conduct airspace control using MEF/MAW sustained sortie generation rates.
6. Conduct positive control using MEF/MAW sustained sortie generation rates.
7. Demonstrate proficiency during crew changeover.

Performance Standard. Complete the requirements conducting TAOC operations in support of MAGTF and/or joint exercises or operations.

Instructor. WTI

Prerequisite. None.

External Syllabus Support. TDSM, RDR, AVRAD, UT. Live execution will require specific T/M/S aviation assets.

Reference. None.

COND-7002 16.0 730 B, R, M E (N) L/S

Goal. Coordinate Air Defense Actions.

Requirement. Given organic C2 systems, radars, and a minimum of two CMMR weapons crews, perform the following:

1. Plan for the emplacement, setup, operation, and maintenance of TAOC radar(s) and C2 equipment within the MAGTF and/or joint assigned airspace.
2. Conduct the emplacement, setup, operation, and maintenance of TAOC radar(s) and C2 equipment.
3. Extract air defense requirements from MAGTF and/or joint air defense documents.
4. Create a plan for the TAOC to manage and control AAW aircraft engagements, expenditures, and employment using MEF/MAW sortie generation rates.
5. Create a plan for the TAOC to provide management of GBAD engagements, expenditures, and employment.
6. Manage and control AAW aircraft engagements, expenditures, and employment using MEF/MAW sortie generation rates.
7. Provide management of GBAD engagements, expenditures, and employment.
8. Detect potential threat aircraft and/or missiles using TAOC organic radars.
9. Disseminate threat information to higher, adjacent, and subordinate MACCS agencies.
10. Demonstrate proficiency during crew changeover.

Performance Standard. Complete the requirements conducting TAOC operations in support of MAGTF and/or joint exercises or operations.

Instructor. WTI

Prerequisite. None.

External Syllabus Support. TDSM, RDR, AVRAD, UT. Live execution will require specific T/M/S aviation assets.

Reference. None.

COND-7003 16.0 730 B, R, M E (N) L/S

Goal. Conduct Dual Site Air Defense Operations.

Requirement. Given organic C2 systems, radars, and a minimum of four CMMR air defense crews, perform the following at two geographically disparate sites:

1. Plan for the emplacement, setup, operation, and maintenance of TAOC radar(s) and C2 equipment within the MAGTF and/or joint assigned airspace.
2. Conduct the emplacement, setup, operation, and maintenance of TAOC radar(s) and C2 equipment.
3. Conduct airspace surveillance.
4. Conduct positive control.
5. Coordinate air defense actions.
6. Demonstrate proficiency during crew changeover.

Performance Standard. Complete the requirements conducting TAOC operations in support of MAGTF and/or joint exercises or operations.

Instructor. WTI

Prerequisite. None.

External Syllabus Support. TDSM, RDR, AVRAD, UT. Live execution will require specific T/M/S aviation assets.

Reference. None.

COND-7004	16.0	730	B, R, M	E	(N)	L/S

Goal. Integrate Operational Air Defense Capabilities.

Requirement. Given organic C2 systems, radars, and a minimum of two core plus proficient SADC crews, perform the following:

1. Plan for the emplacement, setup, operation, and maintenance of TAOC radar(s) and C2 equipment within the MAGTF and/or joint assigned airspace.
2. Conduct the emplacement, setup, operation, and maintenance of TAOC radar(s) and C2 equipment
3. Extract air defense requirements from MAGTF and joint air defense documents.
4. Create a plan for the TAOC to manage air defense operations within MAGTF and/or joint assigned region/sector.
6. Manage air defense operations within the MAGTF and/or joint assigned region/sector.
7. Extract tactical data link (TDL) architecture information from MAGTF and joint documents.
8. Create a plan for TAOC to assist the (Joint) Interface Control Officer J/ICO with the management of TDLs.
9. Manage TDLs for the TAOC in support of MAGTF and joint operations.
10. Demonstrate proficiency during crew changeover.

Performance Standard. Complete the requirements conducting TAOC operations in support of MAGTF AAW and/or joint DCA exercises or operations.

Instructor. WTI

Prerequisite. None.

External Syllabus Support. TDSM, RDR, AVRAD, UT. Live execution will require specific T/M/S aviation assets.

Reference. None.

15.13.5 DASC CONDITION (COND) STAGE

15.13.5.1 Purpose. To train unit level teams in executing community specific MET(s) or MET preparatory events.

15.13.5.2 General.

Admin Notes. All events in this stage will require the following administrative/operational documents to be identified or created:

- (1) Letter of Intent (LOI).
- (2) Personnel Roster.
- (3) Bill of Material (BOM).
- (4) Equipment Density List (EDL).

Prerequisite. If an event requires prerequisites in addition to those listed for the MET Phase, they will be covered in the individual event.

Crew Requirements. This stage requires that all crew members and combat leaders be qualified/designated and proficient (current) in the position they are assigned for the following events. Crews shall be task organized to meet the mission.

COND-7400 3.0 730 B, R, M E (N) L/S

Goal. Employ an Air Support Liaison Team (ASLT).

Requirement. Given the references, a Table of Equipment (T/E) and/or Equipment Density List (EDL), Commander's guidance, and an operations order/initiating directive, employ an ASLT to include the following:

1. Plan for employment of an ASLT:
 - a. Conduct Problem Framing.
 - (1) Identify level of support required of MASS Unit.
 - (2) Develop Mission Statement/Commander's Intent.
 - b. Create Employment Plan.
 - (1) Coordinate with external entities (and/or agencies).
 - (2) Identify required personnel and equipment.
 - (3) Conduct site reconnaissance and selection.
 - (4) Identify and coordinate external support requirements.
 - c. Create supporting planning products.
 - (1) Create/publish POA&M/LOI.
 - (2) Create necessary manning documents/EDL/BOM/Load Plan via MDSS.
 - (3) Conduct Required Briefs. (IPC/MPC, Confirmation Brief, etc.)
2. Deploy an ASLT:
 - a. Conduct movement.
 - (1) Conduct embarkation (unit to APOE).
 - (2) Conduct convoy operations (APOD to TAA to tactical site).
 - b. Establish ASLT site.
 - (1) Establish and maintain site security.
 - (2) Establish communications and connectivity.
 - (3) Establish administrative and logistics functions.
3. Operate an ASLT:
 - a. Conduct ASLT operations.
4. Sustain an ASLT:
 - a. Conduct staff functions.
 - (1) Conduct administrative functions.
 - (2) Conduct intelligence functions.
 - (3) Conduct operations and training.
 - (4) Conduct logistical functions.
 - (5) Conduct communications functions.
5. Re-deploy an ASLT:
 - a. Plan for Re-deployment.

- (1) Identify logistics requirements.
- (2) Identify external support requirements.
- (3) Identify maintenance functions and requirements.
- (4) Identify administration requirements and functions.
- b. Conduct movement.
 - (1) Conduct convoy operations (tactical site to TAA to APOE).
 - (2) Conduct embarkation (APOD to the unit).

Performance Standard. Perform the requirement items listed and conduct ASLT operations supporting the DASC during a minimum operational tempo three (3) real world operation or training simulation.

Prerequisite. (1) CMMR ASLT Crew.

Range. Range space capable of hosting ground and air fires.

External Syllabus Support. FSCC, air and fire support missions as defined by operational tempo level three, a DASC, S-1, S-2, S-3, S-4, S-6.

References.

1. MCRP 3-20F.5, DASC Handbook
2. Squadron SOP

COND-7405	3.0	730	B, R, M	E	(N)	L/S

Goal. Employ an Air Support Element (ASE).

Requirement. Requirement. Given the references, a Table of Equipment (T/E) and/or Equipment Density List (EDL), Commander's guidance, and an operations order/ initiating directive, employ an ASE to include the following:

1. Plan for employment of an ASE:
 - a. Conduct problem Framing.
 - (1) Identify level of support required of MASS unit.
 - (2) Develop Mission Statement/Commander's Intent.
 - b. Create Employment Plan.
 - (1) Coordinate with external entities (and/or agencies).
 - (2) Identify required personnel and equipment.
 - (3) Conduct site reconnaissance and selection.
 - (4) Identify and coordinate external support requirements.
 - c. Create supporting planning products.
 - (1) Create/publish POA&M/LOI.
 - (2) Create necessary manning documents/EDL/BOM/Load Plan via MDSS.
 - (3) Conduct required briefs (IPC/MPC, Confirmation Brief, etc.)
2. Deploy an ASE:
 - a. Conduct movement.
 - (1) Conduct embarkation (unit to APOE).
 - (2) Conduct convoy operations (APOD to TAA to tactical site).
 - b. Establish ASE site.
 - (1) Establish and maintain site security.
 - (2) Establish external ASE infrastructure.
 - (3) Establish internal ASE infrastructure.
 - (4) Establish communications and connectivity.
 - (5) Establish administrative and logistics functions.
3. Operate an ASE:
 - a. Conduct ASE operations.
 - (1) Process Immediate Air Support Requests.
 - (2) Integrate Aircraft Employment with other supporting arms.
 - (3) Manage terminal control assets.
 - (4) Procedurally control aircraft within Assigned Area of Operations.

4. Sustain an ASE:
 - a. Conduct staff functions.
 - (1) Conduct administrative functions.
 - (2) Conduct intelligence functions.
 - (3) Conduct operations and training.
 - (4) Conduct logistical functions.
 - (5) Conduct communications functions.
5. Re-deploy an ASE:
 - a. Plan for re-deployment.
 - (1) Identify logistics requirements.
 - (2) Identify external support requirements.
 - (3) Identify maintenance functions and requirements.
 - (4) Identify administration requirements and functions.
 - b. Conduct movement.
 - (1) Conduct convoy operations. (tactical site to TAA to APOE).
 - (2) Conduct embarkation (APOD to the unit).

Performance Standard. Perform the requirement items listed and conduct ASE operations during a minimum operational tempo three (3) real world operation or training simulation.

Prerequisite. (1) CMMR ASE Crew.

Range. Range space capable of hosting ground and air fires.

External Syllabus Support. S-1, S-2, S-3, S-4, S-6, air and fire support missions as defined by operational tempo three, FFCC/FSCC, and if required, a SACC and NTACC/HCS.

References.

1. MCRP 3-20F.5, DASC Handbook
2. Squadron SOP

COND-7410 3.0 730 B, R, M E (N) L/S

Goal. Employ a Direct Air Support Center (DASC).

Requirement. Requirement. Given the references, a Table of Equipment (T/E) and/or Equipment Density List (EDL), Commander's guidance, and an operations order/initiating directive, employ a DASC to include the following:

1. Plan for employment of a DASC:
 - a. Conduct problem framing.
 - (1) Identify level of support required of MASS unit.
 - (2) Identify Potential Need for DASC Extensions.
 - (3) Develop Mission Statement/ Commander's Intent.
 - b. Create Employment Plan.
 - (1) Coordinate with external entities (and/or agencies).
 - (2) Identify required personnel and equipment.
 - (3) Conduct site reconnaissance and selection.
 - (4) Identify and coordinate external support requirements.
 - (5) Plan for any/all required DASC extensions.
 - c. Create supporting planning products.
 - (1) Create/publish POA&M/LOI.
 - (2) Create necessary manning documents/EDL/BOM/Load Plan via MDSS.
 - (3) Conduct required briefs (IPC/MPC, Confirmation Brief, etc.).
2. Deploy a DASC:
 - a. Conduct movement.
 - (1) Conduct embarkation (unit to APOE).
 - (2) Conduct convoy operations (APOD to TAA to tactical site).
 - b. Establish DASC site.

- (1) Establish and maintain site security.
 - (2) Establish external DASC infrastructure.
 - (3) Establish internal DASC infrastructure.
 - (4) Establish communications and connectivity.
 - (5) Establish administrative and logistics functions.
3. Operate a DASC:
 - a. Conduct DASC operations.
 - (1) Process Immediate Air Support Requests.
 - (2) Integrate aircraft employment with other supporting arms.
 - (3) Manage terminal control assets.
 - (4) Procedurally control aircraft within Assigned Area of Operations.
 - b. Manage DASC extensions.
 4. Sustain a DASC:
 - a. Conduct staff functions.
 - (1) Conduct administrative functions.
 - (2) Conduct intelligence functions.
 - (3) Conduct operations and training.
 - (4) Conduct logistical functions.
 - (5) Conduct communications functions.
 5. Re-deploy a DASC:
 - a. Plan for Re-deployment.
 - (1) Identify logistics requirements.
 - (2) Identify external support requirements.
 - (3) Identify maintenance functions and requirements.
 - (4) Identify administration functions and requirements.
 - b. Conduct movement.
 - (1) Conduct convoy operations (tactical site to TAA to APOE).
 - (2) Conduct embarkation (APOD to the unit).

Performance Standard. Perform the requirement items listed and conduct DASC operations during a minimum operational tempo three (3) real world operation or training simulation.

Prerequisite. Two (2) CMMR DASC crews.

Range. Range space capable of hosting ground and air fires.

External Syllabus Support. S-1, S-2, S-3, S-4, S-6, MHE, air and fire support missions as defined by operational tempo three (3), digital backbone, FFCC/FSCC, and if required, aircraft designated to provide an airborne DASC capability.

References.

1. MCRP 3-20F.5, DASC Handbook
2. Squadron SOP

COND-7415 3.0 730 B, R, M E (N) L/S

Goal. Conduct a Reconnaissance, Selection, and Occupation of Position (RSOP) for the DASC.

Requirement. Given the references, a Table of Equipment (T/E) and/or Equipment Density List (EDL) and an operations order/initiating directive, conduct an RSOP for DASC operations to include the following:

1. Conduct a Map Survey selecting primary and alternate sites.
2. Identify environmental concerns that may affect DASC communication.
3. Coordinate with the FSCC to provide DASC requirements.
4. Coordinate site security, camouflage, dispersion, and determine trafficability.
5. Identify locations for emplacement of communications and support equipment.
6. Coordinate priorities for equipment emplacement.
7. Identify echelon considerations.

8. Identify Advanced Party/RSOP Team.
9. Occupy the site.
10. Emplace the DASC.

Performance Standard. Perform the requirement items. The RSOP team will be prepared to discuss decisions/actions.

Prerequisite. None.

External Syllabus Support. MASS Detachment Commander, DASC Chief, security team, representatives from the following sections: S-4, S-2, S-6.

References.

1. MCWP 3-16.3, TTP for the Field Artillery Cannon Battery
2. MCRP 3-20F.5, DASC Handbook
3. MCWP 3-16.3, Tactics, Techniques, and Procedures for the Field Artillery Cannon Battery, Chapter 2, Reconnaissance, Selection, and Occupation of a Position
4. Squadron SOP

COND-7420 3.0 730 B, R, M E (N) L/S

Goal. Conduct Echelon Operations.

Requirement. Given the references, a Table of Equipment (T/E) and/or Equipment Density List (EDL), Commander's guidance, and an operations order/initiating directive, conduct echelon operations to include the following:

1. Continue DASC operations without pause or loss of situational awareness.
2. Checklists for the transfer of control are on hand and are utilized.
3. Deploy the echelon element to the new position.
4. Brief the operational crew concerning their duties for passage of control.
5. Establish and maintain required communications and connectivity.
6. Updated intelligence information, to include the friendly and enemy order of battle and current ATO is on hand and posted.
7. Receive current status of air defense warnings, weapons conditions, anti-air warfare intelligence, and other pertinent data is updated prior to the transfer of control taking place.
8. Receive current status of all fixed wing aircraft to include scheduled events, alert aircraft, and airborne aircraft is verified.
9. Receive current status of all helicopter and assault support aircraft to include scheduled events, alert aircraft, airborne aircraft, MEDEVAC aircraft, and SAR aircraft is verified.
10. Review status of all Tactical Air and Assault Support Requests and ensure they are plotted and on hand.
11. Verify with the FSCC the locations of friendly artillery and active Fire Support Areas (FSAs), for naval gunfire assets.
12. Maintain continuous coordination with adjacent and higher agencies during preparation for and transfer of OAS/AS control, if required.
13. Pass control of DASC functions to the echelon element.
14. Notify the TACC, FSCC, and other agencies, as necessary, control has been passed.
15. Recover the rear element into the DASC when echelon operations have concluded.
16. Debrief with the DASC OIC and DASC Chief.

Performance Standard. Perform the requirement items listed to conduct echelon operations during a minimum operational tempo three (3) real world operation or training simulation.

Prerequisite. Two (2) CMMR DASC crews.

Range. Range space capable of hosting ground and air fires.

External Syllabus Support. S-1, S-2, S-3, S-4, S-6, MHE, air and fire support missions as defined by

8 JAN 2021

operational tempo three (3), digital backbone, and if required, aircraft designated to provide an airborne DASC capability.

References.

1. MCRP 3-20F.5, DASC Handbook
2. Squadron SOP

COND-7425 3.0 730 B, R, M E (N) L/S

Goal. Conduct Phasing of Control Ashore.

Requirement. Given the references, a Table of Equipment (T/E) and/or Equipment Density List (EDL), Commander's guidance, and an operations order/initiating directive, conduct phasing of control ashore to include the following:

1. Conduct a Map Survey selecting primary and alternate sites.
2. Checklists for the transfer of control ashore are on hand and utilized.
3. Review the procedures delineated in the operation plan/other directives for the phasing of control ashore and keeps the Naval Tactical Air Control Center informed of current status.
4. Deploy ashore.
5. Brief the operational crew concerning their duties for the passage of control.
6. Establish and maintain required communications and connectivity.
7. Updated intelligence information, to include the friendly and enemy order of battle and current ATO is on hand and posted.
8. Receive current status of air defense warnings, weapons conditions, anti-air warfare intelligence, and other pertinent data is updated prior to the transfer of control taking place.
9. Receive current status of all fixed wing aircraft to include scheduled events, alert aircraft, and airborne aircraft.
10. Receive current status of all helicopter and assault support aircraft to include scheduled events, alert aircraft, airborne aircraft, MEDEVAC aircraft, and SAR aircraft.
11. Review status of all Tactical Air and Assault Support Requests and ensure they are plotted and on hand.
12. Verify with the FSCC the locations of friendly artillery and active Fire Support Areas (FSAs), for naval gunfire assets.
13. Ensure all requirements have been met and then advise the TACC (afloat) and FSCC that the DASC is prepared for the phasing of control of OAS/AS ashore.
14. Ensure the preplanned sequence of phasing control of OAS/AS ashore is completed and the SAD acknowledges/produces any reports required.
15. Advise CLF when ready to assume control of all or a portion of direct air support ashore (specify OAS, Assault Support, Air Recce, EW) at a specified date and time.
16. Advise CLF that control has been transferred and the date/time group that transfer was accomplished.
17. Advise the TACC (afloat)/TADC (ashore) and FSCC that the DASC now has control referencing date and time (local).
18. Maintain continuous coordination with adjacent and higher agencies.
19. Notify all adjacent agencies when transfer of control is completed.
20. As necessary, DASC/SACC liaison team provides further updates of information upon arrival at DASC site.

Performance Standard. Perform the requirement items listed to conduct phasing control ashore during a minimum operational tempo three (3) real world operation or training simulation.

Prerequisite. (1) CMMR ASE crew or (1) CMMR DASC crew.

Range. Range space capable of hosting ground and air fires.

External Syllabus Support. S-1, S-2, S-3, S-4, S-6, MHE, air and fire support missions as defined by operational tempo three (3), digital backbone, Navy TACC, FSCC, Marine TACC, LFOC, SACC/HCS.

References.

1. JP 3-02.1, Joint Doctrine for Landing Forces Operations
2. MCWP 3-16.3, Tactics, Techniques, and Procedures for the Field Artillery Cannon Battery, Chapter 2, Reconnaissance, Selection, and Occupation of a Position
3. MCRP 3-20F.5, DASC Handbook
4. MCRP 3-30B.2 MAGTF Communications System
5. Squadron SOP

15.14 AVIATION CAREER PROGRESSION MODEL (8000).

15.14.1 Purpose. To enhance professional understanding of Marine Aviation and the MAGTF, and to ensure individuals possess the requisite skills to fill battle command and battle staff positions in support of the ACE and the MAGTF in a joint environment. The focus of training in the Aviation Career Progression Model (ACPM) is on academic events in the following areas:

Marine Air Command and Control System (MACCS)
Aviation Ground Support
Joint Air Operations
ACE Battle Staff
MAGTF
Seabased Operations
Combatant Commander Organizations

15.14.2 General. The ACPM is intended to be an integrated series of academic events contained within each phase of training. Accordingly, ACPM academic events are like any other academic event in that they serve as pre-requisites to selected flight events or stages. Additionally, several ACPM academic events are integrated as prerequisites for flight leadership syllabi. ACPM events may be conducted in group session with an assigned instructor teaching the period of instruction or they may be accomplished by self-paced instruction. MAWTS-1 is responsible for the update and validity of the ACPM periods of instruction. In the future, courses may be consolidated or revised to meet changing requirements.

Refer to the MAWTS-1 ACPM link for the current ACPM program of instruction:

<https://vcepub.tecom.usmc.mil/sites/msc/magtftc/mawts1/Aviation%20Career%20Progression%20Model/Forms/AllItems.aspx>

15.14.3 ACPM (ACPM) STAGE

15.14.3.1 Purpose. To enhance professional understanding of Marine Aviation and the MAGTF, and to ensure individuals possess the requisite skills to fill battle command and battle staff positions in support of the ACE and the MAGTF in a joint environment.

15.14.3.2 General

Prerequisite. None.

Admin Notes. None

Crew Requirements. None.

ACPM-8000	1.0	*	B	(N)	G

Goal. Demonstrate an understanding of the MACCS stage.

Requirement. Pass a closed book examination that encompasses all learning objectives contained in the prerequisites.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. SI.

Prerequisite. 8001, 8002, 8003, 8004, 8005, 8006, 8008.

Reference. C3 Course Catalog.

ACPM-8001 4.0 * B (N) G

Goal. Demonstrate an understanding of the Marine Air Command and Control System (MACCS).

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Describe how the control of aircraft and missiles relates to the other five functions of USMC aviation.
2. Define the control of aircraft and missiles and each of its subcomponents.
3. Define the Marine aviation's philosophy of centralized command and decentralized control.
4. Differentiate between Marine aviation philosophy and Joint aviation philosophy.
5. Identify the principle objectives of the MACCS.
6. Recall the primary role of each agency of the MACCS.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 MACCS Agencies, Functions and the Control of Aircraft and Missiles Class
2. MCWP 3-25.3 MACCS Handbook
3. MCWP 3-25 Control of Aircraft and Missiles

ACPM-8002 4.0 * B (N) G

Goal. Demonstrate an understanding of the Tactical Air Command Center (TACC).

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. State the mission of the TACC.
2. Identify the four organizations of the TACC.
3. List the primary responsibilities of Air Combat Intelligence (ACI).
4. List the primary responsibilities of Future Operations (FOPS).
5. List the primary responsibilities of Future Plans (FPLANS).
6. List the primary responsibilities of Current Operations (COPS).
7. List the major end items used by the TACC.
8. List the system limitations of the TACC.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 TACC Class
2. MAWTS-1 MTACS Class
3. MCWP 3-25.4 TACC Handbook

ACPM-8003 4.0 * B (N) G

Goal. Demonstrate an understanding of the Direct Air Support Center (DASC).

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the

following learning objectives:

1. Identify the role of the DASC.
2. List the structure and task organization of the DASC.
3. Identify the major end items and their characteristics used by the DASC.
4. List the capabilities and limitations of the DASC.
5. Identify how the DASC is doctrinally employed as part of the MACCS.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 DASC Class
2. MCWP 3-25.5 DASC Handbook

ACPM-8004 4.0 * B (N) G

Goal. Demonstrate an understanding of the Tactical Air Operations Center (TAOC).

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Define the mission of the TAOC.
2. Identify the Mission Essential Tasks (METs) for the TAOC.
3. Identify the structure and task organization of the TAOC.
4. Identify the major end items and their characteristics used by the TAOC.
5. Identify the capabilities and limitations of the TAOC.
6. Identify how the TAOC is doctrinally employed as part of the MACCS.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 TAOC Class
2. MCWP 3-25.7 TAOC Handbook

ACPM-8005 4.0 * B (N) G

Goal. Demonstrate an understanding of the Marine Air Traffic Control (MATC).

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify the mission of MATC.
2. Identify the Mission Essential Tasks (METs) for MATC.
3. List the structure and task organization of MATC.
4. Identify the major end items and their characteristics used by MATC.
5. Identify the capabilities and limitations of MATC.
6. Identify how MATC is doctrinally employed as part of the MACCS.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 MATC Class
2. MAWTS-1 MMT Class
3. MCWP 3-25.8 MATC Detachment Handbook

ACPM-8006 4.0 * B (N) G

Goal. Demonstrate an understanding of the Low Altitude Air Defense (LAAD).

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify the mission of the LAAD battalion.
2. Identify the structure and task organization of the LAAD battalion.
3. Identify the primary vehicle and surface-to-air weapon used by the LAAD Battalion.
4. Define the LAAD employed guidelines.
5. List the LAAD weapon applications.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 LAAD Class
2. MCWP 3-25.10 LAAD BN Handbook
3. MCWP 3-25.10A LAAD Gunner's Handbook

ACPM-8008 4.0 * B (N) G

Goal. Demonstrate an understanding of the Marine Wing Communications Squadron (MWCS).

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify the mission of the MWCS.
2. Identify the structure and task organization of the MWCS.
3. Identify the Mission Essential Tasks (METs) for the MWCS.
4. Identify the major end items and their characteristics used by MWCS.
5. Identify the capabilities and limitations of the MWCS.
6. Identify how the MWCS is doctrinally employed as part of the MACCS.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 MWCS Employment Class
2. MCRP 3-30B.2 MAGTF Communications Systems
3. NAVMC 3500.56 Communications Training and Readiness Manual

ACPM-8020 1.0 * B (N) G

Goal. Demonstrate an understanding of the ACE stage of the MACCS ACPM.

Requirement. Pass a closed book examination that encompasses all learning objectives contained in the

prerequisites.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. 8021, 8022, 8023, 8024, 8025, 8026, 8027, 8028.

Reference. C3 Course Catalog.

ACPM-8021	4.0	*	B	(N)	G

Goal. Demonstrate an understanding of USMC aviation operations doctrine.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify the six functions of Marine aviation to include all their subsets.
2. Identify the organization and mission of the Marine Aircraft Wing (MAW), to include each type of group and squadron.
3. Define who has operational control of organic MAGTF aviation assets during Joint operations.
4. List the four types of sorties the MAGTF Commander makes available to the Joint Force.
5. Identify the purpose of the Air Tasking Order (ATO).
6. Identify the six phases of the air tasking cycle.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

Reference. MCWP 3-2 Aviation Operations

ACPM-8022	4.0	*	B	(N)	G

Goal. Demonstrate an understanding of USMC doctrine for the control of aircraft and missiles.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify how the control of aircraft and missiles relates to the other five functions of USMC aviation.
2. Identify distinctions between Marine aviation philosophy and that of the other services.
3. Identify the principle objectives of the Marine Air Command and Control System (MACCS).
4. Describe how the COMMARFOR may serve as the Joint Force Air
5. Component Commander (JFACC), Airspace Control Authority (ACA), and Area Air Defense Commander (AADC).

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 Control of Aircraft and Missiles Class
2. MCWP 3-25 Control of Aircraft and Missiles

ACPM-8023	4.0	*	B	(N)	G

Goal. Demonstrate an understanding of USMC Offensive Air Support (OAS) doctrine.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify the purpose of the MAGTF Commanders Single Battle Concept.
2. Define the subcategories of OAS.
3. Define the requirements for effective OAS.
4. Define the three types of Deep Air Support (DAS).
5. Define the capabilities and limitations of the OAS function.
6. Identify the elements of a Joint Tactical Air Strike Request (JTAR).
7. Identify the three types of control of Close Air Support (CAS).

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 OAS Class
2. MCWP 3-23 Offensive Air Support

ACPM-8024	4.0	*	B	(N)	G

Goal. Demonstrate an understanding of USMC Assault Support doctrine.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Define the types of assault support operations.
2. Identify which aircraft conduct each of the types of assault support operations.
3. Identify the elements of an Assault Support Request (ASR).
4. List assault support capabilities and limitations.
5. Define the role of the air mission commander and the assault force commander during air assault operations.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 Assault Support Class
2. MAWTS-1 Direct Air Support Requests Class

ACPM-8025	4.0	*	B	(N)	G

Goal. Demonstrate an understanding of USMC Air Reconnaissance doctrine.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify the three categories of air reconnaissance.
2. Identify the four principals of air reconnaissance.
3. Identify the five prerequisites for effective air reconnaissance.
4. Identify the current USMC aircraft that have the mission of air reconnaissance.
5. Identify the form used to request air reconnaissance.
6. Identify the five supporting operations for effective air reconnaissance.
7. Identify the capabilities and limitations of air reconnaissance.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

Reference. MCWP 3-26 Air Reconnaissance

ACPM-8026 4.0 * B (N) G

Goal. Demonstrate an understanding of USMC Electronic Warfare (EW) doctrine.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Define radar.
2. List the three basic radar types.
3. Identify the limitations and characteristics of radar systems.
4. Identify the six guidance systems and how they work.
5. List the three subdivisions of Electronic Warfare (EW).

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 (S) Electronic Warfare Class—for additional training only, secret courseware should not to be used for testing purposesMAWTS-1 Direct Air Support Requests Class
2. MCWP 3-40.5 Electronic Warfare

ACPM-8027 4.0 * B (N) G

Goal. Demonstrate an understanding of USMC Anti-air Warfare (AAW) doctrine.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Define AAW.
2. Define the two subsets of AAW.
3. Identify the principles of AAW.
4. Identify the types of Offensive Anti-air Warfare (OAAW).
5. Identify the active air defense functions.
6. List three examples of passive air defense measures.
7. Define a Joint Engagement Zone (JEZ), Fighter Engagement Zone (FEZ), Missile Engagement Zone (MEZ), and Base Defense Zone (BDZ).
8. Define the air defense warning conditions.
9. Define the weapons control statuses.
10. Identify the responsibilities of the Regional Air Defense Commander (RADC) and the Sector Air Defense Commander (SADC).

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 Air Defense Class

8 JAN 2021

2. MAWTS-1 Air Defense Commanders Class
3. MAWTS-1 Offensive Antiair Warfare Class
4. MCWP 3-22 Antiair Warfare

ACPM-8028 4.0 * B (N) G

Goal. Demonstrate an understanding of USMC Ground Support (AGS) doctrine.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify the organization responsible for providing AGS to the Marine Aircraft Wing (MAW).
2. Identify the 13 functions of AGS.
3. Identify the five activities that the Marine Wing Support Squadron (MWSS) performs for the ACE when deployed.
4. Identify the four basing concepts for MAGTF Forward Operating Bases (FOBs).
5. List the four classifications of FOBs.
6. Differentiate the distinguishing characteristics of FOBs.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 AGS Class
2. MCWP 3-21.1 Aviation Ground Support

ACPM-8040 1.0 * B (N) G

Goal. Demonstrate an understanding of the Threat stage of the MACCS ACPM

Requirement. Pass a closed book examination that encompasses all learning objectives contained in the prerequisites.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. SI.

Prerequisite. 8041, 8042, 8043, 8044.

Reference. C3 Course Catalog.

ACPM-8041 4.0 * B (N) G

Goal. Demonstrate an understanding of the surface-to-antiair threat to the MAGTF.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Match the system name with the guidance and target aspect for the following Man Portable Air Defense Systems (MANPADS):
 - a. SA-7
 - b. SA-14
 - c. SA-16
 - d. SA-18
2. Match the system name with the guidance and associated radars for the following Radio Frequency Surface-to-Air Missile Systems (RF SAMS):
 - a. SA-2

- b. SA-6
 - c. SA-8
 - d. SA-10
 - e. SA-11
 - f. SA-15
 - g. SA-20
 - h. Roland-III
3. Match the system name with the type and associated radar for the following Air Defense Artillery (AAA):
- a. ZPU 1, 2, 4
 - b. ZSU-23-4
 - c. 2S6
 - d. S-60

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

Reference. MAWTS-1 Marine Aviation Intelligence Reference
(<https://vcepub.tecom.usmc.mil/sites/msc/magtftc/mawts1/departments1/newc3/default.aspx>)

ACPM-8042 4.0 * B (N) G

Goal. Demonstrate an understanding of the fixed wing threat to the MAGTF.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

- 1. Identify the role of the AN-2 Colt.
- 2. Identify the role of the MIG-23 Flogger.
- 3. Identify the role of the MIG-29 Fulcrum.
- 4. Identify the role of the MIG-31 Foxhound.
- 5. Identify the role of the Su-24 Fencer.
- 6. Identify the role of the Su-25 Frogfoot.
- 7. Identify the role of the Su-27 Flanker.
- 8. Identify the role of the Su-30 Flanker.
- 9. Identify the role of the Tu-22M Backfire.
- 10. Identify the role of the Tu-95 Bear.
- 11. Identify the role of the Tu-160 Blackjack.
- 12. Identify the role of the J-7 Fishbed.
- 13. Identify the role of the JH-7 Flounder.
- 14. Identify the role of the J-8 Finback.
- 15. Identify the role of the J-10 Firebird.
- 16. Identify the role of the H-6 Badger.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

Reference. MAWTS-1 Marine Aviation Intelligence Reference
(<https://vcepub.tecom.usmc.mil/sites/msc/magtftc/mawts1/departments1/newc3/default.aspx>)

ACPM-8043 4.0 * B (N) G

Goal. Demonstrate an understanding of the rotary wing threat to the MAGTF.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify the role of the Mi-24 Hind.
2. Identify the role of the SA 342 Gazelle.
3. Identify the role of the Ka-25 Hormone.
4. Identify the role of the Mi-6 Hook.
5. Identify the role of the Mi-28 Havoc.
6. Identify the role of the Mi-8 Hip.
7. Identify the role of the Ka-50 Kokum.
8. Identify the role of the Ka-29 Helix B.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

Reference. MAWTS-1 Marine Aviation Intelligence Reference
(<https://vcepub.tecom.usmc.mil/sites/msc/magtftc/mawts1/departments1/newc3/default.aspx>)

ACPM-8044	4.0	*	B	(N)	G

Goal. Demonstrate an understanding of the missile and Unmanned Aircraft System (UAS) threat to the MAGTF.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Match the system name with the terminal guidance for the following Air-to-Surface Missiles:
 - a. AS-10 Karen
 - b. AS-11 Kilter
 - c. AS-12 Kegler
 - d. AS-14 Kedge
 - e. AS-17 Krypton
2. Match the system name with the warhead and guidance for the following Surface-to-Surface Missiles:
 - a. FROG-7
 - b. SCUD-B
 - c. SCUD-C
 - d. Nodong 1
 - e. C 801
 - f. C 802
3. Identify the mission of the following threat UAS:
 - a. Ababil
 - b. Mohajer
 - c. Harpy
 - d. Heron
 - e. ASN-206
 - f. Pchela-1T

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 Marine Aviation Intelligence Reference
2. <https://vcepub.tecom.usmc.mil/sites/msc/magtftc/mawts1/departments1/ne>

3. [wc3/default.aspx](#)
4. Marine Corps Intelligence Activity Iran Country Handbook (appendix A)
5. Marine Corps Intelligence Activity North Korea Country Handbook (page 86)
6. Marine Corps Intelligence Activity China Country Handbook (appendix A)
<https://www.intelink.gov/mcia/handbook.htm>
7. MCIA UAV Recognition Guide <https://www.intelink.gov/mcia/index.htm>

ACPM-8060 1.0 * B (N) G

Goal. Demonstrate an understanding of the MAGTF stage of the MACCS ACPM.

Requirement. Pass a closed book examination that encompasses all learning objectives contained in the prerequisites.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. SI.

Prerequisite. 8061, 8062, 8063, 8064, 8065.

References. C3 Course Catalog.

ACPM-8061 4.0 * B (N) G

Goal. Demonstrate an understanding of the MAGTF ground combat operations.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify how the Ground Combat Element (GCE) is employed as part of the MAGTF and the capabilities the GCE provides to the MAGTF commander
2. Define the following items related to command and control of ground combat operations:
 - a. Echelons of the GCE headquarters
 - b. Battlespace Organization
 - c. Battlespace Framework
3. Define the five types of amphibious operations.
4. Identify the following items related to offensive operations:
 - a. Types of offensive operations
 - b. Types of attack
 - c. Forms of maneuver
 - d. Distribution of forces
5. Identify the following items related to defensive operations:
 - a. Organization of the defense
 - b. Distribution of forces
 - c. Types of defensive operations
 - d. Defensive methods

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MCDP 1-0 Marine Corps Operations
2. MCWP 3-1 Ground Combat Operations

ACPM-8062 4.0 * B (N) G

Goal. Demonstrate an understanding of fire support coordination in the Ground Combat Element (GCE).

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify the four fire support tasks.
2. List the functions of the senior fire support coordination center (FSCC) in the GCE.
3. List the four steps of the MAGTF Targeting Process.
4. Define the purpose of essential fire support tasks (EFST).

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 MAGTF Targeting and Fire Support Planning Class
2. MCWP 3-16 Fire Support Coordination in the GCE

ACPM-8063 4.0 * B (N) G

Goal. Demonstrate an understanding of MAGTF command and control.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify MAGTF command and support relationships.
2. Identify the purpose and role of the command and control centers in the CE, ACE, GCE, and LCE.
3. Identify the purpose and role of the amphibious command and control facilities.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

Reference. MCWP 3-40.1 MAGTF C2

ACPM-8064 4.0 * B (N) G

Goal. Demonstrate an understanding of MAGTF communications.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify the six characteristics of communications and information systems.
2. Identify the mission and organizational structure of the Communications Battalion.
3. Identify the purpose of the Communications-Electronics Operating Instructions (CEOI) and what information is usually included in it.
4. Identify what information can be found in Annex K of an operations order.
5. Identify the purpose of select fires, support, and ACE specific radio nets.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

Reference. MCWP 3-40.3 MAGTF Communications System

ACPM-8065 4.0 * B (N) G

Goal. Demonstrate an understanding of phasing control ashore.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify types of amphibious operations and how command relationships may change during the conduct of each.
2. Identify how disputes among commanders during amphibious operations are resolved.
3. Identify the key commanders and command relationships.
4. Identify the key characteristics of each phase in phasing the MACCS ashore.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 Phasing Control Ashore Class
2. JP 3-02 Joint Doctrine for Amphibious Operations (Ch 2)
3. MCWP 3-25 Control of Aircraft and Missiles (Appendix C)

ACPM-8066 4.0 * B (N) G

Goal. Demonstrate an understanding of information management.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Match the principles of information management with their descriptions.
2. Define each of the classes of information within an information hierarchy.
3. List the characteristics of quality information.
4. Identify the role and responsibilities of an Information Management Officer (IMO).
5. Define C2 support structure and the three steps followed to develop one.
6. Identify the purpose of an information management matrix and the information management plan.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

Reference. MCWP 3-40.2 Information Management

ACPM-8067 4.0 * B (N) G

Goal. Demonstrate an understanding of Unmanned Aircraft Systems in support of MAGTF operations.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify the four types of payloads.
2. Identify the three attributes that determine UAS Groups.
3. Identify the five different UAS Group Categories.
4. Identify the two types of VMU operational employment.
5. Identify the three components of the RQ-7B Communications Relay Package.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

Reference.

1. MAWTS-1 UAS In Support of MAGTF Operations
2. MCRP 3-42.1A
3. NTTP 3-22.3-VMU

ACPM-8080	1.0	*	B	(N)	G

Goal. Demonstrate an understanding of the MAGTF stage of the joint air operations stage of the MACCS ACPM.

Requirement. Pass a closed book examination that encompasses all learning objectives contained in the prerequisites.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. SI.

Prerequisite. 8081, 8082, 8083, 8084, 8085, 8086, 8087, 8088.

Reference. C3 Course Catalog.

ACPM-8081	4.0	*	B	(N)	G

Goal. Demonstrate an understanding of the command and control of joint air operations.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify the definition of joint air operations.
2. Identify the Joint Force Air Component Commander's responsibilities.
3. Identify the five sections that comprise the Joint Air Operations Center.
4. Identify the six phases of the Joint Air Tasking Cycle.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives or pass the DOCNET course listed below with a score of 80% or higher.

Instructor. BI.

Prerequisite. None.

References.

1. DOCNET Course 3-30 (<http://www.dtic.mil/doctrine/docnet/>)
2. MAWTS-1 Joint Air Operations Class
3. JP 3-30 C2 of Joint Air Operations

ACPM-8082	4.0	*	B	(N)	G

Goal. Demonstrate an understanding of the theater air ground system (TAGS).

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. List the primary characteristics of the Theater Air Ground System (TAGS).
2. Identify the elements within the Air Force's Theater Air Control System (TACS) and their primary responsibilities.

3. Identify the aviation command and control elements with the Army Air and Ground System (AAGS) and their primary responsibilities.
4. Identify the aviation elements within the Navy's Composite Warfare Commander (CWC) architecture.
5. Identify the Amphibious Task Force (ATF) construct and its primary responsibilities.
6. Identify the aviation command and control elements within the Special Operations Air-Ground System.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 TAGS ClassMAWTS-1 Joint Air Operations Class
2. ALSA TAGS Pub. (<https://wwwmil.alsa.mil/default.aspx>)

ACPM-8083 4.0 * B (N) G

Goal. Demonstrate an understanding of joint fire support doctrine.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Define joint fires.
2. Define joint fire support.
3. Identify the steps of the joint fire support planning process.
4. List the various elements of the component commander's fires command and control system.
5. Define the various joint control and coordination measures associated with joint fire support.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives or pass the DOCNET course listed below with a score of 80% or higher.

Instructor. BI.

Prerequisite. None.

References.

1. DOCNET Course 3-09 (<http://www.dtic.mil/doctrine/docnet/>)
2. JP 3-09 Joint Fire Support

ACPM-8084 4.0 * B (N) G

Goal. Demonstrate an understanding of close air support (CAS) doctrine.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Explain key roles and responsibilities related to the planning and execution of CAS.
2. Detail key steps in the planning and execution of CAS.
3. Describe various coordination measures used in the planning and conduct of CAS.
4. Describe the manner in which the two types of CAS requests are fulfilled.
5. Identify the goal and purpose of synchronizing CAS with surface fires.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives or pass the DOCNET course listed below with a score of 80% or higher.

Instructor. BI.

Prerequisite. None.

8 JAN 2021

References.

1. DOCNET Course 3-09 (<http://www.dtic.mil/doctrine/docnet/>)
2. MAWTS-1 CAS Class
3. JP 3-09.3 Close Air Support

ACPM-8085 4.0 * B (N) G

Goal. Demonstrate an understanding of joint targeting doctrine.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify types of targets.
2. Identify and describe the six phases of the joint targeting cycle.
3. Identify characteristics of a target.
4. Identify and describe steps in dynamic targeting.
5. Describe roles and responsibilities related to the joint targeting process.
6. Describe key products and processes of the joint targeting cycle.
7. Identify key terms related to the joint targeting process.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives or pass the DOCNET course listed below with a score of 80% or higher.

Instructor. BI.

Prerequisite. None.

References.

1. DOCNET Course 3-09 (<http://www.dtic.mil/doctrine/docnet/>)
2. JP 3-60 Joint Targeting

ACPM-8086 4.0 * B (N) G

Goal. Demonstrate an understanding of the North Atlantic Treaty Organization (NATO).

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify the composition of the NATO alliance.
2. Identify the three key articles of the NATO alliance.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 NATO Class
2. "What is NATO" Brief (http://www.nato.int/welcome/intro_to_NATO_en.ppt)
3. AJP-01(D)

ACPM-8087 4.0 * B (N) G

Goal. Demonstrate an understanding of joint airspace control doctrine.

Requirement. Conduct a self-paced reading of the reference and pass a closed book examination on the following learning objectives:

1. Identify the responsibilities of the airspace control authority (ACA).
2. Identify the basic principles for airspace control.

3. Identify the purpose of the airspace control plan (ACP).
4. Identify the purpose of the airspace control order (ACO).
5. Identify the methods of airspace control.

Performance Standard. Pass an exam with a score of 80% or higher on the stated learning objectives.

Instructor. BI.

Prerequisite. None.

References.

1. MAWTS-1 Airspace Control Authority and Airspace Class
2. JP 3-52 Joint Airspace Control

8 JAN 2021

15.15 T&R SYLLABUS MATRIX

5993 T&R SYLLABUS MATRIX										
STAGE	CODE	TITLE	POI	DEVICE	COND	PROFICIENCY PERIOD	E-CODED	TIME	PREREQ	CHAIN
CORE INTRODUCTION PHASE (1000)										
AIR SCHOOL (AIRS)										
AIRS	1002	Conduct an inspection of maintenance functional areas	B	G	(N)	*	*	*	*	*
AIRS	1003	Identify the key elements of Operational Orders (OPORD)	B	G	(N)	*	*	*	*	*
AIRS	1004	Reconcile Global Combat Support Systems-Marine Corps (GCSS-MC) automated reports	B	G	(N)	*	*	*	*	*
AIRS	1005	Identify the services provided by Marine Wing Communications Squadron	B	G	(N)	*	*	*	*	*
AIRS	1006	Identify cyber security requirements for tactical employment of information systems	B	G	(N)	*	*	*	*	*
AIRS	1007	Identify TAOC and EW/C communications information exchange requirements	B	G	(N)	*	*	*	*	*
AIRS	1008	Identify TACC Communications information exchange requirements	B	G	(N)	*	*	*	*	*
AIRS	1009	Identify DASC communications information exchange requirements	B	G	(N)	*	*	*	*	*
AIRS	1010	Analyze the TO/E	B	G	(N)	*	*	*	*	*
AIRS	1011	Identify spectrum management procedures	B	G	(N)	*	*	*	*	*
AIRS	1012	Identify the embarkation requirements for the major end items of the TACC, DASC, TAOC, and EW/C	B	G	(N)	*	*	*	*	*
AIRS	1013	Identify LAAD Communications information exchange requirements	B	G	(N)	*	*	*	*	*
AIRS	1014	Identify MATC communications information exchange requirements	B	G	(N)	*	*	*	*	*
AIRS	1016	Identify the Marine Corps Urgent Needs Process (MCUNP)	B	G	(N)	*	*	*	*	*
AIRS	1017	Validate induction of new equipment into service	B	G	(N)	*	*	*	*	*

5993 T&R SYLLABUS MATRIX										
STAGE	CODE	TITLE	POI	DEVICE	COND	PROFICIENCY PERIOD	E-CODED	TIME	PREREQ	CHAIN
AIRS	1018	Demonstrate the process to phase out obsolete equipment	B	G	(N)	*	*	*	*	*
AIRS	1019	Identify maintenance funding requirements	B	G	(N)	*	*	*	*	*
AIRS	1020	Identify the SECREP management process	B	G	(N)	*	*	*	*	*
AIRS	1021	Identify DOD cyber security workforce structure	B	G	(N)	*	*	*	*	*
AIRS	1022	Access published information within TFSMS	B	G	(N)	*	*	*	*	*
AIRS	1023	Describe readiness ratings within DRRS-MC	B	G	(N)	*	*	*	*	*
AIRS	1024	Explain the product quality deficiency report (PQDR)	B	G	(N)	*	*	*	*	*
AIRS	1025	Identify major funding lines	B	G	(N)	*	*	*	*	*
TOTAL HOURS AIR SCHOOL (AIRS) STAGE			EVENTS		23	HOURS		0		
TOTAL HOURS CORE INTRODUCTION PHASE (1000)								0		
INSTRUCTOR TRAINING PHASE (5000)										
INSTRUCTOR TRAINING STAGE										
IUT	5000	Introduce principals of instruction.	B	L	(N)	*	*	2	*	*
IUT	5010	Describe individual T&R requirements.	B	G	(N)	*	*	2	*	*
IUT	5020	Conduct T&R instruction.	B,R,M	L	(N)	90	*	12	5000, 5010	*
IUT	5100	Describe the Aviation Training and Readiness (T&R) Program.	B	G	(N)	*	*	2	*	*
IUT	5110		Conduct instructor evaluations.	B,R,M	L	(N)	365	*	4	5100
IUT	5120	Perform T&R administration.	B	L	(N)	*	*	2	5100, 5110	*
IUT	5130	Develop a training plan.	B	L	(N)	*	*	2	5100, 5110, 5120	*
TOTAL HOURS INSTRUCTOR TRAINING STAGE								28		
TOTAL HOURS INSTRUCTOR TRAINING PHASE (5000)								28		
CERTIFICATIONS, QUALIFICATIONS, AND DESIGNATIONS (CQD) PHASE (6000)										
DESIGNATIONS (DESG) STAGE										
DESG	6320	Basic Instructor (BI).	B	G	(N)	*	*	1	5000, 5010, 5020	*
DESG	6321	Senior Instructor (SI).	B	G	(N)	*	*	1	5000, 5010, 5020, 5100, 5110, 5120, 5130	*
DESG	6322	Weapons and Tactics Instructor (WTI).	B	G	(N)	*	*	1	6000	*

5993 T&R SYLLABUS MATRIX										
STAGE	CODE	TITLE	POI	DEVICE	COND	PROFICIENCY PERIOD	E-CODED	TIME	PREREQ	CHAIN
DESG	6330	Formal Learning Center Instructor (FLCI).	B	G	(N)	*	*	1	6096	*
DESG	6334	Electronics Maintenance Chief (EMC).	B	G	(N)	*	*	.5	*	*
TOTAL HOURS DESIGNATIONS (DESG) STAGE			EVENTS		5	HOURS		4.5		
SCHOOL (SCHL)										
SCHL	6000	WTI Course	B	G	(N)	*	*	0.5	6320, 6321, 8000, 8020, 8040, 8060, 8080	*
SCHL	6020	Link 16 Basics Course (JT-100)	B	G	(N)	*	*	0.5	*	*
SCHL	6021	Intro to Multi TDL Network (JT-101) Course	B	G	(N)	*	*	0.5	*	*
SCHL	6022	Multi-TDL Advanced Joint Interoperability Course (MAJIC) (JT-102)	B	G	(N)	*	*	0.5	6021	*
SCHL	6023	Link 16 Joint Interoperability Course (US-109)	B	G	(N)	*	*	0.5	*	*
SCHL	6024	Multi TDL Planner Course (JT-201)	B	G	(N)	*	*	0.5	*	*
SCHL	6025	Link 16 Unit Manager (LUM) Course (JT-220)	B	G	(N)	*	*	0.5	*	*
SCHL	6026	Joint Interface Control Officer (JICO) (JT-301)	B	G	(N)	*	*	0.5	6021, 6022, 6024	*
SCHL	6027	Advanced JICC Operator Course (JT-310)	B	G	(N)	*	*	0.5	*	*
SCHL	6073	Microminiature Electronic Repair Course	B	G	(N)	*	*	0.5	*	*
SCHL	6093	Micro-miniature/Automated Test Equipment Repair Course	B	G	(N)	*	*	0.5	*	*
SCHL	6094	Advanced Electronics Course.	B	G	(N)	*	*	0.5	*	*
SCHL	6096	Attend respective instructor development course.	B	G	(N)	*	*	0.5	*	*
SCHL	6097	Mountain Command Control Communications Course.	B	G	(N)	*	*	0.5	*	*
SCHOOL (SCHL)			EVENTS	14		HOURS		7.0		
TOTAL HOURS CERTIFICATIONS, QUALIFICATIONS, AND DESIGNATIONS (CQD) (6000)								11.5		
MISSION ESSENTIAL TASK (MET) PHASE (7000)										
TACC CONDITION (TACC)										
COND	7001	Establish communications	B,R,M	L	(N)	730	E	4	*	*
COND	7003	Display the Common Tactical Picture	B,R,M	L/S	(N)	730	E	8	*	*

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STAGE	CODE	TITLE	POI	DEVICE	COND	PROFICIENCY PERIOD	E-CODED	TIME	PREREQ	CHAIN
COND	7004	Coordinate air operations between the MACCS and Joint /Combined/Coalition/Host Nation command and control agencies	B,R,M	L/S	(N)	730	E	18	*	*
COND	7005	Manage the current air tasking order	B,R,M	L/S	(N)	730	E	8	*	*
COND	7007	Maintain a facility and associated command and control systems for the TACC	B,R,M	L/S	(N)	730	E	16	*	*
COND	7009	Coordinate Airspace Coordinating Measures in support of the MAGTF	B,R,M	S/L	(N)	730	E	2	*	*
TACC CONDITION (TACC)			EVENTS	6		HOURS		56		
TAOC CONDITION (TAOC)										
COND	7000	Conduct Airspace Surveillance	B,R,M	L	(N)	730	E	16	*	*
COND	7001	Conduct Positive Control	B,R,M	L/S	(N)	730	E	16	*	*
COND	7002	Coordinate Air Defense Actions	B,R,M	L/S	(N)	730	E	16	*	*
COND	7003	Conduct Dual Site Air Defense Operations	B,R,M	L/S	(N)	730	E	16	*	*
COND	7004	Integrate Operational Air Defense Capabilities	B,R,M	L/S	(N)	730	E	16	*	*
TAOC CONDITION (TAOC)			EVENTS	5		HOURS		80		
DASC CONDITION (DASC)										
COND	7400	Employ an ASLT	B,R,M	L/S	(N)	730	E	3	*	*
COND	7405	Employ an ASE	B,R,M	L/S	(N)	730	E	3	*	*
COND	7410	Employ a DASC	B,R,M	L/S	(N)	730	E	3	*	*
COND	7415	Conduct a Reconnaissance, selection, and Occupation of Position (RSOP) for the DASC	B,R,M	L/S	(N)	730	E	3	*	*
COND	7420	Conduct Echelon Operations	B,R,M	L/S	(N)	730	E	3	*	*
COND	7425	Conduct Phasing of Control Ashore	B,R,M	L/S	(N)	730	E	3	*	*
DASC CONDITION (DASC)			EVENTS	6		HOURS		18		
TOTAL HOURS MISSION ESSENTIAL TASK (MET) PHASE (7000)								154		
AVIATION CAREER PROGRESSION MODEL (ACPM) PHASE (8000)										
AVIATION CAREER PROGRESSION MODEL (ACPM)										
ACPM	8000	MACCS	B	G	(N)	*	*	1	8001, 8002, 8003, 8004, 8005, 8006, 8008	*
ACPM	8001	Marine Air Command and Control System	B	G	(N)	*	*	4	*	*
ACPM	8002	Tactical Air Command Center (TACC)	B	G	(N)	*	*	4	*	*

5993 T&R SYLLABUS MATRIX										
STAGE	CODE	TITLE	POI	DEVICE	COND	PROFICIENCY PERIOD	E-CODED	TIME	PREREQ	CHAIN
ACPM	8003	Direct Air Support Center (DASC)	B	G	(N)	*	*	4	*	*
ACPM	8004	Tactical Air Operations Center (TAOC)	B	G	(N)	*	*	4	*	*
ACPM	8005	Marine Air Traffic Control (MATC)	B	G	(N)	*	*	4	*	*
ACPM	8006	Low Altitude Air Defense (LAAD)	B	G	(N)	*	*	4	*	*
ACPM	8008	Marine Wing Communications Squadron (MWCS)	B	G	(N)	*	*	4	*	*
ACPM	8020	ACE	B	G	(N)	*	*	1	8021, 8022, 8023, 8024, 8025, 8026, 8027, 8028	*
ACPM	8021	Aviation Operations	B	G	(N)	*	*	4	*	*
ACPM	8022	Control of Aircraft and Missiles	B	G	(N)	*	*	4	*	*
ACPM	8023	Offensive Air Support (OAS)	B	G	(N)	*	*	4	*	*
ACPM	8024	Assault Support (AS)	B	G	(N)	*	*	4	*	*
ACPM	8025	Air Reconnaissance	B	G	(N)	*	*	4	*	*
ACPM	8026	Electronic Warfare (EW)	B	G	(N)	*	*	1	*	*
ACPM	8027	Anti-Air Warfare (AAW)	B	G	(N)	*	*	4	*	*
ACPM	8028	Aviation Ground Support	B	G	(N)	*	*	4	*	*
ACPM	8040	Threat	B	G	(N)	*	*	1	8041, 8042, 8043, 8044	*
ACPM	8041	Surface to Air threat to the MAGTF	B	G	(N)	*	*	4	*	*
ACPM	8042	Fixed Wing threat to the MAGTF	B	G	(N)	*	*	4	*	*
ACPM	8043	Rotary Wing threat to the MAGTF	B	G	(N)	*	*	4	*	*
ACPM	8044	Missile and UAS threat to the MAGTF	B	G	(N)	*	*	4	*	*
ACPM	8060	MAGTF	B	G	(N)	*	*	1	8061, 8062, 8063, 8064, 8065, 8066, 8067	*
ACPM	8061	Ground Combat Operations	B	G	(N)	*	*	4	*	*
ACPM	8062	Fire Support Coordination in the GCE	B	G	(N)	*	*	4	*	*
ACPM	8063	MAGTF Command and Control	B	G	(N)	*	*	4	*	*
ACPM	8064	MAGTF Communications	B	G	(N)	*	*	4	*	*
ACPM	8065	Phasing Control Ashore	B	G	(N)	*	*	4	*	*
ACPM	8066	Information Management	B	G	(N)	*	*	4	*	*
ACPM	8067	UAS support of the MAGTF	B	G	(N)	*	*	4	*	*
ACPM	8080	Joint Air Operations	B	G	(N)	*	*	1	8081, 8082, 8083, 8084, 8085, 8086, 8087, 8088	*
ACPM	8081	Command and Control of Joint Air Operations	B	G	(N)	*	*	4	*	*
ACPM	8082	Theater Air Ground System (TAGS)	B	G	(N)	*	*	4	*	*
ACPM	8083	Joint Fire Support	B	G	(N)	*	*	4	*	*

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STAGE	CODE	TITLE	POI	DEVICE	COND	PROFICIENCY PERIOD	E-CODED	TIME	PREREQ	CHAIN
ACPM	8084	Close Air Support (CAS)	B	G	(N)	*	*	4	*	*
ACPM	8085	Joint Targeting	B	G	(N)	*	*	4	*	*
ACPM	8086	North Atlantic Treaty Organization (NATO)	B	G	(N)	*	*	4	*	*
ACPM	8087	Joint Airspace Control	B	G	(N)	*	*	4	*	*
ACPM	8088	Countering Air and Missile Threats	B	G	(N)	*	*	4	*	*
AVIATION CAREER PROGRESSION MODEL (ACPM)			EVENTS	39		HOURS		138		
TOTAL ACPM PHASE (8000)								138		