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Subj: TACTICAL AIR COMMAND CENTER (TACC) MAINTENANCE TRAINING AND READINESS  
(T&R) MANUAL

Ref: (a) NAVMC 3500.14C

Encl: (1) TACC MAINTENANCE T&R MANUAL

1. Purpose. In accordance with the reference, to publish standards and regulations regarding the training of TACC crews.

2. Scope

a. This is the first T&R Manual built for the 5939, 5974, 5979, and 5970 TACC Maintenance Military Occupational Specialties (MOS).

b. Currently tracked and guided by the Individual Training Standards System Maintenance Management and Evaluation Program, the entire 5900 MOS field is in the process of transition to the Aviation Training and Readiness Program format.

3. Information. Recommended changes to this Manual are invited, and may be submitted via the syllabus sponsor and the appropriate chain of command to: Commanding General (CG), Training and Education Command (TECOM), Marine Air Ground Task Force Training and Education (MAGTF T&E) Standards Division, Aviation Training Division (ATD) using standard naval correspondence or the Automated Message Handling System plain language address: CG TECOM ATD.

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

5. Certification. Reviewed and approved this date.

  
R. C. FOX  
By direction

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CHAPTER 1

TACTICAL AIR COMMAND CENTER (TACC)  
5900 MAINTENANCE  
TRAINING AND READINESS UNIT REQUIREMENTS

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CHAPTER 1

TACTICAL AIR COMMAND CENTER (TACC)  
5900 MAINTENANCE  
TRAINING AND READINESS UNIT REQUIREMENTS

1.0 TACC 5900 MAINTENANCE UNIT TRAINING AND READINESS REQUIREMENTS. The Marine Aviation Training and Readiness (T&R) Program provides the Marine Air-Ground Task Force (MAGTF) commander with an Aviation Combat Element (ACE) capable of executing the six functions of Marine Aviation. The T&R Program is the fundamental tool used by commanders to construct, attain, and maintain effective training programs. The standards established in this program are validated by subject matter experts to maximize combat capabilities for assigned METs while conserving resources. 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. Support the MAGTF commander by providing 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 future operations section, and install and maintain associated automated systems.

1.2 TABLE OF ORGANIZATION. Refer to T/O 8620 and 8620A managed by Total Force Structure Management System, MCCDC, for current authorized organizational structure and personnel strength. Information below depicts the maintenance TACC TO&E information as of the date of this directive.

1.2.1 Maintenance Core Capability. The TACC communication-electronics maintenance section provides the Marine Tactical Air Command Squadron (MTACS) the requisite networks, human systems interfaces and aviation communications systems planning, emplacement, external integration, and sustainment services necessary for close air support and procedural control of aircraft within the assigned airspace and weapons system integration and control within the MACCS. Core capable TACC communication-electronics maintenance sections are task organized to employ, sustain and restore aviation peculiar and ground common C2 and communications systems. Functions include systems deployment, emplacement and configuration, systems management, preventive and corrective maintenance, modifications and calibrations, maintenance administration and management, and operational planning. As configured below, the TACC communication-electronics maintenance section is capable of supporting 24-hour TACC operations.

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MTACS 18, 28, 38, 48	
T/O 8620 & 8620A OFFICERS -- 1 (5970) ENLISTED -- 10 (5939) -- 22 (5974)	
CREW COMPOSITION	TOTALS
AVIATION COMMUNICATION SYSTEMS MAINTENANCE CHIEF	1
AVIATION COMMUNICATION SYSTEMS TECHNICIAN	2
AVIATION COMMUNICATION SYSTEMS REPAIRMAN	4
DATA SYSTEM MAINTENANCE OFFICER	1
TDS MAINTENANCE CHIEF	1
TACC MAINTENANCE CHIEF	1
SYSAD CHIEF	2
TDS ADVANCED TECHNICIAN	4
TDS BASIC ADMINISTRATOR	8

1.3 SIX FUNCTIONS OF MARINE AVIATION

SIX FUNCTIONS OF MARINE AVIATION		
FUNCTION	ABBREVIATION	DESCRIPTION
Offensive Air Support	OAS	OAS involves air operations that are conducted against enemy installations, facilities, and personnel in order to directly assist in the attainment of MAGTF objectives by destroying enemy resources or isolating enemy military forces. Its primary support of the warfighting functions is to provide fires and force protection through CAS and DAS.
Assault Support	ASPT	ASPT contributes to the warfighting functions of maneuver and logistics. Maneuver warfare demands rapid, flexible maneuverability to achieve a decision. Assault support uses aircraft to provide tactical mobility and logistic support to the MAGTF for the movement of high priority personnel and cargo within the immediate area of operations (or the evacuation of personnel and cargo).
Anti-Air Warfare	AAW	AAW is the actions used to destroy or reduce the enemy air and missile threat to an acceptable level. The primary purpose of AAW is to gain and maintain whatever degree of air superiority is required; this permits the conduct of operations without prohibitive interference by opposing air and missile forces. AAW's other purpose is force protection.
Electronic Warfare	EW	EW is any military action involving the use of electromagnetic and directed energy to control the electromagnetic spectrum or to attack the enemy. EW supports the warfighting functions of fires, command and control, and intelligence through the three major subdivisions: electronic attack, electronic protection, and electronic warfare support.
Control of Aircraft & Missiles	CoA&M	The control of aircraft and missiles supports the warfighting function of Command and Control. The ACE commander maintains centralized command, while control is decentralized and executed through the Marine Air Command and Control System (MACCS). CoA&M integrates the other five functions of Marine Aviation by providing the commander with the ability to exercise Command and Control authority over Marine Aviation assets.
Aerial Reconnaissance	AerRec	AerRec employs visual observation and/or sensors in aerial vehicles to acquire intelligence information. It supports the intelligence warfighting function and is employed tactically, operationally, and strategically. The three types of air reconnaissance are visual, multi-sensor imagery, and electronic.

1.4 ABBREVIATIONS. Shading indicates core plus skills.

MTACS MAINTENANCE (MOS 5900)	
CORE/MISSION/CORE PLUS SKILL ABBREVIATIONS	
CORE SKILLS (2000 Phase)	
AFATD	ADVANCED FIELD ARTILLERY TACTICAL DATA SYSTEM
ADPE	AUTOMATED DATA PROCESSING EQUIPMENT
CD	COLLATERAL DUTIES
COC	COMBAT OPERATIONS CENTER
CDLS	COMMUNICATION DATA LINK SYSTEM
COMSEC	COMMUNICATION SECURITY
FAM	FAMILIARIZATION
IOS	INTELLIGENCE OPERATION SERVER
LMSMT	LINK MANAGEMENT SYSTEM—MULTI TADIL
MMGT	MAINTENANCE MANAGEMENT
NET	NETWORK
OMGT	OPERATIONS MANAGEMENT
ORGS	ORGANIZATIONAL STRUCTURE
PMCM	PREVENTIVE MAINTENANCE/CORRECTIVE MAINTENANCE
SETUP	SET UP
SHEL	SHELTERS
SYSO	SYSTEM OVERVIEW
TMDE	TEST MEASUREMENT DIAGNOSTIC EQUIPMENT
TBMCS	THEATER BATTLE MANAGEMENT CORE SYSTEM
MISSION SKILLS	
TACCOPS	TACTICAL AIR COMMAND CENTER CURRENT OPERATIONS
TACCINF	TACTICAL AIR COMMAND CENTER INFRASTRUCTURE
CORE PLUS	
DASC	DIRECT AIR SUPPORT CENTER
TAOC	TACTICAL AIR OPERATIONS CENTER
ABNC2	AIRBORNE COMMAND AND CONTROL
CCD	COMMON CONNECTIVITY DEVICE

1.5 MISSION ESSENTIAL TASK LIST. The METL is a list of specified tasks a specific unit is designed to perform. Core METs are drawn from the Marine Corps Task List (MCTL), are standardized by type unit, and are used for unit readiness. Core Plus METs are additional METs that are theater specific and/or have a low likelihood of occurrence. Core Plus METs may be included in readiness reporting when contained within and assigned Mission METL. An Assigned Mission METL consists of only the selected METs (drawn from the MCTL, Core, or Core Plus METs) necessary for that Assigned Mission.

The unit METL consists of Mission Essential Tasks (METs). Shading indicates Core Plus METs.

MTACS		
MISSION ESSENTIAL TASK LIST (METL)		
MET	ABBREVIATION	MCT DESCRIPTION
MCT 5.3.2.7	TACCOPS	CONDUCT TACTICAL AIR COMMAND CENTER (TACC) CURRENT OPERATIONS
MCT 5.3.2.7.5	TACCINF	PROVIDE TACC INFRASTRUCTURE

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

MTACS MAINTENANCE							
MISSION ESSENTIAL TASK LIST (METL)							
MET	ABBREVIATION	SIX FUNCTIONS OF MARINE AVIATION					
		OAS	ASPT	AAW	EW	CoA&M	AerRec
MCT 5.3.2.7	TACCOPS	X	X	X		X	
MCT 5.3.2.7.5	TACCINF	X	X	X		X	

1.7 MISSION ESSENTIAL TASKS (MET) OUTPUT STANDARDS. MCT output standards are based on 24-hour continuous contingency/combat operations.

CORE MET OUTPUT STANDARDS				
MET	ABBREVIATION	OUTPUT STANDARDS	CREW COMPOSITION	TOTAL NUMBER OF CREWS
MCT 5.3.2.7	TACCOS	ABLE TO PROVIDE SUSTAINED OPERATIONS	(1) ACSAT (2) ACSBT (1) SYSAD (2) TDSAT (4) TDSBA	2
		ABLE TO EXECUTE AND ASSESS THE CURRENT AIR TASKING ORDER		
		ABLE TO MONITOR AND DIRECT SUBORDINATE MACCS AGENCIES IN THE EXECUTION OF THEIR TASKS		
		ABLE TO MANAGE/DIRECT AIR ASSETS IN SUPPORT OF THE CLOSE, REAR AND DEEP BATTLE AREAS		
		ABLE TO COORDINATE AIR OPERATIONS BETWEEN THE MACCS AND JOINT/COMBINED/COALITION/HOST NATION COMMAND AND CONTROL AGENCIES		
		ABLE TO PLAN, DEVELOP, COORDINATE, AND DISSEMINATE AIRSPACE COORDINATING MEASURES IN SUPPORT OF MAGTF OPERATIONS		
		ABLE TO COORDINATE THE RECOVERY OF ISOLATED PERSONNEL AND AIRCRAFT		
		ABLE TO RECEIVE AND DISPLAY THE COMMON OPERATIONAL PICTURE		
		ABLE TO PROMULGATE AND EXECUTE AIR OPERATIONS PLANS AND ORDERS		
MCT 5.3.2.7.5	TACCINF	ABLE TO PROVIDE EQUIPMENT AND FACILITIES FOR COPS, FOPS, FPLANS, AND ACI FOR THE ACE COMMANDER AND THE BATTLE STAFF TO PLAN, SUPERVISE, COORDINATE, AND EXECUTE MAGTF AIR OPERATIONS	(1) DSMO (1) TDSMC (1) ACSMC (1) TACCMC	1
		ABLE TO ESTABLISH VOICE AND DATA CONNECTIVITY WITH SUBORDINATE MACCS AGENCIES AND HIGHER HEADQUARTERS, JOINT, AND COALITION FORCES		

1.8 MET TO CORE/MISSION/CORE PLUS SKILL MATRIX.

MTACS MAINTENANCE (MOS 5900)

MISSION ESSENTIAL TASK (MET) TO CORE/MISSION/CORE PLUS SKILL MATRIX

MET	CORE SKILLS 2000 PHASE																		MISSION SKILLS 3000 PHASE		CORE PLUS 4000 PHASE				
	APRD	ADPE	CD	COC	ODLS	COMSEC	FAM	IOS	IMSMT	MMGT	NET	OMGT	ORGS	PNCM	SETP	SHEL	SYSO	TMDE	TRMCS	TACCOPS	TACCINF	CDB	DASE	TRAC	
MCT 5.3.2.7	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X
MCT 5.3.2.7.5	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

1.9 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.

MPACS MAINTENANCE (MOS 5970/5939/5974)										
CORE SKILLS (2000 Phase)										
CORE SKILLS	ACSBT 5939	ACSAT 5939	ACSCC 5939	ACSMC 5939	TDSABT 5974	TDSAAT 5974	TDSAC 5974	TACCMC 5974	DSMO 5970	TOTAL CMMR CREWS
AFATD	0	0	0	0	9	0	0	0	0	2
ADPE	0	0	0	0	9	0	0	0	0	2
CD	2	2	0	0	6	7	0	0	0	2
COC	0	0	0	0	9	0	0	0	0	2
CDLS	0	0	0	0	9	0	0	0	0	2
COMSEC	2	2	0	0	2	2	0	0	0	2
FAM	1	2	0	0	3	7	0	0	0	2
IOS	0	0	0	0	9	0	0	0	0	2
LMSMT	0	0	0	0	9	0	0	0	0	2
MMGT	4	1	0	0	9	4	0	1	1	2
NET	0	0	0	0	9	0	0	0	0	2
OMGT	4	1	1	1	0	4	0	0	1	2
ORGS	1	2	0	0	3	7	0	0	0	2
PMCM	2	2	0	0	6	7	0	0	0	2
SETUP	2	2	0	0	6	7	0	0	0	2
SHEL	2	2	0	0	6	7	0	0	0	2
SYSO	2	2	0	0	6	7	0	0	0	2
TMDE	2	2	0	0	6	7	0	0	0	2
TBMCS	0	0	0	0	9	0	0	0	0	2
MISSION SKILLS (3000 Phase)										
TACCCOS	4	1	1	1	9	4	2	1	1	2
TACCINF	4	1	1	1	9	4	2	1	1	2
CORE PLUS SKILLS (4000 Phase)										
CCD	0	0	0	0	0	4	2	0	0	2
DASC	1	1	0	0	1	1	0	0	1	1
TADC	1	1	0	0	1	1	0	0	1	1
ABNC2	1	1	0	0	1	1	0	0	1	1

1.10 READINESS REPORTING. The paragraphs and tables below delineate the minimum crew qualifications and designations required to contribute to unit readiness. Chapter 7 of the Aviation T&R Program Manual provides additional guidance and a detailed description of readiness

reporting using the Defense Readiness Reporting System--Marine Corps (DRSS--MC) and the Current Readiness program.

1.10.1 Combat Leadership requirements for readiness reporting are per paragraph 1.12.

1.11 INSTRUCTOR DESIGNATIONS (5000 Phase)

MTACS MAINTENANCE (MOS 5900)			
INSTRUCTOR DESIGNATIONS	5970	5939	5974
BASIC INSTRUCTOR	0	2	4
SENIOR INSTRUCTOR	0	1	2
WEAPONS AND TACTICS INSTRUCTOR	1	0	0

1.12 REQUIREMENTS, CERTIFICATIONS, QUALIFICATIONS, AND DESIGNATIONS (RCQD) (6000 Phase)

MTACS MAINTENANCE (MOS 5900)			
REQUIREMENTS, CERTIFICATIONS, QUALIFICATIONS, AND DESIGNATIONS (RCQD) (6000 Phase)			
RCQD	5970	5974	5939
ACSBT	0	0	4
ACSAT	0	0	1
ACSCC	0	0	2
C2SM	0	2	0
WTF	0	2	0
TBSA	0	2	0
TDSBT	0	2	0
TDSAT	0	2	0
TDSACC	0	2	0
COMBAT LEADERSHIP			
DSMO	1	0	0
TACCMC	0	1	0
ACSMC	0	0	1

CHAPTER 2

TACTICAL AIR COMMAND CENTER MAINTENANCE AVIATION COMMUNICATIONS SYSTEMS  
TECHNICIAN (MOS 5939)/INDIVIDUAL TRAINING AND READINESS REQUIREMENTS

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CHAPTER 2

AVIATION COMMUNICATIONS SYSTEMS TECHNICIAN (ACST) / 5939  
INDIVIDUAL TRAINING AND READINESS REQUIREMENTS

2.0 MOS 5939 INDIVIDUAL TRAINING AND READINESS REQUIREMENTS. This T&R syllabus is based on specific goals and performance standards designed to ensure individual proficiency in Core, Mission, and Core Plus Skills. The goal of this chapter is to develop individual and unit war fighting capabilities.

2.1 5939 TRAINING PROGRESSION MODEL. This model represents the recommended average training progression for the 5939 crewmember. Units should use the model as a point of departure to generate individual training plans.

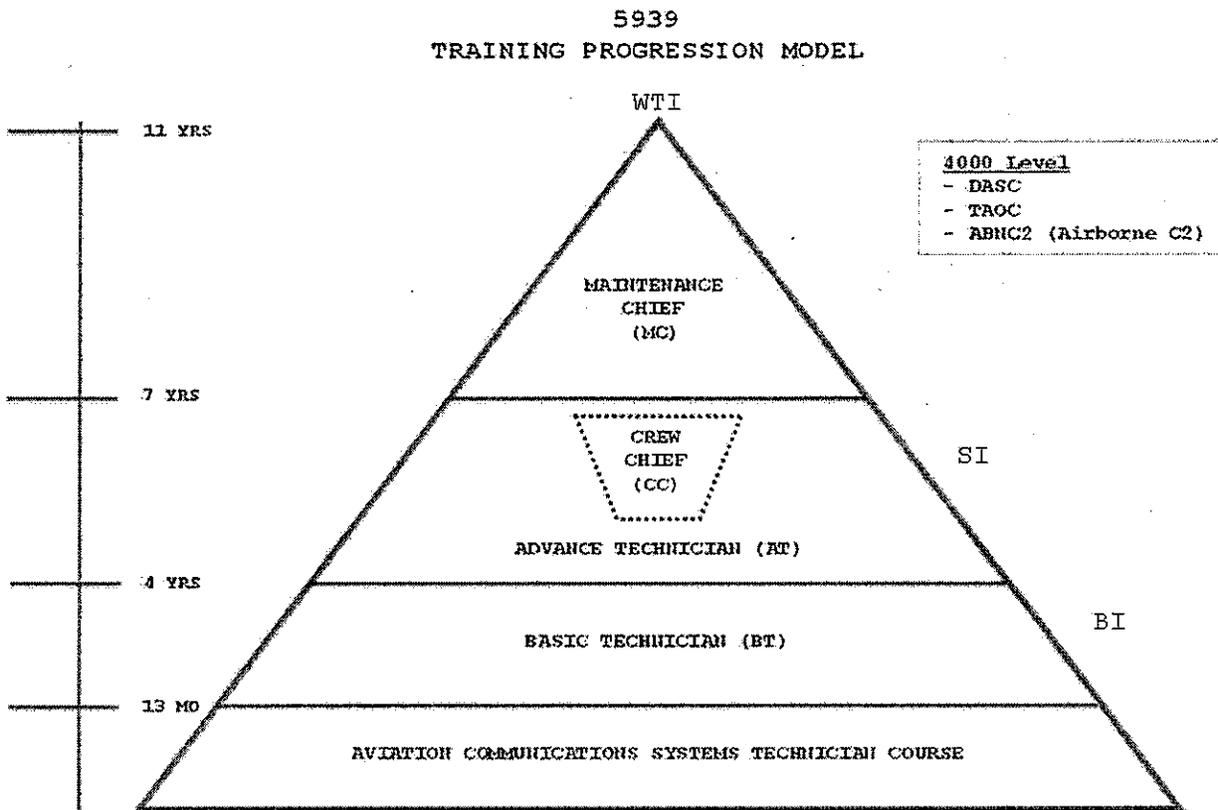


Figure 2-1. Aviation Communications Systems Technician (ACST) (MOS 5939)  
Training Progression Model

2.2 ABBREVIATIONS

MTACS MAINTENANCE MOS 5939	
CORE/MISSION/CORE PLUS SKILL ABBREVIATIONS	
CORE SKILL (2000 Phase)	
SYSO	SYSTEM OVERVIEW
COMSEC	COMMUNICATION SECURITY
TMDE	TEST MEASUREMENT DIAGNOSTIC EQUIPMENT
SETUP	SET UP
PMCM	PREVENTIVE MAINTENANCE/CORRECTIVE MAINTENANCE
CD	COLLATERAL DUTIES
FAM	FAMILIARIZATION
OMGT	OPERATIONS MANAGEMENT
MMGT	MAINTENANCE MANAGEMENT
ORGS	ORGANIZATIONAL STRUCTURE
MISSION SKILL (3000 Phase)	
TACCOPS	TACC OPERATIONS
TACCINF	TACC INFRASTRUCTURE
CORE PLUS (4000 Phase)	
DASC	DIRECT AIR SUPPORT CENTER
TAOC	TACTICAL AIR OPERATIONS CENTER
ABNC2	AIRBORNE COMMAND AND CONTROL
INSTRUCTOR (5000 Phase)	
BI	BASIC INSTRUCTOR
SI	SENIOR INSTRUCTOR
WTI	WEAPONS AND TACTICS INSTRUCTOR
CERTIFICATIONS, QUALIFICATIONS, AND DESIGNATIONS (6000 Phase)	
ACSBT	AVIATION COMMUNICATIONS SYSTEMS BASIC TECHNICIAN
ACSAT	AVIATION COMMUNICATIONS SYSTEMS ADVANCED TECHNICIAN
ACSCC	AVIATION COMMUNICATIONS SYSTEMS CREW CHIEF
ACSMC	AVIATION COMMUNICATIONS SYSTEMS MAINTENANCE CHIEF

2.3 DEFINITIONS

TERM	DEFINITION
Core Model	The Core Model is the basic foundation or standardized format by which all T&Rs are constructed. The Core model provides the capability of quantifying both unit and individual training requirements and measuring readiness. This is accomplished by linking community Mission Statements, Mission Essential Task Lists, Output Standards, Core Skill Proficiency Requirements and Combat Leadership Matrices
Core Skill	Fundamental, environmental, or conditional capabilities required to perform basic functions. These basic functions serve as tactical enablers that allow crews to progress to the more complex Mission Skills. Primarily 2000 Phase events but may be introduced in the 1000 Phase.
Mission Skill	Mission Skills enable a unit to execute a specific MET. They are comprised of advanced event(s) that are focused on MET performance and draw upon the knowledge, aeronautical abilities, and situational awareness developed during Core Skill training. 3000 Phase events.

<b>Core Plus Skill</b>	Training events that can be theater specific or that have a low likelihood of occurrence. They may be Fundamental, environmental, or conditional capabilities required to perform basic functions. 4000 Phase events.
<b>Core Plus Mission</b>	Training events that can be theater specific or that have a low likelihood of occurrence. They are comprised of advanced event(s) that are focused on Core Plus MET performance and draw upon the knowledge, aeronautical abilities, and situational awareness. 4000 Phase events.
<b>Core Skill Proficiency (CSP)</b>	CSP is a measure of training completion for 2000 Phase events. CSP is attained by executing all events listed in the Attain Table for each Core Skill. The individual must be simultaneously proficient in all events within that Core Skill to attain CSP.
<b>Mission Skill Proficiency (MSP)</b>	MSP is a measure of training completion for 3000 Phase events. MSP is attained by executing all events listed in the Attain Table for each Mission Skill. The individual must be simultaneously proficient in all events within that Mission Skill to attain MSP. MSP is directly related to Training Readiness.
<b>Core Plus Skill Proficiency (CPSP)</b>	CPSP is a measure of training completion for 4000 Phase "Skill" events. CPSP is attained by executing all events listed in the Attain Table for each Core Plus Skill. The individual must be simultaneously proficient in all events within that Core Plus Skill to attain CPSP.
<b>Core Plus Mission Proficiency (CPMP)</b>	CPMP is a measure of training completion for 4000 Phase "Mission" events. CPMP is attained by executing all events listed in the Attain Table for each Core Plus Mission. The individual must be simultaneously proficient in all events within that Core Plus Mission to attain CPMP.

2.4 INDIVIDUAL CORE/MISSION/CORE PLUS SKILL PROFICIENCY REQUIREMENTS

2.4.1 Management of individual CSP/MSP/CPSP/CPMP serves as the foundation for developing proficiency requirements in DRRS.

2.4.2 Individual CSP is a "Yes/No" status assigned to an individual by Core Skill. When an individual attains and maintains CSP in a Core Skill, the individual counts towards CMMR Unit CSP requirements for that Core Skill.

2.4.3 Proficiency is attained by individual Core/Mission/Core Plus skill where the training events for each skill are determined by POI assignment.

2.4.4 Once proficiency has been attained by Core/Mission/Core Plus Skill (by any POI assignment) then the individual maintains proficiency by executing those events noted in the maintain table and in the "Maintain POI" column of the T&R syllabus matrix. An individual maintains proficiency by individual Core/Mission/Core Plus Skill.

**\*Note\***

Individuals may be attaining proficiency in some Core/Mission/Core Plus Skills while maintaining proficiency in other Core/Mission/Core Plus Skills.

2.4.5 Once proficiency has been attained, should one lose proficiency in an event in the "Maintain POI" column, proficiency can be re-attained by demonstrating proficiency in the delinquent event. Should an individual lose proficiency in all events in the "Maintain POI" column by Core/Mission/Core Plus Skill, the individual will be assigned to the Refresher POI for that Skill. To regain proficiency for that Core/Mission/Core Plus Skill the individual must demonstrate proficiency in all R-coded events for that Skill.

**\*Note\***

See Chapter 2 for amplifying information on POI updating.

MTACS MAINTENANCE MOS 5939

ATTAIN AND MAINTAIN CORE/MISSION/CORE PLUS PROFICIENCY MATRIX BY POI					
ATTAIN PROFICIENCY				MAINTAIN	
BASIC POI		REFRESHER POI		PROFICIENCY	
CORE SKILL (2000 Phase)					
STAGE	CODE	STAGE	CODE	STAGE	CODE
SYSO	2000	SYSO		SYSO	
	2005R		2005R		2005R
	2010R		2010R		2010R
	2015				
SETUP	2100	SETUP		SETUP	
	2105				
	2110				
	2115				
	2120				
	2125				
	2130R		2130R		2130R
	2135R		2135R		2135R
	2140R		2140R		2140R
	2145R		2145R		2145R
	2150R		2150R		2150R
	2155R		2155R		2155R
	2160				
	2165R		2165R		2165R
2170R	2170R	2170R			
2175					
TMDE	2200	TMDE		TMDE	
	2205				
	2210				
	2215				
	2220				
	2225				
	2230				
PMCM	2400	PMCM		PMCM	
	2405				
	2410				
	2415R		2415R		2415R
	2420R		2420R		2420R
	2425R		2425R		2425R
	2430R		2430R		2430R

	2435R		2435R		2435R
	2440R		2440R		2440R
	2445R		2445R		2445R
	2450R		2450R		2450R
	2455R		2455R		2455R
	2460R		2460R		2460R
	2465R		2465R		2465R
CD	2500	CD		CD	
	2505				
	2510				
	2515				
	2520				
	2525				
	2530				
	2535				
	2540R		2540R		2540R
	2545				
COMSEC	2600R	COMSEC	2600R	COMSEC	2600R
	2605R		2605R		2605R
	2610R		2610R		2610R
	2615R		2615R		2615R
	2620R		2620R		2620R
FAM	2650	FAM		FAM	
	2655				
	2660				
	2665				
	2670				
	2675				
	2680				
	2685				
	2690				
MMGT	2700	MMGT		MMGT	
	2702				
	2704				
	2706				
	2708R		2708R		2708R
	2710R		2710R		2710R
	2712R		2712R		2712R
	2714R		2714R		2714R

	2716R		2716R		2716R
	2718				
	2720				
	2722R		2722R		2722R
	2724R		2724R		2724R
	2726				
	2728				
	2730R		2730R		2730R
	2732R		2732R		2732R
	2734				
	2736				
	2738				
	2740				
	2742				
	2744				
	2746				
	2748R		2748R		2748R
	2750R		2750R		2750R
	2752				
	2754				
	2756				
	2758				
OMGT	2800R	OMGT	2800R	OMGT	2800R
	2802				
	2804				
	2806R		2806R		2806R
	2830R		2830R		2830R
	2832R		2832R		2832R
	2834				
	2836				
	2838R		2838R		2838R
	2840R		2840R		2840R
	2842R		2842R		2842R
	2844				
	2846				
2848R	2848R	2848R			
ORGS	2900	ORGS		ORGS	
	2905				
	2910				
	2915				

	2920				
	2925				
	2930				
	2935				
	2940				
	2945				
	2950R		2950R		2950R
MISSION SKILL (3000 Phase)					
STAGE	CODE	STAGE	CODE	STAGE	CODE
DEPL	3000R	DEPL	3000R	DEPL	3000R
	3005R		3005R		3005R
	3010R		3010R		3010R
MMGT	3100	MMGT		MMGT	
	3105R		3105R		3105R
	3110				
OMGT	3200R	OMGT	3200R	OMGT	3200R
	3202R		3202R		3202R
	3204R		3204R		3204R
	3206R		3206R		3206R
	3208R		3208R		3208R
	3210R		3210R		3210R
	3212R		3212R		3212R
	3214R		3214R		3214R
	3216R		3216R		3216R
	3218R		3218R		3218R
CORE PLUS (4000 Phase)					
STAGE	CODE	STAGE	CODE	STAGE	CODE
DASC	4100R	DASC	4100R	DASC	4100R
TAOC	4200R	TAOC	4200R	TAOC	4200R
	4205R		4205R		4205R
	4210R		4210R		4210R
ABNC2	4300R	ABNC2	4300R	ABNC2	4300R
	4305R		4305R		4305R
	4310R		4310R		4310R
	4315R		4315R		4315R
	4320R		4320R		4320R
	4325R		4325R		4325R
	4330R		4330R		4330R
	4335R		4335R		4335R

4340R	4340R	4340R
4345R	4345R	4345R
4350R	4350R	4350R
4355R	4355R	4355R
4360R	4360R	4360R
"S" PREFIX AND BLUE FONT = SIMULATOR EVENT		

2.5 REQUIREMENT, 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.

2.5.1 INSTRUCTOR DESIGNATIONS

MTACS MAINTENANCE MOS 5939 INSTRUCTOR DESIGNATIONS (5000 Phase)	
INSTRUCTOR DESIGNATION	EVENTS
BASIC INSTRUCTOR (BI)	5000, 5010, 5020
SENIOR INSTRUCTOR (SI)	5100, 5110, 5120, 5130, M-SHARP FORMAL TRAINING, 6240
WEAPONS AND TACTICS INSTRUCTOR (WTI)	SCHL-6000

2.5.2 REQUIREMENTS, CERTIFICATIONS, QUALIFICATIONS AND DESIGNATIONS

MTACS MAINTENANCE MOS 5939 REQUIREMENTS, CERTIFICATIONS, QUALIFICATIONS, AND DESIGNATIONS (RCQD) (6000 Phase)	
RCQD	EVENTS
ACSBT (QUAL 6100)	2000, 2005, 2010, 2015, 2100, 2105, 2110, 2115, 2120, 2125, 2130, 2135, 2140, 2145, 2150, 2155, 2160, 2200, 2205, 2210, 2215, 2220, 2225, 2230, 2235, 2400, 2405, 2410, 2415, 2420, 2425, 2430, 2435, 2440, 2445, 2450, 2455, 2460, 2465, 2470, 2500, 2505, 2510, 2515, 2520, 2525, 2530, 2535, 2540, 2545, 2690, 2758, 3000, 3005, 3208, 3210, 3212
ACSAT (QUAL 6105)	2000, 2005, 2010, 2015, 2100, 2105, 2110, 2115, 2120, 2125, 2130, 2135, 2140, 2145, 2150, 2155, 2160, 2165, 2170, 2200, 2205, 2210, 2215, 2220, 2225, 2230, 2235, 2400, 2405, 2410, 2415, 2420, 2425, 2430, 2435, 2440, 2445, 2450, 2455, 2460, 2465, 2470, 2500, 2505, 2510, 2515, 2520, 2525, 2530, 2535, 2540, 2545, 2650, 2690, 2700, 2702, 2704, 2706, 2708, 2716, 2718, 2720, 2752, 2754, 2756, 2758, 2800, 2834, 2840, 2842, 2844, 2846, 2848, 2900, 2905, 2910, 2915, 2920, 2925, 2930, 2935, 3000, 3005, 3204, 3206, 3208, 3210, 3212, 3214, 3216, 6100, 8000
BASIC INSTRUCTOR (DESG 6320)	5000, 5010, 5020
SENIOR INSTRUCTOR (DESG 6321)	5000, 5010, 5020, 5100, 5110, 5120, 5130, 6320
SAFETY CD (DESG 6500)	2500, 2525, 2530
HAZMAT CD (DESG 6505)	2500, 2525, 2530
PUB CD (DESG 6510)	2500, 2520

TRAINING CD (DESG 6515)	2500
TOOLS CD (DESG 6520)	2500, 2515, 2545
CAL CD (DESG 6525)	2500, 2505, 2545
MOD CD (DESG 6530)	2500, 2510, 2545
EMBARK CD (DESG 6535)	2500, 2535, 2545
MIMMS CD (DESG 6540)	2500, 2540, 2545
QC CD (DESG 6545)	2500
ACSCC (DESG 6550)	2000, 2005, 2010, 2015, 2100, 2105, 2110, 2115, 2120, 2125, 2130, 2135, 2140, 2145, 2150, 2155, 2160, 2165, 2170, 2200, 2205, 2210, 2215, 2220, 2225, 2230, 2235, 2400, 2405, 2410, 2415, 2420, 2425, 2430, 2435, 2440, 2445, 2450, 2455, 2460, 2465, 2470, 2500, 2505, 2510, 2515, 2520, 2525, 2530, 2535, 2540, 2545, 2650, 2690, 2700, 2702, 2704, 2706, 2708, 2716, 2718, 2720, 2752, 2754, 2756, 2758, 2800, 2802, 2804, 2806, 2830, 2832, 2834, 2836, 2838, 2840, 2842, 2844, 2846, 2848, 2900, 2905, 2910, 2915, 2920, 2925, 2930, 2935, 3000, 3005, 3010, 3204, 3206, 3208, 3210, 3212, 3214, 3216, 6100, 6105, 8000, 8020
ACSMC (DESG 6555)	2000, 2005, 2010, 2015, 2100, 2105, 2110, 2115, 2120, 2125, 2130, 2135, 2140, 2145, 2150, 2155, 2160, 2165, 2170, 2200, 2205, 2210, 2215, 2220, 2225, 2230, 2235, 2400, 2405, 2410, 2415, 2420, 2425, 2430, 2435, 2440, 2445, 2450, 2455, 2460, 2465, 2470, 2500, 2505, 2510, 2515, 2520, 2525, 2530, 2535, 2540, 2545, 2650, 2690, 2700, 2702, 2704, 2706, 2708, 2710, 2712, 2716, 2718, 2720, 2722, 2724, 2726, 2728, 2730, 2732, 2734, 2736, 2738, 2742, 2744, 2746, 2748, 2750, 2752, 2754, 2756, 2758, 2800, 2802, 2804, 2806, 2830, 2832, 2834, 2836, 2838, 2840, 2842, 2844, 2846, 2848, 2900, 2905, 2910, 2915, 2920, 2925, 2930, 2935, 2940, 2945, 2950, 3000, 3005, 3010, 3100, 3105, 3110, 3202, 3204, 3206, 3208, 3210, 3212, 3214, 3216, 3218, 6100, 8000, 8020, 8060, 8080

2.6 5939 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.

2.6.1 Basic POI

MTACS MAINTENANCE 5939 BASIC POI		
WEEKS <sup>1</sup>	PHASE OF INSTRUCTION	UNIT RESPONSIBLE
1-33	CORE SKILL INTRODUCTION TRAINING	MCCES
34-58	CORE SKILL TRAINING	TACTICAL SQUADRON
59-82	MISSION SKILL TRAINING	TACTICAL SQUADRON
83-88	CORE PLUS	TACTICAL SQUADRON

2.6.2 Refresher POI

MTACS MAINTENANCE MOS 5939 REFRESHER POI		
WEEKS <sup>1</sup>	PHASE OF INSTRUCTION	UNIT RESPONSIBLE
VARIES	CORE SKILL TRAINING	TACTICAL SQUADRON
VARIES	MISSION SKILL TRAINING	TACTICAL SQUADRON
VARIES	CORE PLUS	TACTICAL SQUADRON

NOTE 1: TRAINING DURATIONS VARIES BY POSITION BEING TRAINED.  
SEE PROGRESSION MODEL FOR NOTIONAL TRAINING TIMES.

2.7 SYLLABUS NOTES

2.7.1 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*	Shall be conducted during hours of darkness must be flown unaided
(N*)	May be conducted during hours of darkness – If conducted during hours of darkness must be flown unaided
(N)	May be conducted during darkness – If conducted during hours of darkness; may be flown aided or unaided
NS	Shall be conducted during hours of darkness – Mandatory use of Night Vision Devices
(NS)	May be conducted during darkness – If conducted during hours of darkness; must be flown with Night Vision Devices
Note – If the event is to be conducted in the simulator the Simulator Instructor shall set the desired environmental conditions for the event.	

2.7.2 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.
CBT	Computer Based Training
LAB	Laboratory
LEC	Lecture
CP	Command Post
TEN	Tactical Environment Network. Events designated as TEN require an approved tactical environment simulation capable of introducing both semi-autonomous threats and moving models controllable from the tactical operator station.
TEN+	Enhanced Tactical Environment Network. Events designated as TEN+ require an approved tactical environment simulation and at least one additional, networked, man-in-the-loop simulator to meet the training objectives. A moving model controlled from the operator station does not satisfy the man-in-the-loop requirement.
Note – If the event is to be flown in the simulator the Simulator Instructor shall set the desired environmental conditions for the event.	

2.7.3 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.

2.7.4 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.
E-Coded	This term means an event evaluation form is required each time the event is logged. Requires evaluation by a certified standardization instructor (NATOPS I, WTI, INST Evaluator etc.)

2.8 CORE SKILL INTRODUCTION PHASE (1000)

2.8.1 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.

2.8.2 General.

2.8.2.1 Prerequisiste. Meet the requirement delineated in the MOS Manual (MCBul 1200).

2.8.2.2 Admin Notes.

2.8.2.3 Stages. The following stages are included in the Core Skill Introduction Phase of training.

PAR.NO.	STAGE NAME
2.8.3	AVIATION COMMUNICATION SYSTEMS TECHNICIAN COURSE (ACST)

2.8.3 AVIATION COMMUNICATION SYSTEMS TECHNICIAN COURSE (ACST) STAGE

2.8.3.1 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 Aviation Communication Systems Technician Course (ACSTC) when the trainee is designated MOS 5939, Aviation Communication Systems Technician (ACST).

2.8.3.2 General

Prerequisite.

- (1) Graduate from the Basic Electronics Course (CID: M092721);
- (2) Graduate from the Radio Fundamentals Course (CID: M0927V1); and
- (3) Meet the 5939 requirements delineated in the MOS Manual.

Admin Notes. Aviation Communication Systems Technician Course (CID: M09E2Z1), MCCES, located in 29 Palms, CA. This program of instruction can be viewed at <https://www.29palms.usmc.mil/tenants/mcces/mcceshome.asp>.

Crew Requirements. NONE.

ACST-1000 8.5 (\*) B 1 AN/GRC-256 L

Goal. Configure an AN/GRC-256 for operations.

Requirement. Given the references:

1. Select the statement that identifies a safety precaution.
2. Select the statement that describes the following technical characteristics:
  - a. Transmit Frequency Range.
  - b. Receive Frequency Range.
  - c. Power Out in all modes of operation.
  - d. Receive sensitivity level in all modes of operation.
3. Select the statement that describes a function of the RT-9000 control/indicator.
4. Configure the RT-9000 for single channel mode of operation.
5. Configure the RT-9000 for multiple channel mode of operation.
6. Configure the RT-9000 for data link operations (TADIL A).
7. Select statement that describes a function of LPA 9500 Power Amplifier control/indicator.
8. Configure the LPA-9500 for operation.

Performance Standard. Pass a written and practical exam with 80% accuracy.

Reference

1. TM-11228A-OI/1 - RT-9000 Operation and Maintenance Manual
2. TM-11228A-OI/2 - LPA-9500 Operation and Maintenance Manual

ACST-1005 13.5 (\*) B 1 AN/GRC-256 L

Goal. Perform corrective maintenance on the AN/GRC-256.

Requirement. Given the references:

1. Select the statement that describes the RT-9000 Receiver/Transmitter theory of operation for a common section.
2. Select the statement that describes the RT-9000 Receiver/Transmitter Receiver Section theory of operation.
3. Select the statement that describes the RT-9000 Receiver/Transmitter Exciter Section theory of operation.
4. Select the statement that identifies a fault code displayed by the RT-9000 Built-in-Test.
5. Select the statement that identifies the RT-9000 fault.
6. Select the statement that describes the LPA-9500 Power Amplifier theory of operation.
7. Select the statement that identifies the LPA-9500 fault.
8. Perform the RT-9000 Built-in-Test procedures.
9. Isolate the fault to the LRU.

Performance Standard. Pass a written and practical exam with 80% accuracy.

Reference

1. TM-11228A-OI/1 - RT-9000 Operation and Maintenance Manual
2. TM-11228A-OI/2 - LPA-9500 Operation and Maintenance Manual

ACST-1010 9.0 (\*) B 1 AN/GRC-256 L

Goal. Perform preventative maintenance on the AN/GRC-256.

Requirement. Given the references:

1. Perform the RT-9000 transmitter alignments.
2. Perform the RT-9000 receiver alignments.

Performance Standard. Pass a written and practical exam with 80% accuracy.

Reference

1. TM-11228A-OI/1 - RT-9000 Operation and Maintenance Manual
2. TM-11228A-OI/2 - LPA-9500 Operation and Maintenance Manual

ACST-1015 12.0 (\*) B 1 AN/GRC-171B(V)4 L

Goal. Configure an AN/GRC-171B(v)4 for operations.

Requirement. Given the references, a list of AN/GRC-171B(V)4 test points/adjustments and a list of functions:

1. Select the statement that identifies an AN/GRC-171B(V)4 Radio Set physical characteristic.
2. Select the statement that identifies an AN/GRC-171B(V)4 Radio Set technical characteristic.
  - a. Transmit Frequency Range.
  - b. Receive Frequency Range.
  - c. Power Out in all modes of operation.
  - d. Receive sensitivity level in all modes of operation.
3. Select the statement that describes an AN/GRC-171B(V)4 Radio

- Set cabling requirement.
4. Select the statement that describes an AN/GRC-171B(V)4 Radio Set strapping option.
  5. Select the statement that identifies a function of a RT 1272D/GRC-171B(V)4 control/indicator.
  6. Perform the RT-1272D/GRC-171B(V)4 single channel transmit operation procedures.
  7. Match each test point/adjustment with its function.
  8. Select the statement that describes the purpose of Electronic Counter-Counter Measures.
  9. Select the statement that describes the steps to configure the AN/GRC-171B(V)4 for anti-jam operations.

Performance Standard. Pass a written and practical exam with 80% accuracy.

Reference

1. TM 09780A-13&P/1 W/CH 1-7
2. TM 2010-10/1\_

ACST-1020 73.0 (\*) B 1 AN/GRC-171B(V)4 L

Goal. Perform corrective maintenance on the AN/GRC-171B(V)4.

Requirement. Given the references:

1. Identify the purpose of a module within a functional section of the AN/GRC-171B(V)4 Radio Set.
2. Identify the failing LRU.
3. Identify the RT-1272D/GRC-171B(V)4 ECCM (A1) module inputs/outputs.
4. Identify the AN/GRC-171B(V)4 Frequency Synthesizer (A2) module inputs/outputs.
5. Identify the RT-1272D/GRC-171B(V)4 Receiver (A3) module inputs/outputs.
6. Identify the RT-1272D/GRC-171B(V)4 Audio (A4) module inputs/outputs.
7. Identify the RT-1272D/GRC 171B(V)4 Switching Regulator (A5) module inputs/outputs.
8. Identify the RT-1272D/GRC-171B(V)4 RF Filter (A7) module inputs/outputs.
9. Identify the RT-1272D/GRC-171B(V)4 Power Amplifier (A8) module inputs/outputs.
10. Identify the RT-1272D/GRC 171B(V)4 Guard Receiver (A9) module inputs/outputs.
11. Identify the RT-1272D/GRC-171B(V)4 FM Modem and Control (A11) module inputs/outputs.
12. Identify the RT-1272D/GRC-171B(V)4 BIT (A13) module inputs/outputs.
13. Identify the function of a module within the RT-1272D/GRC 171B(V)4 Power Distribution subsystem.
14. Identify a function of a module within the RT-1272D/GRC 171B(V)4 Key/Mode Control block diagram.
15. Identify the cause of the failure in the Key/Mode Control signal path.
16. Identify the function of a module contained in the RT

- 1272D/GRC-171B(V)4 Control Processor signal path.
17. Identify the cause of the failure in the Control Processor signal path.
  18. Identify the function of a module within the RT-1272D/GRC 171B(V4) Receive signal path.
  19. Identify the cause of the failure in the Receive signal path.
  20. Identify the function of a module contained in the RT 1272D/GRC-171B(V)4 Transmit signal path.
  21. Identify the cause of failure in the Transmit signal path.
  22. Identify the function of a module contained in the RT 1272D/GRC-171B(V)4 Built In Test circuit.
  23. Identify the cause of failure in the Built In Test circuit.
  24. Identify function of the RT 1272D/GRC-171B(V)4 (A10) chassis.
  25. Identify the cause of failure on the A10 chassis.
  26. Perform an operational performance check of AN/GRC 171B(V)4.
  27. Isolate the faulty AN/GRC-171B(V)4 module.

Performance Standard. Pass a written and practical exam with 80% accuracy.

Reference. TM 09780A-13&P/1 W/CH 1-7

ACST-1025 14.0 (\*) B 1 AN/GRC-171B(V)4 L

Goal. Identify the steps required to perform Semi-Annual Preventative Maintenance on the RT-1272D/GRC-171B(V)4.

Requirement. Given the references, describe the steps required to perform Semi-Annual Preventative Maintenance on the RT-1272D/GRC-171B(V)4.

Performance Standard. Pass a written exam with 80% accuracy.

Reference

1. TM 09780A-13&P/1 W/CH 1-7

ACSTC-1030 12.0 (\*) B L

Goal. Set up antennas used in the Marine Air Command and Control System (MACCS).

Requirement. Given the references:

1. Define the terms associated with antennas used in the MACCS.
2. Identify antennas used in the MACCS.
3. Identify the procedures used to erect antennas in the MACCS.

Performance Standard. Pass a written exam with 80% accuracy.

Reference

1. MCRP 3-40.3B - Radio Operators Handbook
2. MCRP 3-40.3C - Antenna Handbook

ACST-1035 5.0 (\*) B L

Goal. Identify functions of the Marine Air Command and Control System (MACCS).

Requirement. Given the references:

1. Identify the purpose of a MACCS.
2. Identify the organization of a MACCS.
3. Identify the mission of the units comprising a MACCS.

Performance Standard. Pass a written exam with 80% accuracy.

Reference

1. Aviation Operations MCWP 3-2
2. Control of Aircraft and Missiles MCWP 3-25
3. Marine Air Command and Control System Handbook MCWP 3-25.3

ACST-1040 10.0 (\*) B (1) DTD or (1) SKL L

Goal. Operate common fill devices.

Requirement. Given the references:

1. Describe a communications security safeguard.
2. Describe a cryptographic communication procedure.
3. Describe a Data Transfer Device (DTD) loading procedure.
4. Describe a Simple Key Loader (SKL)
5. Describe an operating condition of the Data Transfer Device.
6. Transfer cryptographic information from device to device.

Performance Standard. Pass a written and practical exam with 80% accuracy.

Reference

1. CMS Policy and Procedures for Navy EKMS Tiers 2 & 3 EKMS-1
2. Department Of The Navy Information And Personnel Security Program Regulation OPNAVINST 5510.1

ACST-1045 9.0 (\*) B 1 AN/VRC-103 L

Goal. Configure AN/VRC-103 for operations.

Requirement. Given the references:

1. Describe the characteristics of the AN/VRC-103.
  - a. Transmit frequency range.
  - b. Receive frequency range.
  - c. Power out in all modes of operation.
  - d. Receive sensitivity level in all modes of operation.
2. Describe the components of the AN/VRC-103.
3. Describe the operation of the AN/VRC-103.
4. Describe the procedures to manually program the AN/VRC-103.
5. Manually program the AN/VRC-103.
6. Establish secure communications in a specified frequency range for the AN/VRC-103.

Performance Standard. Pass a written and practical exam with 80% accuracy.

Reference

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

ACST-1050 4.0 (\*) B 1 AN/VRC-103 L

Goal. Perform a limited technical inspection on the AN/VRC-103.

Requirement. Given the references, conduct the performance checks IAW PUB# 10515-0109-4300.

Performance Standard. Pass a written and practical exam with 80% accuracy.

Reference

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

ACST-1055 5.5 (\*) B 1 AN/VRC-104 L

Goal. Configure AN/VRC-104 for operations.

Requirement. Given the references:

1. Describe the characteristics of the AN/VRC-104.
2. Describe the components of the AN/VRC-104.
3. Describe the operation of the AN/VRC-104.
4. Describe the procedures to manually program the AN/VRC-104.
5. Manually program an AN/VRC-104.
6. Establish secure communications.

Performance Standard. Pass a written and practical exam with 80% accuracy.

Reference

1. TM 10822A-10/1 - AN/PRC-150(V)(C) Operation Manual
2. RF-5800H 150-WATT Communication System and Installation & Maintenance Manual.

ACST-1060 5.5 (\*) B 1 AN/VRC-104 L

Goal. Perform a limited technical inspection on the AN/VRC-104.

Requirement. Given the references, conduct the performance checks in accordance with PUB# 10515-0103-4600.

Performance Standard. Pass a performance exam with 80% accuracy.

Reference

1. TM 10822A-10/1 - AN/PRC-150(V)(C) Operation Manual
2. RF-5800H 150-WATT Communication System and Installation & Maintenance Manual.

ACST-1065 49.0 (\*) B (1) TDS L

Goal. Configure the Aviation Command and Control Systems data communications network equipment.

Requirement. Given references, tools, cable, network diagram, router, subnet mask, and Windows system:

1. Identify the Transmission Control Protocol / Internet Protocol (TCP/IP).
2. Identify the function of a TCP/IP layer.
3. Define a network device.
4. Define a protocol.
5. Define a port.
6. Define a socket.
7. Identify a function of a protocol.
8. Identify a site diagram.
9. Identify the client/server network architecture.
10. Define the function of a type of server.
11. Define Local Area Network (LAN).
12. Define network topology.
13. Define a Wide Area Network (WAN).
14. Identify the purpose of a console cable.
15. Describe the function of a network cable.
16. Create a straight-through category 5e (CAT-5e) cable.
17. Create a crossover CAT-5e cable.
18. Identify the function of a Network Interface Card (NIC).
19. Identify the function of a switch.
20. Identify the purpose of a MAC address.
21. Identify the function of a switched Ethernet.
22. Identify an Internet Protocol Version 4 (IPV4) address.
23. Identify an IPV4 address class.
24. Identify an IPV4 private network.
25. Identify an IPV4 loopback address.
26. Identify an IPV4 network address.
27. Identify an IPV4 broadcast address.
28. Identify the purpose of routing.
29. Identify the function of a router.
30. Identify the function of a static route.
31. Identify the function of a dynamic route.
32. Identify the function of Enhanced Interior Gateway Routing Protocol (EIGRP).
33. Identify the function of Virtual Local Area Network (VLAN) routing.
34. Identify the purpose of subnetting.
35. Identify the purpose of a subnet mask.
36. Identify a subnet work address.
37. Identify the number of available networks.
38. Identify the number of hosts on the subnet.
39. Identify purpose of Classless Inter-Domain Routing (CIDR).
40. Identify the corresponding CIDR notation.
41. Identify purpose of Variable Length Subnet Masking (VLSM).
42. Define the Variable Length Subnet Masking (VLSM) rule.
43. Identify specified network information.
44. Define the Read Only Memory (ROM) monitor mode.
45. Identify the CISCO Internetwork Operating System (IOS).
46. Define the function of a configuration file.
47. Identify the purpose of an interface.

48. Define the local method to configure a router.
49. Describe a router mode.
50. Describe CISCO IOS command syntax.
51. Identify the function of a user exec mode command.
52. Identify the function of a privileged exec mode command.
53. Identify function of a global configuration mode command.
54. Identify the function of an interface configuration mode command.
55. Identify the function of a line configuration mode command.
56. Identify the function of a router configuration mode command.
57. Identify the remote method to configure a router.
58. Configure the router for operation.
59. Identify the function of Windows Network properties snap-in.
60. Identify the steps to edit Windows system identification.
61. Identify the function of Dynamic Host Configuration Protocol (DHCP).
62. Identify the steps to configure Dynamic Host Configuration Protocol (DHCP).
63. Identify the function of a Windows networking command.
64. Change the system identification.
65. Configure the system for DHCP operation.

Performance Standard. Pass a written and practical exam with 80% accuracy.

Reference

1. Computer Networks and Internets book 0-13-083617-6
2. Data Communications Networking Devices book part 1 0-47197515-X, PT 1
3. Data Communications Networking Devices book part 2 0-471-97515-X, PT 2; TCP/IP Network Administration 1-56592 322-7
4. Essential System Administration, O'Reilly & Associates 1 56592-127-5
5. CISCO Routers 24/SEVEN book 0-7821-2646-4

ACST-1070 20.5 (\*) B (1) CDS L

Goal. Configure the Communications Distribution System (CDS) for operation.

Requirement. Given the references:

1. Identify the components of the CDS.
2. Match each control/indicator with its purpose.
3. Identify the purpose of a Stand Alone CDS component.
4. Define the operational theory of the CDS.
5. Identify the types of shelters that have the CDS installed.
6. Identify the procedures for using the FCSW software to program the CDS.
7. Identify the procedures for configuring the User Control Device (UCD) serial port for FCT connection.
8. Identify the purpose of the CDS software LAN Management menu.
9. Define the operation of the CDS Intercom Subsystem.

10. Define the operation of the CDS Radio Subsystem.
11. Define the operation of the CDS Internal Telephone.
12. Perform setup procedures for the CDS.
13. Use the FCSW software to configure the CDS as specified.
14. Use the UCD to configure the CDS as specified.

Performance Standard. Pass a written and practical exam with 80% accuracy.

Reference

1. TM-10576C-OI/1A - Communications Interface System (CIS)  
AN/MRQ-12(V)3 Operation and Maintenance Instructions
3. CDC DOC 762324 - Network Access Unit Equipment Description,  
Maintenance Instructions, and Illustrated Parts List.
4. CDC DOC 762325 - User Control Device Equipment Description,  
Maintenance Instructions, and Illustrated Parts List.
5. CDC DOC 762326A - Communication Distribution System (CDS)  
System Description and Overview

ACST-1075 45.0 (\*) B 1 CDS L

Goal. Perform corrective maintenance on the Communications Distribution System (CDS).

Requirement. Given the references:

1. Identify the purpose of each Network Access Unit internal circuit card assembly.
2. Identify the purpose of each User Control Device internal circuit card assembly.
3. Identify Network Access Unit failure.
4. Identify User Control Device failure.

Performance Standard. Pass a written and practical exam with 80% accuracy.

Reference

1. TM-10576C-OI/1A - Communications Interface System (CIS)  
AN/MRQ-12(V)3 Operation and Maintenance Instructions
3. CDC DOC 762324 - Network Access Unit Equipment Description,  
Maintenance Instructions, and Illustrated Parts List.
4. CDC DOC 762325 - User Control Device Equipment Description,  
Maintenance Instructions, and Illustrated Parts List.
5. CDC DOC 762326A - Communication Distribution System (CDS)  
System Description and Overview

ACST-1080 21.5 (\*) B 1 AN/MRQ-12 L

Goal. Configure the AN/MRQ-12 for operation.

Requirement. Given the references:

1. Identify the characteristics of the AN/MRQ-12.
2. Identify the components of the AN/MRQ-12.
3. Identify the function of the AN/MRQ-12 controls/indicators.
4. Identify the appropriate antenna(s) for the AN/MRQ-12 radio

- subsystems.
5. Define the operation of the AN/MRQ-12 radio subsystem.
  6. Identify transportation requirements for the AN/MRQ-12.
  7. Identify the set-up procedure for the AN/MRQ-12.
  8. Connect source power to the AN/MRQ-12.
  9. Connect antenna cabling associated with the AN/MRQ-12 radio subsystems.
  10. Identify preventive maintenance procedures of the AN/MRQ-12.
  11. Power up the AN/MRQ-12.
  12. Configure the AN/MRQ-12 radios for specified operation.

Performance Standard. Pass a written and practical exam with 80% accuracy.

Reference

1. TM-10576C-OI/1A - Communications Interface System (CIS) AN/MRQ-12(V)3 Operation and Maintenance Instructions
3. CDC DOC 762324 - Network Access Unit Equipment Description, Maintenance Instructions, and Illustrated Parts List.
4. CDC DOC 762325 - User Control Device Equipment Description, Maintenance Instructions, and Illustrated Parts List.
5. CDC DOC 762326A - Communication Distribution System (CDS) System Description and Overview

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ACST-1085 45.0 (\*) B 1 AN/MRQ-12 L

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Goal. Perform corrective maintenance on the AN/MRQ-12.

Requirement. Given the references:

1. Identify components of AN/MRQ-12 Power Distribution System.
2. Identify the AN/MRQ-12 AC Power subsystem power failure.
3. Identify the AN/MRQ-12 DC Power subsystem power failure.
4. Identify the AN/MRQ-12 Radio subsystem failure.

Performance Standard. Pass a written and practical exam with 80% accuracy.

Reference

1. TM-10576C-OI/1A - Communications Interface System (CIS) AN/MRQ-12(V)3 Operation and Maintenance Instructions
3. CDC DOC 762324 - Network Access Unit Equipment Description, Maintenance Instructions, and Illustrated Parts List.
4. CDC DOC 762325 - User Control Device Equipment Description, Maintenance Instructions, and Illustrated Parts List.
5. CDC DOC 762326A - Communication Distribution System (CDS) System Description and Overview

## 2.9 CORE SKILL TRAINING (2000)

2.9.1 Purpose. To develop core skill proficiency for 5939 personnel to be able to perform duties while assigned to the communications section.

(1) Basic Technicians will gain core skill proficiency in basic radio operations and maintenance, communications systems operations and maintenance.

(2) Advance Technicians will gain core skill proficiency in advanced radio operations and maintenance, communications systems operations and maintenance, and SATCOM operations.

(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 communications crew

(4) Maintenance Chiefs will gain core skill proficiency in supervising and managing maintenance section operations to include radio operations and maintenance, communications systems operations and maintenance, SATCOM operations, and maintenance management. This training will provide the maintenance chief the necessary skills to run a communications section.

#### 2.9.2 General.

##### 2.9.2.1 Prerequisiste.

(1) Aviation Communications Systems Basic Technician (ACSBT). Core Skill Introduction training must be completed prior to beginning ACSBT training.

(2) Aviation Communications Systems Advance Technician (ACSAT). Must be qualified as an ASCBT prior to beginning ACSAT training.

(3) Aviation Communications Systems Crew Chief (ACSCC). Must be qualified as an ACSAT prior to beginning ASCC training.

(4) Aviation Communications Systems Maintenance Chief (ACSMC). Must be qualified as an ACSAT prior to beginning ACSMC training.

##### 2.9.2.2 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.

2.9.2.3 Stages. The following stages are included in the Core Skill Introduction Phase of training.

PAR NO.	STAGE NAME
2.9.3	SYSTEM OVERVIEW (SYSO)

2.9.4	SET UP (SETUP)
2.9.5	TEST MEASUREMENT DIAGNOSTICS EQUIPMENT (TMDE)
2.9.6	PREVENTIVE MAINTENANCE/CORRECTIVE MAINTENANCE (PMCM)
2.9.7	COLLATERAL DUTIES (CD)
2.9.8	COMSEC (COMSEC)
2.9.9	FAMILIARIZATION (FAM)
2.9.10	MAINTENANCE MANAGEMENT (MMGT)
2.9.11	OPERATIONS MANAGEMENT (OMGT)
2.9.12	ORGANIZATIONAL STRUCTURE (ORGS)

2.9.3 SYSTEM OVERVIEW (SYSO) STAGE

2.9.3.1 Purpose. Provide an overview of the capabilities and limitations of unit communication systems.

2.9.3.2 General

Prerequisite. NONE.

Admin Notes. Knowledge in the capabilities of communication systems is essential to conduct maintenance actions and employ the equipment.

Crew Requirements. NONE.

SYSO-2000 2.0 (\*) B L

Goal. State HF, VHF and UHF frequency spectrums.

Requirement. Without the aid of reference, state the frequency spectrum for:

1. HF
2. VHF
3. UHF

Performance Standard. Without the aid of reference, state the frequency spectrum for HF, VHF, and UHF without error.

Instructor. BI, SI

Reference. MCRP 3-40.3B

SYSO-2005 2.0 (1460) B,R L

Goal. Describe HF, VHF, UHF, SATCOM radio characteristics.

Requirement. Given a list of radio equipment, describe the following characteristics for each:

1. AN/VRC 103
  - a. Frequency range

- b. Power output
- c. Types of antennas
2. AN/VRC 104
  - a. Frequency range
  - b. Power output
  - c. Types of antennas
3. AN/VRC 110
  - a. Frequency range
  - b. Power output
  - c. Types of antennas
4. AN/GRC 171B(V)4
  - a. Frequency range
  - b. Power output
  - c. Types of antennas
5. AN/VRC 102
  - a. Frequency range
  - b. Power output
  - c. Types of antennas
6. AN/VRC 90
  - a. Frequency range
  - b. Power output
  - c. Types of antennas
7. AN/GRC 256
  - a. Frequency range
  - b. Power output
  - c. Types of antennas

Performance Standard. Without the aid of reference, describe HF, VHF, UHF, SATCOM radio characteristics without error.

Instructor. BI, SI

Reference

1. TM-09780A-13&P Radio Set AN/GRC-171B(V)4
2. TM 10822A-10/1 PRC-150(V)(C) Manpack Radio Operation Manual
3. TM 11255A-OR/1 AN/VRC-103(V)1 Vehicle Radio Communications
4. AN/PRC-152 Multiband Handheld Radio (AN/VRC-110) Publication Number: 10515-0283-4200
5. Radio Set AN/VRC-102 TM-

SYSO-2010 2.0 (1460) B,R L

Goal. Identify the characteristics of an AN/MRQ-12.

Requirement. Identify the characteristics of the AN/MRQ-12 as follows:

1. Radio assets
2. Mobility
3. Power requirements
4. Antenna pairing

Performance Standard. Without the aid of reference, pass an exam on the requirement items above with 100% accuracy.

Instructor. BI, SI

Prerequisite. 2000, 2005

Reference. TM-10576C-OI/1A - Communications Interface System  
(CIS) AN/MRQ-12(V)3 Operation and Maintenance Instructions

SYSO-2015 1.5 (\*) B L

Goal. Describe the characteristics of unit specific generators and the systems they power.

Requirement. Given a list of generators and references, define the characteristics for each:

1. MEP 806
  - a. Frequency
  - b. Voltage(s)
  - c. Load capacity
2. MEP 805
  - a. Frequency
  - b. Voltage(s)
  - c. Load capacity
3. MEP 803
  - a. Frequency
  - b. Voltage(s)
  - c. Load capacity

Performance Standard. Without the aid of reference, pass an exam on the requirement items above with 100% accuracy.

Instructor. BI, SI

Reference

1. Tactical Quiet MEP-806A TM 0922A/09245A-24/2
2. Gen Set Tactical Quiet 30KW
3. 50/60 MEP-805B TM 09249A/09246A-24/2
4. Tactical Quiet Gen Set 10KW MEP-803A

2.9.4 SETUP (SETUP) STAGE

2.9.4.1 Purpose. To teach trainee how to safely ground equipment, erect antennas and set up radio sets configured to interface within TACC communications systems.

2.9.4.2 General

Prerequisite. 2000, 2005, 2010, 2015.

Admin Notes. NONE.

Crew Requirements. NONE.

SETUP-2100 3.0 (\*) B (1) Ground Test Set L

Goal. Utilize a ground test set.

Requirement. Given the reference, a ground test set and ground point and wire:

1. Connect the ground test set to the ground point and wire.
2. Measure the OHM value of the grounded wire.

Performance Standard. With the aid of reference, demonstrate the requirement items without error.

Instructor. BI, SI

Prerequisite. 2000, 2005, 2010, 2015, 2225

Reference. Applicable ground test set manual.

SETUP-2105 3.0 (\*) B (1) Grnd Rod Kit/MK-255IAU L

Goal. Demonstrate an earth ground installation.

Requirement. Given a grounding kit and PPE.

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 using a:
  - a. Grounding rod.
  - b. MK-255IAU Grounding Kit (SWIG).
6. Verify proper grounding reading utilizing appropriate test equipment.

Performance Standard. Without the aid of reference, complete the requirement items. Instructor shall verify the grounding was successful.

Instructor. BI, SI

Prerequisite. 2000, 2005, 2010, 2015, 2225

Reference. TM 9406-15 Ground Procedures Manual

SETUP-2110 4.0 (\*) B (1) AN/MRQ-12 L

Goal. Erect all ground based and vehicle mounted antennas.

Requirement. Given an AN/MRQ-12 and SL-3 complete antennas and PPE, assemble and erect the antennas.

Performance Standard. Without the aid of reference, assemble and erect ground based and vehicle mounted antennas to include the antenna for the CTN.

Instructor. BI, SI

Prerequisite. 2000, 2005, 2010, 2015

Reference. TM-10576C-OI/1A - Communications Interface System (CIS) AN/MRQ-12(V)3 Operation and Maintenance Instructions

SETUP-2115 4.0 (\*) B (1) AN/MRQ-12 L

Goal. Install TACC specific radios in AN/MRQ-12.

Requirement. Given applicable radios and an AN/MRQ-12, install each radio listed below in the AN/MRQ-12 and conduct a communications check for each:

1. AN/VRC 104
2. AN/VRC 103

Performance Standard. Without the aid of reference, install the radios and conduct a communications check. Instructor shall verify the communication check was successful.

Instructor. BI, SI

Prerequisite. 2000, 2005, 2010, 2015, 2225

Reference

1. RT-1694D(P)(C)/U (AN/VRC 104) TM 10822A-IN
2. AN/VRC-103(V)1 Veh Radio Comm TM 11255A-OR/1
3. TM-10576C-OI/1A - Communications Interface System (CIS) AN/MRQ-12(V)3 Operation and Maintenance Instructions

SETUP-2120 2.0 (\*) B (1) AN/MRQ-12 L

Goal. Interface a radio external to the AN/MRQ-12.

Requirement. Given an AN/MRQ-12 and a stand-alone radio set, interface a radio external into the AN/MRQ-12 and conduct a communications check.

Performance Standard. Without the aid of reference, interface a radio external to the AN/MRQ-12 and conduct a communications check. Instructor shall verify the communication check was successful.

Instructor. BI, SI

Prerequisite. 2000, 2005, 2010, 2015, 2225

Reference

1. TM-10576C-OI/1A - Communications Interface System (CIS) AN/MRQ-12(V)3 Operation and Maintenance Instructions
3. CDC DOC 762324 - Network Access Unit Equipment Description, Maintenance Instructions, and Illustrated Parts List.
4. CDC DOC 762325 - User Control Device Equipment Description, Maintenance Instructions, and Illustrated Parts List.
5. CDC DOC 762326A - Communication Distribution System (CDS) System Description and Overview

SETUP-2125 2.0 (\*) B (1) AN/MRQ-12 (1)CDS Suite L

Goal. Install the Communications Distribution System (CDS) to the AN/MRQ-12.

Requirement. Given a site layout and all associated equipment, setup and cable a CDS suite by performing the following steps:

1. Emplace User Control Devices (UCD) and headsets.
2. Emplace User Distribution Box (UDB).
3. Interconnect UCD's, UDB's, and Network Access Units (NAU) or stand alone configuration.
4. Configure LAN in:
  - a. Ring (preferred configuration).
  - b. Chain.
5. Create Local Distribution Network (LDN) by interconnecting LAN with AN/MRQ-12(V)3 utilizing:
  - a. 50M Active Backshell Fiber Optic Cable Assembly (ABFOCA).
  - b. 1.5KM ABFOCA.
  - c. 50M copper.
6. Configure CDS with Facility Control Terminal (FCT)
7. Manipulate Net List with FCT

Performance Standard. Without the aid of reference, complete the requirement items. The Instructor shall observe the trainee conducting the requirement items and verify all functions of all UCDS are operational and the LAN/LDN links are verified on the FCT.

Instructor. BI, SI

Prerequisite. 2000, 2005, 2010, 2015, 2225

Reference

1. TM-10576C-OI/1A - Communications Interface System (CIS) AN/MRQ-12(V)3 Operation and Maintenance Instructions
3. CDC DOC 762324 - Network Access Unit Equipment Description, Maintenance Instructions, and Illustrated Parts List.
4. CDC DOC 762325 - User Control Device Equipment Description, Maintenance Instructions, and Illustrated Parts List.
5. CDC DOC 762326A - Communication Distribution System (CDS) System Description and Overview

SETUP-2130 1.0 (1460) B,R (1) AN/VRC-103 L

Goal. Configure AN/VRC-103 for plain text (PT) operations.

Requirement. Given an AN/VRC-103 and a computer loaded with the Radio Programming Application

1. Identify the characteristics of the AN/VRC-103.
2. Identify the components of the AN/VRC-103.
3. Define the operation of the AN/VRC-103.
4. Identify the procedures to manually program the AN/VRC-103.
5. Program the AN/VRC-103.
6. Identify the procedures to program the AN/VRC-103 using the Radio Programming application (RPA).
7. Program the AN/VRC-103 using Radio Programming Application

(RPA).

8. Conduct a communications check.

Performance Standard. Without the aid of reference, complete the requirement items and conduct a communications check using a second radio set. Instructor will verify communications check was successful.

Instructor. BI, SI

Prerequisite. 2000, 2005, 2010, 2015, 2225

Reference

1. AN/PRC-117F Operation Manual
2. TM 10597A-OR/4

SETUP-2135 1.0 (1460) B,R (1) AN/VRC-104 L

Goal. Configure AN/VRC-104 for plain text (PT) operations.

Requirement. Given an AN/VRC-104:

1. Identify the characteristics of the AN/VRC-104.
2. Identify the components of the AN/VRC-104.
3. Identify the operation of the AN/VRC-104.
4. Identify the procedures to manually program the AN/VRC-104.
5. Manually program an AN/VRC-104.
6. Identify the procedures to program the AN/VRC-104 using the Radio Programming Operation (RPA).
7. Program the AN/VRC-104 using Radio Programming Application (RPA).
8. Conduct a communications check.

Performance Standard. Without the aid of reference, complete the requirement items and conduct a communications check using a second radio set. Instructor will verify communications check was successful.

Instructor. BI, SI

Prerequisite. 2000, 2005, 2010, 2015, 2225

Reference

1. AN/PRC-150 Operation Manual
2. TM 10822A-10/1

SETUP-2140 1.0 (1460) B,R 1 AN/GRC-171B(V)4 L

Goal. Configure AN/GRC-171B(V)4 for operations.

Requirement. Given an AN/GRC-171B(V)4:

1. Identify the characteristics of the AN/GRC-171B(V)4.
2. Identify the components of the AN/GRC-171B(V)4.
3. Identify the operation of the AN/GRC-171B(V)4.
4. Identify the procedures to program the AN/GRC-171B(V)4.

5. Identify the procedures to program the AN/GRC-171B(v)4 for HAVEQUICK.
6. Program an AN/GRC-171B(V)4.
7. Conduct a communications check.

Performance Standard. Without the aid of reference, complete the requirements items and conduct a communications check using a second radio set. Instructor will verify communications check was successful.

Instructor. BI, SI

Prerequisite. 2000, 2005, 2010, 2015, 2225

Reference. TM-09780A-13&P/1

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SETUP-2145	1.0	(1460)	B,R	1 AN/GRC-256	L
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Goal. Configure AN/GRC-256 for operations.

Requirement. Given the AN/GRC-256:

1. Identify the characteristics of the AN/GRC-256.
2. Identify the components of the AN/GRC-256.
3. Identify the operation of the AN/GRC-256.
4. Identify the procedures to manually program the AN/GRC-256.
5. Manually program an AN/GRC-256.
6. Conduct a communications check.

Performance Standard. Without the aid of reference, complete the requirement items and conduct a communications check using a second radio set. Instructor will verify communications check was successful.

Instructor. BI, SI

Prerequisite. 2000, 2005, 2010, 2015, 2225

Reference.

1. TM-11228A-OI/1 - RT-9000 Operation and Maintenance Manual
2. TM-11228A-OI/2 - LPA-9500 Operation and Maintenance Manual

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SETUP-2150	1.0	(1460)	B, R	1 AN/VRC-103, 1 AN/VRC-104	L
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Goal. Configure the AN/VRC-103 and the AN/VRC-104 for single channel operations, Cipher Text (CT).

Requirement. Given radios and common fill device with keying material:

1. Set correct frequency.
2. Set power out.
3. Set mode of Operation (AM, FM, etc.).
4. Load correct fill for the type of radio utilized.
5. Conduct an encrypted communications check.

Performance Standard. Without the aid of reference, complete

the requirement items and conduct an encrypted communications check. Instructor will verify communications check was successful.

Instructor. BI, SI

Prerequisite. 2000, 2005, 2010, 2015, 2225

Reference

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

SETUP-2155 2.0 (1460) B,R 1 AN/VRC-103 L

Goal. Configure the AN/VRC-103 for SATCOM operation.

Requirement. Given the radios, references, and common fill device with keying material:

1. Configure 5 KHz NB (Non-DAMA) channel.
2. Configure 25 KHz WB (Non-DAMA) channel.
3. Configure DAMA Channel.
4. Load correct fill for type of radio utilized.
5. Conduct an encrypted radio check.

Performance Standard. With the aid of reference, configure the requirement items and conduct an encrypted communications check. Instructor will verify communications check was successful.

Instructor. BI, SI

Prerequisite. 2000, 2005, 2010, 2015, 2225, 2130

Reference. TM 10597A-OR/4 PRC-117 Operation Manual

SETUP-2160 1.0 (\*) B (1) AN/VRC-103 (1) AV-2040-2 L

Goal. Setup satellite antenna.

Requirement. Given one AN/VRC-103 and one AV-2040-2, applicable references, and Satellite Access Authorization Letter:

1. Connect the AV-2040-2 to the AN/VRC-103.
2. Align the satellite antenna for correct azimuth.
3. Align the satellite antenna for correct elevation.

Performance Standard. With the aid of reference, setup AV-2040-2 by completing the requirement items.

Instructor. BI, SI

Prerequisite. 2000, 2005, 2010, 2015, 2225, 2130

Reference. TM 10597A-OR/4 - PRC-117 Operation Manual

SETUP-2165 2.0 (1460) B,R 1 AN/VRC-103 L

Goal. Configure the AN/VRC-103 radio for enhanced operation.

Requirement. Given the references, a AN/VRC-103, and common fill device with keying material, a computer loaded with the Radio Programming Application (RPA):

1. Configure for frequency hopping.
2. Configure for HAVEQUICK.

Performance Standard. With the aid of reference, achieve two-way communications with another radio set. Completion of Aviation Communication Systems Managers Course meets this standard.

Instructor. BI, SI

Prerequisite. 2000, 2005, 2010, 2015, 2130

Reference. TM 10597A-OR/4 - PRC-117 Operation Manual

SETUP-2170 2.0 (1460) B,R 1 AN/VRC-104 L

Goal. Configure AN/VRC-104 radio for enhanced operation.

Requirement. Given a AN/VRC-104, and common fill device with keying material, a computer loaded with the Radio Programming Application (RPA), configure Automatic Link Establishment (ALE).

Performance Standard. With the aid of reference, achieve two-way communications with another radio set. Completion of Aviation Communication Systems Managers Course meets this standard.

Instructor. BI, SI

Prerequisite. 2000, 2005, 2010, 2015, 2135

Reference. TM 10822A-10/ AN/PRC-150(V)(C) Operational Manual

SETUP-2175 4.0 (\*) B L

Goal. Demonstrate field expedient antenna techniques.

Requirement. Given all required materials, construct field expedient antennas using wave propagation techniques:

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 requirement items. The antenna shall be able to transmit and receive clear voice/data at determined frequency.

Prerequisite. 2000, 2005, 2010, 2015, MCI 2515

Reference

1. MCRP 3-40.3B Radio Operator's Handbook
2. MCRP 3-40.3C Antenna Handbook

2.9.5 TEST MEASUREMENT DIAGNOSTIC EQUIPMENT (TMDE) STAGE

2.9.5.1 Purpose. To teach trainees how to use various test equipment that will be used in the performance of their assigned duties.

2.9.5.2 General

Prerequisite. Complete MCI 287A, Introduction to Test Equipment.

Admin Notes. NONE.

Crew Requirements. NONE.

TMDE-2200 1.0 (\*) B (1) Multimeter L

Goal. Utilize a multimeter.

Requirement. Given a multimeter, cable, and references:

1. State the purpose of the multimeter.
2. Verify calibration is current.
3. Perform continuity check on a cable or wire.
4. Measure resistance.
5. Measure voltage (AC and DC).
6. Measure current.
7. Adhere to safety procedures.

Performance Standard. With the aid of reference, demonstrate the proper use of a multimeter by completing the requirement items without error.

Instructor. BI, SI

Reference. Applicable user manual.

TMDE-2205 1.0 (\*) B (1) Watt-meter L

Goal. Utilize a watt meter.

Requirement. Given the reference, a watt meter, VSWR chart, a radio and required antenna or dummy load:

1. State the purpose of the watt meter.
2. Verify calibration is current.
3. Select appropriate configuration.
4. Measure forward power.
5. Measure reflective power.

6. Calculate voltage standing wave ratio (VSWR).

Performance Standard. With the aid of reference, utilize a watt meter by demonstrating the requirement without error.

Instructor. BI, SI

Reference. TM 09916A-14&P/1 - Test Set, Radio Frequency Model 4410-030

TMDE-2210 2.0 (\*) B (1) Oscilloscope (1) Signal Generator L

Goal. Utilize an oscilloscope.

Requirement. Given the references, an oscilloscope and a signal generator:

1. State the purpose of an oscilloscope
2. Verify calibration is current.
3. Measure voltage.
4. Measure frequency.

Performance Standard. With the aid of reference, utilize an oscilloscope by demonstrating the requirement without error.

Instructor. BI, SI

Reference. TM 10479A-OD/1 - Oscilloscope User Guide

TMDE-2215 1.0 (\*) B (1) OTDR L

Goal. Utilize an Optical Time Domain Reflectometer (OTDR).

Requirement. Given the reference, an OTDR and a fiber optical cable:

1. State the purpose of an OTDR.
2. Verify calibration is current.
3. Determine the length of the fiber cable using the OTDR.
4. Determine the amount of signal loss (db) using the OTDR..
5. Determine the location of the break using the OTDR..

Performance Standard. With the aid of reference, utilize an Optical Time Domain Reflectometer by determining the requirement without error.

Instructor. BI, SI

Reference. Applicable OTDR Manual

TMDE-2220 2.0 (\*) B (1) Ground Tester L

Goal. Utilize a Ground Tester.

Requirement. Given a ground tester, grounded equipment, and references:

1. State the purpose of a ground tester.
2. Verify calibration is current.
3. Measure resistance to ground in ohms.
4. State whether the ohm level is within tolerance.
5. Adhere to safety procedures.

Performance Standard. With the aid of reference, demonstrate proper use of the ground tester and measure ground resistance in ohms.

Instructor. BI, SI

Reference. TM 9406-15

TMDE-2225 1.0 (\*) B (1) Freq Counter L

Goal. Utilize a frequency counter.

Requirement. Given the references, a frequency counter, a radio and a line attenuator:

1. State the purpose of a frequency counter.
2. Verify calibration is current.
3. Verify frequency output.

Performance Standard. With the aid of reference, utilize a frequency counter by demonstrating the requirement without error

Instructor. BI, SI

Reference. Applicable frequency counter manual.

TMDE-2230 2.0 (\*) B (1) TS-4317 (1) Radio L

Goal. Utilize a TS-4317 (Communication Test Set).

Requirement. Given any TACC organic radio, one TS-4317 (Communication Test Set), and applicable references:

1. State the purpose of a communication test set.
2. Verify calibration is current.
3. Configure signal generator as directed.
4. Configure Receiver as directed.
5. Determine frequency accuracy of transmitted frequency.
6. Determine power out of a given transmitter.

Performance Standard. With the aid of reference, utilize a TS-4317 by using any unit organic radio to demonstrate requirement items without error.

Instructor. BI, SI

Prerequisite. 2600

Reference

1. TM 09311A-15/\_ Communications Service Monitor TS-4317...  
Operations Manual.
2. Applicable radio TMs

2.9.6 PREVENTIVE MAINTENANCE/CORRECTIVE MAINTENANCE (PMCM) STAGE

2.9.6.1 Purpose. To teach the trainee how to conduct basic preventive and corrective maintenance procedures.

2.9.6.2 General

Prerequisite. 2200, 2205, 2210, 2215, 2220, 2225, 2230.

Admin Notes. NONE.

Crew Requirements. NONE.

PMCM-2400 2.0 (\*) B L

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Goal. Induct equipment into maintenance cycle.

Requirement. Given an inoperative piece of equipment and references, fill out the following paperwork.

1. Fill out required fields of Equipment Repair Order (NAVMC 10245).
2. Fill out required fields of Equipment Repair Order, Shopping List (NAVMC 10925).
3. Fill out Inspection Tag (NAVMC 1018).

Performance Standard. With the aid of reference, complete the above listed forms without error.

Instructor. BI, SI

Prerequisite. 2200, 2205, 2210, 2215, 2220, 2225, 2230, 2235

Reference

1. TM 4700-15/1\_
2. MCO P4790.2\_
3. MCO P4400.16\_

PMCM-2405 2.0 (\*) B L

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Goal. Conduct an SL-3 inventory.

Requirement. Given the references and a piece of equipment with its record jacket containing an SL-3 extract:

1. Conduct the inventory.
2. Identify and document missing, broken, or unserviceable SL-3 items IAW references
3. Document completed inventory findings in the record jacket.

Performance Standard. With the aid of reference, conduct the SL-3 inventory by completing the requirement items.

Instructor. BI, SI

Prerequisite. 2200, 2205, 2210, 2215, 2220, 2225, 2230, 2235

Reference

1. TM 4700-15/1\_
2. MCO P4790.2\_
3. Applicable equipment SL-3.

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PMCM-2410 1.5 (\*) B L

Goal. Identify the purpose of Preventative Maintenance Checks and Services (PMCS).

Requirement. Given an end item, completed NAVMC 10561, and applicable references:

1. State the purpose of PMCS.
2. Identify the PM frequency.
3. Identify PM procedures.
4. Decipher the entries listed on the provided PMCS roster

Performance Standard. With the aid of reference, complete the requirement items without error.

Instructor. BI, SI

Prerequisite. 2200, 2205, 2210, 2215, 2220, 2225, 2230, 2235

Reference

1. TM 4700-15/\_
2. NAVMC 10561
3. MCO P4790.2\_

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PMCM-2415 4.0 (1460) B,R 1 AN/GRC 171B(V)4 L

Goal. Perform PMCS on AN/GRC 171B(V)4.

Requirement. Given the reference, required TMDE and maintenance tools listed in the reference:

1. Conduct PMCS on a AN/GRC 171B(V)4 IAW the reference.
2. Complete all required administrative actions.

Performance Standard. With the aid of reference, perform PMCS on AN/GRC 171B(V)4 and complete required administrative actions.

Instructor. BI, SI

Prerequisite. 2200, 2205, 2210, 2215, 2220, 2225, 2230, 2235, 2410

Reference

1. Radio Set AN/GRC-171B(V)4 TM-09780A-12/2
2. TM-09780A-13&P/1

PMCM-2420 2.0 (1460) B, R 1 AN/VRC-104 L

Goal. Perform PMCS on AN/VRC 104.

Requirement. Given the reference, required TMDE and maintenance tools listed in the reference:

1. Conduct PMCS on a AN/VRC-104 IAW the reference.
2. Complete all required administrative actions.

Performance Standard. With the aid of reference, perform PMCS on AN/VRC 104 and complete required administrative actions.

Instructor. BI, SI

Prerequisite. 2200, 2205, 2210, 2215, 2220, 2225, 2230, 2235, 2410

Reference

1. AN/PRC-150 Operation Manual
2. TM 10822A-10/1

PMCM-2425 2.0 (1460) B, R 1 AN/VRC-103 L

Goal. Perform PMCS on AN/VRC 103.

Requirement. Given the reference, required TMDE and maintenance tools listed in the reference:

1. Conduct PMCS on the AN/VRC-103 IAW the reference.
2. Complete all required administrative actions.

Performance Standard. With the aid of reference, perform PMCS on AN/VRC 103 and complete administrative actions.

Instructor. BI, SI

Prerequisite. 2200, 2205, 2210, 2215, 2220, 2225, 2230, 2235, 2410

Reference. TM 10597A-OR/4 - AN/PRC-117F Operation Manual

PMCM-2430 2.0 (1460) B,R 1 AN/VRC-110 L

Goal. Perform PMCS on the AN/VRC 110.

Requirement. Given the reference, required TMDE and maintenance tools listed in the reference:

1. Conduct PMCS on the AN/VRC-110 IAW the reference.
2. Complete all required administrative actions.

Performance Standard. With the aid of reference, perform PMCS on the AN/VRC 110 and complete administrative actions.

Instructor. BI, SI

Prerequisite. 2200, 2205, 2210, 2215, 2220, 2225, 2230, 2235, 2410

Reference. AN/PRC-152 Operation Manual, Pub# 10515-0283-4200

PMCM-2435 1.0 (1460) B,R 1 AN/GRC-256 L

Goal. Perform PMCS on the AN/GRC-256.

Requirement. Given the reference, required TMDE and maintenance tools listed in the reference:

1. Conduct PMCS on the AN/GRC-256 IAW the reference.
2. Complete all required administrative actions.

Performance Standard. With the aid of reference, perform PMCS on the AN/GRC-256 and complete administrative actions.

Instructor. BI, SI

Prerequisite. 2200, 2205, 2210, 2215, 2220, 2225, 2230, 2235, 2410

Reference.

1. TM-11228A-OI/1 - RT-9000 Operation and Maintenance Manual
2. TM-11228A-OI/2 - LPA-9500 Operation and Maintenance Manual

PMCM-2440 2.0 (1460) B,R 1 AN/GRC-171 B(V)4 L

Goal. Perform CM on an AN/GRC-171 B(V)4.

Requirement. Given the reference, required component(s), TMDE and maintenance tools listed in the reference:

1. Conduct CM on the AN/GRC-171 B(V)4 and identify faulty components.
2. Replace the faulty component(s), as required.
3. Complete all required administrative actions.
4. Return to operational readiness condition.

Performance Standard. With the aid of reference, perform CM on AN/GRC-171 B(V)4, replace any faulty component(s), and complete required administrative actions.

Instructor. BI, SI

Prerequisite. 2200, 2205, 2210, 2215, 2220, 2225, 2230, 2235

Reference.

1. Radio Set AN/GRC-171B(V)4 TM-09780A-12/2
2. TM-09780A-13&P/1

3. TM-09780A-45&P/3-1
4. TM-09780A-45&P/3-2

PMCM-2445 2.0 (1460) B,R 1 AN/VRC-104 L

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Goal. Perform CM on AN/VRC-104.

Requirement. Given the reference, required component(s), TMDE and maintenance tools listed in the reference:

1. Conduct CM on the AN/VRC-104 and identify faulty component on the AN/VRC 104 system.
  - a. RF-382A, Coupler
  - b. RF-5033H-PA, Vehicle Adapter Amplifier (VAA)
  - c. RT-1694D
  - d. Antenna
2. Replace the faulty component(s), as required.
3. Complete all required administrative actions.
4. Return to operational readiness condition.

Performance Standard. With the aid of reference, perform CM on AN/VRC-104, replace any faulty component(s), and complete required administrative actions.

Instructor. BI, SI

Prerequisite. 2200, 2205, 2210, 2215, 2220, 2225, 2230, 2235

Reference

1. AN/PRC-150 Operation Manual
2. TM 10822A-10/1

PMCM-2450 2.0 (1460) B,R 1 AN/VRC-103 L

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Goal. Perform CM on AN/VRC-103.

Requirement. Given the reference, required component(s), TMDE and maintenance tools listed in the reference:

1. Conduct CM on the AN/VRC-103 IAW the reference and identify faulty component on the AN/VRC 103 system.
  - a. AM-7588, Vehicle Adapter Unit (VAU)
  - b. RT-1796D
  - c. Antenna
2. Replace the faulty component(s), as required.
3. Complete all required administrative actions.
4. Return to operational readiness condition.

Performance Standard. With the aid of reference, perform CM on AN/VRC 103, replace any faulty component(s), and complete required administrative actions.

Instructor. BI, SI

Prerequisite. 2200, 2205, 2210, 2215, 2220, 2225, 2230, 2235

Reference. TM 10597-OR/4- AN/PRC-117F Operation Manual

PMCM-2455 2.0 (1460) B,R 1 AN/VRC-110 L

Goal. Perform CM on AN/VRC-110.

Requirement. Given the reference, required component(s), TMDE and maintenance tools listed in the reference:

1. Conduct CM on the AN/VRC-110 IAW the reference and identify faulty component on the AN/VRC 110 system.
  - a. ON689740- (RT)
  - b. RF 300M-HV Vehicle Amplifier Adapter
  - c. Antenna
2. Replace the faulty component(s), as required.
3. Complete all required administrative actions.
4. Return to operational readiness condition.

Performance Standard. With the aid of reference, perform CM on AN/VRC-110, replace any faulty component(s), and complete required administrative actions.

Instructor. BI, SI

Prerequisite. 2200, 2205, 2210, 2215, 2220, 2225, 2230, 2235

Reference. AN/PRC-152 Operation Manual

PMCM-2460 2.0 (1460) B,R 1 AN/GRC 256 L

Goal. Perform CM on an AN/GRC 256.

Requirement. Given the reference, required component(s), TMDE and maintenance tools listed in the reference:

1. Conduct CM on the AN/GRC 256 and identify faulty component in the AN/GRC 256 system.
2. Replace the faulty component(s), as required.
3. Complete all required administrative actions.
4. Return to operational readiness condition.

Performance Standard. With the aid of reference, perform CM on an AN/GRC 256, replace any faulty component(s), and complete required administrative actions.

Instructor. BI, SI

Prerequisite. 2200, 2205, 2210, 2215, 2220, 2225, 2230, 2235

Reference.

1. TM-11228A-OI/1 - RT-9000 Operation and Maintenance Manual
2. TM-11228A-OI/2 - LPA-9500 Operation and Maintenance Manual

PMCM-2465 3.0 (1460) B,R 1 AN/MRQ-12, 1 AN/VRC-103, 1 AV/VRC-104 L

Goal. Perform CM on the AN/MRQ-12 system.

Requirement. Given the reference, required component(s), TMDE and maintenance tools listed in the reference:

1. Conduct CM on the AN/MRQ-12 and identify faulty system in the AN/MRQ-12.
  - a. Power Distribution System
  - b. Communication Distribution System (CDS)
  - c. Radio Systems
    - (1) AN/VRC-103
    - (2) AN/VRC-104
2. Receive and replace the faulty component(s), as required.
3. Complete all required administrative actions.
4. Return to operational readiness condition.

Performance Standard. With the aid of reference, perform CM on AN/MRQ 12, replace any faulty component(s), and complete required administrative actions.

Instructor. BI, SI

Prerequisite. 2200, 2205, 2210, 2215, 2220, 2225, 2230, 2235, 2445, 2450

Reference

1. TM-10576C-OI/1A - Communications Interface System (CIS) AN/MRQ-12(V)3 Operation and Maintenance Instructions
3. CDC DOC 762324 - Network Access Unit Equipment Description, Maintenance Instructions, and Illustrated Parts List.
4. CDC DOC 762325 - User Control Device Equipment Description, Maintenance Instructions, and Illustrated Parts List.
5. CDC DOC 762326A - Communication Distribution System (CDS) System Description and Overview
6. AN/PRC-117F Operation Manual, TM 10597A-OR/4
7. AN/PRC-150 Operation Manual, TM 10822A-10/1

2.9.7 COLLATERAL DUTIES (CD) STAGE

2.9.7.1 Purpose. To familiarize the trainee on the duties and responsibilities of each collateral duty in a maintenance shop.

2.9.7.2 General

Prerequisite. NONE.

Admin Notes. Familiarization of all maintenance collateral duties gives the technician an awareness of the different essential functions required within the maintenance section. The core maintenance collateral duties are:

1. Calibrations
2. Modifications
3. Tool Control
4. Publications
5. Safety/Hazardous Materials (HAZMAT)

6. Embarkation
7. Marine Integrated Maintenance Management Service (MIMMS)
8. Equipment Records
9. Quality Control

Crew Requirements. NONE.

CD-2500 8.0 (\*) B L

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Goal. State the maintenance Collateral Duties (CD).

Requirement. Receive an overview from each collateral duty holder, and at a minimum must be able to state the following:

1. Calibration CD
  - a. State the purpose of the TMDE program.
  - b. State the duty responsibilities.
2. Modification CD
  - a. State the purpose of the modification program.
  - b. State the duty responsibilities.
3. Tool Control CD
  - a. State the purpose of the tool control program.
  - b. State the duty responsibilities.
4. Publications CD
  - a. State the purpose of the publications program.
  - b. State the duty responsibilities.
5. Safety CD
  - a. State the purpose of the safety program.
  - b. State the duty responsibilities.
6. Hazmat CD
  - a. State the purpose of the HAZMAT program.
  - b. State the duty responsibilities.
7. Embarkation
  - a. State the purpose of the embarkation program.
  - b. State the duty responsibilities.
8. MIMMS
  - a. State the purpose of the MIMMS program.
  - b. State the duty responsibilities.
9. Records
  - a. State the purpose of the records program.
  - b. State the duty responsibilities.
  - c. State the purpose of an equipment record jacket and list the minimum content required per MCO P4790.2.
10. Quality Control
  - a. State the purpose of the quality control program.
  - b. State the duty responsibilities.

Performance Standard. After each CD brief, each collateral duty holder will ask the trainee to verbally state the purpose and responsibilities of that CD. Once all CD briefs have been received the event is considered complete.

Instructor. BI, SI either currently assigned to the CD being briefed or was last assigned to the CD within the last 12 months.

Reference

1. MCO 5210.11E
2. MCO P5125.17C
3. MCO 4790.2
4. TM 4700-15/1
5. Applicable CD Desktops
6. MCO 5100.29
7. MMO SOP
8. MCO 4790.1
9. MCO 5600.1

CD-2505 1.0 (\*) B L

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Goal. Identify the Maintenance Calibrations Program.

Requirement. Given three pieces of Test Measurement and Diagnostic Equipment (TMDE), verify the following:

1. TMDE is correctly marked with calibrations information.
2. Calibration date is current.

Performance Standard. With the aid of reference, complete the requirement items without error.

Instructor. BI or SI that is either currently assigned to the calibrations CD or was last assigned to the CD within the last 12 months.

Prerequisite. 2500, MCI 287A

Reference

1. MCO P4790.2
2. MMO SOP

CD-2510 2.0 (\*) B L

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Goal. Identify the Maintenance Modifications Program.

Requirement. Given the references:

1. Describe the purpose of the maintenance modification program
2. Demonstrate how modifications are:
  - a. Identified
  - b. Installed
  - c. Verified
  - d. Recorded

Performance Standard. With the aid of reference, complete the requirement items without error.

Instructor. BI, SI either currently assigned to the CD or was last assigned to the CD within the last 12 months.

Prerequisite. 2500

Reference

1. PLMS
2. MCO P4790.2C,
3. TM-4700-15/1H
4. Maintenance Modifications Program CD Desktop

CD-2515 2.0 (\*) B L

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Goal. Demonstrate how to maintain a tool box.

Requirement. Given the references and a tool box, complete the following steps to sustain tool accountability and serviceability:

1. State the purpose of a tool box and assigned responsibilities.
2. Ensure tool box record jacket is current.
3. Conduct an SL-3 inventory of all tools in the tool box.
4. PM each tool and ensure they are serviceable.
5. State the process for replacement of the unserviceable tools.
6. Ensure proper documentation.

Performance Standard. With the aid of reference, complete the requirement items. Instructor will ensure all items are serviceable, account for, and documented in the record jacket.

Instructor. BI, SI

Prerequisite. 2500

Reference

1. MMO SOP
2. MCO P4790.2\_

CD-2520 2.0 (\*) B L

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Goal. Identify the Maintenance Publications Library.

Requirement. Given the references:

1. Demonstrate how to locate required publications for specific equipment.
2. Demonstrate how to verify publications are up-to-date.
3. Describe the purpose of Publications Library Management System (PLMS).
4. Fill out a NAVMC 10772.

Performance Standard. With the aid of reference, demonstrate the requirement items without error. Randomly select three publications, locate them and verify they are up to-date.

Instructor. BI, SI either currently assigned to the CD or was last assigned to the CD within the last 12 months.

Prerequisite. 2500

Reference

1. MCO 5210.11E
2. MCO P5125.17C

3. PLMS
4. MCO P4790.2
5. MMO SOP
6. Maintenance Publications Library Desktop

CD-2525 2.0 (\*) B L

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Goal. Identify major Maintenance Safety Program elements.

Requirement.

1. Define and identify the purpose of Lock-out/Tag-out.
2. Demonstrate lock-out/tag-out procedures.
3. Eliminate the effects of ESD on electronic components.
  - a. Define ESD.
  - b. Setup ESD workstation.
  - c. Demonstrate proper use of ESD workstation during repair of ESD sensitive circuit.
  - d. Demonstrate proper packaging and handling of ESD sensitive material.
4. Describe HAZARD prevention as it applies to:
  - a. Electrical hazards
  - b. Eye hazards
  - c. Hearing hazards
  - d. RF hazards
  - e. Fire hazards
5. Identify HAZMAT procedures.
  - a. State purpose of a Material Safety Data Sheets (MSDS).
  - b. Properly store and label HAZMAT materials.
  - c. Demonstrate proper usage of Personal Protective Equipment (PPE).
  - d. State the purpose of and locate and read safety board.

Performance Standard. Without the aid of reference, pass a written exam on the requirements noted above with 80% accuracy.

Instructor. BI, SI either currently assigned to the CD or was last assigned to the CD within the last 12 months.

Prerequisite. 2500

Reference.

1. MCO 5100.29
2. MCO 4450.12
3. MCO 5100.8
4. TM 07751B Series
5. TM 07736C Series
6. OSHA standard 29 CFR 1910.147
7. Electro Discharge Mgmt (ESD) TM-9999-15/2
8. Maintenance Safety Program Desktop

CD-2530 2.0 (\*) B L

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Goal. State the purpose of the Material Safety Data Sheet (MSDS) and the MSDS compliance center.

Requirement. Given an MSDS and references:

1. State the purpose of MSDS.
2. List the section of an MSDS.
  - a. Chemical identity.
  - b. Manufactures name and contact information.
  - c. Hazardous ingredients/identity information.
  - d. Physical/chemical characteristics.
  - e. Fire and explosion hazard data.
  - f. Reactivity data.
  - g. Health hazard data.
  - h. Precautions for safe handling and use.
  - i. Control measures.
3. State the purpose of the MSDS center.
4. Locate the MSDS compliance center in the maintenance department.

Performance Standard. With the aid of the MSDS Binder, state the purpose and components of a Material Safety Data Sheet (MSDS) without error.

Instructor. BI, SI either currently assigned to the CD or was last assigned to the CD within the last 12 months.

Prerequisite. 2500

Reference

1. Maintenance Safety SOP
2. MSDS binder
3. 29 CFR 1910.1200
4. MCO 4450-12
5. MCO P4790.2
6. OSHA Reference
7. Associated Desktop

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CD-2535 3.0 (\*) B L

Goal. Identify the key elements of the Maintenance Embarkation Program.

Requirement. Given the references:

1. State the purpose of the maintenance embarkation program
2. State the purpose of the equipment density list (EDL).
3. List length, width, height, and weight of major end items.
4. Identify ground equipment transportation requirements.
5. Identify Heavy Equipment (HE) requirements needed for systems movement.

Performance Standard. With the aid of reference, identify the four key elements listed above without error.

Instructor. BI, SI either currently assigned to the CD or was last assigned to the CD within the last 12 months.

Prerequisite. 2500

Reference

1. MCRP 4-11.3\_\_ Unit Embarkation Handbook
2. MCO P4790.2\_\_
3. Technical Manuals
4. Maintenance Embarkation Program Desktop

CD-2540 2.0 (365) B,R L

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Goal. Complete MIMMS forms.

Requirement. Given the following blank forms and references state their purpose and completely fill in each one:

1. NAVMC 10245 Equipment Repair Order (ERO).
2. NAVMC 10925 Equipment Repair Order Shopping List (EROSL).
3. NAVMC 1018 Inspection/Repair Tag (IRT).

Performance Standard. With the aid of reference, state the purpose for each form. Complete each form without error. Completion of the MIMMS Clerk Course satisfies this standard.

Instructor. BI, SI

Prerequisite. 2500, MCI 0410

Reference

1. UM 4790.5
2. TM 4700-15/1\_\_
3. MCO P4790.2\_\_
4. MCBUL 3000
5. MCO P4400.16\_\_
6. Applicable Desktop

CD-2545 1.0 (\*) B L

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Goal. Identify the equipment record jacket.

Requirement. Given the references and a record jacket:

1. State the purpose of a record jacket.
2. State the minimum content requirements for an equipment record jacket.
3. State the destruction instructions for each document within the record jacket.
4. State the local policy for disposition of inactive record jackets.
5. Inspect the record jacket content for completeness.

Performance Standard. With the aid of reference, complete the requirement items. Instructor will ensure the IPR is complete and accurate.

Instructor. BI, SI

Prerequisite. 2500

Reference

1. MCO P4790.2\_\_

2. TM-4700-15/1
3. MCO 5210.11E

## 2.9.8 COMMUNICATION SECURITY (COMSEC) STAGE

2.9.8.1 Purpose. To teach the trainee safe handling and storage of classified material, use of common fill devices, crew changeover procedures, and provide familiarization with the EKMS COMSEC callout.

### 2.9.8.2 General

Prerequisite. Complete MCI 2525B, Communications Security.

Admin Notes. NONE.

Crew Requirements. NONE.

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COMSEC-2600 2.0 (365) B, R L

Goal. Describe proper handling and storage of classified materials.

Requirement. State and identify 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 sections of the SF-702.
7. Identify the approved security containers utilized for storage.
8. Identify the procedures for handling Controlled Cryptographic Items (CCIs).

Performance Standard. Without the aid of reference, state the above requirement items without error.

Instructor. BI, SI

Prerequisite. MCI 2525

#### Reference

1. MCO P5510.18
2. EKMS-1
3. SECNAVINST 5510.36

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COMSEC-2605 2.0 (365) B, R L,S

Goal. Ensure physical security of classified areas.

Requirement. Given a scenario and references, illustrate personnel and equipment security procedures.

1. Create guard schedule.
2. Single entry control point.
3. Verify personnel on Access Roster.

4. Triple Strand Concertina Wire.
5. Entry points of communication lines.
6. Submit a physical security diagram.

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.

Instructor. BI, SI

Prerequisite. MCI 2525, 2600

Reference. MCO P5530.14\_

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COMSEC-2610 2.0 (365) B, R L

Goal. Conduct crew change over security procedures.

Requirement. During a crew change over:

1. Conduct Classified Material Control Center inventory.
2. Conduct EKMS inventory.
3. Destroy superseded key materials.

Performance Standard. With the aid of reference, conduct the inventories and destroy key materials without discrepancy.

Instructor. BI, SI

Prerequisite. MCI 2525, 2600

Reference. EKMS-1A

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COMSEC-2615 2.0 (365) B,R L

Goal. Extract key material information from EKMS COMSEC callout.

Requirement. Given an EKMS COMSEC callout and references:

1. State the purpose of the EKMS 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. State the purpose of Guard Charts.

Performance Standard. With the aid of reference, state the purpose and identify the key information on the callout without error.

Instructor. BI, SI

Prerequisite. MCI 2525, 2600

Reference. EKMS-1A

COMSEC-2620 2.0 (365) B,R (1) SKL L

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Goal. Utilize Simple Key Loader (SKL) or Data Transfer Device (DTD).

Requirement. Given (2) loaded SKLs or DTDs and a zeroized cryptographic device:

1. Describe the purpose of SKL.
2. Define a SKL loading procedure.
3. Configure the SKL.
4. Identify SKL indicators and messages.
5. Transfer key material to Controlled Cryptographic Item (CCI) equipment.
6. Given two (2) Simple Key Loader (SKL) and the reference, transfer cryptographic information from device to device.
7. Destroy superseded keying material within the cryptographic fill device.

Performance Standard. With the aid of reference, load keying material into appropriate COMSEC equipment using a fill device and destroy superseded keying material.

Instructor. BI, SI

Prerequisite. MCI 2525, 2600, 2615

Reference. EKMS-1A

#### 2.9.9 FAMILIARIZATION (FAM) STAGE

2.9.9.1 Purpose. To build the trainee's awareness in the fundamentals of MACCS maintenance communication system, tactical data links, system administration, and system networks to include radar and tactical data systems.

#### 2.9.9.2 General

Prerequisite. NONE.

Admin Notes. The performance standard for all events in this stage will be conducted in a question and answer verbal format and with the aid of reference.

Crew Requirements. NONE.

FAM-2650 3.0 (\*) B L

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Goal. State the purpose and capability of Tactical Data Links.

Requirement. Given the references, state the purpose and capability of each data link.

1. TADIL A (Link 11A)
  - a. UHF
  - b. HF
2. TADIL B (Link 11B)
3. TADIL J (Link 16)
  - a. JREAP A
  - b. JREAP B
  - c. JREAP C
  - d. RF
4. ATDL-1
5. NATO Link 1
6. List the types of units that utilize each link.
7. Intelligence Broadcast System (IBS)
8. CST
9. Ground Based Data Link Enhanced (GBDLE)

Performance Standard. With the aid of reference, state the purpose and capability of each data link. Completion of the MACCS Maintenance Managers Course at MCCES satisfies the standard.

Instructor. BI, SI

Reference.

1. TM 10498B-OD TAOM Operations Maintenance Manual
2. TM 10200A-OI/1 ADCP Maintenance Manual
3. TO 31S5-2TYQ123-8-1 JRE Operations and Maintenance Instructions

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FAM-2655 2.0 (\*) B L

Goal. Identify the TBMCS

Requirement. Given a locally developed site diagram, references, materials, and required equipment conduct the following:

1. Identify the purpose of TBMCS.
2. Identify the function of TBMCS.
3. Identify software.
4. Identify hardware components.

Performance Standard. With the aid of reference, identify the items noted in the site diagram without error. This event can be completed at the MCCES TBMCS Administration Course.

Instructor. BI, SI

Reference.

1. Site diagram
2. TBMCS SUMs

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FAM-2660 2.0 (\*) B,R (1) IOW L

Goal. Identify the Intelligence Operations Workstation (IOW).

Requirement. Given the references and an IOW:

1. Identify the purpose of the IOW.

2. Identify the function of the IOW.
3. Identify software on the IOW.
4. Identify hardware components.

Performance Standard. Without the aid of reference, identify the requirement items.

Instructor. BI, SI

Reference.

1. IOS/IOW User's Manual
2. SL-3-10848D
3. MarineNet - C2PC Course Code C2P001

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FAM-2665 2.0 (\*) B (1) AFATDS L

Goal. Identify Advanced Field Artillery Tactical Data System (AFATDS).

Requirement. Given references, complete the following:

1. Identify the purpose.
2. Identify its functions.
3. Identify software.
4. Identify hardware components.

Performance Standard. Without the aid of reference, identify the requirement items.

Instructor. BI, SI

Reference.

1. TM 7025-OR/1
2. TM 7025-OR/2
3. TM 7025-OR/3
4. SL-3-11069A
5. Marinenet - AFATDS Course Code AFATAA

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FAM-2670 2.0 (\*) B (1) IOS L

Goal. Identify the IOS.

Requirement. Given the references:

1. Identify the purpose of the IOS.
2. Identify the function of the IOS.
2. Identify software.
3. Identify hardware components.

Performance Standard. With the aid of reference, identify the requirement items.

Instructor. BI, SI

Reference.

1. SL-3-10753C

2. IOS/IOW USER'S MANUAL

FAM-2675 2.0 (\*) B (1) CDLS L

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Goal. Identify the Communications Data Link System (CDLS).

Requirement. Given a CDLS and references, complete the following:

1. Identify the purpose
2. Identify its functions.
3. Identify software.
4. Identify hardware components.

Performance Standard. Without the aid of reference, identify all requirement items.

Instructor. BI, SI

Reference. TM 10987A-OI (CDLS manual)

FAM-2680 2.0 (\*) B (1) COC L

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Goal. Identify the Combat Operation Center (COC).

Requirement. Given a COC, conduct a tour of the COC and complete the following:

1. Identify the purpose of the COC.
2. Identify its functions.
3. Identify software.
4. Identify hardware components.

Performance Standard. Without the aid of reference, identify all the requirement. The event can be satisfied by completing the Tactical Data System Administrator Managers Course at MCCES.

Instructor. BI, SI

Reference. COC IETM

FAM-2685 2.0 (\*) B (1) LMS-MT L

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Goal. Identify the Link Management System - Multi Tactical Data Link (LMS-MT).

Requirement. Given an LMS-MT and references, complete the following:

1. Identify the purpose.
2. Identify its functions.
3. Identify software.
4. Identify hardware components.

Performance Standard. Without the aid of reference, identify all the requirement items.

Instructor. BI, SI

Reference. LMS User's Manual

FAM-2690 3.0 (\*) B L

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Goal. Describe Automated Data Processing Equipment (ADPE) equipment.

Requirement. Given the references:

1. Define Transfer Control Protocol/Internet Protocol (TCP/IP).
2. Identify types of network cables and their purpose.
3. Identify types of switches and their purpose.
4. Define Ethernet communication.
5. Identify types of routers and their purpose.
6. Identify the different types of networks and their purpose.

Performance Standard. With the aid of reference, pass a written examination with 80% accuracy.

Reference

1. MCWP 3-25.3
2. MCWP 3-25.4
3. TCP/IP Network Administration ISBN #1-56592-322-7
4. Computer Network and Internets
5. Data Communication Network Devices ISBN #0-471-97515-x
6. Essential System Administration ISBN #0-596-00343-9
7. Cisco Router 24 Seven Sybex manual

#### 2.9.10 MAINTENANCE MANAGEMENT (MMGT) STAGE

2.9.10.1 Purpose. To teach the trainee how to perform MACCS maintenance functions.

#### 2.9.10.2 General

Prerequisite. NONE.

Admin Notes. NONE.

Crew Requirements. NONE.

MMGT-2700 8.0 (\*) B L

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Goal. Demonstrate an understanding of the Total Force Structure Management System (TFSMS).

Requirement. Given access to TFSMS, complete the following:

1. View and interpret information on structure and equipment.
2. Create structure and equipment reports.
3. State the reason for submitting a Table of Organization and Equipment Change Request (T/OECR).

4. Demonstrate how to manipulate structure and equipment data using electronic TOECRs.

Performance Standard. Complete the Total Force Structure Management Systems (MC TFSMS) online training located on the TFMS website, <https://tfsms.mccdc.usmc.mil>.

Instructor. TFSMS Online

Prerequisite. Per course syllabus requirements.

Reference. URL <https://tfsms.mccdc.usmc.mil>

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MMGT-2702 2.0 (\*) B L

Goal. Identify the contents of a maintenance turnover binder.

Requirement. Given the reference, perform the following:

1. Outline the required contents of a turnover binder.
2. Review a turnover binder.

Performance Standard. Submit to the evaluator an outline that lists all required contents of a turnover binder. Review a turnover binder and ensure it is in compliance with the reference.

Instructor. BI, SI

Reference. MCO P4790.2\_

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MMGT-2704 3.0 (\*) B L

Goal. Ensure proper preparatory measures are taken for disposition of equipment.

Requirement. Given a scenario, the Material Fielding plans, User's Logistic Support Summary (ULSS), and appropriate directives, ensure unserviceable/obsolete equipment is properly disposed.

1. Provide supply with disposition request.
2. Ensure final SL-3/LTI is performed.
3. Ensure record jackets are turned-in with equipment.
4. Provide supply with required documentation to remove from CMR.

Performance Standard. With the aid of reference, verbally describe the process to dispose of equipment according to the disposition instructions and the references.

Instructor. BI, SI

Prerequisite. 2100, 2105, 2110, 2120, 2125, 2405, 2500, 2535, 2722, 2800, 2838, 2840, 2836, 3000, 3005, 3208, 3210, 3212

Reference

1. Equipment Disposition Instructions

2. Supply Instructions
3. User Logistics Supply Support Summary's (ULSS)
4. SL-3 or other inventory documents.
5. MCO P4400.82F Regulated Controlled Item Management

MMGT-2706 1.0 (\*) B L

Goal. Create a Preventive Maintenance Checks and Services (PMCS) schedule.

Requirement. Given a list of equipment requiring PMCS create a schedule.

Performance Standard. With the aid of reference, create the PMCS schedule.

Instructor. BI, SI

Prerequisite. 2100, 2105, 2110, 2120, 2125, 2410, 2500, 2535, 2722, 2800, 2838, 2840, 2836, 3000, 3005, 3208, 3210, 3212

Reference

1. TM-4700-15/1H
2. MCO P4790.2\_

MMGT-2708 1.5 (1460) B,R L

Goal. Ensure tool control procedures are implemented.

Requirement. Given the applicable references:

1. Ensure inventories for all tool sets, chests, and kits are being conducted.
2. Ensure Special Tools allowances are maintained.
3. Ensure missing and unserviceable items are placed on order.
4. Ensure excess tools are properly disposed / documented.
5. Verify completion of PM's.
6. Annotate inventory control records without error.

Performance Standard. With the aid of reference, ensure tool control procedures are implemented by completing the requirement items. Instructor will validate the discrepancy report.

Instructor. BI, SI

Prerequisite. 2100, 2105, 2110, 2120, 2125, 2405, 2500, 2515, 2535, 2545, 2722, 2800, 2838, 2840, 2836, 3000, 3005, 3208, 3210, 3212

Reference

1. MCO P4400.150
2. MCO P4790.2\_

MMGT-2710 4.0 (365) B,R L

Goal. Reconcile Marine Corps Integrated Maintenance Management System (MIMMS) Automated Information System (AIS) reports.

Requirements. Given the AIS reports listed in item 1 below:

1. Identify the purpose of:
  - a. Daily Process Report (DPR)
  - b. Logistics Maintenance 2 (LM2)
  - c. Daily Transaction List (DTL)
  - d. Exceptions Report
  - e. TAM report
  - f. LM2 report
  - g. Loaded unit balance file (LUBF)
  - h. Due and status file (DASF)
  - i. Equipment Record Order (ERO) NAVMC 10425
  - j. Equipment Record Order Supply Listing (EROSL) NAVMC 10925
  - k. Inspection repair tag (NAVMC 1018)
  - l. Layette bin.
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. 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. With the aid of reference, complete the requirement items. Minimal instructor assistance is allowed. Verbally identify errors on AIS reports provided and identify corrective actions to the instructor. Instructor will guide the student throughout this training evolution.

Instructor. BI, SI

Prerequisite. 2100, 2105, 2110, 2120, 2125, 2500, 2535, 2540, 2722, 2800, 2838, 2840, 2836, 3000, 3005, 3208, 3210, 3212, MCI 0410B.MCI 0410C

Reference

1. MCO P4790.2\_
2. MCBUL 3000
3. NAVMC 10425
4. NAVMC 10925
5. UM 4790-5
6. MCO P4400.16
7. TM 4700.15/1\_
8. DLA Handbook
9. Unit MMSOP

MMGT-2712 2.0 (1460) B,R L

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Goal. Describe the Repairable Issue Point process.

Requirement. Given a practical application scenario, applicable maintenance and supply documents:

1. Define the purpose of the Repairable Issue Point process.
2. Define the purpose of Critical Low Density items.
3. Identify the key components of the Repairable Issue Point process.
4. Identify the key documentation within each component of the Repairable Issue Point process.
5. Identify the Repairable Issue Point re-computation process.

Performance Standard. With the aid of references, define steps in the Repairable Issue Point process and provide recommendations for organizational critical Low Density Float assets and required on-hand quantities to the instructor for approval.

Instructor. BI, SI

Prerequisite. 2540

Reference

1. MCO 4790.2
2. MCO P4400.150
3. FEDLOG

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MMGT-2714 2.0 (1460) B,R L

Goal. Identify the float process.

Requirement. Given a practical application scenario, applicable maintenance and supply documents:

1. Define the purpose of the float process.
2. Define the purpose of Critical Low Density items.
3. Identify the key components of the float process.
4. Identify the key documentation within each component of the float process.
5. Identify the float re-computation process.
6. Identify Low Density Float assets.

Performance Standard. Without the aid of reference, define the float process and provide recommendations for organizational critical Low Density Float assets and required on-hand quantities to the instructor for approval.

Instructor. BI, SI

Prerequisite. 2540

Reference

1. MCO 4790.2
2. MCO P4400.150
3. FEDLOG

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MMGT-2716 2.0 (1460) B,R L

Goal. Define the four major funding lines.

Requirement. Given the references, define the four major funding lines.

1. Operation & Maintenance (O&M) Funds
  - a. Planning Estimate (PE)
    - (1) Defense Subsistence Supply 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)

Performance Standard. With the aid of reference, define the requirement items.

Instructor. BI, SI

Reference

1. MCO P4400.150\_
2. MCO P7100.8\_

MMGT-2718 2.0 (\*) B L

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Goal. Ensure new equipment is being inducted into service.

Requirement. Given a practical application, a Material Fielding Plan (MFP) or Users Logistics Support Summary (ULSS) and applicable references:

1. Review the MFP or ULSS.
2. Validate new equipment is properly placed into service.
  - a. Ensure record jacket was created with required documents.
  - b. Ensure an initial LTI was performed
  - c. Ensure initial SL-3 was performed.
  - d. Verify equipment is added to Major Subordinate Command (MSC) Mechanized Allowance List (MAL).
  - e. Ensure induction of new equipment into calibration cycle if required.

Performance Standard. With the aid of reference, complete the requirement items. The instructor will validate that the process to induct equipment was demonstrated per the reference.

Instructor. BI, SI

Prerequisite. 2400, 2540, 2545

Reference

1. Supply Instructions
2. ULSS
3. Equipment SL-3
4. Initial Issuing Provision Inventories
5. MCO 5311.1C

6. MCO P4400.82
7. UM 4400.124
8. MCCDC 1001

MMGT-2720 2.0 (\*) B L

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Goal. Verify equipment is phased out.

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. Recoverable Items Report (WIR)
  - b. WIR Online Process Handler program. (WOLPH)
  - c. Material 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 a Recoverable Items Report (WIR) - request for disposition - was submitted using the WOLPH.
  - 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. With the aid of reference, complete the requirement items. The instructor will validate that the process to phase out equipment was demonstrated per the reference.

Instructor. BI, SI

Prerequisite. 2540, 2545, 2702

Reference

1. Supply Instructions (SI)
2. ULSS
3. Equipment SL-3
4. Initial Issuing Provision Inventories
5. MCO 5311.1C
6. MCCDC 1001
7. MCO P4400.82
8. UM 4400.124

MMGT-2722 2.0 (1460) B,R L

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Goal. Ensure Quality Control (QC) procedures are being performed correctly for organic unit systems.

Requirement. Given the references and TACC equipment records, ensure QC procedures are being performed by:

1. Identify maintenance QC procedures
2. List all the QC areas within your section.
3. State the frequency of the QC checks for each area.
4. Conduct a QC inspection on a selected piece of equipment:
  - a. Ensure equipment is being maintained to equipment standards.
  - b. Ensure quality controls are being adhered to.
  - c. Ensure inspection standards, checklists or templates being used to inspect completed maintenance actions.
  - d. Ensure equipment specifications are being recorded within tolerance levels IAW TM.
  - e. Verify the repair process is properly implemented by ensuring that:
    - (1) Proper tools were used
    - (2) ESD procedures were used
    - (3) Safety warnings were adhered to
    - (4) Necessary defective parts were replaced
    - (5) Correct software was used, as applicable
    - (6) Proper MIMMS forms are used during maintenance cycle
5. Ensure NAVMC-10772 form was completed and verified.
6. Write a report identifying discrepancies.

Performance Standard. With the aid of reference, complete the requirement items and ensure QC procedures are being performed; and the discrepancy report is validated by the instructor.

Instructor. BI, SI

Prerequisite. 2100, 2105, 2110, 2120, 2125, 2500, 2532, 2620, 2708, 2722, 2800, 2804, 2806, 2832, 2836, 3204, 3206, 3208, 3212, 3214, 3216

Reference

1. MCO P4790.2
2. MMO SOP

MMGT-2724 16.0 (1460) B, R L

Goal. Conduct an inspection of maintenance functional areas.

Requirement. Given the applicable references and inspection checklists, demonstrate the procedures for inspecting three of the following functional areas.

1. State the purpose for inspecting functional areas.
2. List the functional areas in your section.
3. Schedule an inspection for three of the below listed areas selected by the instructor.
  - a. Calibration Control Program
  - b. Publication Control Program
  - c. Quality Control Program
  - d. Preventative Maintenance Program
  - e. Modification Control Program
  - f. Tool Control Program

- g. Marine Corps Integrated Maintenance Management System/  
Automated Information System (MIMMS/AIS)
- h. Training Program
- i. Records
- j. Safety Program
- k. Corrosion Prevention and Control (CPAC)
4. Inform functional area managers of the inspection.
5. Conduct an inspection on the three selected areas.
6. Submit an executive summary at the conclusion of each of the  
three inspections.

Performance Standard. With the aid of reference, complete the requirement items; conduct an inspection of the three selected functional areas with minimal assistance.

Instructor. BI, SI

Prerequisite. 2500, 2520, 2708

Reference

1. MCO 4790.2\_
2. MCO P4400.82\_
3. MCO P4400.160\_
4. MCO P4400.150\_
5. MCO 4855.10\_
6. MCO 4790.18\_
7. MCO 4733.1\_
8. MCO 4450.12\_
9. MCO 4400.16\_
10. MCO 4105.2 W/CH 1
11. UM-PLMS W CH 1-2
12. NAVMC DIR 5100.8
13. NAVMC 2761 DTD 1 JUN 08
14. MCO P5215.17\_
15. MCO P5102.1\_
16. MCO P5090.2\_
17. MCO 5104.2\_
18. MCO 5104.1
19. MCO 5100.8
20. MCO 5100.29
21. MCO 1553.3\_
22. MCO 3000.11\_
23. MCO 3500.14\_
24. MCO 3710.6 (PRELIM)

MMGT-2726 16.0 (\*) B L

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Goal. Identify the process to submit a Table of organization and equipment (TO&E) Change Request (TOECR).

Requirement. Given a scenario and applicable references:

1. State the purpose for a TOECR
2. Pull TO&E via the Total Force Structure Management System (TFSMS).
3. Validate the requirement for change.

4. Complete TOECR form, NAVMC 11355..
5. Identify compensation for T/O changes when possible.
6. Provide an explanation/reason for change request on the change request form in plain English.
7. Provide a copy of the NAVMC 11355 to the instructor for review and validation.

Performance Standard. Per the course set standards. The standard can be satisfied by completing the TFSMS Super User Course - instructions on how to obtain MTT training is located on the TFMS website, <https://tfsms.mccdc.usmc.mil> With the aid of reference, complete the requirement items; instructor will ensure the NAVMC 11355 supports the scenario.

With the aid of reference, complete the requirement items; instructor will ensure the NAVMC 11355 supports the scenario.

Prerequisite. 2100, 2105, 2110, 2120, 2125, 2500, 2532, 2620, 2700, 2722, 2800, 2804, 2806, 2832, 2836, 3204, 3206, 3208, 3212, 3214, 3216

Instructor. TFSMS MTT or BI, SI

Reference

1. MCO 5311.1\_
2. Unit TO&E

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MMGT-2728 2.0 (\*) B L

Goal. Submit a request for equipment using the Marine Corps Urgent Needs Process (MCUNP).

Requirement. Given references and an urgent equipment requirement:

1. State the purpose of the Urgent Needs Statement (UNP).
2. State the purpose of the Urgent Universal Needs Statement (Urgent UNS).
3. Describe the process for completing an Urgent UNS form.
4. Complete and submit an Urgent UNS form to support the requirement.

Performance Standard. With the aid of reference, state the MCUNP process and submit the Urgent UNS form to the instructor for final validation.

Instructor. BI, SI

Prerequisite. 2806

Reference

1. NAVMC 11475
2. MCO 3900.17\_

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MMGT-2730 16.0 (1460) B,R L

Goal. Develop a maintenance section budget.

Requirement. Utilizing equipment maintenance history and forecasting anticipated maintenance shortfalls, propose funding allocations for maintenance activities.

1. Provide maintenance funding request based on current requirements while considering prior year utilization history.
2. Draft an anticipated maintenance funding request based on the unit's TEEP to support
  - a. Personnel travel requirements
  - b. Administrative support requirements (SERVMART)
3. Submit funding request with justification.

Performance Standard. With the aid of reference, complete the requirement items. Submit the funding request to the instructor for validation.

Instructor. BI, SI

Prerequisite. 2714

Reference

1. MCO P4400.150\_
2. MCO P7100.8\_

MMGT-2732 40.0 (1460) B,R L

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Goal. Conduct a Consolidated Memorandum Report (CMR) Review.

Requirement. Given the references and 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. Conduct a CMR inventory.
  - a. Ensure SL-3 accountability for assumption and relief.
  - b. Determine Using Unit Responsibility (UURI)/Government Furnished Equipment (GFE) requirements.
  - c. Ensure equipment have record jackets.
  - d. Identify discrepancies, if any.
4. Write and submit a letter of discrepancy within specified time period.

Performance Standard. With the aid of reference, complete a CMR review. Submit the discrepancy letter to the instructor for validation.

Instructor. BI, SI

Prerequisite. 2540, 2702, 2716

Reference

1. MCO P4400.150E W/ERRATUM CH 1-2

2. CMR
3. MMO SOP

MMGT-2734 2.0 (\*) B L

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Goal. Ensure publications are properly maintained.

Requirement. Given the references:

1. Check publications library for missing TMs.
2. Check publications library for missing Modification Instructions.
3. Check publications library for missing Technical Instructions.
4. Check publications library for missing Supply Instructions.
5. Check publications library to ensure publication changes have been incorporated.
6. Ensure the reconciliation process is being conducted between SI/MMO and the Publications NCO.
7. Write and submit a report identifying discrepancies in the implementation of the procedures.

Performance Standard. With the aid of reference, ensure publications procedures are implemented by completing the requirement items. Submit the discrepancy report to the instructor for validation.

Instructor. BI, SI

Prerequisite. 2500, 2520

Reference

1. MCO P5600.31
2. NAVMC 2761
3. Marine Corps Stock List SL-1-3/1-2
4. MCO P4790.2
5. AIRS Checklist 754
6. MMO SOP

MMGT-2736 1.0 (\*) B L

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Goal. Ensure the maintenance safety control procedures are implemented.

Requirement. Given the references:

1. Verify that the safety procedures are implemented.
2. Verify that HAZMAT safety procedures are implemented and documented.
3. Write and submit a report identifying discrepancies in the implementation of the procedures.

Performance Standard. With the aid of reference, ensure the safety control procedures are implemented by completing the requirement items. Submit the discrepancy report to the instructor for validation.

Instructor. BI, SI

Prerequisite. 2500, 2525

Reference

1. MCO 5100.29
2. MCO P4790.2
3. MMO SOP

MMGT-2738 1.0 (\*) B L

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Goal. Ensure calibrations procedures are implemented

Requirement. Given the references:

1. Verify accuracy of locally generated reports and Consolidated Memorandum Receipt (CMR)
2. Review reconciliation procedures
3. Review calibration scheduling of TMDE
4. Verify locally generated reports and equipment records reflect the proper calibration status.
5. Write and submit a report identifying discrepancies in the implementation of the procedures.

Performance Standard. With the aid of reference, ensure calibrations procedures are implemented by completing the requirement items. Submit the discrepancy report to the instructor for validation.

Instructor. BI, SI

Prerequisite. 2500, 2505

Reference

1. TM-4700-15/1
2. MCO 4790.1
3. MMO SOP
4. MCO 4790.2
5. AIRS Checklist 754

MMGT-2740 2.0 (\*) B L

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Goal. Ensure the Marine Corps Integrated Maintenance Management System (MIMMS) is properly maintained.

Requirement. Given the references:

1. Review AIS Documentation.
2. Validate accuracy of reports.
3. Ensure reconciliation with MMO is being conducted.
4. Ensure reconciliation with supply is being conducted.
5. Ensure ERO parts are bin are maintained.
6. Review maintenance forms for accuracy.
7. Review MCGERR dead-lined equipment reports for accuracy.
8. Ensure proper use of maintenance forms and ground equipment records.

9. Write and submit a report identifying discrepancies.

Performance Standard. With the aid of reference, ensure MIMMS CD is properly maintained by completing the requirement items. Submit the discrepancy report to the instructor for validation.

Instructor. BI, SI

Prerequisite. 2500, 2540

Reference

1. MCO P4700.2
2. MCO P4790.1B
3. TM-4700-15/1
4. MCBUL 3000
5. AIRS Checklist 754
6. MMO SOP

MMGT-2742 1.0 (\*) B L

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Goal. Ensure classified and CCI material handling procedures are implemented.

Requirement. Given the references:

1. Verify classified material is stored in GSA approved container.
2. Verify proper and timely destruction of superseded segments.
3. Verify SF-702s are properly completed.
4. Verify classified material is transported properly.
5. Write and submit a report identifying discrepancies.

Performance Standard. With the aid of reference, ensure classified and CCI material handling procedures are being implemented by completing the requirement items. Submit the discrepancy report to the instructor for validation.

Instructor. BI, SI

Prerequisite. 2600, 2605, 2610, 2615, 2620

Reference

1. EKMS-1A series
2. SECNAV M-5510.36\_
3. MCO 5510.18\_

MMGT-2744 1.0 (\*) B L

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Goal. Ensure Preventive Maintenance Checks and Services (PMCS) are being conducted on organic unit systems.

Requirement. Given the references:

1. State the purpose of PMCS and PM schedule
2. Ensure the "overarching" PM schedule data is accurate.
3. Ensure the PM equipment schedule for each item is accurate.
4. Ensure completion of PM within the required time.
5. Proper documentation of PM on:

- a. Equipment repair order (ERO).
  - b. PM schedule.
6. Identify the Corrosion Prevention and Control (CPAC) program/procedures.
  7. Write and submit a report identifying discrepancies in the implementation of the procedures.

Performance Standard. With the aid of reference, ensure PMCS is being conducted on TAOC Air Defense Systems. Submit the discrepancy report to the instructor for validation.

Instructor. BI, SI

Prerequisite. 2410, 2415, 2420, 2425, 2430, 2435, 2540, 2545, 2704

Reference

1. MCO P11262.2
2. MCO P4790.2
3. Applicable TMs/UMs
4. AIRS Checklist 754
5. Unit MMO SOP

MMGT-2746 1.0 (\*) B L

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Goal. Ensure equipment records for the unit PEIs are maintained.

Requirement. Given the references:

1. Review equipment record jackets.
2. Review equipment maintenance history.
3. Review equipment inventory.
4. Review modification history.
5. Review preventive maintenance history.
6. Write and submit a report identifying discrepancies.

Performance Standard. With the aid of reference, ensure the equipment records are being maintained by completing the requirement items. Submit the discrepancy report to the instructor for validation.

Instructor. BI, SI

Prerequisite. 2500, 2545

Reference

1. TM-4700-15/1
2. MCO P11240.106
3. AIRS Checklist 754
4. MMO SOP
5. MCO P4790.2

MMGT-2748 4.0 (365) B,R L

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Goal. Prepare and present a command level brief

Requirement. Given an OPORD and commander's intent

1. Prepare a brief that contains at minimum the following:
  - a. State the OPORD mission
  - b. Maintenance implied tasks extracted from the OPORD
  - c. Develop and include the following:
    - (1) Accreditation Package
    - (2) TBMCS architecture
    - (3) TDL architecture
  - d. List equipment requirements to support mission
  - e. Define crew composition and management based on T&R CMMR
  - f. Define the maintenance training plan per T&R requirements
  - g. State the movement plan for deployment
  - h. Embarkation
  - i. Emplacement
  - j. Setup
  - k. Retrograde draft plan
  - l. State maintenance sustainment plan
  - m. State supply support required
  - n. State logistical support required
  - o. Issues of concern
  - p. Way Ahead
2. Present the brief

Performance Standard. With the aid of reference, prepare the brief and present it in a confident and focused manner to the instructor and the maintenance officer. The instructor will ensure the brief contains the requirement items and that the overall planning supports the mission in the OPORD.

Instructor. BI, SI

Reference

1. OPORD
2. Local Unit SOP
3. Local MMO SOP

MMGT-2750 1.5 (1460) B, R L

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Goal. Verify inventory control procedures are implemented. ..

Requirement. Given an equipment record and SL-3 extract:

1. Verify equipment accountability and serviceability
2. Ensure missing and unserviceable items are placed on order.
3. Annotate inventory records without error.

Performance Standard. With the aid of reference, perform SL-3 inventory control procedures without error.

Instructor. BI, SI

Prerequisite. 2100, 2105, 2110, 2120, 2125, 2500, 2535, 2706, 2722, 2800, 2838, 2840, 2836, 3000, 3005, 3208, 3210, 3212

Reference

1. MCO P4400.150\_
2. MCO P4790.2\_

MMGT-2752 2.0 (\*) B L

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Goal. Draft a Using Unit Responsibility Items (UURI) authorization letter.

Requirement. Given the reference, complete the following:

1. Identify required UURI.
2. Draft a UURI authorization letter.

Performance Standard. With the aid of reference, draft and submit to the instructor a correctly formatted UURI authorization letter that identifies required quantities of all UURI.

Instructor. BI, SI

Reference.

1. MCO P4790.2\_\_
2. Applicable end item SL-3
3. SecNavInst 5216.2\_\_
4. Unit MMSOP

MMGT-2754 2.0 (\*) B L

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Goal. Explain Recoverable Items Report (WIR) procedures.

Requirement. Given the reference and a secondary repairable item or a scenario, conduct the following:

1. State the purpose of the WIR.
2. State the criteria under which an item should be processed for WIR.
3. State the information required to submit a WIR request.
4. State the submission procedures for a WIR request.

Performance Standard. With the aid of reference, state the items in the requirement without error and IAW the reference.

Instructor. BI, SI

Reference

1. MCO P4790.2\_\_
2. UM-4400

MMGT-2756 2.0 (\*) B L

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Goal. Submit a maintenance cycle time extension letter.

Requirement. Given the reference, equipment, and applicable equipment records conduct the following:

1. Identify maintenance cycle time requirement.
2. Draft a maintenance cycle time extension letter.

Performance Standard. With the aid of reference, submit to the evaluator a correctly formatted maintenance cycle time extension letter that provides justification to exceed maximum maintenance cycle time IAW the reference.

Instructor. BI, SI

Reference.

1. MCO P4790.2\_
2. Applicable end item technical manual
3. NAVMC 5216.2\_
4. Unit MMSOP

MMGT-2758 2.0 (\*) B L

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

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 to submit a PQDR.

Performance Standard. With the aid of reference, complete the requirement items without error.

Instructor. BI, SI

Reference

1. MCO P4790.2\_
2. UM-4400
3. Unit MMSOP

2.9.11 OPERATIONS MANAGEMENT (OMGT) STAGE

2.9.11.1 Purpose. To teach the trainee how to deploy a communications maintenance section to include understanding OPORDs, crew management, system configuration management, and proper emplacement procedures.

2.9.11.2 General

Prerequisite. 6100.

Admin Notes. NONE.

Crew Requirements. NONE.

OMGT-2800 4.0 (365) B,R L

Goal. Identify common agency doctrinal nets and radio connectivity diagrams.

Requirement. Given a list of doctrinal net names in acronym format and references:

1. Define each net acronym.
2. State the purpose and function for each net.
3. Identify agencies required to guard each net.
4. Create a radio connectivity diagram.

Performance Standard. Without the aid of reference, pass a written exam with 80% accuracy and draw a radio connectivity diagram.

Instructor. SI

Prerequisite. 2100, 2105, 2110, 2120, 2125, 2500, 2535, 2722, 2800, 2838, 2840, 2836, 3000, 3005, 3208, 3210, 3212

Reference. MCWP 3-40.3

OMGT-2802 2.0 (\*) B L

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Goal. Identify the purpose of key planning documents.

Requirement. Given the documents below, identify their purpose:

1. Guard Chart.
2. Communication Electronic Operating Instruction (CEOI).
3. Operations Order.
4. Annex K of the Operations Order
5. Annex S of the Operations Order.
6. Site Diagram.
7. Operational Tasking Data Link (OPTASKLINK)
8. State the purpose and content of the EKMS Callout.

Performance Standard. Without the aid of reference, pass a written exam with 80% accuracy. Completion of the MACCS Aviation Communication System Managers Course at MCCES satisfies the standard.

Instructor. BI, SI

Prerequisite. 2100, 2105, 2110, 2120, 2125, 2500, 2535, 2722, 2800, 2838, 2840, 2836, 3000, 3005, 3208, 3210, 3212

Reference. MCWP 5-1

OMGT-2804 2.0 (\*) B L

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Goal. State key sections of an operational order (OPORD).

Requirement. Given the reference and an OPORD, identify the following sections:

1. State the purpose and major sections of an OPORD.
2. State the purpose and content of the Annex K.
3. State the purpose and content of the OPTASKLINK.
4. State the purpose and content of the EKMS Callout.

Performance Standard. Without the aid of reference, describe the key components of an OPOD IAW the reference. This event can be satisfied by completing the MACCS Aviation Communication System Managers at MCCES.

Instructor. BI, SI

Prerequisite. 2100, 2105, 2110, 2120, 2125, 2500, 2535, 2722, 2800, 2838, 2840, 2836, 3000, 3005, 3208, 3210, 3212

Reference. MCWP 5-1

OMGT-2806 2.0 (365) B, R L

Goal. Determine required equipment to support a mission.

Requirement. Given a mission, create a list of equipment that supports all aspects and requirements of the mission, to include the following:

1. Major end items.
2. EKMS
3. TMDE.
4. Tools.
5. Utilities support equipment.
6. Supply support items.
7. Logistics/movement support items.
8. Personnel equipment.

Performance Standard. With the aid of reference, produce a list of equipment needed to support the mission by completing the requirement items; the instructor will confirm the list supports the mission.

Instructor. BI, SI

Prerequisite. 2100, 2105, 2110, 2120, 2125, 2500, 2535, 2722, 2800, 2838, 2840, 2836, 3000, 3005, 3208, 3210, 3212

Reference.

1. MCWP 3-25
2. TM 07736C-14/2-1,
3. TM 07751B-14/2,
4. SECNAVINST 5510.36,
5. EKMS-1

OMGT-2830 4.0 (1460) B,R L

Goal. Conduct a site survey

Requirement. Given a scenario, applicable references, a TO/E and mission statement, determine an appropriate site for system emplacement:

1. Utilize planning tools (EMPRO, FalconView, AMP, SPEED, etc.) 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 vehicles.
6. Identify the placement for antennas.
7. Determine communications obstacles.
8. Determine proper grounding system.
9. Identify power and fuel requirements.
10. Determine protection from the elements.
11. Determine Terrain 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 requirement items. The instructor will review/discuss the site layout and brief with the trainee to provide guidance as to content. The trainee will brief the instructor and maintenance officer and at minimum provide the reasoning for the below five items. Instructor will question the trainee during the brief to check for understanding of the site survey process and will mentor the trainee throughout.

1. Selection of the primary and secondary site.
2. Site limitations for each site (if any).
3. How each site will support mission requirements.
4. Determine a security plan.
5. Draw the site layout to support the scenario.

Instructor. BI, SI

Prerequisite. 2005, 2010, 2015, 2110, 2160, 2170, 2806, 2100, 2105, 2110, 2120, 2125, 2500, 2535, 2722, 2800, 2838, 2840, 2836, 3000, 3005, 3208, 3210, 3212

Reference

1. MCDP 6
2. MCWP 3-25.4
3. MCWP 5-1
4. TM-10576C-OI/1A - Communications Interface System (CIS) AN/MRQ-12(V)3 Operation and Maintenance Instructions
3. CDC DOC 762324 - Network Access Unit Equipment Description, Maintenance Instructions, and Illustrated Parts List.
4. CDC DOC 762325 - User Control Device Equipment Description, Maintenance Instructions, and Illustrated Parts List.
5. CDC DOC 762326A - Communication Distribution System (CDS) System Description and Overview
9. IEEE C95.1-1991
10. NAVSHIPS 0967-317-7010

11. TM 9406-15
12. DODINST 6055.11
13. BUMED 6470.23
14. OPNAVINST 5100.23 Series
15. NAVSEA OP 3565 / NAVAIR 16-1-529 / NAVELEX 0967-LP-624-6010 / Volume II
16. Navy Safety Center
17. MCO 5100.29A W/CH 1
18. MCO 5104.2
19. MCO 5104.3A

OMGT-2832 2.0 (365) B,R L

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Goal. Identify crew requirements and write a crew schedule.

Requirement. Given a T/O, the applicable T&Rs and a mission:

1. Determine the mission requirements.
2. Determine the duration of operations.
3. Determine totals crews required to support the mission.
4. Determine the crew composition/requirements.
5. Write the crew schedule
6. Submit the crew schedule to the instructor.
7. Describe the process to publish crew schedule once validated.

Performance Standard. With the aid of reference, determine crew requirements and write a crew schedule that supports the mission; ensure crewmembers have the training and experience necessary to support the mission. Submit the crew schedule to the instructor who will review and validate against CMMR. The trainee will then describe the process to publish the schedule.

Instructor. BI, SI

Prerequisite. 2100, 2105, 2110, 2120, 2125, 2500, 2535, 2722, 2800, 2838, 2840, 2836, 3000, 3005, 3208, 3210, 3212

Reference.

1. This T&R Manual.
2. MCWP 3-25

OMGT-2834 3.0 (\*) B L

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Goal. Determine supply support requirements.

Requirement. Given the reference and a specific mission:

1. Determine supply needs with consideration of the following:
  - a. Length of deployment
  - b. Location
  - c. Equipment
  - d. Daily operations
  - e. Climate
2. Identify float requirements and deficiencies.
3. Identify Intelligence Information, Command and Control Equipment and Enhancement (ICE2) requirements.
4. Identify bill of material (BOM) requirements.

Performance Standard. With the aid of reference, produce supply, float, BOM and ICE2 lists that support the given mission.

Instructor. BI, SI

Prerequisite. 2100, 2105, 2110, 2120, 2125, 2500, 2535, 2722, 2800, 2806, 2838, 2840, 2836, 3000, 3005, 3208, 3210, 3212

Reference. MCWP 3-25

OMGT-2836 1.5 (\*) B L

Goal. Develop an embarkation plan.

Requirement. Given the references and a specific mission:

1. State the purpose of an embarkation plan.
2. Produce an equipment density list (EDL) that lists the necessary equipment to support the specified mission.
3. Identify heavy equipment required to move EDL items.
4. Identify the modes of transportation required to move EDL items.

Performance Standard. With the aid of reference, complete the requirement items and develop an embarkation plan to support the mission.

Instructor. BI, SI

Prerequisite. 2100, 2105, 2110, 2120, 2125, 2500, 2535, 2722, 2800, 2806, 2838, 2840, 2836, 3000, 3005, 3208, 3210, 3212

Reference

1. MCWP 3-25
2. TM 10446B-OI SAAWF Operations and Maintenance Instructions
3. TM 10200A-OI/1 ADCP Maintenance Manual
4. TM 10498B-OD TAOM Operations Maintenance Manual

OMGT-2838 8.0 (1460) B , R L

Goal. Write a packing list and Equipment Density List (EDL).

Requirement. Given the references and a mission:

1. Define the purpose of a packing list.
2. Describe essential packing list contents.
3. Complete a packing list.
4. Define the purpose of an EDL.
5. Describe essential EDL contents.
6. Complete an EDL.

Performance Standard. With the aid of reference, write a packing list and an EDL and complete the requirement items.

Instructor. BI, SI

Prerequisite. 2100, 2105, 2110, 2120, 2125, 2500, 2535, 2722, 2800, 2806, 2838, 2840, 2836, 3000, 3005, 3208, 3210, 3212

Reference

1. MCRP 4-11.3G Unit Embarkation Handbook
2. Local SOP

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OMGT-2840 2.0 (1460) B,R (1) IOW L

Goal. Prepare IOW equipment for embarkation.

Requirement. Given an IOW, packing list and an Equipment Density List (EDL):

1. Conduct a Limited Technical Inspections (LTIs) on applicable equipment.
2. Conduct an SL-3 inventory on the equipment.

Performance Standard. With the aid of reference, prepare the equipment for embarkation by completing the requirement items.

Instructor. SI, MI

Prerequisite. 2100, 2105, 2110, 2120, 2125, 2500, 2535, 2722, 2800, 2838, 2840, 2836, 3000, 3005, 3208, 3210, 3212

Reference

1. MCRP 4-11.3G Unit Embarkation Handbook
2. Local SOP
3. Applicable Technical Manuals

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OMGT-2842 4.0 (1095) B,R L

Goal. Identify operational power requirements.

Requirement. Given a scenario, applicable technical manuals:

1. List all PEIs required to support the scenario.
2. Determine power requirements for each piece PEI.
3. Determine total power requirements to support all PEIs listed.
4. List the capabilities of organic generators:
  - a. MEP 803A.
  - b. MEP 805A/B.
  - c. MEP 806A/B.

Performance Standard. With the aid of reference, and without error, provide total operational power requirements for all equipment required to support the scenario.

Instructor. BI, SI

Prerequisite. 2010, 2100, 2105, 2110, 2120, 2125, 2500, 2535, 2722, 2800, 2838, 2840, 2836, 3000, 3005, 3208, 3210, 3212

Reference. Refer to equipment applicable TMs.

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OMGT-2844 1.0 (\*) B L





- (3) TAOC sections and crew composition (maintenance and operations)
  - c. Early Warning and Control (EWC)
    - (1) S3
    - (2) Communication Electronics Maintenance Officer
      - (a) Radar
      - (b) Tactical Data Systems (TDS)
    - (3) EW/C sections and crew composition (maintenance and operations)
  - d. Marine Air Traffic Control Detachments (MATCD) - Describe sections and crew composition (maintenance and operations) for each.
    - (1) Air Traffic Navigation, Integration, and Coordination Systems (ATNAVICS) MATCD
    - (2) Marine Air Traffic Control All-Weather Landing System (MATCAL) MATCD
    - (3) Tower/TACAN Detachment
    - (4) MATC Mobile Team (MMT)
3. Identify the major systems and subsystems and state the capabilities and limitations of each.
- a. AN/TPS-59 Long Range Radar
  - b. AN/TPS-63 Medium Range Radar
  - c. AN/TYQ-23 Tactical Air Operations Module (TAOM)
  - d. AN/MSQ-124 Air Defense Communication Platform (ADCP)
  - e. AN/TYQ-87 Sector Anti Air Warfare Facility (SAAWF)
  - f. AN/TSQ-239 V4 Combat Operations Center (COC)
  - g. AN/USC-55A
  - h. AN/TPN-31A Air Traffic Navigation, Integration, and Coordination Systems (ATNAVICS)
  - i. AN/TSQ-131 (CCS)
  - j. AN/TPN-73 Air Surveillance Radar (ASR)
  - k. AN/TPN-22 Precision Approach Radar (PAR)
  - l. AN/TSQ-120B Tower
  - m. AN/TRN-44A Tactical Air Navigation (TACAN)
  - n. AN/TSQ-216 Remote Landing Site Tower (RLST)
  - o. AN/TRN-47 Tactical Air Navigation (TACAN)

Performance Standard. With the aid of reference, complete each requirement item by stating the required information. Instructor may provide minor assistance.

Instructor. BI, SI

Prerequisite. 8004, 8005

Reference.

- 1. MCRP 5-12D
- 2. MCWP 3-25.6
- 3. MCWP 3-25.7
- 4. MCWP 3-25.8
- 5. Approved Core METL applicable to the unit
- 6. TM 10498B-OD TAOM Operations Maintenance Manual
- 7. UM 2005
- 8. TM 07736C
- 9. TM 07751B
- 10. TM 10200A-OI/1





2. Identify the organizational units (state the structure of each unit and the function of the sections within).
  - a. Headquarters sections
  - b. Communications Electronics
  - c. Direct Air Support Center (DASC) - describe sections and crew composition (maintenance and operations) for each.
  - d. DASC(Airborne) - describe sections and crew composition (maintenance and operations) for each
  - e. Air Support Element (ASE) - describe sections and crew composition (maintenance and operations) for each
  - f. Air Support Liaison Teams (ASLT) - describe crew composition.
3. Identify the major systems and subsystems and state the capabilities and limitations of each.
  - a. AN/MRQ-12 Communication Information System (CIS)
  - b. AN/MRC-148 Radio Sets
  - c. AN/MRC-145 Radio Sets
  - d. AN/UYQ-3B Direct Air Support Central Air Support System (DASCAS)
  - e. AN/TSQ-239 V2 Combat Operations Center (COC)

Performance Standard. With the aid of reference, complete each requirement item by verbally stating the required information correctly. Instructor may provide minor assistance.

Instructor. BI, SI

Prerequisiste. 8003

Reference

1. MCRP 5-12D
2. MCWP 3-25.5
3. Approved Core METL applicable to the unit

ORGS-2915 2.0 (\*) B L

Goal. Identify the mission, headquarter and TACC sections, and major systems of the Marine Tactical Air Command Squadron (MTACS).

Requirement. Given the references, state or identify the below listed requirement items:

1. State the squadron mission and concept of employment.
2. Identify the organizational units (state the structure of each unit and the function of the sections within.)
  - a. Headquarters Sections
  - b. TACC sections and crew structure (maintenance and operations)
3. Identify the major systems and subsystems and state the capabilities and limitations of each.
  - a. AN/MRQ-12 Communication Information System (CIS)
  - b. AN/TYY-2 Theat3er Battle Management Core Systems (TBMCS)
  - c. AN/TYQ-101A Communication Data Links System (CDLS)
  - d. AN/URC-107 (V)10 Joint Tactical Information Distribution System (JTIDS)
  - e. AN/USC-55A Commanders Tactical Terminal (CTT)

- f. Link Management System - Multi TDL (LMS-MT)
- g. Intelligence Operations Workstation (IOW)
- h. Intelligence Operations Server (IOS)
- i. Advance Field Artillery Tactical Data System (AFATDS)
- j. AN/TSQ-239 V2 Combat Operations Center (COC)
- k. Common Connectivity Device (CCD)
- l. Joint Automated Deep Operations Coordination System (JADOCS)

Performance Standard. With the aid of reference, complete each requirement item by verbally stating the required information correctly in writing or verbally. Instructor may provide minor assistance.

Instructor. BI, SI

Prerequisite. 8002

Reference

1. MCRP 5-12D
2. MCWP 3-25.4
3. Approved Core METL applicable to the unit

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ORGS-2920    2.0    (\*)    B    L

Goal. Identify the mission, organizational units, and major systems of the Low Altitude Air Defense Battalion (LAAD Bn).

Requirement. Given the references, state or identify the below listed requirement items:

1. State the mission and concept of employment.
  - a. Primary
  - b. Secondary
2. Identify the organizational units (state the structure of each unit and the function of the sections within).
  - a. Headquarters Services Battery
  - b. Firing Batteries
  - c. Firing Sections
3. Identify the major systems and subsystems and state the capabilities and limitations of each.
  - a. Man Portable Air Defense System (MANPADS)
  - b. AN/MRC-148 Radio Set
  - c. AN/MRC-145 Radio Set
  - d. AN/TSQ-239 V4 Combat Operations Center (COC)

Performance Standard. With the aid of reference, complete each requirement item by verbally stating the required information correctly. Instructor may provide minor assistance.

Instructor. BI, SI

Prerequisite. 8006

Reference

1. MCRP 5-12D

2. MCWP 3-25.10
3. MCWP 3-25.10a
4. Approved Core METL applicable to the unit.

ORGS-2925 2.0 (\*) B L

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Goal. Identify the mission, organizational units, and major systems of the VMU Squadron.

Requirement. Given the references, state or identify the below listed requirement items:

1. State the mission and concept of employment.
2. Identify the organizational units (state the structure of each unit and the function of the sections within).
  - a. Headquarters sections
  - b. Unmanned Aircraft Systems Detachments (UASD)
    - (1) Headquarters Detachment
    - (2) UAS Detachments A, B, C
    - (3) UAS sections and crew composition (maintenance and operations)
3. Identify the major systems and subsystems and state the capabilities and limitations of each.
  - a. AN/TSQ-239 V4 Combat Operations Center (COC)
  - b. Marine Corps Tactical Unmanned Aircraft System (Shadow, RQ-7B)

Performance Standard. With the aid of reference, complete each requirement item by verbally stating the required information correctly. Instructor may provide minor assistance.

Instructor. BI, SI

Prerequisite. 8007

Reference

1. MCRP 5-12D
2. MCWP 3-26
3. MCWP 3-42.1
4. Approved Core METL applicable to the unit

ORGS-2930 2.0 (\*) B L

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Goal. Identify the mission, organizational units, and major systems of the Marine Wing Communications Squadron (MWCS).

Requirement. Given the references, State or identify the below listed requirement items:

1. State the mission and concept of employment.
2. Identify the organizational units (state the structure of each unit and the function of the sections within)
  - a. Headquarters sections
  - b. Detachments A, B, C, sections and crew composition (maintenance and operations)
3. Identify the major systems and subsystems and state the capabilities and limitations of each.

- a. Lightweight Multi-Band Satellite Terminal (LMST)
- b. MRC-148
- c. MRC-145
- d. MRC-142
- e. Very-small-aperture terminal (VSAT)
- f. Phoenix
- g. Transition Switch Module (TSM)
- h. Data Distribution System-Replacement (DDS-R)
- i. deployable technical control (DTC)
- j. Tactical Data Network (TDN) Gateway
- k. AN/TRC-170
- l. AN/TSQ-239 V4 Combat Operations Center (COC)

Performance Standard. With the aid of reference, complete each requirement item by verbally stating the required information correctly. Instructor may provide minor assistance.

Instructor. BI, SI

Prerequisite. 8008

Reference

1. MCRP 5-12D
2. Approved Core METL applicable to the unit

ORGS-2935 2.0 (\*) B L

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Goal. Identify the mission and support provided by the Marine Wing Support Squadron (MWSS).

Requirement. Given the references, State or identify the below listed requirement items:

1. State the mission and concept of employment.
2. Identify the functional support areas
  - a. Weather Services
  - b. EAF Services
  - c. Refueling
  - d. Explosive Ordnance Disposal
  - e. Essential Engineer Services
  - f. Motor Transport
  - g. Field Mess Facilities
  - h. Sick-Call and Aviation Medical Functions
  - i. Nuclear Biological and Chemical Defense
  - j. Security and Law Enforcement Services
  - k. Internal airfield communication
  - l. Airbase Commandant functions

Performance Standard. With the aid of reference, complete each requirement item by verbally stating the required information correctly. Instructor may provide minor assistance.

Instructor. BI, SI

Prerequisite. 8028

Reference

1. MCRP 5-12D
2. Approved Core METL applicable to the unit

ORGS-2940 2.0 (\*) B L

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Goal. Identify the maintenance and service support sections within the Marine Logistics Group (MLG).

Requirement. Identify the following:

1. Maintenance Support
  - a. Repairable Issue Point (RIP)
  - b. Electronics Maintenance Company (ELMACO)
2. Service Support
  - a. Integrated Personnel Administrative Center (IPAC)
  - b. Sustenance
  - c. Medical/Dental
3. State the process to obtain their services.

Performance Standard. With the aid of reference, complete the requirement items by verbally stating the required information correctly. Instructor may provide minor assistance.

Instructor. BI, SI

Prerequisite. None

Reference

1. MCDP 6
2. MCWP 3-25.3
3. MCWP 3-25.4
4. MCWP 3-25.5
5. MCWP 3-25.6
6. MCWP 3-25.7
7. MCWP 3-25.8
8. MCWP 3-25.10
9. MCWP 5-1

ORGS-2945 2.0 (\*) B L

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Goal. Identify the mission of Higher Headquarters and supporting establishments.

Requirement. Given the reference, identify the mission, organizational structure and location of each of the following:

1. Higher Headquarters
  - a. Marine Air Control Group (MACG)
  - b. Marine Air Group (MAG)
  - d. Marine Aircraft Wing (MAW)
  - e. Marine Expeditionary Forces (MEF)
  - f. Marine Corps Installations (East and West)
  - g. Marine Forces (MARFORCOM, MARFORPAC, MARFORRES)
  - h. Headquarters Marine Corps (APX)
2. Supporting Establishments: Explain how each organization supports the MACCS:

- a. Marine Corps Systems Command (MARCORSYSCOM)
  - (1) Marine Corps Tactical Systems Support Activity (MCTSSA)
  - (2) Program Group 09 - Operational Forces Systems (OFS)
  - (3) Program Group 11 - MAGTF C2, Weapons and Sensors Development and Integration (MC2I)
  - (4) Program (PEO) Land Systems
  - (5) Vendor support for commercial off-the-shelf (COTS) equipment.
- b. Marine Corps Combat Development Command (MCCDC)
- c. Training and Education Command (TECOM)
  - (1) Aviation Training Branch (ATB)
  - (2) Marine Corps Communication Electronics School (MCCES)
  - (3) Marine Aviation Training Support Group (MATSG) 21)
- d. Aviation Program Expeditionary Enablers (APX)
- e. Marine Corps Logistics Command (MARCORLOGCOM)
- f. Naval Air Systems Command (NAVAIR) PMA-213 / 205
  - (1) Space and Naval Warfare Systems Command (SPAWARS)
  - (2) Naval Air Warfare Center Aircraft Division (NAWC-AD)
- g. Logistics Command
  - (1) MCLB Barstow Maintenance Center
  - (2) MCLB Albany item managers
  - (3) Repairable Issue Point (RIP)

Performance Standard. Without the aid of reference, pass a written exam with a minimum of 80% accuracy.

Instructor. BI, SI

Prerequisite. 8063

Reference. MCWP 3-40.1 MAGTF C2

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ORGS-2950 4.0 (1460) B,R L

Goal. Draw an Overview (OV) chart of the MACCS concept of employment.

Requirement. Given the references, draw an OV chart depicting how a notional MACCS could be employed. Include all the MACCS agencies and how they are employed in the battle area to include:

- 1. Major Systems
- 2. Agencies. Include a depiction of how MWSS supports the MACCS
- 3. Interoperability and lines of communications
  - (a) Data links (TDL)
  - (b) Voice comm
  - (c) Data comm
  - (d) Networks
- 4. Submit the OV chart to the instructor for review.
- 5. Develop and submit a brief on the OV chart.

Performance Standard. With the aid of reference, draw the OV chart and submit it to the instructor who will review for correctness. Explain the OV chart in detail to the instructor and the maintenance chief/maintenance officer. The instructor will ensure the brief and the OV chart covers all MACCS agencies and major

systems (to include UAS, MWCS, and how MWSS supports).  
Communications architecture should be IAW the reference.

Instructor. BI, SI

Prerequisite. 8000, 8028, 8063, 2900, 2905, 2910, 2915, 2920,  
2925, 2930, 2935, 2945

Reference.

1. MCWP 3-2
2. MCWP 3-25.4

## 2.10 MISSION SKILL TRAINING (3000)

2.10.1 Purpose. To develop mission skill proficiency personnel to be able to perform their assigned duties under general or minimal supervision while directly supporting the unit mission essential tasks. At the completion of all required training in this phase, the trainee will be eligible for qualification or designation, as applicable.

(1) Basic Technicians will gain mission skill proficiency in basic radio operations and maintenance, and communications systems operations and maintenance. They will be able to perform their duties under general supervision.

(2) Advance Technicians will gain mission skill proficiency in advance radio operations and maintenance, communications systems operations and maintenance, and SATCOM operations.

(3) Crew Chiefs will gain mission skill proficiency in radio operations, communications systems operations and maintenance, SATCOM operations, and maintenance management.

(4) Maintenance Chiefs will gain mission skill proficiency in radio operations and maintenance, communications systems operations and maintenance, SATCOM operations, and maintenance management.

### 2.10.2 General.

2.10.2.1 Prerequisiste. Complete all core skill events for the position being trained.

### 2.10.2.2 Admin Notes.

(1) Training in this phase does not preclude simultaneous training in the core plus phase.

2.10.2.3 Stages. The following stages are included in the Mission Skill Phase of training.

PAR NO.	STAGE NAME
2.10.3	DEPLOYMENT (DEPL)
2.10.4	MAINTENANCE MANAGEMENT (MMGT)

2.10.5	OPERATIONS MANAGEMENT (OMGT)
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2.10.3 DEPLOYMENT (DEPL) STAGE

2.10.3.1 Purpose. To teach the trainee to identify communication assets required to support the C2 mission and arrange for consumable supply support; and the characteristics of unit specific shelters, their emplacement and cabling.

2.10.3.2 General

Prerequisite. NONE.

Admin Notes. NONE.

Crew Requirements. NONE.

DEPL-3000 4.0 (730) B,R 2-AN/MRQ-12 or 1-AN/MRQ-12 & 1 Stand Alone L

Goal. Set-up the communications systems within the TACC.

Requirement. Given required communications system(s) and a core capable crew:

1. Emplace the communications system(s)
2. Safely ground equipment.
3. Test the grounds.
4. Erect and cable antennas.
5. Ensure power is connected to the shelter.
6. Apply power.
  - a. Verify inputs and phases.
  - b. Hook up NATO slave cable.
  - c. Power up shelter and all ancillary equipment in proper sequence.
7. Perform system check.

Performance Standard. With the aid of reference, set up the system for operation and perform system check. When completed, grounds are less than 10 ohms, VSWR in antenna cables are less than 1.2:1, and all equipment in shelter are powered up with no faults.

Instructor. SI, WTI

Prerequisite. 2000, 2005, 2010, 2015, 2100, 2105, 2110, 2120, 2125, 2800

External Syllabus Support. Utilities mechanic to properly connect and power up required generator.

Reference

1. TM-10576C-OI/1A - Communications Interface System (CIS) AN/MRQ-12(V)3 Operation and Maintenance Instructions
2. CDC DOC 762324 - Network Access Unit Equipment Description, Maintenance Instructions, and Illustrated Parts List.

3. CDC DOC 762325 - User Control Device Equipment Description, Maintenance Instructions, and Illustrated Parts List.
4. CDC DOC 762326A - Communication Distribution System (CDS) System Description and Overview
5. RT-1694D(P)(C)/U (AN/VRC 104) TM 10822A-IN
6. AN/VRC-103(V)1 Veh Radio Comm TM 11255A-OR/1
7. AN/PRC-117F(V)(C) Radio Operation Manual (AN/VRC-103)
8. AN/PRC-152 Multiband Handheld Radio (AN/VRC-110) Digital

DEPL-3005 8.0 (730) B,R 2-AN/MRQ-12 or 1-AN/MRQ-12 & 1 Stand Alone 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. With the aid of reference, complete the requirement items. Instructor shall verify the LTI documentation was completed and the equipment was packed and labeled correctly.

Prerequisite. 2405, 2535, 2838, 2840

Instructor. SI, WTI

Reference

1. MCO 3120.6 (Standard Embarkation Management System)
2. TM-10576C-OI/1A - Communications Interface System (CIS)  
AN/MRQ-12(V)3 Operation and Maintenance Instructions

DEPL-3010 8.0 (730) B,R L

Goal. Deploy a maintenance section in support of unit operations.

Requirement. Given a scenario or operational deployment and commanders guidance, deploy the maintenance section:

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. Supervise pack-up of equipment and validate EDL accuracy.
6. Ensure correct execution of the load plan for equipment handling and safety.

Performance Standard. With the aid of reference, plan and submit EDL, BOM, CLD requirements for maintenance section deployment. Perform the embarkation of the maintenance section in support of a training exercise or operational deployment.

Note: This event can be completed in garrison, however equipment must be physically moved for the trainee to be able to ensure the execution of the load plan.

Prerequisite. 2405, 2535, 2806, 2838, 2840, 3005

Instructor. SI, WTI

Reference

1. MCO 3120.6
2. Applicable TMs/UMs

2.10.4 MAINTENANCE MANAGEMENT (MMGT) STAGE

2.10.4.1 Purpose. To teach the trainee how to manage a maintenance section.

2.10.4.2 General

Prerequisite. NONE.

Admin Notes. NONE.

Crew Requirements. NONE.

MMGT-3100 2.0 (\*) B L

Goal. Verify the corrective maintenance repair process is being conducted.

Requirement. Ensure timely performance of all corrective maintenance actions per the references.

1. Verify the induction process:
  - a. Confirm SL-3 accountability.
  - b. Verify visual inspection occurs.
  - c. Verify record jacket.
  - d. Verify proper organizational PM.
2. Ensure correctness of ERO and NAVMC 1018.
3. Determine availability of resources.
4. Verify proper troubleshooting of faulty item.
5. Verify repair parts are ordered and EROSL is completed.
6. Verify faulty item is repaired to code A status.
7. Verify safety measures are adhered to during repair process.
8. Conduct quality control procedures:
  - a. Review quality control procedures
  - b. Verify quality control inspectors based on individual qualifications on equipment are assigned in writing.
9. Verification of SI and TI.
10. Verify proper closeout of ERO.

11. Verify equipment record jacket is updated.

Performance Standard. With the aid of reference, complete the requirement items without error. The instructor should ask questions during the training session to check for understanding of the CM process.

Instructor. SI, WTI

Prerequisite. 2708

Reference

1. MCO P4790.2C
2. TM-4700-15/1\_
3. UM-4790.5
4. MCO P4400.16G
5. MCBUL 3000
6. Applicable end item TM

MMGT-3105 2.0 (1095) B, R L

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Goal. Validate the float assets.

Requirement. Given a practical application scenario, applicable maintenance and supply history documents:

1. Review documentation given and provide recommendations for organizational Critical Low Density Float assets and required on-hand quantities.
2. Conduct a float re-computation.
3. Submit float re-computation to the instructor for validation.

Performance Standard. With the aid of reference, complete the requirement items. Instructor will review and validate the re-computation and provide feedback to the trainee.

Instructor. SI, WTI

Prerequisite. 2712

Reference

1. MCO 4790.2\_
2. MCO P4400.150\_
3. FEDLOG

MMGT-3110 3.0 (\*) B L

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Goal. Assess maintenance funding requirements.

Requirement. Given a scenario, equipment maintenance history 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(s) utilization.
3. Provide an anticipated maintenance funding request based on

the unit's TEEP.

4. Submit a budget request with justification to the instructor.

Performance Standard. With the aid of reference, complete the requirement items. Instructor shall ensure the budget request and justification submitted supports the scenario.

Instructor. SI, WTI

Prerequisite. 2714

Reference

1. MCO P4400.150\_
2. MCO P7100.8\_\_

#### 2.10.5 OPERATIONS MANAGEMENT (OMGT) STAGE

2.10.5.1 Purpose. To teach the trainee how to prepare for, deploy and employ a maintenance section of personnel and required equipment. This stage emphasizes the effective use of logistics, manpower and equipment capabilities.

#### 2.10.5.2 General

Prerequisite. NONE.

Admin Notes. NONE.

Crew Requirements. NONE.

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OMGT-3200	2.0	(730)	B,R	L
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Goal. Develop a communications plan to support an OPLAN.

Requirement. Given an OPLAN and command guidance, determine communications requirements to support the OPLAN.

1. Identify mission requirements.
3. Determine the communications requirement to support the mission.
2. Determine mission essential equipment.
4. Identify maintenance personnel required to support mission requirements.

Performance Standard. With the aid of reference, develop a communications plan that includes all requirement items and supports the OPLAN and command guidance. Instructor shall review the comm. plan, ensure its accuracy, and provide the trainee feedback.

Instructor. SI, WTI

Prerequisite. 2000, 2005, 2010, 2015, 2800, 2802

Reference. MCWP 3-40.3 - Communications and Information Systems

OMGT-3202 1.0 B,R (730) 2-AN/MRQ-12 or 1-AN/MRQ-12 & 1 Stand Alone L

Goal. Verify communications with external agencies.

Requirement. Given a system that has been setup, verify communications with external agencies:

1. Analyze guard chart.
2. Identify NET priority.
3. Control sequence of radio checks:
  - a. Perform radio checks in priority sequence.
  - b. Roll to next NET if faults are found.
  - c. Pass control of operational NETs to TACC Crew Chief.
  - d. Troubleshoot faulty NETs after completion of sequence.

Performance Standard. Without the aid of reference, verify communications and ensure radio NETs come up by priority and faulty NETs are identified for troubleshooting.

Instructor. SI, WTI

Prerequisite. 2130, 2135, 2140

Reference

1. TM-10576C-OI/1A - Communications Interface System (CIS) AN/MRQ-12(V)3 Operation and Maintenance Instructions
2. CDC DOC 762324 - Network Access Unit Equipment Description, Maintenance Instructions, and Illustrated Parts List.
3. CDC DOC 762325 - User Control Device Equipment Description, Maintenance Instructions, and Illustrated Parts List.
4. CDC DOC 762326A - Communication Distribution System (CDS) System Description and Overview
5. RT-1694D(P)(C)/U (AN/VRC 104) TM 10822A-IN
6. AN/VRC-103(V)1 Veh Radio Comm TM 11255A-OR/1
7. AN/PRC-117F(V)(C) Radio Operation Manual (AN/VRC-103)
8. AN/PRC-152 Multiband Handheld Radio (AN/VRC-110) Digital

OMGT-3204 1.0 (730) B,R L

Goal. Verify COMSEC handling procedures.

Requirement. Given a scenario, and EKMS materials, ensure proper COMSEC handling procedures:

1. Verify the procedures for storage, transportation, and handling of COMSEC materials.
2. Verify appropriate keying materials.
3. Ensure proper loading of keying materials.
4. Ensure proper destruction of keying materials:
  - a. Destroy keying materials on time.
  - b. Properly record destruction.

Performance Standard. Without the aid of reference, ensure proper handling of keying materials and devices to ensure no EKMS Practices Dangerous to Security (PDS) or incidents.

Instructor. SI, WTI

Prerequisite. 2600, 2605, 2610, 2615, 2620

Reference

1. EKMS-1A
2. SECNAVINST 5510.36\_

OMGT-3206 40.0 (730) B,R L

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Goal. Identify Operational Requirements.

Requirement. Given an OPORD, determine the operational requirement of the maintenance section to support the mission, to include:

1. Communication electronics equipment required.
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 Clearance
4. Cryptographic equipment required.
5. Logistics support required.
6. Supply support required.
  - a. Bill of Material (BOM) requirements.
  - b. Float 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. With the aid of reference, complete the requirements items.

1. Instructor will review the site layout and provide feedback to the trainee.
2. Trainee will adjust the brief to reflect the feedback
3. Trainee will brief the instructor and maintenance officer.
4. Instructor will question the trainee during the brief to

check for understanding of the planning process.

Instructor. SI, WTI

Prerequisite. 2804, 2806, 2832

Reference

1. Planning MCWP 5-1
2. MOS Manual
3. TM 2000
4. MCWP 3-40.3
5. CJCSM 6231
6. JT PUB Series 6-05
7. Chapter 1 of this Manual

OMGT-3208 5.0 (365) B, R L

Goal. Perform in a Chemical Biological Radiological Nuclear (CBRN) environment.

Requirement. Perform daily assigned maintenance duties while in a simulated CBRN environment.

1. Begin in MOPP-0 and graduate to MOPP-IV over a four hours period.
2. Plan personnel rotations while in MOPP gear.

Performance Standard. Without the aid of reference, complete the requirement items IAW the reference for a period of four hours. The instructor may provide minimal guidance. ORM and safety precautions shall be adhered to.

Instructor. SI, WTI

Prerequisite. Complete annual mask confidence course.

External Syllabus Support. MOPP gear

Reference.

1. FM 11-1 NBC Operations
2. MCO P3440.4G

OMGT-3210 2.0 (1460) B,R L

Goal. Understand basic operations of the maintenance section.

Requirement. During an guided discussion, address the following:

1. State the mission of the squadron.
2. State how the maintenance section supports the squadron mission.
3. State the purpose of each functional area within the maintenance section.
4. State the BT's role and responsibilities within the maintenance section.
5. State the purpose and function of each PEI and associated ancillary equipment within the maintenance section.

6. State the purpose of preventive and corrective maintenance.
7. List the different maintenance schedules.
8. State the communications security processes and requirements, to include:
  - a. List COMSEC equipment
    - (1) Loader (section specific)
    - (2) Organic crypto equipment (section specific)
  - b. State the office responsible for managing COMSEC equipment
  - c. Explain the COMSEC checkout and turn-in procedures
9. Explain the purpose of MIMMS
10. Explain the following maintenance procedures, to include:
  - a. Initial identification of a fault
  - b. Induct the item into the maintenance system
  - c. Receive, install and OPCHECK the new item
  - d. List the required documentation
11. State the purpose of the shop's safety board and identify the each item and what their use is.
12. State the purpose of a Material Safety Data Sheet (MSDS) and where they are located within the shop.
13. State the procedures that would be used for an electrical shock victim.

Performance Standard. Without the aid of reference, complete the requirement items. Instructor will question and mentor the trainee throughout the discussion to ensure an understanding of the items.

Instructor. SI, WTI

Prerequisite. 2500, 2722

Reference

1. MCO P4790.2\_

OMGT-3212 2.0 (1460) B,R L

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Goal. Understand basic deployment considerations for the maintenance section.

Requirement. During a guided discussion, address the following:

1. Predeployment considerations:
  - a. State the purpose of a packing list and content
  - b. State the purpose the Bill of Materials (BOM) and content
  - c. State the purpose of a float list and content
  - d. List the support equipment required for each PEI
  - e. List the MIMMS forms needed during deployment, their purpose and content
  - f. List the publications required
  - g. List communications requirements for each PEI
    - (1) Frequencies
    - (2) Bandwidth required
  - h. List the power requirements for each PEI
  - i. List the ECUs required to support each PEI
2. Embarkation considerations

- a. State specifications of each PEI and ancillary equipment
  - b. State transport required to move each end item:
    - (1) Person
    - (2) MHE
    - (3) Air
    - (4) Ground
    - (5) Ship
  - c. State safety consideration for movement of each PEI
  - d. State proper labeling of each item
  - e. Staging of equipment for embark
3. Setup considerations
- a. Equipment placement location
  - b. Grounding
  - c. Power and fuel sources
  - d. Obstructions (natural or manmade)
  - e. Sequence of equipment setup
  - f. Sequence of turning on equipment
4. Sustain Operations considerations
- a. Requirement for PMCS
  - b. State the purpose of a refueling schedule
  - c. State the periodic checks required
  - d. Environmental considerations to include HAZMAT containment, spillage prevention, and disposal
5. Retrograde considerations
- a. Prioritize sequence of equipment turn off and teardown
  - b. Review packing list
  - c. Stage the equipment for embark
  - d. Identify the required transport for retrograde
  - e. Turn-in temp loaned equipment
  - f. HAZMAT disposal
  - g. Clean up and restore area

Performance Standard. Without the aid of reference, complete the requirement items. The instructor will question and mentor the trainee throughout the discussion to ensure an understanding of each consideration.

Instructor. SI, WTI

Prerequisite. 2535, 2836

Reference

1. MCO P4790.2\_
2. Local SOP

OMGT-3214 3.0 (1460) B,R L

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Goal. Understand advance operations of the maintenance section.

Requirement. During a guided discussion address the following:

1. State the community core METs and output standards for each.
2. State the implied maintenance tasks for each MET.
3. Identify the different sections within the squadron and state their function:
  - a. "S" sections
  - b. Supply

- c. MMO
  - d. Motor Transport
  - e. Utilities .
  - f. EKMS
  - g. CMMC
  - h. Squadron Detachments and their sections
4. Discuss directives governing inspection of functional areas, at a minimum:
    - a. MCO 4700.
    - b. MCO 4790.2
    - c. Unit SOP
  5. State the AT's role and responsibilities within the maintenance section.
  6. State those PEIs within the squadron that function as an integrated system
  7. State the importance of writing and adhering to the different maintenance schedules according to NAVMC 10561.
  8. Explain how different environments/operational commitments can impact the maintenance schedules.
  9. Explain the methods used to secure COMSEC items during operations.
  10. Explain the process from induction to disposal of PEIs.
  11. Identify the key sections in an OPLAN that provide mission requirements.
  12. Identify the different external agencies the squadron normally interconnects with during an operation/exercise.

Performance Standard. Without the aid of reference, complete the requirement items. Instructor will question and mentor the trainee throughout the discussion to ensure an understanding of each item.

Instructor. SI, WTI

Prerequisite. 2100, 2105, 2110, 2120, 2125, 2500, 2535, 2722, 2800, 2838, 2840, 2836, 3000, 3005, 3208, 3210, 3212

Reference.

- 1.
- 2.
- 3.

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OMGT 3216 3.0 (1460) B,R L

Goal. Understand advance deployment considerations for the maintenance section.

Requirement. Given a mission by the instructor, during a guided discussion, address the following:

1. List the essential information needed to begin planning to deploy the section.
2. State the purpose and key elements of a site survey.
  - a. Primary and alternate site determinants
  - b. Tactical orientation of site
  - c. Emplacement of equipment, to include

- d. Existing resources on site
3. Equipment considerations:
  - a. State the PEI in an EDL and ancillary equipment required to support the mission.
  - b. Determining power and fuel requirements.
  - c. List communications requirements (frequency and bandwidth).
  - d. List the key equipment publications for each PEI.
  - e. List the software required for each PEI as applicable.
  - f. State the secondary repairables that would be required on a float list, and factors that may impact the list.
  - g. State the process for writing a packing list.
  - h. State the process for writing Bill of Materials (BOM).
  - i. State the MIMMS processes.
4. Architecture considerations:
  - a. Communications
  - b. Data
5. Embarkation considerations for PEIs:
  - a. State capabilities and limitations of each PEI.
  - b. State the different transport configurations.
  - c. State special considerations for PEI transportation.
  - d. State safety consideration for embarkation.
  - e. Explain the purpose of pre-staging equipment:
    - a. Squadron section involved
    - b. Maintenance section role in the process.
6. Equipment Setup considerations:
  - a. Determine site area capabilities and limitations
    - (1) Access
    - (2) Obstructions
    - (3) Survivability
    - (4) Existing support and resources available
    - (5) Equipment security
  - b. Establish sequence of equipment setup.
  - c. State the reason there is a sequence for energizing and de-energizing equipment.
7. Sustain Operations considerations
  - a. Schedule for PMCS.
  - b. Adequate refueling schedule.
  - c. Environmental considerations to include HAZMAT containment, spillage prevention, and disposal procedures.
8. Retrograde considerations
  - a. Establish sequence of equipment turn off and teardown.
  - b. Develop a staging plan for retrograde.
  - c. Identify transportation requirements.
9. Personnel considerations
  - a. Required T&R skill sets.
  - b. Crew composition and total crews.
  - c. State factors that make a personnel non-deployable.
  - d. Transportation arrangements

Performance Standard. Without the aid of reference, complete the requirement items. The instructor will question and mentor the trainee throughout the discussion to ensure an understanding of each consideration.

Instructor. SI, WTI

Prerequisite. 2100, 2105, 2110, 2120, 2125, 2500, 2535, 2722, 2800, 2838, 2840, 2836, 3000, 3005, 3208, 3210, 3212

Reference.

1.

OMGT-3218 4.0 (1460) B,R L

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Goal. Understand how to manage a maintenance section.

Requirement. During guided discussions, address the following:

1. List operational units and supporting establishments and their missions:
  - (a) MACG and subordinate squadrons
  - (b) Higher Headquarters up to HQMC
  - (c) Supporting establishments
2. List the external agencies (including Joint agencies) that traditionally integrate/communicate with the squadron during operations
3. List the PEIs for each MACCS agency and state the purpose, capabilities and limitations of each.
4. State those PEIs within each agency that function as an integrated system
5. State the community core METs and output standards for each.
6. State the implied maintenance tasks for each MET.
7. Explain the methods used to secure COMSEC items during operations.
8. Describe the architectures for:
  - (a) MACCS Integration
  - (b) Communications
  - (c) Data
9. List the doctrinal publications and key documents essential to determining mission and T&R requirements
  - (a) MCWP
  - (b) Concept of Employment
  - (c) OPLANs
  - (d) Annex K
  - (e) TEEP
  - (f) Community T&R Manual
10. For each publication and document listed above:
  - (a) State the purpose
  - (b) State the general content
  - (c) State what pertinent information each provides
11. Describe the equipment reconciliation process
  - (a) LM2
  - (b) Daily Process Report (DPR)
  - (c) Daily Transaction Lists (DTL)
  - (d) Exceptions Report
12. Describe the float process
13. Describe the MIMMS process
14. Describe the QA process
15. Describe the process to change unit T/O and equipment allocation, to include:
  - (a) Purpose of a TOECR

- (b) TOECR submission process and forms required
- (c) System used to process (TFSMS).
- (d) Reasons a TOECR would be submitted
- 16. Describe the UNS and UUNS process
- 17. Describe the frequency request process and timelines
- 18. Funding Lines
  - (a) O&EM
  - (b) Plan and Estimate (PE)
  - (c) Requisitions Authority (RA)
  - (d) MILCON
- 19. Identify and describe major milestones in the deployment planning process from mission through retrograde
- 20. List and explain the major deployment milestones and their importance, to include:
  - (a) Predeployment
  - (b) Deployment
  - (c) Retrograde
- 21. Explain how a new equipment item is acquired by the Marine Corps and how each step impacts the maintenance section:
  - (a) Identifying the requirement
  - (b) Appropriating
  - (c) Fielding
  - (d) Induction
  - (e) Disposal
  - (f) Sundown

Performance Standard. Complete the requirement items IAW the reference. Instructor will question and mentor the trainee throughout the discussion to ensure an understanding of each item.

Instructor. SI, WTI

Prerequisite. 2100, 2105, 2110, 2120, 2125, 2500, 2532, 2620, 2722, 2800, 2804, 2806, 2832, 2836, 3204, 3206, 3208, 3210, 3212, 3214, 3216

Reference.

- 1.
- 2.

## 2.11 CORE PLUS SKILL TRAINING (4000)

### 2.11.1 Purpose.

(1) The MTACS does not have the requirement for core plus skills. Core plus training in this syllabus allows for the cross training of 5900 maintenance technicians.

(2) The nature of the 5939 community is such that its members can be assigned to several MACCS agencies to include the DASC, TAOC and MTACS. Each agency has a different communications requirements, some with more depth than others. Realizing this fact, this phase provides for cross training with 5900 communications sections in other agencies on how to perform preventive maintenance checks and services (PMCS) and configure DASC, TAOC and DASC(A) communications equipment.

(3) Commanders are encouraged support and create opportunities for core plus training delineated in this phase.

2.11.2 General.

2.11.2.1 Prerequisiste. 2000, 2005, 2010, 2015, 2100, 2105, 2110, 2120, 2125, 2405, 2500, 2535, 2722, 2800, 2838, 2840, 3000, 3005, 3208, 3210, 3212, 6100

2.11.2.2 Admin Notes.

(1) Training in this phase does not preclude simultaneous training in Core or Mission Skill phases.

2.11.2.3 Stages. The following stages are included in the Mission Skill Phase of training.

PAR.NO.	STAGE NAME
2.11.3	DIRECT AIR SUPPORT CENTER (DASC)
2.11.4	TACTICAL AIR OPERATIONS CENTER (TAOC)
2.11.5	AIRBORNE COMMAND AND CONTROL (ABNC2)

2.11.3 DIRECT AIR SUPPORT CENTER (DASC) STAGE

2.11.3.1 Purpose. To teach the trainee how to conduct PMCS on an AN/GRC-242.

2.11.3.2 General

Prerequisite.

Admin Notes. NONE.

Crew Requirements. NONE.

DASC-4100 2.0 (1460) B,R (1) AN/GRC 242 L

Goal. Conduct preventive maintenance checks and services (PMCS) on AN/GRC 242.

Requirement. Given the AN/GRC 242, cleaning gear and PPE, conduct PMCS IAW Technical Manual.

Performance Standard. With the aid of reference, conduct the PMCS.

Instructor. SI, WTI

Prerequisite. NONE

Reference

1. Receiver Radio R-2420/URC
2. TYQ-24(V) (AN/GRC-242) TM 08565A-12/31
3. Exciter Unit TYQ-23 (AN/GRC-242) TM 08565A-12/32V1
4. Amplifier TYQ-23(V) (AN/GRC-242) TM 08565A-12/33
5. Power Supply TYQ-23(V) (AN/GRC-242) TM 08565A-12/34

2.11.4 TACTICAL AIR OPERATIONS CENTER (TAOC) STAGE

2.11.4.1 Purpose. To teach the trainee how to configure communications equipment specific to the TAOC.

2.11.4.2 General

Prerequisite.

Admin Notes. NONE.

Crew Requirements. NONE.

TAOC-4200 2.0 (1460) B,R (1) AN/MSQ-124 L

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Goal. Conduct PMCS on an ADCP communications system.

Requirement. Given an ADCP communications system, cleaning gear and PPE, conduct PMCS IAW TM.

Performance Standard. With the aid of reference, conduct the PMCS. Instructor will ensure the PMCS was conducted IAW the reference.

Instructor. BI, SI

Prerequisite. NONE.

Reference. Applicable communications system TM(s).

TAOC-4205 70.0 (1460) B,R L

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Goal. Configure Tactical Data Link in Aviation Command and Control Systems.

Requirement. Given the references and equipment required to establish TADIL connections

1. Identify the characteristics of TADIL-B.
2. Identify the characteristics of TADIL-A.
3. Identify the characteristics of TADIL-J.
4. Establish connections and settings required for a TADIL-B link.
5. Encrypt a TADIL-B circuit.
6. Make necessary data base entries to establish TADIL-B.
7. Ensure the TADIL-B circuit is operational.
8. Establish connections and settings required for TADIL-A.
9. Encrypt a TADIL-A circuit.

10. Make necessary data base entries to establish TADIL-A.
11. Ensure the TADIL-A circuit is operational.
12. Establish connections and settings to establish TADIL-J.
13. Encrypt a TADIL-J circuit.
14. Make necessary data base entries to establish TADIL-J.
15. Ensure TADIL-J circuit is operational.

Performance Standard. With the aid of reference, complete the requirement items. Instructor will ensure all TADILs are operational and all necessary adjustments are made. Completion of the Aviation Communication System Managers Course at MCCES satisfies this standard.

Instructor. BI, SI

Reference

1. Understanding Link-16 NG 135-02-002,
2. ADCP ECP #1 TM 10200A-14&P
3. ADCP Software User's Manual TSB-ADCP-SUM
4. Understanding TADIL: Planning and Operations LGN 135-02-003
5. Operations Manual TM 08565B 10/1
6. Digital Communication Equipment TM 08565B 24/3
7. Understanding Link-11 LGN 08-0117

TAOC-4210 37.0 (1460) B,R L

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Goal. Configure the Aviation Command and Control Systems data communications network equipment.

Requirement. Given the references and required equipment:

1. Select the statement that describes the Transmission Control Protocol / Internet Protocol (TCP/IP).
2. Select statement that describes function of a TCP/IP layer.
3. Select the statement that describes a network device.
4. Select the statement that describes a protocol.
5. Select the statement that defines a port.
6. Select the statement that defines a socket.
7. Select statement that describes function of a protocol.
8. Select the statement that describes a site diagram.
9. Select the statement that describes the client/server network architecture.
10. Select statement that describes a function of server type.
11. Select statement that defines a Local Area Network (LAN).
12. Select the statement that describes a network topology.
13. Select statement that defines a Wide Area Network (WAN).
14. Select statement that describes purpose of a console cable.
15. Select the statement that describes a functional description of a network cable.
16. Given required tools and cables, create a straight-through category 5e (CAT-5e) cable.
17. Given required tools and cables, create a crossover CAT-5e cable.
18. Select the statement that describes a function of a Network Interface Card (NIC).
19. Select the statement that describes a function of a switch.

20. Select statement that describes purpose of a MAC address.
21. Select statement that describes function of switched Ethernet.
22. Select the statement that describes an Internet Protocol Version 4 (IPV4) address.
23. Select the statement that describes an IPV4 address class.
24. Select statement that describes an IPV4 private network.
25. Select statement that describes an IPV4 loopback address.
26. Select statement that describes an IPV4 network address.
27. Select statement that describes an IPV4 broadcast address.
28. Select the statement that describes the purpose of routing.
29. Select the statement that describes a function of a router.
30. Select statement that describes function of a static route.
31. Select statement that describes function of a dynamic route.
32. Select the statement that describes a function of Enhanced Interior Gateway Routing Protocol (EIGRP).
33. Select the statement that describes a function of Virtual Local Area Network (VLAN) routing.
34. Select statement that identifies purpose of subnetting.
35. Select statement that identifies purpose of a subnet mask.
36. Select the statement that describes a subnet work address.
37. Given a subnet mask, select number of available networks.
38. Given a subnet mask, select number of hosts on the subnet.
39. Select statement that describes the purpose of Classless Inter-Domain Routing (CIDR).
40. Given a subnet mask, select corresponding CIDR notation.
41. Select the statement that describes the purpose of Variable Length Subnet Masking (VLSM).
42. Select the statement that identifies a VLSM rule.
43. Given references and a network diagram, identify specified network information.
44. Select the statement that describes the Read Only Memory (ROM) monitor mode.
45. Select the statement that describes the CISCO Internetwork Operating System (IOS).
46. Select the statement that describes the function of a configuration file.
47. Select statement that describes purpose of an interface.
48. Select the statement that describes the local method to configure a router.
49. Select the statement that describes a functional description of a router mode.
50. Select statement that describes CISCO IOS command syntax.
51. Select the statement that describes a function of a user exec mode command.
52. Select the statement that describes a function of a privileged exec mode command.
53. Select the statement that describes a function of a global configuration mode command.
54. Select the statement that describes a function of an interface configuration mode command.
55. Select the statement that describes a function of a line configuration mode command.
56. Select the statement that describes a function of a router configuration mode command.
57. Select the statement that describes a remote method to

- configure a router.
58. Given references and a router, configure router for operation.
  59. Select the statement that describes the function of Windows Network properties snap-in.
  60. Select the statement that describes a step to edit Windows system identification.
  61. Select the statement that describes the function of Dynamic Host Configuration Protocol (DHCP).
  62. Select statement that describes a step to configure DHCP.
  63. Select the statement that describes the function of a Windows networking command.
  64. Given a Windows system, change the system identification.
  65. Given a Windows system, configure the system for DHCP operation.

Performance Standard. With the aid of reference, complete the requirement items. Instructor will verify the network is configured properly and operational. Completion of the Aviation Communication System Managers Course at MCCES satisfies this requirement.

Instructor. BI, SI

Reference

1. Computer Networks and Internets, Douglas E. Comer
2. Data Communications Network Devices; John Wiley & Sons
3. Essential System Administration; O'Reilly & Associates, Inc
4. TCP/IP Network Administration; O'Reilly & Associates, Inc.
5. Networking for Dummies
6. Windows 2000 Administration in a Nutshell

2.11.5 AIRBORNE COMMAND AND CONTROL (ABNC2) STAGE

2.11.5.1 Purpose. To teach the trainee how to setup, operate and maintain Airborne DASC equipment. MTACS maintenance personnel who have an opportunity to train on ABNC2 equipment are encouraged to do so.

2.11.5.2 General

Prerequisite.

Admin Notes. NONE.

Crew Requirements. NONE.

ABNC2-4300 4.0 (1460) B,R (1) AN/GRC 171B(V)4 L

Goal. Perform preventive maintenance checks and services (PMCS) on AN/GRC 171B(V)4.

Requirement. Given the reference, required TMDE and maintenance tools listed in the reference:

1. Conduct PMCS on AN/GRC 171B(V)4 radio set.

2. Complete all required administrative actions.

Performance Standard. With the aid of reference, perform PMCS on an AN/GRC 171B(V)4 and complete administrative.

Instructor. BI, SI

Prerequisite. 2410, 2540, 2545, 6100, 2000, 2005, 2010, 2015, 2100, 2105, 2110, 2120, 2125, 2800, 3000, 2405, 2535, 2838, 2840, 3005, 3208, 2500, 2722, 3210, 3212, 2535, 2836

Reference

1. Radio Set AN/GRC-171B(V)4 TM-09780A-12/2
2. Radio Set AN/GRC-171B(V)4 TM-09780A-13&P/1

ABNC2-4305 2.0 (1460) B,R (1) AN/VRC 90D L

Goal. Perform PMCS on the AN/VRC-90D.

Requirement. Given the reference, required TMDE and maintenance tools listed in the reference:

1. Conduct PMCS on the AN/VRC-90D.
2. Complete all required administrative actions.

Performance Standard. With the aid of reference, perform PMCS actions on the AN/VRC 90D IAW the reference and complete administrative actions.

Instructor. BI, SI

Prerequisite. 2410, 2540, 2545, 6100, 2000, 2005, 2010, 2015, 2100, 2105, 2110, 2120, 2125, 2800, 3000, 2405, 2535, 2838, 2840, 3005, 3208, 2500, 2722, 3210, 3212, 2535, 2836

Reference. AN/VRC-90D TM 11-5820-890-10-8

ABNC2-4310 2.0 (1460) B,R (1) AN/VRC-102 L

Goal. Perform PMCS on the AN/VRC-102.

Requirement. Given the reference, required TMDE and maintenance tools listed in the reference:

1. Conduct PMCS on the AN/VRC-102.
2. Complete all required administrative actions.

Performance Standard. With the aid of reference, perform PMCS on the AN/VRC 102 and complete administrative actions.

Instructor. BI,SI

Prerequisite. 2410, 2540, 2545, 6100, 2000, 2005, 2010, 2015, 2100, 2105, 2110, 2120, 2125, 2800, 3000, 2405, 2535, 2838, 2840, 3005, 3208, 2500, 2722, 3210, 3212, 2535, 2836

Reference. AN/VRC 102 Harris Manual 10515-0187-4200

ABNC2-4315 2.0 (1460) B,R (1) AN/PSC 5 L

Goal. Perform PMCS on the AN/PSC 5.

Requirement. Given the reference, required TMDE and maintenance tools listed in the reference:

1. Conduct PMCS on the AN/PSC 5.
2. Complete all required administrative actions.

Performance Standard. With the aid of reference, perform PMCS on the AN/PSC 5 and complete administrative actions.

Instructor. BI,SI

Prerequisite. 2410, 2540, 2545, 6100, 2000, 2005, 2010, 2015, 2100, 2105, 2110, 2120, 2125, 2800, 3000, 2405, 2535, 2838, 2840, 3005, 3208, 2500, 2722, 3210, 3212, 2535, 2836

Reference. AN/PSC 5 TM 10191A-12 & P-1A

ABNC2-4320 2.0 (1460) B,R (1) AN/UYQ-3B L

Goal. State the characteristics of AN/UYQ-3B.

Requirement. State the characteristics of the AN/UYQ-3B, to include:

1. Radio assets
2. Mobility
3. Power requirements
4. Antenna pairing

Performance Standard. Without the aid of reference, state the requirement items without error.

Instructor. BI, SI

Prerequisite. 6100, 2000, 2005, 2010, 2015, 2100, 2105, 2110, 2120, 2125, 2800, 3000, 2405, 2535, 2838, 2840, 3005, 3208, 2500, 2722, 3210, 3212, 2535, 2836

Reference. TM AN/UYQ-3B

ABNC2-4325 4.0 (1460) B,R (1) AN/UYQ-3B L

Goal. Install unit specific HF, VHF, UHF radios in AN/UYQ-3B.

Requirement. Given the references, install the following radios in the AN/UYQ-3B:

1. AN/GRC 171B(V)4
2. AN/VRC 90D
3. AN/PSC 5
4. AN/VRC 102

Performance Standard. With the aid of reference, install each radio listed above into the AN/UYQ-3B and complete administrative actions.

Instructor. BI, SI

Prerequisite. 4320, 6100, 2000, 2005, 2010, 2015, 2100, 2105, 2110, 2120, 2125, 2800, 3000, 2405, 2535, 2838, 2840, 3005, 3208, 2500, 2722, 3210, 3212, 2535, 2836

Reference

1. Radio Set AN/GRC-171B(V)4 TM-09780A
2. TM 11-5820-890-10 AN/VRC 90D
3. TM AN/PSC 5 ?
4. TM AN/VRC 102 ?
5. TM AN/UYQ-3B

ABNC2-4330 2.0 (1460) B,R (1) AN/GRC-171B(v)4 L

Goal. Perform CM on the AN/GRC-171B(V)4 radio set to the module level.

Requirement. Given an AN/GRC-171B(V)4 with an identified fault, comply with safety procedures and complete the following:

1. Conduct visual inspection for defects.
2. Identify necessary TMDE.
3. Perform troubleshooting techniques.
4. Correctly identify the faulty module.
5. Correctly annotate work performed on ERO.
6. Replace faulty module and conduct operational check.
7. Submit item for authorized Quality Control check.

Performance Standard. With the aid of reference, perform CM on the faulty AN/GRC-171 B(V)4, replace faulty component, verify operational checks and complete administrative actions. The instructor will conduct the authorized Quality Control check.

Instructor. BI, SI

Prerequisite. 2540, 2545, 6100, 2000, 2005, 2010, 2015, 2100, 2105, 2110, 2120, 2125, 2800, 3000, 2405, 2535, 2838, 2840, 3005, 3208, 2500, 2722, 3210, 3212, 2535, 2836

Reference

1. TM 09780A-13&P
2. TM-09780A-45&P/3-1
3. TM-09780A-45&P/3-2

ABNC2-4335 2.0 (1460) B,R 1 AN/VRC 90D L

Goal. Perform CM on the AN/VRC-90D.

Requirement. Given the reference, required component(s), TMDE and maintenance tools listed in the reference:

1. Identify faulty component on the AN/VRC-90D system.
  - a. AM-7238
  - b. AM-7239
  - c. RT-1523C
  - d. AS-3900
2. Replace the faulty component(s), as required.
3. Complete all required administrative actions.
4. Perform operational communications check.

Performance Standard. With the aid of reference, perform CM on AN/VRC 90D, replace any faulty component(s), and complete required administrative actions. Instructor will verify the communications check was successful.

Instructor. BI, SI

Prerequisite. 2540, 2545, 6100, 2000, 2005, 2010, 2015, 2100, 2105, 2110, 2120, 2125, 2800, 3000, 2405, 2535, 2838, 2840, 3005, 3208, 2500, 2722, 3210, 3212, 2535, 2836

Reference. AN/VRC-90D TM 11-5820-890-10-8

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ABNC2-4340	2.0	(1460)	B,R	1 AN/VRC 102	L
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Goal. Perform CM on the AN/VRC-102.

Requirement. Given the reference, required component(s), TMDE and maintenance tools listed in the reference:

1. Conduct CM on the AN/VRC-102 and identify faulty component on the AN/VRC-102:
  - a. CU-2397 Coupler
  - b. RF 5832H Power Amplifier
  - c. RT-1694
  - d. AT 1011
2. Replace the faulty component(s), as required.
3. Complete all required administrative actions.
4. Perform operational communications check.

Performance Standard. With the aid of reference, perform CM on AN/VRC 102, replace any faulty component(s), and complete required administrative actions. Instructor will verify the communications check was successful.

Instructor. BI, SI

Prerequisite. 2540, 2545, 6100, 2000, 2005, 2010, 2015, 2100, 2105, 2110, 2120, 2125, 2800, 3000, 2405, 2535, 2838, 2840, 3005, 3208, 2500, 2722, 3210, 3212, 2535, 2836

Reference. AN/VRC 102 Harris Manual 10515-0187-4200

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ABNC2-4345	2.0	(1460)	B, R	1 AN/PSC 5	L
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Goal. Perform CM on the AN/PSC 5.

Requirement. Given the reference, required component(s), TMDE and maintenance tools listed in the reference:

1. Identify faulty component on the AN/PSC 5 system.
  - a. RT-1672/U(C)
  - b. Antenna
2. Replace the faulty component(s), as required.
3. Complete all required administrative actions.
4. Perform operational communications check.

Performance Standard. With the aid of reference, perform CM on the AN/PSC 5, replace any faulty component(s), and complete required administrative actions. Instructor will verify the communications check was successful.

Instructor. BI, SI

Prerequisite. 2540, 2545, 6100, 2000, 2005, 2010, 2015, 2100, 2105, 2110, 2120, 2125, 2800, 3000, 2405, 2535, 2838, 2840, 3005, 3208, 2500, 2722, 3210, 3212, 2535, 2836

Reference. AN/PSC 5 TM

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ABNC2-4350	3.0	(1460)	B,R	1 AN/UYQ-3B	L
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Goal. Perform CM on the AN/UYQ-3B system.

Requirement. Given the reference, required component(s), TMDE and maintenance tools listed in the reference:

1. Conduct CM on the AN/UYQ-3B and identify the faulty component(s) in the AN/UYQ-3B.
  - a. Power Distribution System
  - b. Communication Data System
  - c. Radio Systems
2. Replace the faulty component(s), as required.
3. Complete all required administrative actions.
4. Perform operational communications check.

Performance Standard. With the aid of reference, perform CM on AN/UYQ 3B, replace any faulty component(s), and complete required administrative actions. Instructor will verify the communications check was successful.

Instructor. BI, SI

Prerequisite. 2540, 2545, 6100, 2000, 2005, 2010, 2015, 2100, 2105, 2110, 2120, 2125, 2800, 3000, 2405, 2535, 2838, 2840, 3005, 3208, 2500, 2722, 3210, 3212, 2535, 2836

Reference. TM AN/UYQ-3B

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ABNC2-4355	8.0	(730)	B,R	1-AN/UYQ-3B	L
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Goal. Prepare the AN/UYQ-3B for embark.

Requirement. Given an AN/UYQ-3B SL-3, prepare system for embark:

1. Prepare system inventory:
  - a. Perform Limited Technical Inspections.
  - b. Layout and inventory equipment.
2. Conduct proper system power down/teardown.
3. Properly pack and secure equipment.
4. Load and transport to flight line.
5. Coordinate loading of AN/UYQ-3B equipment into a KC-130 model.

Performance Standard. With the aid of reference, complete the requirement items. Instructor will ensure the AN/UYQ-3B is loaded and unloaded correctly.

Instructor. BI, SI

Prerequisites. 4320, 6100, 2000, 2005, 2010, 2015, 2100, 2105, 2110, 2120, 2125, 2800, 3000, 2405, 2535, 2838, 2840, 3005, 3208, 2500, 2722, 3210, 3212, 2535, 2836

External Syllabus Support. KC-130 aircraft and transport vehicle.

Reference

1. TM-10576C-OI/1A - Communications Interface System (CIS) AN/MRQ-12(V)3 Operation and Maintenance Instructions
2. CDC DOC 762324 - Network Access Unit Equipment Description, Maintenance Instructions, and Illustrated Parts List.
3. CDC DOC 762325 - User Control Device Equipment Description, Maintenance Instructions, and Illustrated Parts List.
4. CDC DOC 762326A - Communication Distribution System (CDS) System Description and Overview

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ABNC2-4360      2.0 (730)      B,R      I-AN/UYQ-3B      L

Goal. Setup an AN/UYQ-3B.

Requirement. Given the appropriate KC-130 model and all associated equipment, setup an AN/UYQ-3B by performing the following:

1. Safely ground equipment.
2. Connect external 400Hz power and antenna cables.
3. Install antenna couplers into KC-130 mounts.
4. Apply power.
  - a. Verify inputs and phases.
  - b. Power up shelter and all ancillary equipment in proper sequence.
5. Perform operational checks.

Performance Standard. With the aid of reference, complete the requirement items. Instructor will verify equipment is operational.

Instructor. BI, SI

Prerequisite. 4320, 6100, 2000, 2005, 2010, 2015, 2100, 2105, 2110, 2120, 2125, 2800, 3000, 2405, 2535, 2838, 2840, 3005, 3208, 2500, 2722, 3210, 3212, 2535, 2836

External Syllabus Support. KC-130 aircraft

Reference

1. TM-10576C-OI/1A - Communications Interface System (CIS) AN/MRQ-12(V)3 Operation and Maintenance Instructions
2. CDC DOC 762324 - Network Access Unit Equipment Description, Maintenance Instructions, and Illustrated Parts List.
3. CDC DOC 762325 - User Control Device Equipment Description, Maintenance Instructions, and Illustrated Parts List.
4. CDC DOC 762326A - Communication Distribution System (CDS) System Description and Overview

2.12 INSTRUCTOR UNDER TRAINING (IUT) (5000)

2.12.1 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.

2.12.2 General.

2.12.2.1 Prerequisiste. NONE.

2.12.2.2 Admin Notes.

a. 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.

b. 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.

(1) Basic Instructor (BI)

(2) Senior Instructor (SI)

(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 Skill events in which current and proficient.
SI /	Core Skill, Mission Skill, and Core Plus events in which current and proficient.

WTI	Mission Skill, Core Plus, and Qualification events. WTI: - Evaluate/recommend for qualification / designation.

2.12.2.3 Stages. The following stages are included in the Instructor Under Training Skill Phase of training.

PAR NO.	STAGE NAME
2.12.3	INSTRUCTOR UNDER TRAINING (IUT)

2.12.3 INSTRUCTOR UNDER TRAINING (IUT) STAGE

2.12.3.1 Purpose. To train Aviation Communication System Technicians in the fundamentals of instructing and training processes.

2.12.3.2 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

2.13 REQUIREMENTS, CERTIFICATIONS, QUALIFICATIONS, AND DESIGNATIONS (RCQD) (6000)

2.13.1 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.

2.13.2 General.

2.13.2.1 Prerequisiste. NONE.

2.13.2.2 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.

(3) 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.

2.13.2.3 Stages. The following stages are included in the Instructor Under Training Skill Phase of training.

PAR NO.	STAGE NAME
2.13.3	QUALIFICATION (QUAL)
2.13.4	DESIGNATION (DESG)

2.13.3 QUALIFICATIONS (QUAL) STAGE

2.13.3.1 Purpose. To provide for basic and advanced technician qualifications.

2.13.3.2 General

Prerequisite. Refer to the Core Skill and Mission Skill phases for qualification events.

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

Crew Requirements. NONE.

QUAL-6100 8.0 (1095) B E L

Goal. Qualification as an Aviation Communications Systems Basic Technician (ACSBT).

Requirement. Complete required Basic Technician training POI. Be recommended for qualification by a WTI and approved in writing by the commanding officer.

Prerequisite. 2000, 2005, 2010, 2015, 2100, 2105, 2110, 2115, 2120, 2125, 2130, 2135, 2140, 2145, 2150, 2155, 2160, 2200, 2205, 2210, 2215, 2220, 2225, 2230, 2235, 2400, 2405, 2410, 2415, 2420, 2425, 2430, 2435, 2440, 2445, 2450, 2455, 2460, 2465, 2470, 2500, 2505, 2510, 2515, 2520, 2525, 2530, 2535, 2540, 2545, 2690, 2758, 3000, 3005, 3208, 3210, 3212

QUAL-6105 8.0 (1095) B E L

Goal. Qualification as an Aviation Communications Systems Advanced Technician (ACSAT).

Requirement. Complete required Advanced Technician training POI. Be recommended for qualification by a WTI and approved in writing by the commanding officer.

Prerequisite. 2000, 2005, 2010, 2015, 2100, 2105, 2110, 2115, 2120, 2125, 2130, 2135, 2140, 2145, 2150, 2155, 2160, 2165, 2170, 2200, 2205, 2210, 2215, 2220, 2225, 2230, 2235, 2400, 2405, 2410, 2415, 2420, 2425, 2430, 2435, 2440, 2445, 2450, 2455, 2460, 2465, 2470, 2500, 2505, 2510, 2515, 2520, 2525, 2530, 2535, 2540, 2545, 2650, 2690, 2700, 2702, 2704, 2706, 2708, 2716, 2718, 2720, 2752, 2754, 2756, 2758, 2800, 2834, 2840, 2842, 2844, 2846, 2848, 2900, 2905, 2910, 2915, 2920, 2925, 2930, 2935, 3000, 3005, 3204, 3206, 3208, 3210, 3212, 3214, 3216, 6100, 8000

#### 2.13.4 DESIGNATIONS (DESG) STAGE

2.13.4.1 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.

#### 2.13.4.2 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-6320

Goal. Designation as a Basic Instructor (BI).

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

Prerequisite. 5000, 5010, 5020, 6100

#### DESG-6321

Goal. Designation as Senior Instructor (SI).

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

Prerequisite. 5000, 5010, 5020, 5100, 5110, 5120, 5130, 6100 or 6105, 6320

#### DESG-6550

Goal. Designation as an Aviation Communications Systems Crew Chief (ACSCC).

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

Prerequisite. 2000, 2005, 2010, 2015, 2100, 2105, 2110, 2115, 2120, 2125, 2130, 2135, 2140, 2145, 2150, 2155, 2160, 2165, 2170, 2200, 2205, 2210, 2215, 2220, 2225, 2230, 2235, 2400, 2405, 2410, 2415, 2420, 2425, 2430, 2435, 2440, 2445, 2450, 2455, 2460, 2465, 2470, 2500, 2505, 2510, 2515, 2520, 2525, 2530, 2535, 2540, 2545, 2650, 2690, 2700, 2702, 2704, 2706, 2708, 2716, 2718, 2720, 2752, 2754, 2756, 2758, 2800, 2802, 2804, 2806, 2830, 2832, 2834, 2836, 2838, 2840, 2842, 2844, 2846, 2848, 2900, 2905, 2910, 2915, 2920, 2925, 2930, 2935, 3000, 3005, 3010, 3204, 3206, 3208, 3210, 3212, 3214, 3216, 6100, 6105, 8000, 8020

DESG-6555

Goal. Designation as Aviation Communications Systems Maintenance Chief (ACSMC).

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

Prerequisite. 2000, 2005, 2010, 2015, 2100, 2105, 2110, 2115, 2120, 2125, 2130, 2135, 2140, 2145, 2150, 2155, 2160, 2165, 2170, 2200, 2205, 2210, 2215, 2220, 2225, 2230, 2235, 2400, 2405, 2410, 2415, 2420, 2425, 2430, 2435, 2440, 2445, 2450, 2455, 2460, 2465, 2470, 2500, 2505, 2510, 2515, 2520, 2525, 2530, 2535, 2540, 2545, 2650, 2690, 2700, 2702, 2704, 2706, 2708, 2710, 2712, 2716, 2718, 2720, 2722, 2724, 2726, 2728, 2730, 2732, 2734, 2736, 2738, 2742, 2744, 2746, 2748, 2750, 2752, 2754, 2756, 2758, 2800, 2802, 2804, 2806, 2830, 2832, 2834, 2836, 2838, 2840, 2842, 2844, 2846, 2848, 2900, 2905, 2910, 2915, 2920, 2925, 2930, 2935, 2940, 2945, 2950, 3000, 3005, 3010, 3100, 3105, 3110, 3202, 3204, 3206, 3208, 3210, 3212, 3214, 3216, 3218, 6100, 8000, 8020, 8060, 8080

DESG-6500    2.0    (\*)    B    L

Goal. Designation as Maintenance Safety NCO.

Requirement. Perform all duties associated with the Maintenance Safety NCO IAW the reference for a period of no less than 90 days. Be recommended for designation by the SI or MI and designated by maintenance officer.

Performance Standard. The instructor shall conduct an inspection of this collateral duty and if it results in mission capable then the technician has met the requirement.

Instructor. BI or SI that is either currently assigned to the CD or held the CD within the last 12 months.

Prerequisite. 2500, 2525, 2530

Reference. MCO P4790.2\_

DESG-6505 2.0 (\*) B L

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Goal. Designation as a Maintenance HAZMAT NCO.

Requirement. Perform all duties associated with the Hazmat NCO IAW the reference for a period no less than 90 days. Be recommended for designation by the SI or MI and designated by maintenance officer.

Performance Standard. The instructor shall conduct an inspection of this collateral duty and if it results in mission capable then the Marine has met the requirement.

Instructor. BI or SI that is either currently assigned to the CD or held the CD within the last 12 months.

Prerequisite. 2500, 2525, 2530

Reference. MCO P4790.2\_

DESG-6510 2.0 (\*) B L

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Goal. Designation as a Maintenance Publications NCO.

Requirement. Perform all duties associated with the Publications NCO IAW the reference for a period no less than 90 days. Be recommended for designation by the SI or MI and designated by maintenance officer.

Performance Standard. The instructor shall conduct an inspection of this collateral duty and if it results in mission capable then the Marine has met the requirement.

Instructor. BI or SI that is either currently assigned to the CD or held the CD within the last 12 months.

Prerequisite. 2500, 2520

Reference. MCO P4790.2\_

DESG-6515 2.0 (\*) B L

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Goal. Designation as a Maintenance Training NCO.

Requirement. Perform all duties associated with the Training NCO IAW the reference for a period of no less than 90 days. Be recommended for designation by the SI or MI and designated by maintenance officer.

Performance Standard. The instructor shall conduct an inspection of this collateral duty and if it results in mission capable then the Marine has met the requirement.

Instructor. BI or SI that is either currently assigned to the CD or held the CD within the last 12 months.

Prerequisite. 2500

Reference. MCO P4790.2\_

DESG-6520 2.0 (\*) B L

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Goal. Designation as a Maintenance Tools NCO.

Requirement. Perform all duties associated with the Tools NCO IAW the reference for a period no less than 90 days. Be recommended for designation by the SI or MI and designated by maintenance officer.

Performance Standard. The instructor shall conduct an inspection of this collateral duty and if it results in mission capable then the Marine has met the requirement.

Instructor. BI or SI that is either currently assigned to the CD or held the CD within the last 12 months.

Prerequisite. 2500, 2515, 2545

Reference. MCO P4790.2\_

DESG-6525 2.0 (\*) B L

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Goal. Designation as a Maintenance Calibrations NCO.

Requirement. Perform all duties associated with the Calibrations NCO IAW the reference for a period no less than 90 days. Be recommended for designation by the SI or MI and designated by maintenance officer.

Performance Standard. The instructor shall conduct an inspection of this collateral duty and if it results in mission capable then the Marine has met the requirement.

Instructor. BI or SI that is either currently assigned to the CD or held the CD within the last 12 months.

Prerequisite. 2500, 2505, 2545

Reference. MCO P4790.2\_

DESG-6530 2.0 (\*) B L

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Goal. Designation as a Maintenance Modifications NCO.

Requirement. Perform all duties associated with the Modifications NCO IAW the reference for a period no less than 90 days. Be recommended for designation by the SI or MI and designated by maintenance officer.

Performance Standard. The instructor shall conduct an inspection of this collateral duty and if it results in mission capable then the Marine has met the requirement.

Instructor. BI or SI that is either currently assigned to the CD or held the CD within the last 12 months.

Prerequisite. 2500, 2510, 2545

Reference. MCO P4790.2\_

DESG-6535 2.0 (\*) B L

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Goal. Designation as a Maintenance Embarkation NCO.

Requirement. Perform all duties associated with the Embarkation NCO IAW the reference for a period no less than 90 days. Be recommended for designation by the SI or MI and designated by maintenance officer.

Performance Standard. The instructor shall conduct an inspection of this collateral duty and if it results in mission capable then the Marine has met the requirement.

Instructor. BI or SI that is either currently assigned to the CD or held the CD within the last 12 months.

Prerequisite. 2500, 2535, 2545

Reference. MCO P4790.2\_

DESG-6540 2.0 (\*) B L

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Goal. Designation as a Marine Corps Integrated Maintenance Management System (MIMMS) NCO.

Requirement. Perform all duties associated with the Marine Corps Integrated Maintenance Management System (MIMMS) NCO IAW the reference for a period of no less than 90 days. Be recommended for designation by the SI or MI and designated by maintenance officer.

Performance Standard. The instructor shall conduct an inspection of this collateral duty and if it results in mission capable then the Marine has met the requirement.

Instructor. BI or SI that is either currently assigned to the CD or held the CD within the last 12 months.

Prerequisite. 2500, 2540, 2545

Reference. MCO P4790.2\_

DESG-6545 2.0 (\*) B L

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Goal. Designation as a Maintenance Quality Control (QC) NCO.

Requirement. Perform all duties associated with the Quality Control NCO IAW the reference for a period of no less than 90 days.

Be recommended for designation by the SI or MI and designated by maintenance officer.

Performance Standard. The instructor shall conduct an inspection of this collateral duty and if it results mission capable then the Marine has met the requirement.

Instructor. BI or SI that is either currently assigned to the CD or held the CD within the last 12 months.

Prerequisite. 2500

Reference. MCO P4790.2

## 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 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.

STAGE	TRNG CODE	T&R DESCRIPTION	ACAD TIME	TO BE COMPLETED DURING
ACPM	8000	MACCS	1	2000
ACPM	8001	MARINE AIR COMMAND AND CONTROL SYSTEM	4	2000
ACPM	8002	TACTICAL AIR COMMAND CENTER (TACC)	4	2000
ACPM	8003	DIRECT AIR SUPPORT CENTER (DASC)	4	2000
ACPM	8004	TACTICAL AIR OPERATIONS CENTER (TAOC)	4	2000

ACPM	8005	MARINE AIR TRAFFIC CONTROL (MATC)	4	2000
ACPM	8006	LOW ALTITUDE AIR DEFENSE (LAAD)	4	2000
ACPM	8007	UAS SUPPORT TO THE MAGTF	4	2000
ACPM	8008	MARINE WING COMMUNICATION SQUADRON (MWCS)	4	2000
ACPM	8020	ACE	1	3000
ACPM	8021	AVIATION OPERATIONS	4	3000
ACPM	8022	CONTROL OF AIRCRAFT AND MISSILES	4	3000
ACPM	8023	OFFENSIVE AIR SUPPORT (OAS)	4	3000
ACPM	8024	ASSAULT SUPPORT	4	3000
ACPM	8025	AIR RECONNAISSANCE	4	3000
ACPM	8026	ELECTRONIC WARFARE	4	3000
ACPM	8027	ANTI-AIR WARFARE	4	3000
ACPM	8028	AVIATION GROUND SUPPORT	4	2000
ACPM	8040	THREAT	1	4000
ACPM	8041	SURFACE TO AIR THREAT TO THE MAGTF	4	4000
ACPM	8042	FIXED WING THREAT TO THE MAGTF	4	4000
ACPM	8043	ROTARY WING THREAT TO THE MAGTF	4	4000
ACPM	8044	MISSILE AND UAS THREAT TO THE MAGTF	4	4000
ACPM	8045	RADIO ELECTRONIC COMBAT THREAT TO THE MAGTF	4	3000
ACPM	8060	MAGTF	1	3000
ACPM	8061	GROUND COMBAT OPERATIONS	4	3000
ACPM	8062	FIRE SUPPORT COORDINATION IN THE GCE	4	3000
ACPM	8063	MAGTF COMMAND AND CONTROL	4	2000
ACPM	8064	MAGTF COMMUNICATIONS	4	3000
ACPM	8065	PHASING CONTROL ASHORE	4	3000
ACPM	8080	JOINT AIR OPERATIONS	1	3000
ACPM	8081	COMMAND AND CONTROL OF JOINT AIR OPERATIONS	4	3000
ACPM	8082	THEATER AIR CROUND SYSTEM (TAGS)	4	3000
ACPM	8083	JOINT FIRE SUPPORT	4	3000
ACPM	8084	CLOSE AIR SUPPORT	4	3000
ACPM	8085	JOINT TARGETING	4	3000
ACPM	8086	NORTH ATLANTIC TREATY ORGANIZATION (NATO)	4	3000
ACPM	8087	JOINT AIRSPACE CONTROL	4	3000
ACPM	8088	COUNTERING AIR AND MISSILE THREATS	4	3000
TOTAL ACPM:STAGE			39	141

2.15 T&R ATTAIN AND MAINTAIN TABLES

MTACS MAINTENANCE MOS 5939
CORE/MISSION/CORE PLUS ATTAIN AND MAINTAIN MATRIX
CORE SKILL (2000 Phase)

T&R EVENT INFORMATION				BASIC POI		REFRESHER POI		MAINTAIN PROFICIENCY		PREREQS	CHAINING		
T&R DESCRIPTION	STAGE	CODE	REFLY	STAGE	CODE	STAGE	CODE	STAGE	CODE				
Frequency Spectrums	SYSO	2000	*	SYSO	2000	SYSO		SYSO		-	-		
Radio Characteristics		2005R	1460		2005R		2005R		2005R	2005R	-	-	
Comm Sys Characteristics		2010R	1460		2010R		2010R		2010R	2010R	2000, 2005	-	
System Power Req		2015	*		2015						-	-	
Utilize Ground Test Set	SETUP	2100	*	SETUP	2100	SETUP		SETUP		2000, 2005, 2010, 2015, 2225	-		
Ground Installation		2105	*		2105				2000, 2005, 2010, 2015, 2225	-			
Assemble and Erect Antennas		2110	*		2110				2000, 2005, 2010, 2015	-			
Radio Install		2115	*		2115				2000, 2005, 2010, 2015, 2225	-			
Install External Radios		2120	*		2120				2000, 2005, 2010, 2015, 2225	-			
Install CDS		2125	*		2125				2000, 2005, 2010, 2015, 2225	-			
Configure AN/VRC-103 for PT Op		2130R	1460		2130R		2130R		2130R	2130R	2000, 2005, 2010, 2015, 2225	-	
Configure AN/VRC-104 for PT Op		2135R	1460		2135R		2135R		2135R	2135R	2000, 2005, 2010, 2015, 2225	-	
Configure AN/GRC-171B(V)4		2140R	1460		2140R		2140R		2140R	2140R	2000, 2005, 2010, 2015, 2225	-	
Configure AN/GRC-256		2145R	1460		2145R		2145R		2145R	2145R	2000, 2005, 2010, 2015, 2225	-	
Configure Single Channel Radios CT		2150R	1460		2150R		2150R		2150R	2150R	2000, 2005, 2010, 2015, 2225	-	
Configure SATCOM Radio, CT		2155R	1460		2155R		2155R		2155R	2155R	2000, 2005, 2010, 2015, 2225, 2130	-	
Setup Satellite Antenna		2160	*		2160						2000, 2005, 2010, 2015, 2225, 2130	-	
Configure AN/VRC-103 Enhanced Operation		2165R	1460		2165R		2165R		2165R	2165R	2165R	2000, 2005, 2010, 2015, 2130	-
Configure AN/VRC-104 Enhanced Operation		2170R	1460		2170R		2170R		2170R	2170R	2170R	2000, 2005, 2010, 2015, 2135	-
Field Expediant Antennas	2175	*	2175					2000, 2005, 2010, 2015, MCI 2515	-				
Utilize Multimeter.	TMDE	2200	*	TMDE	2200	TMDE		TMDE		-	-		

Utilize Watt-meter		2205	*		2205					-	-
Utilize Oscilloscope		2210	*		2210					-	-
Utilize OTDR		2215	*		2215					-	-
Utilize Ground Tester		2220	*		2220					-	-
Utilize Frequency Counter		2225	*		2225					-	-
Utilize Communication Test Set		2230	*		2230				2600		-
Induct equipment into maint cycle		2400	*		2400					2200, 2205, 2210, 2215, 2220, 2225, 2230, 2235	-
SL-3 Inventory		2405	*		2405					2200, 2205, 2210, 2215, 2220, 2225, 2230, 2235	-
PM Program		2410	*		2410					2200, 2205, 2210, 2215, 2220, 2225, 2230, 2235	-
AN/GRC-171B(V) 4 PMCS		2415R	1460		2415R	2415R			2415R	2200, 2205, 2210, 2215, 2220, 2225, 2230, 2235, 2410	-
AN/VRC-104 PMCS		2420R	1460		2420R	2420R			2420R	2200, 2205, 2210, 2215, 2220, 2225, 2230, 2235, 2410	-
AN/VRC-103 PMCS		2425R	1460		2425R	2425R			2425R	2200, 2205, 2210, 2215, 2220, 2225, 2230, 2235, 2410	-
AN/VRC-110 PMCS		2430R	1460		2430R	2430R			2430R	2200, 2205, 2210, 2215, 2220, 2225, 2230, 2235, 2410	-
AN/GRC-256 PMCS	PMCM	2435R	1460	PMCM	2435R	PMCM		PMCM	2435R	2200, 2205, 2210, 2215, 2220, 2225, 2230, 2235, 2410	-
AN/GRC-171B(V) 4 CM		2440R	1460		2440R	2440R			2440R	2200, 2205, 2210, 2215, 2220, 2225, 2230, 2235	-
AN/VRC-104 CM		2445R	1460		2445R	2445R			2445R	2200, 2205, 2210, 2215, 2220, 2225, 2230, 2235	-
AN/VRC-103 CM		2450R	1460		2450R	2450R			2450R	2200, 2205, 2210, 2215, 2220, 2225, 2230, 2235	-
AN/VRC-110 CM		2455R	1460		2455R	2455R			2455R	2200, 2205, 2210, 2215, 2220, 2225, 2230, 2235	-
AN/GRC-256 CM		2460R	1460		2460R	2460R			2460R	2200, 2205, 2210, 2215, 2220, 2225, 2230, 2235	-
AN/MRQ-12 CM		2465R	1460		2465R	2465R			2465R	2200, 2205, 2210, 2215, 2220, 2225, 2230, 2235, 2445, 2450	-
Maintenance Collateral Duties	CD	2500	*	CD	2500	CD		CD		-	-

Identify Calibration Program		2505	*		2505				2500, MCI 287A	-
Maintenance Mod Program		2510	*		2510				2500	-
Maintenance Tool Control Program		2515	*		2515				2500	-
Maintenance Pub Library Program		2520	*		2520				2500	-
Maintenance Safety Prog		2525	*		2525				2500	-
MSDS		2530	*		2530				2500	-
Embarkation Elements		2535	*		2535				2500	-
MIMMS Forms		2540R	365		2540R	2540R		2540R	2500, MCI 0410C	-
Equipment Record Jacket		2545	*		2545				2500	-
Describe handling and storage of classified materials.		2600R	365		2600R	2600R		2600R	MCI 2525B	-
Familiar with physical security requirements		2605R	365		2605R	2605R		2605R	MCI 2525B	-
Conduct crew change over security procedures.	COMSEC	2610R	365	COMSEC	2610R	COMSEC	2610R	COMSEC	2610R	MCI 2525B, 2050
Extract key material information from EKMS COMSEC callout.		2615R	365		2615R	2615R		2615R	MCI 2525B, 2050	-
Utilize Simple Key Loader (SKL)		2620R	365		2620R	2620R		2620R	MCI 2525B, 2050, 2065	-
Tactical Data Links		2650	*		2650				-	-
TBMCS Equipment		2655	*		2655				-	-
IOW		2660	*		2660				-	-
AFATDS	FAM	2665	*	FAM	2665	FAM		FAM	-	-
IOS		2670	*		2670				-	-
CDLS		2675	*		2675				-	-
COC		2680	*		2680				-	-
LMSMT		2685	*		2685				-	-
ADPE		2690	*		2690				-	-
Identify TFSMS Process		2700	*		2700				-	-
Identify Maintenance Turnover Binder	MMGT	2702	*	MMGT	2702	MMGT		MMGT	-	-

Equipment Disposition	2704	*	2704		2100, 2105, 2110, 2120, 2125, 2405, 2500, 2535, 2722, 2800, 2838, 2840, 2836, 3000, 3005, 3208, 3210, 3212	-
PMCS Schedule	2706	*	2706		2100, 2105, 2110, 2120, 2125, 2410, 2500, 2535, 2722, 2800, 2838, 2840, 2836, 3000, 3005, 3208, 3210, 3212	-
Inventory Control Procedures	2708R	1460	2708R	2708R	2100, 2105, 2110, 2120, 2125, 2405, 2500, 2515, 2535, 2545, 2722, 2800, 2838, 2840, 2836, 3000, 3005, 3208, 3210, 3212	-
Reconcile MIMMS AIS Rpt	2710R	365	2710R	2710R	2100, 2105, 2110, 2120, 2125, 2500, 2535, 2540, 2722, 2800, 2838, 2840, 2836, 3000, 3005, 3208, 3210, 3212, MCI 0410B.MCI 0410C	-
Describe Repairable Issue Point process	2712R	1460	2712R	2712R	2540	-
Identify Float Process	2714R	1460	2714R	2714R	2540	-
Define Major funding lines	2716R	1460	2716R	2716R	-	-
New equipment inducting process	2718	*	2718		2400, 2540, 2545	-
Phase out equipment process	2720	*	2720		2540, 2545, 2702	-
Conduct QA Inspection	2722R	1460	2722R	2722R	2100, 2105, 2110, 2120, 2125, 2500, 2532, 2620, 2708, 2722, 2800, 2804, 2806, 2832, 2836, 3204, 3206, 3208, 3212, 3214, 3216	-
Inspect Maint Functional Areas	2724R	1460	2724R	2724R	2500, 2520, 2708	-
Submit TOECR	2726	*	2726		2100, 2105, 2110, 2120, 2125, 2500, 2532, 2620, 2700, 2722, 2800, 2804, 2806, 2832, 2836, 3204, 3206, 3208, 3212, 3214, 3216	-
Urgent Needs Process	2728	*	2728		2806	-
Develop Budget	2730R	1460	2730R	2730R	2714	-
CMR Review	2732R	1460	2732R	2732R	2540, 2702, 2716	-

Maintain Publication Library		2734	*		2734				2500, 2520	-
Maintain Safety Procedures		2736	*		2736				2500, 2525	-
Maintain Calibration Procedures		2738	*		2738				2500, 2505	-
Maintain MIMMS Procedures		2740	*		2740				2500, 2540	-
CCI Procedures Implemented		2742	*		2742				2600, 2605, 2610, 2615, 2620	-
Ensure PMCS on TACC		2744	*		2744				2410, 2415, 2420, 2425, 2430, 2435, 2540, 2545, 2704	-
Maintain Equipment Records		2746	*		2746				2500, 2545	-
Command Level Brief		2748R	365		2748R	2748R	2748R	2748R	-	-
Inventory Control Procedures		2750R	1460		2750R	2750R	2750R	2750R	2100, 2105, 2110, 2120, 2125, 2500, 2535, 2706, 2722, 2800, 2838, 2840, 2836, 3000, 3005, 3208, 3210, 3212	-
Draft a UURI		2752	*		2752				-	-
Explain WIR Procedures		2754	*		2754				-	-
Maintenance Time Cycle Extension		2756	*		2756				-	-
Explain PDQR Procedures		2758	*		2758				-	-
Understand TACC Doctrinal Nets		2800R	365		2800R	2800R	2800R	2800R	2100, 2105, 2110, 2120, 2125, 2500, 2535, 2722, 2800, 2838, 2840, 2836, 3000, 3005, 3208, 3210, 3212	-
Key Planning Documents	OMGT	2802	*	OMGT	2802	OMGT	OMGT	OMGT	2100, 2105, 2110, 2120, 2125, 2500, 2535, 2722, 2800, 2838, 2840, 2836, 3000, 3005, 3208, 3210, 3212	-
Elements of an Op Order		2804	*		2804				2100, 2105, 2110, 2120, 2125, 2500, 2535, 2722, 2800, 2838, 2840, 2836, 3000, 3005, 3208, 3210, 3212	-
Mission Equipment Requirements		2806R	365		2806R	2806R	2806R	2806R	2100, 2105, 2110, 2120, 2125, 2500, 2535, 2722, 2800, 2838, 2840, 2836, 3000, 3005, 3208, 3210, 3212	-

Conduct a site survey		2830R	1460		2830R		2830R		2830R	2005, 2010, 2015, 2110, 2160, 2170, 2806, 2100, 2105, 2110, 2120, 2125, 2500, 2535, 2722, 2800, 2838, 2840, 2836, 3000, 3005, 3208, 3210, 3212	-
Crew Requirements		2832R	365		2832R		2832R		2832R	2100, 2105, 2110, 2120, 2125, 2500, 2535, 2722, 2800, 2838, 2840, 2836, 3000, 3005, 3208, 3210, 3212	-
Supply Support Requirement		2834	*		2834					2100, 2105, 2110, 2120, 2125, 2500, 2535, 2722, 2800, 2806, 2838, 2840, 2836, 3000, 3005, 3208, 3210, 3212	-
Develop Embarkation Plan		2836	*		2836					2100, 2105, 2110, 2120, 2125, 2500, 2535, 2722, 2800, 2806, 2838, 2840, 2836, 3000, 3005, 3208, 3210, 3212	-
EDL		2838R	1460		2838R		2838R		2838R	2100, 2105, 2110, 2120, 2125, 2500, 2535, 2722, 2800, 2806, 2838, 2840, 2836, 3000, 3005, 3208, 3210, 3212	-
IOW Embarkation		2840R	1460		2840R		2840R		2840R	2100, 2105, 2110, 2120, 2125, 2500, 2535, 2722, 2800, 2838, 2840, 2836, 3000, 3005, 3208, 3210, 3212	-
Power Requirements		2842R	365		2842R		2842R		2842R	2010, 2100, 2105, 2110, 2120, 2125, 2500, 2535, 2722, 2800, 2838, 2840, 2836, 3000, 3005, 3208, 3210, 3212	-
Submit Frequency Request		2844	*		2844					2000, 2100, 2105, 2110, 2120, 2125, 2500, 2535, 2722, 2800, 2838, 2840, 2836, 3000, 3005, 3208, 3210, 3212	-
Logistics Support Request (LSR)		2846	*		2846					2100, 2105, 2110, 2120, 2125, 2500, 2535, 2722, 2800, 2806, 2838, 2840, 2836, 3000, 3005, 3208, 3210, 3212	-
Bill of Material (BOM)		2848R	1460		2848R		2848R		2848R	2100, 2105, 2110, 2120, 2125, 2500, 2535, 2722, 2800, 2806, 2838, 2840, 2836, 3000, 3005, 3208, 3210, 3212	-
Identify MACS	ORGS	2900	*	ORGS	2900	ORGS		ORGS		8004, 8005	-

Identify the MCAS ATC	2905	*	2905			8005	-
Identify MASS	2910	*	2910			8003	-
Identify MTACS	2915	*	2915			8002	-
Identify LAAD Bn	2920	*	2920			8006	-
Identify VMU	2925	*	2925			8007	-
Identify MWCS	2930	*	2930			8008	-
Identify MWSS	2935	*	2935			8028	-
Identify MLG support sections	2940	*	2940				-
HHQ Mission and Support Agencies	2945	*	2945			8063	-
MACCS OV	2950R	1460	2950R	2950R	2950R	8000, 8028, 8063, 2900, 2905, 2910, 2915, 2920, 2925, 2930, 2935, 2945	-

MISSION SKILL (3000 Phase)

T&R EVENT INFORMATION	BASIC POI					REFRESHER POI	MAINTAIN PROFICIENCY		PREREQS	CHAINING	
	STAGE	CODE	REFLY	STAGE	CODE		STAGE	CODE			
Communications System Setup	DEPL	3000R	730	DEPL	3000R	DEPL	3000R	DEPL	3000R	2000, 2005, 2010, 2015, 2100, 2105, 2110, 2120, 2125, 2800	-
Prepare System Embark		3005R	730		3005R		3005R		3005R	2405, 2535, 2838, 2840	-
Deploy/Retrograde Maint Section		3010R	730		3010R		3010R		3010R	2405, 2535, 2806, 2838, 2840, 3005	-
Verify Maintenance Process	MMGT	3100	*	MMGT	3100	MMGT		MMGT		2708	-
Validate Float Assets		3105R	1095		3105				2712	-	
Funding Requirements		3110	*		3110				2714	-	
Develop Comm Plan ISO OPLAN	OMGT	3200R	730	OMGT	3200R	OMGT	3200R	OMGT	3200R	2000, 2005, 2010, 2015, 2800, 2802	-
COMM External Agencies		3202R	730		3202R		3202R		3202R	2130, 2135, 2140	-
COMSEC Handling		3204R	730		3204R		3204R		3204R	2600, 2605, 2610, 2615, 2620	-
Identify Operational Requirements		3206R	730		3206R		3206R		3206R	2804, 2806, 2832	-
Perform CBRN		3208R	365		3208R		3208R		3208R	-	-
Understand Basic Maint Section Ops		3210R	1460		3210R		3210R		3210R	2500, 2722	-
Understanding Basic Maint Section Deploy Considerations		3212R	1460		3212R		3212R		3212R	2535, 2836	-

Understand Advanced Maint Section Ops		3214R	1460		3214R		3214R		3214R	2100, 2105, 2110, 2120, 2125, 2500, 2535, 2722, 2800, 2838, 2840, 2836, 3000, 3005, 3208, 3210, 3212	-
Understanding Advanced Maint Section Deploy Considerations		3216R	1460		3216R		3216R		3216R	2100, 2105, 2110, 2120, 2125, 2500, 2535, 2722, 2800, 2838, 2840, 2836, 3000, 3005, 3208, 3210, 3212	-
Understand Maint Sect Management		3218R	1460		3218R		3218R		3218R	2100, 2105, 2110, 2120, 2125, 2500, 2532, 2620, 2722, 2800, 2804, 2806, 2832, 2836, 3204, 3206, 3208, 3210, 3212, 3214, 3216	-
CORE PLUS SKILL (4000 Phase)											
T&R EVENT INFORMATION				BASIC POI		REFRESHER POI		MAINTAIN PROFICIENCY		PREREQS	CHAINING
T&R DESCRIPTION	STAGE	CODE	REFLY	STAGE	CODE	STAGE	CODE	STAGE	CODE	-	-
AN/GRC-242 PM	DASC	4100R	1460	DASC	4100R	DASC	4100R	DASC	4100R	-	-
ADCP PM	TAOC	4105R	1460	TAOC	4105R	TAOC	4105R	TAOC	4105R	-	-
Configure TADIL Links	TAOC	4200R	1460	TAOC	4200R	TAOC	4200R	TAOC	4200R	-	-
Configure Data Comm Networks	TAOC	4205R	1460	TAOC	4205R	TAOC	4205R	TAOC	4205R	-	-
AN/GRC 171B(v)4 PM	ABNC2	4300R	1460	ABNC2	4300R	ABNC2	4300R	ABNC2	4300R	2410, 2540, 2545, 6100, 2000, 2005, 2010, 2015, 2100, 2105, 2110, 2120, 2125, 2800, 3000, 2405, 2535, 2838, 2840, 3005, 3208, 2500, 2722, 3210, 3212, 2535, 2836	-
AN/VRC-90D PM	ABNC2	4305R	1460	ABNC2	4305R	ABNC2	4305R	ABNC2	4305R	2410, 2540, 2545, 6100, 2000, 2005, 2010, 2015, 2100, 2105, 2110, 2120, 2125, 2800, 3000, 2405, 2535, 2838, 2840, 3005, 3208, 2500, 2722, 3210, 3212, 2535, 2836	-
AN/VRC-102 PM	ABNC2	4310R	1460	ABNC2	4310R	ABNC2	4310R	ABNC2	4310R	2410, 2540, 2545, 6100, 2000, 2005, 2010, 2015, 2100, 2105, 2110, 2120, 2125, 2800, 3000, 2405, 2535, 2838, 2840, 3005, 3208, 2500, 2722, 3210, 3212, 2535, 2836	-

AN/PSC-5 PM	ABNC2	4315R	1460	ABNC2	4315R	ABNC2	4315R	ABNC2	4315R	2410, 2540, 2545, 6100, 2000, 2005, 2010, 2015, 2100, 2105, 2110, 2120, 2125, 2800, 3000, 2405, 2535, 2838, 2840, 3005, 3208, 2500, 2722, 3210, 3212, 2535, 2836	-
Characteristics of AN/UYQ-3B	ABNC2	4320R	1460	ABNC2	4320R	ABNC2	4320R	ABNC2	4320R	6100, 2000, 2005, 2010, 2015, 2100, 2105, 2110, 2120, 2125, 2800, 3000, 2405, 2535, 2838, 2840, 3005, 3208, 2500, 2722, 3210, 3212, 2535, 2836	-
Install Comm Assets in the UYQ-3B	ABNC2	4325R	1460	ABNC2	4325R	ABNC2	4325R	ABNC2	4325R	4320, 6100, 2000, 2005, 2010, 2015, 2100, 2105, 2110, 2120, 2125, 2800, 3000, 2405, 2535, 2838, 2840, 3005, 3208, 2500, 2722, 3210, 3212, 2535, 2836	-
AN/GRC 171B(v)4 CM	ABNC2	4330R	1460	ABNC2	4330R	ABNC2	4330R	ABNC2	4330R	2540, 2545, 6100, 2000, 2005, 2010, 2015, 2100, 2105, 2110, 2120, 2125, 2800, 3000, 2405, 2535, 2838, 2840, 3005, 3208, 2500, 2722, 3210, 3212, 2535, 2836	-
AN/VRC-90D CM	ABNC2	4335R	1460	ABNC2	4335R	ABNC2	4335R	ABNC2	4335R	2540, 2545, 6100, 2000, 2005, 2010, 2015, 2100, 2105, 2110, 2120, 2125, 2800, 3000, 2405, 2535, 2838, 2840, 3005, 3208, 2500, 2722, 3210, 3212, 2535, 2836	-
AN/VRC-102 CM	ABNC2	4340R	1460	ABNC2	4340R	ABNC2	4340R	ABNC2	4340R	2540, 2545, 6100, 2000, 2005, 2010, 2015, 2100, 2105, 2110, 2120, 2125, 2800, 3000, 2405, 2535, 2838, 2840, 3005, 3208, 2500, 2722, 3210, 3212, 2535, 2836	-
AN/PSC 5 CM	ABNC2	4345R	1460	ABNC2	4345R	ABNC2	4345R	ABNC2	4345R	2540, 2545, 6100, 2000, 2005, 2010, 2015, 2100, 2105, 2110, 2120, 2125, 2800, 3000, 2405, 2535, 2838, 2840, 3005, 3208, 2500, 2722, 3210, 3212, 2535, 2836	-

AN/UYQ-3B CM	ABNC2	4350R	1460	ABNC2	4350R	ABNC2	4350R	ABNC2	4350R	2540, 2545, 6100, 2000, 2005, 2010, 2015, 2100, 2105, 2110, 2120, 2125, 2800, 3000, 2405, 2535, 2838, 2840, 3005, 3208, 2500, 2722, 3210, 3212, 2535, 2836	-
AN/UYQ-3B Embark/Retrograde	ABNC2	4355R	730	ABNC2	4355R	ABNC2	4355R	ABNC2	4355R	4320, 6100, 2000, 2005, 2010, 2015, 2100, 2105, 2110, 2120, 2125, 2800, 3000, 2405, 2535, 2838, 2840, 3005, 3208, 2500, 2722, 3210, 3212, 2535, 2836	-
Setup AN/UYQ-3B	ABNC2	4360R	730	ABNC2	4360R	ABNC2	4360R	ABNC2	4360R	4320, 6100, 2000, 2005, 2010, 2015, 2100, 2105, 2110, 2120, 2125, 2800, 3000, 2405, 2535, 2838, 2840, 3005, 3208, 2500, 2722, 3210, 3212, 2535, 2836	-

NAVMC 3500.73  
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2.16 T&R SYLLABUS MATRIX

MTACS MAINTENANCE MOS 5939 T&R SYLLABUS MATRIX																			
STAGE	EVENT		POI	E	DEVICE			COND	REFLY	GROUND/ACADEMIC EVENTS		SIM EVENTS		LIVE EVENTS		PREREQ	NOTES	CHAIN	EVENT CONV CONV
	CODE	TITLE			TYPE	#	OPTION			#	TIME	#	TIME	#	TIME				
<b>CORE SKILL INTRODUCTION TRAINING (1000 PHASE EVENTS)</b>																			
ACST	1000	Config AN/GRC 256	B	E	G	-	-	D	*		8.5		0		0.0	-	-	-	-
ACST	1005	Perform CM on AN/GRC 256	B	E	G	-	-	D	*		13.5		0		0.0	-	-	-	-
ACST	1010	Perform PM on AN/GRC 256	B	E	G	-	-	D	*		9.0		0		0.0	-	-	-	-
ACST	1015	Config AN/GRC 171B (V)4	B	E	G	-	-	D	*		12.0		0		0.0	-	-	-	-
ACST	1020	Perform CM on AN/GRC 171B (V)4	B	E	G	-	-	D	*		73.0		0		0.0	-	-	-	-
ACST	1025	Describe PM on AN/GRC 171B (V)4	B	E	G	-	-	D	*		14.0		0		0.0	-	-	-	-
ACST	1030	Set up antennas	B	E	G	-	-	D	*		12.0		0		0.0	-	-	-	-
ACST	1035	Identify MACCS functions	B	E	G	-	-	D	*		5.0		0		0.0	-	-	-	-
ACST	1040	Operate common field devices	B	E	G	-	-	D	*		10.0		0		0.0	-	-	-	-
ACST	1045	Config AN/VRC-103	B	E	G	-	-	D	*		9.0		0		0.0	-	-	-	-
ACST	1050	LTI AN/VRC-103	B	E	G	-	-	D	*		4.0		0		0.0	-	-	-	-
ACST	1055	Config AN/VRC-104	B	E	G	-	-	D	*		5.5		0		0.0	-	-	-	-
ACST	1060	LTI AN/VRC-104	B	E	G	-	-	D	*		5.5		0		0.0	-	-	-	-
ACST	1065	Config Data Comm network into MACCS	B	E	G	-	-	D	*		49.0		0		0.0	-	-	-	-
ACST	1070	Config CDS	B	E	G	-	-	D	*		20.5		0		0.0	-	-	-	-
ACST	1075	Perform CM on CDS	B	E	G	-	-	D	*		45.0		0		0.0	-	-	-	-
ACST	1080	Config AN/MRQ-12	B	E	G	-	-	D	*		21.5		0		0.0	-	-	-	-
ACST	1085	Perform CM on AN/MRQ-12	B	E	G	-	-	D	*		45.0		0		0.0	-	-	-	-
<b>TOTAL CORE SKILL INTRODUCTION (1000 PHASE EVENTS)</b>										18	362	0	0	0	0.0				
<b>CORE SKILL TRAINING (2000 PHASE EVENTS)</b>																			
<b>SYSTEM OVERVIEW (SYSO)</b>																			
SYSO	2000	Frequency Spectrums	B	-	L	-	-	D	*		0		0		2.0	-	-	-	-
SYSO	2005	Radio Characteristics	B,R	-	L	-	-	D	1460		0		0		2.0	-	-	-	-
SYSO	2010	Comm Sys Characteristics	B,R	E	L	-	-	D	1460		0		0		2.0	2000, 2005	-	-	-
SYSO	2015	System Power Req	B	E	L	-	-	D	*		0		0		1.5	-	-	-	-
<b>TOTAL SYSTEM OVERVIEW STAGE (SYSO)</b>										0	0	0	0	4	7.5				
<b>SETUP (SETUP)</b>																			
SETUP	2100	Utilize Ground Test Set	B	-	L	-	-	-	*						3.0	2000, 2005, 2010, 2015, 2225	-	-	-
SETUP	2105	Ground Installation	B	-	L	-	-	-	*						3.0	2000, 2005, 2010, 2015, 2225	-	-	-

SETUP	2110	Assemble and Erect Antennas	B	-	L	-	-	-	*					4.0	2000, 2005, 2010, 2015	-	-	-	
SETUP	2115	Radio Install	B	-	L	-	-	-	*					4.0	2000, 2005, 2010, 2015, 2225	-	-	-	
SETUP	2120	Install External Radios	B	-	L	-	-	-	*					2.0	2000, 2005, 2010, 2015, 2225	-	-	-	
SETUP	2125	Install CDS	B	-	L	-	-	-	*					2.0	2000, 2005, 2010, 2015, 2225	-	-	-	
SETUP	2130	Configure AN/VRC-103 for PT Op	B,R	-	L	-	-	-	1460					1.0	2000, 2005, 2010, 2015, 2225	-	-	-	
SETUP	2135	Configure AN/VRC-104 for PT Op	B,R	-	L	-	-	-	1460					1.0	2000, 2005, 2010, 2015, 2225	-	-	-	
SETUP	2140	Configure AN/GRC-171B(V)4	B,R	-	L	-	-	-	1460					1.0	2000, 2005, 2010, 2015, 2225	-	-	-	
SETUP	2145	Configure AN/GRC-256	B,R	-	L	-	-	-	1460					1.0	2000, 2005, 2010, 2015, 2225	-	-	-	
SETUP	2150	Configure Single Channel Radios CT	B,R	-	L	-	-	-	1460					1.0	2000, 2005, 2010, 2015, 2225	-	-	-	
SETUP	2155	Configure SATCOM Radio, CT	B,R	-	L	-	-	-	1460					2.0	2000, 2005, 2010, 2015, 2225, 2130	-	-	-	
SETUP	2160	Setup Satellite Antenna	B	-	L	-	-	-	*					1.0	2000, 2005, 2010, 2015, 2225, 2130	-	-	-	
SETUP	2165	Configure AN/VRC-103 Enhanced Operation	B,R	-	L	-	-	-	1460					2.0	2000, 2005, 2010, 2015, 2130	-	-	-	
SETUP	2170	Configure AN/VRC-104 Enhanced Operation	B,R	-	L	-	-	-	1460					2.0	2000, 2005, 2010, 2015, 2135	-	-	-	
SETUP	2175	Field Expediant Antennas	B	-	L	-	-	-	*					4.0	2000, 2005, 2010, 2015, MCI 2515	-	-	-	
TOTAL SETUP SKILLS STAGE (SETUP)										0	0	0	0	0	34.0				
TEST MEASUREMENT DIAGNOSTICS EQUIPMENT (TMDE)																			
TMDE	2200	Utilize Multimeter.	B	-	L	-	-	-	*		0		0		1.0	-	-	-	
TMDE	2205	Utilize Watt-meter	B	-	L	-	-	-	*		0		0		1.0	-	-	-	
TMDE	2210	Utilize Oscilloscope	B	-	L	-	-	-	*		0		0		2.0	-	-	-	
TMDE	2215	Utilize OTDR	B	-	L	-	-	-	*		0		0		1.0	-	-	-	
TMDE	2220	Utilize Ground Tester	B	-	L	-	-	-	*		0		0		2.0	-	-	-	
TMDE	2225	Utilize Frequency Counter	B	-	L	-	-	-	*		0		0		1.0	-	-	-	
TMDE	2230	Utilize Communication Test Set	B	-	L	-	-	-	*		0		0		2.0	2600	-	-	
TOTAL TEST MEASUREMENT DIAGNOSTICS EQUIPMENT SKILLS STAGE (TMDE)										0	0	0	0	7	10.0				
PREVENTIVE MAINTENANCE/CORRECTIVE MAINTENANCE (PMCM)																			
PMCM	2400	Induct equipment into maint cycle	B	-	L	-	-	-	*		0		0		2.0	2200, 2205, 2210, 2215, 2220, 2225, 2230, 2235	-	-	-

PMCM	2405	SL-3 Inventory	B	-	L	-	-	-	*	0	0	0	2.0	2200, 2205, 2210, 2215, 2220, 2225, 2230, 2235	-	-	-	
PMCM	2410	PM Program	B	-	L	-	-	-	*	0	0	0	1.5	2200, 2205, 2210, 2215, 2220, 2225, 2230, 2235	-	-	-	
PMCM	2415	AN/GRC-171B(V) 4 PMCS	B,R	-	L	-	-	-	1460	0	0	0	4.0	2200, 2205, 2210, 2215, 2220, 2225, 2230, 2235, 2410	-	-	-	
PMCM	2420	AN/VRC-104 PMCS	B,R	-	L	-	-	-	1460	0	0	0	2.0	2200, 2205, 2210, 2215, 2220, 2225, 2230, 2235, 2410	-	-	-	
PMCM	2425	AN/VRC-103 PMCS	B,R	-	L	-	-	-	1460	0	0	0	2.0	2200, 2205, 2210, 2215, 2220, 2225, 2230, 2235, 2410	-	-	-	
PMCM	2430	AN/VRC-110 PMCS	B,R	-	L	-	-	-	1460	0	0	0	2.0	2200, 2205, 2210, 2215, 2220, 2225, 2230, 2235, 2410	-	-	-	
PMCM	2435	AN/GRC-256 PMCS	B,R	-	L	-	-	-	1460	0	0	0	1.0	2200, 2205, 2210, 2215, 2220, 2225, 2230, 2235, 2410	-	-	-	
PMCM	2440	AN/GRC-171B(V) 4 CM	B,R	-	L	-	-	-	1460	0	0	0	2.0	2200, 2205, 2210, 2215, 2220, 2225, 2230, 2235	-	-	-	
PMCM	2445	AN/VRC-104 CM	B,R	-	L	-	-	-	1460	0	0	0	2.0	2200, 2205, 2210, 2215, 2220, 2225, 2230, 2235	-	-	-	
PMCM	2450	AN/VRC-103 CM	B,R	-	L	-	-	-	1460	0	0	0	2.0	2200, 2205, 2210, 2215, 2220, 2225, 2230, 2235	-	-	-	
PMCM	2455	AN/VRC-110 CM	B,R	-	L	-	-	-	1460	0	0	0	2.0	2200, 2205, 2210, 2215, 2220, 2225, 2230, 2235	-	-	-	
PMCM	2460	AN/GRC-256 CM	B,R	-	L	-	-	-	1460	0	0	0	2.0	2200, 2205, 2210, 2215, 2220, 2225, 2230, 2235	-	-	-	
PMCM	2465	AN/MRQ-12 CM	B,R	-	L	-	-	-	1460	0	0	0	3.0	2200, 2205, 2210, 2215, 2220, 2225, 2230, 2235, 2445, 2450	-	-	-	
TOTAL PREVENTIVE MAINTENANCE/CORRECTIVE MAINTENANCE SKILLS STAGE (PMCM)										0	0	0	0	3	16060.0			
COLLATERAL DUTIES (CD)																		
CD	2500	Maintenance Collateral Duties	B	-	L	-	-	-	*	0	0	0	8.0	-	-	-	-	
CD	2505	Identify Calibration Program	B	-	L	-	-	-	*	0	0	0	1.0	2500, MCI 287A	-	-	-	
CD	2510	Maintenance Mod Program	B	-	L	-	-	-	*	0	0	0	2.0	2500	-	-	-	
CD	2515	Maintenance Tool Control Program	B	-	L	-	-	-	*	0	0	0	2.0	2500	-	-	-	
CD	2520	Maintenance Pub Library Program	B	-	L	-	-	-	*	0	0	0	2.0	2500	-	-	-	

CD	2525	Maintenance Safety Prog	B	E	L	-	-	-	*	0	0	2.0	2500	-	-	-
CD	2530	MSDS	B	-	L	-	-	-	*	0	0	2.0	2500	-	-	-
CD	2535	Embarkation Elements	B	-	L	-	-	-	*	0	0	3.0	2500	-	-	-
CD	2540	MIMMS Forms	B,R	-	L	-	-	-	365	0	0	2.0	2500, MCI 0410C	-	-	-
CD	2545	Equipment Record Jacket	B	-	L	-	-	-	*	0	0	1.0	2500	-	-	-
TOTAL COLLATERAL DUTIES SKILLS STAGE (CD)										0	0	0	0	1	8.0	
COMMUNICATION SECURITY (COMSEC)																
COMSEC	2600	Describe handling and storage of classified materials.	B,R	-	L	-	-	-	365	0	0	2.0	MCI 2525B	-	-	-
COMSEC	2605	Familiar with physical security requirements	B,R	-	L	-	-	-	365	0	0	2.0	MCI 2525B	-	-	-
COMSEC	2610	Conduct crew change over security procedures.	B,R	-	L	-	-	-	365	0	0	2.0	MCI 2525B, 2050	-	-	-
COMSEC	2615	Extract key material information from EKMS COMSEC callout.	B,R	-	L	-	-	-	365	0	0	2.0	MCI 2525B, 2050	-	-	-
COMSEC	2620	Utilize Simple Key Loader (SKL)	B,R	-	L	-	-	-	365	0	0	2.0	MCI 2525B, 2050, 2065	-	-	-
TOTAL COMMUNICATION SECURITY STAGE (COMSEC)										0	0	0	0	5	10.0	
FAMILIARIZATION (FAM)																
FAM	2650	Tactical Data Links	B	-	L	-	-	-	*	0	0	3.0	-	-	-	-
FAM	2655	TBMCS Equipment	B	-	L	-	-	-	*	0	0	2.0	-	-	-	-
FAM	2660	IOW	B	-	L	-	-	-	*	0	0	2.0	-	-	-	-
FAM	2665	AFATDS	B	-	L	-	-	-	*	0	0	2.0	-	-	-	-
FAM	2670	IOS	B	-	L	-	-	-	*	0	0	2.0	-	-	-	-
FAM	2675	CDLS	B	-	L	-	-	-	*	0	0	2.0	-	-	-	-
FAM	2680	COC	B	-	L	-	-	-	*	0	0	2.0	-	-	-	-
FAM	2685	LMSMT	B	-	L	-	-	-	*	0	0	2.0	-	-	-	-
FAM	2690	ADPE	B	E	L	-	-	-	*	0	0	3.0	-	-	-	-
TOTAL FAMILIARIZATION SKILLS STAGE (FAM)										0	0	0	0	6	20.0	
MAINTENANCE MANAGEMENT (MMGT)																
MMGT	2700	Identify TFSMS Process	B	-	L	-	-	-	*	0	0	8.0	-	-	-	-
MMGT	2702	Identify Maintenance Turnover Binder	B	-	L	-	-	-	*	0	0	2.0	-	-	-	-
MMGT	2704	Equipment Disposition	B	-	L	-	-	-	*	0	0	3.0	2100, 2105, 2110, 2120, 2125, 2405, 2500, 2535, 2722, 2800, 2838, 2840, 2836, 3000, 3005, 3208, 3210, 3212	-	-	-

MMGT	2706	PMCS Schedule	B	-	L	-	-	-	*	0	0	1.0	2100, 2105, 2110, 2120, 2125, 2410, 2500, 2535, 2722, 2800, 2838, 2840, 2836, 3000, 3005, 3208, 3210, 3212	-	-	-
MMGT	2708	Inventory Control Procedures	B,R	-	L	-	-	-	1460	0	0	1.5	2100, 2105, 2110, 2120, 2125, 2405, 2500, 2515, 2535, 2545, 2722, 2800, 2838, 2840, 2836, 3000, 3005, 3208, 3210, 3212	-	-	-
MMGT	2710	Reconcile MIMMS AIS Rpt	B,R	-	L	-	-	-	365	0	0	4.0	2100, 2105, 2110, 2120, 2125, 2500, 2535, 2540, 2722, 2800, 2838, 2840, 2836, 3000, 3005, 3208, 3210, 3212, MCI 0410B.MCI 0410C	-	-	-
MMGT	2712	Describe Repairable Issue Point process	B,R	-	L	-	-	-	1460	0	0	2.0	2540	-	-	-
MMGT	2714	Identify Float Process	B,R	-	L	-	-	-	1460	0	0	2.0	2540	-	-	-
MMGT	2716	Define Major funding lines	B,R	-	L	-	-	-	1460	0	0	2.0	-	-	-	-
MMGT	2718	New equipment inducting process	B	-	L	-	-	-	*	0	0	2.0	2400, 2540, 2545	-	-	-
MMGT	2720	Phase out equipment process	B	-	L	-	-	-	*	0	0	2.0	2540, 2545, 2702	-	-	-
MMGT	2722	Conduct QA Inspection	B,R	-	L	-	-	-	1460	0	0	2.0	2100, 2105, 2110, 2120, 2125, 2500, 2532, 2620, 2708, 2722, 2800, 2804, 2806, 2832, 2836, 3204, 3206, 3208, 3212, 3214, 3216	-	-	-
MMGT	2724	Inspect Maint Functional Areas	B,R	-	L	-	-	-	1460	0	0	16.0	2500, 2520, 2708	-	-	-
MMGT	2726	Submit TOECR	B	-	L	-	-	-	*	0	0	16.0	2100, 2105, 2110, 2120, 2125, 2500, 2532, 2620, 2700, 2722, 2800, 2804, 2806, 2832, 2836, 3204, 3206, 3208, 3212, 3214, 3216	-	-	-
MMGT	2728	Urgent Needs Process	B	-	L	-	-	-	*	0	0	2.0	2806	-	-	-
MMGT	2730	Develop Budget	B,R	-	L	-	-	-	1460	0	0	16.0	2714	-	-	-
MMGT	2732	CMR Review	B,R	-	L	-	-	-	1460	0	0	40.0	2540, 2702, 2716	-	-	-
MMGT	2734	Maintain Publication Library	B	-	L	-	-	-	*	0	0	2.0	2500, 2520	-	-	-
MMGT	2736	Maintain Safety Procedures	B	-	L	-	-	-	*	0	0	1.0	2500, 2525	-	-	-

MMGT	2738	Maintain Calibration Procedures	B	-	L	-	-	-	*	0	0	1.0	2500, 2505	-	-	-	
MMGT	2740	Maintain MIMMS Procedures	B	-	L	-	-	-	*	0	0	2.0	2500, 2540	-	-	-	
MMGT	2742	CCI Procedures Implemented	B	-	L	-	-	-	*	0	0	1.0	2600, 2605, 2610, 2615, 2620	-	-	-	
MMGT	2744	Ensure PMCS on TACC	B	-	L	-	-	-	*	0	0	1.0	2410, 2415, 2420, 2425, 2430, 2435, 2540, 2545, 2704	-	-	-	
MMGT	2746	Maintain Equipment Records	B	-	L	-	-	-	*	0	0	1.0	2500, 2545	-	-	-	
MMGT	2748	Command Level Brief	B,R	-	L	-	-	-	365	0	0	4.0	-	-	-	-	
MMGT	2750	Inventory Control Procedures	B,R	-	L	-	-	-	1460	0	0	1.5	2100, 2105, 2110, 2120, 2125, 2500, 2535, 2706, 2722, 2800, 2838, 2840, 2836, 3000, 3005, 3208, 3210, 3212	-	-	-	
MMGT	2752	Draft a UURI	B	-	L	-	-	-	*	0	0	2.0	-	-	-	-	
MMGT	2754	Explain WIR Procedures	B	-	L	-	-	-	*	0	0	2.0	-	-	-	-	
MMGT	2756	Maintenance Time Cycle Extension	B	-	L	-	-	-	*	0	0	2.0	-	-	-	-	
MMGT	2758	Explain PDQR Procedures	B	-	L	-	-	-	*	0	0	2.0	-	-	-	-	
TOTAL MAINTENANCE MANAGEMENT SKILLS STAGE (MMGT)										0	0	0	30	144.0			
OPERATIONS MANAGEMENT (OMGT)																	
OMGT	2800	Understand TACC Doctrinal Nets	B,R	E	L				365	0	0	4.0	2100, 2105, 2110, 2120, 2125, 2500, 2535, 2722, 2800, 2838, 2840, 2836, 3000, 3005, 3208, 3210, 3212				
OMGT	2802	Key Planning Documents	B	E	L				*	0	0	2.0	2100, 2105, 2110, 2120, 2125, 2500, 2535, 2722, 2800, 2838, 2840, 2836, 3000, 3005, 3208, 3210, 3212				
OMGT	2804	Elements of an Op Order	B	-	L				*	0	0	2.0	2100, 2105, 2110, 2120, 2125, 2500, 2535, 2722, 2800, 2838, 2840, 2836, 3000, 3005, 3208, 3210, 3212				
OMGT	2806	Mission Equipment Requirements	B,R	E	L				365	0	0	2.0	2100, 2105, 2110, 2120, 2125, 2500, 2535, 2722, 2800, 2838, 2840, 2836, 3000, 3005, 3208, 3210, 3212				

OMGT	2830	Conduct a site survey	B,R	E	L			1460	0	0	4.0	2005, 2010, 2015, 2110, 2160, 2170, 2806, 2100, 2105, 2110, 2120, 2125, 2500, 2535, 2722, 2800, 2838, 2840, 2836, 3000, 3005, 3208, 3210, 3212
OMGT	2832	Crew Requirements	B,R	E	L			365	0	0	2.0	2100, 2105, 2110, 2120, 2125, 2500, 2535, 2722, 2800, 2838, 2840, 2836, 3000, 3005, 3208, 3210, 3212
OMGT	2834	Supply Support Requirement	B	E	L			*	0	0	3.0	2100, 2105, 2110, 2120, 2125, 2500, 2535, 2722, 2800, 2806, 2838, 2840, 2836, 3000, 3005, 3208, 3210, 3212
OMGT	2836	Develop Embarkation Plan	B	E	L			*	0	0	1.5	2100, 2105, 2110, 2120, 2125, 2500, 2535, 2722, 2800, 2806, 2838, 2840, 2836, 3000, 3005, 3208, 3210, 3212
OMGT	2838	EDL	B,R	E	L			1460	0	0	8.0	2100, 2105, 2110, 2120, 2125, 2500, 2535, 2722, 2800, 2806, 2838, 2840, 2836, 3000, 3005, 3208, 3210, 3212
OMGT	2840	IOW Embarkation	B,R	-	L			1460	0	0	2.0	2100, 2105, 2110, 2120, 2125, 2500, 2535, 2722, 2800, 2838, 2840, 2836, 3000, 3005, 3208, 3210, 3212
OMGT	2842	Power Requirements	B,R	E	L			365	0	0	4.0	2010, 2100, 2105, 2110, 2120, 2125, 2500, 2535, 2722, 2800, 2838, 2840, 2836, 3000, 3005, 3208, 3210, 3212

OMGT	2844	Submit Frequency Request	B	E	L			*	0	0	0	1.0	2000, 2100, 2105, 2110, 2120, 2125, 2500, 2535, 2722, 2800, 2838, 2840, 2836, 3000, 3005, 3208, 3210, 3212	
OMGT	2846	Logistics Support Request (LSR)	B	E	L			*	0	0	0	1.0	2100, 2105, 2110, 2120, 2125, 2500, 2535, 2722, 2800, 2806, 2838, 2840, 2836, 3000, 3005, 3208, 3210, 3212	
OMGT	2848	Bill of Material (BOM)	B,R	E	L			1460	0	0	0	2.0	2100, 2105, 2110, 2120, 2125, 2500, 2535, 2722, 2800, 2806, 2838, 2840, 2836, 3000, 3005, 3208, 3210, 3212	
TOTAL OPERATIONS MANAGEMENT SKILLS STAGE (OMGT)									0	0	0	0	14	38.5
ORGANIZATIONAL STRUCTURE (ORGS)														
ORGS	2900	Identify MACS	B	-	L			*				4.0	8004, 8005	
ORGS	2905	Identify the MCAS ATC	B	-	L			*				2.0	8005	
ORGS	2910	Identify MASS	B	-	L			*				2.0	8003	
ORGS	2915	Identify MTACS	B	-	L			*				2.0	8002	
ORGS	2920	Identify LAAD Bn	B	-	L			*				2.0	8006	
ORGS	2925	Identify VMU	B	-	L			*				2.0	8007	
ORGS	2930	Identify MWCS	B	-	L			*				2.0	8008	
ORGS	2935	Identify MWSS	B	-	L			*				2.0	8028	
ORGS	2940	Identify MLG support sections	B	E	L			*				2.0		
ORGS	2945	HHQ Mission and Support Agencies	B	E	L			*				2.0	8063	
ORGS	2950	MACCS OV	B,R	-	L			1460				4.0	8000, 8028, 8063, 2900, 2905, 2910, 2915, 2920, 2925, 2930, 2935, 2945	
TOTAL ORGANIZATIONAL STRUCTURE SKILLS STAGE (ORGS)									0	0	0	0	11	26.0
TOTAL CORE SKILL PHASE (2000 PHASE)									0	0	0	0	37	
MISSION SKILL TRAINING (3000 PHASE EVENTS)														
TACC OPERATIONS AND TACC INFRASTRUCTURE SKILL TRAINING EVENTS (TACCOPS) AND (TACCINF)														
DEPL	3000	Communications System Setup	B,R	-	L	-	-	D	730	0	0	4.0	2000, 2005, 2010, 2015, 2100, 2105, 2110, 2120, 2125, 2800	
DEPL	3005	Prepare System Embark	B,R	-	L				730	0	0	8.0	2405, 2535, 2838, 2840	
DEPL	3010	Deploy/Retrograde Maint Section	B,R	-	L				730	0	0	8.0	2405, 2535, 2806, 2838, 2840, 3005	

MMGT	3100	Verify Maintenance Process	B	-	L			*	0	0	0	2.0	2708					
MMGT	3105	Validate Float Assets	B	-	L			1095	0	0	0	2.0	2712					
MMGT	3110	Funding Requirements	B	-	L			*	0	0	0	3.0	2714					
OMGT	3200	Develop Comm Plan ISO OPLAN	B,R	-	L			730	0	0	0	2.0	2000, 2005, 2010, 2015, 2800, 2802					
OMGT	3202	COMM External Agencies	B,R	-	L			730	0	0	0	1.0	2130, 2135, 2140					
OMGT	3204	COMSEC Handling	B,R	-	L			730	0	0	0	1.0	2600, 2605, 2610, 2615, 2620					
OMGT	3206	Identify Operational Requirements	B,R	-	L			730	0	0	0	40.0	2804, 2806, 2832					
OMGT	3208	Perform CBRN	B,R	-	L			365	0	0	0	5.0						
OMGT	3210	Understand Basic Maint Section Ops	B,R	-	L			1460	0	0	0	2.0	2500, 2722					
OMGT	3212	Understanding Basic Maint Section Deploy Considerations	B,R	-	L			1460	0	0	0	2.0	2535, 2836					
OMGT	3214	Understand Advanced Maint Section Ops	B,R	-	L			1460	0	0	0	3.0	2100, 2105, 2110, 2120, 2125, 2500, 2535, 2722, 2800, 2838, 2840, 2836, 3000, 3005, 3208, 3210, 3212					
OMGT	3216	Understanding Advanced Maint Section Deploy Considerations	B,R	-	L			1460	0	0	0	3.0	2100, 2105, 2110, 2120, 2125, 2500, 2535, 2722, 2800, 2838, 2840, 2836, 3000, 3005, 3208, 3210, 3212					
OMGT	3218	Understand Maint Sect Management	B,R	-	L	-	-	D	1460	0	0	4.0	2100, 2105, 2110, 2120, 2125, 2500, 2532, 2620, 2722, 2800, 2804, 2806, 2832, 2836, 3204, 3206, 3208, 3210, 3212, 3214, 3216					
TOTAL TACC OPERATIONS AND TACC INFRASTRUCTURE SKILLS STAGE (TACCOPS) AND (TACCINF)									0	0	0	0	16	90.0				
TOTAL MISSION SKILL PHASE (3000 PHASE)									0	0	0	0	16	90.0				
MISSION PLUS SKILL TRAINING (4000 PHASE EVENTS)																		
DIRECT AIR SUPPORT CENTER (DASC)																		
DASC	4100	AN/GRC-242 PM	B,R	-		-	-	D	1460	0	0	0	2.0	-	-	-	-	
TOTAL DIRECT AIR SUPPORT CENTER SKILLS STAGE (DASC)									0	0	0	0	1	2.0				
TACTICAL AIR OPERATIONS CENTER (TAOC)																		
TAOC	4200	ADCP PM	B,R	-		-	-	D	1460	0	0	0	2.0	-	-	-	-	
TAOC	4205	Configure TADIL Links	B,R	-		-	-	D	1460	0	0	0	70.0	-	-	-	-	

TAOC	4210	Configure Data Comm Networks	B,R	-	-	-	D	1460	0	0	0	37.0	-	-	-	
TOTAL TACTICAL AIR OPERATIONS CENTER SKILLS STAGE (TAOC)									0	0	0	2	109.0	-	-	
AIRBORNE COMMAND AND CONTROL (ABNC2)																
ABNC2	4300	AN/GRC 171B(v)4 PM	B,R	-	-	-	D	1460	0	0	0	4.0	2410, 2540, 2545, 6100, 2000, 2005, 2010, 2015, 2100, 2105, 2110, 2120, 2125, 2800, 3000, 2405, 2535, 2838, 2840, 3005, 3208, 2500, 2722, 3210, 3212, 2535, 2836	-	-	-
ABNC2	4305	AN/VRC-90D PM	B,R	-	-	-		1460	0	0	0	2.0	2410, 2540, 2545, 6100, 2000, 2005, 2010, 2015, 2100, 2105, 2110, 2120, 2125, 2800, 3000, 2405, 2535, 2838, 2840, 3005, 3208, 2500, 2722, 3210, 3212, 2535, 2836	-	-	-
ABNC2	4310	AN/VRC-102 PM	B,R	-	-	-		1460	0	0	0	2.0	2410, 2540, 2545, 6100, 2000, 2005, 2010, 2015, 2100, 2105, 2110, 2120, 2125, 2800, 3000, 2405, 2535, 2838, 2840, 3005, 3208, 2500, 2722, 3210, 3212, 2535, 2836	-	-	-
ABNC2	4315	AN/PSC-5 PM	B,R	-	-	-		1460	0	0	0	2.0	2410, 2540, 2545, 6100, 2000, 2005, 2010, 2015, 2100, 2105, 2110, 2120, 2125, 2800, 3000, 2405, 2535, 2838, 2840, 3005, 3208, 2500, 2722, 3210, 3212, 2535, 2836	-	-	-
ABNC2	4320	Characteristics of AN/UYQ-3B	B,R	-	-	-		1460	0	0	0	2.0	6100, 2000, 2005, 2010, 2015, 2100, 2105, 2110, 2120, 2125, 2800, 3000, 2405, 2535, 2838, 2840, 3005, 3208, 2500, 2722, 3210, 3212, 2535, 2836	-	-	-

ABNC2	4325	Install Comm Assets in the UYQ-3B	B,R					1460	0	0	4.0	4320, 6100, 2000, 2005, 2010, 2015, 2100, 2105, 2110, 2120, 2125, 2800, 3000, 2405, 2535, 2838, 2840, 3005, 3208, 2500, 2722, 3210, 3212, 2535, 2836	-	-	-
ABNC2	4330	AN/GRC 171B(v)4 CM	B,R					1460	0	0	2.0	2540, 2545, 6100, 2000, 2005, 2010, 2015, 2100, 2105, 2110, 2120, 2125, 2800, 3000, 2405, 2535, 2838, 2840, 3005, 3208, 2500, 2722, 3210, 3212, 2535, 2836	-	-	-
ABNC2	4335	AN/VRC-90D CM	B,R					1460	0	0	2.0	2540, 2545, 6100, 2000, 2005, 2010, 2015, 2100, 2105, 2110, 2120, 2125, 2800, 3000, 2405, 2535, 2838, 2840, 3005, 3208, 2500, 2722, 3210, 3212, 2535, 2836	-	-	-
ABNC2	4340	AN/VRC-102 CM	B,R					1460	0	0	2.0	2540, 2545, 6100, 2000, 2005, 2010, 2015, 2100, 2105, 2110, 2120, 2125, 2800, 3000, 2405, 2535, 2838, 2840, 3005, 3208, 2500, 2722, 3210, 3212, 2535, 2836	-	-	-
ABNC2	4345	AN/PSC 5 CM	B,R					1460	0	0	2.0	2540, 2545, 6100, 2000, 2005, 2010, 2015, 2100, 2105, 2110, 2120, 2125, 2800, 3000, 2405, 2535, 2838, 2840, 3005, 3208, 2500, 2722, 3210, 3212, 2535, 2836	-	-	-

ABNC2	4350	AN/UYQ-3B CM	B,R						1460	0	0	0	0	3.0	2540, 2545, 6100, 2000, 2005, 2010, 2015, 2100, 2105, 2110, 2120, 2125, 2800, 3000, 2405, 2535, 2838, 2840, 3005, 3208, 2500, 2722, 3210, 3212, 2535, 2836	-	-	-	
ABNC2	4355	AN/UYQ-3B Embark/Retrograde	B,R						730	0	0	0	0	8.0	4320, 6100, 2000, 2005, 2010, 2015, 2100, 2105, 2110, 2120, 2125, 2800, 3000, 2405, 2535, 2838, 2840, 3005, 3208, 2500, 2722, 3210, 3212, 2535, 2836	-	-	-	
ABNC2	4360	Setup AN/UYQ-3B	B,R						730	0	0	0	0	2.0	4320, 6100, 2000, 2005, 2010, 2015, 2100, 2105, 2110, 2120, 2125, 2800, 3000, 2405, 2535, 2838, 2840, 3005, 3208, 2500, 2722, 3210, 3212, 2535, 2836	-	-	-	
TOTAL AIRBORNE COMMAND AND CONTROL SKILLS STAGE (ABNC2)										0	0	0	0	13	37.0				
TOTAL MISSION PLUS SKILL PHASE (4000 PHASE)										0	0	0	0	16	148.0				
TOTAL 2000, 3000, AND 4000 PHASE										0	0	0	0	69	238.0				
INSTRUCTOR TRAINING (5000 PHASE EVENTS)																			
INSTRUCTOR UNDER TRAINING (IUT)																			
BASIC INSTRUCTOR (BI)																			
IUT	5000	Introduce principles of instruction	B	-	G	-	-	D	*	0	0	0	0	2.0	Recommended by SI or WTI	-	-	-	
IUT	5010	Understand the structure of an event	B	-	G	-	-	D	*	0	0	0	0	1.0	Recommended by SI or WTI	-	-	-	
IUT	5020	Conduct a period of instruction on a T&R event	B	-	G	-	-	D	*	0	0	0	0	2.0	Recommended by SI or WTI	-	-	-	
TOTAL BASIC INSTRUCTOR SKILLS STAGE (BI)										0	0	0	0	3	5.0				
SENIOR INSTRUCTOR (SI)																			
IUT	5100	Understand Aviation T&R program	B	-	G	-	-	D	*	0	0	0	0	2.0	5000, 5010, 5020, 6320	-	-	-	
IUT	5110	Understand Applicable Community T&R	B	-	G	-	-	D	*	0	0	0	0	2.0	5000, 5010, 5020, 6320	-	-	-	
IUT	5120	Understand T&R Administration	B	-	G	-	-	D	*	0	0	0	0	2.0	5000, 5010, 5020, 6320	-	-	-	
IUT	5130	Develop a training plan	B,R	-	G	-	-	D	365	0	0	0	0	2.0	5000, 5010, 5020, 6320	-	-	-	
TOTAL SENIOR INSTRUCTOR SKILLS STAGE (SI)										0	0	0	0	4	8.0				
TOTAL INSTRUCTOR UNDER TRAINING SKILLS PHASE (IUT)										0	0	0	0	##	13.0				
REQUIREMENTS, QUALIFICATIONS, CERTIFICATIONS, AND DESIGNATIONS (RQCD) (6000 PHASE)																			

QUALIFICATIONS (QUAL)															
QUAL	6100	ACSBT	B,R	E	-	-	-	-	1095	0	0	8.0	2000, 2005, 2010, 2015, 2100, 2105, 2110, 2115, 2120, 2125, 2130, 2135, 2140, 2145, 2150, 2155, 2160, 2200, 2205, 2210, 2215, 2220, 2225, 2230, 2235, 2400, 2405, 2410, 2415, 2420, 2425, 2430, 2435, 2440, 2445, 2450, 2455, 2460, 2465, 2470, 2500, 2505, 2510, 2515, 2520, 2525, 2530, 2535, 2540, 2545, 2690, 2758, 3000, 3005, 3208, 3210, 3212		
QUAL	6105	ACSAT	B,R	E	-	-	-	-	1095	0	0	8.0	2000, 2005, 2010, 2015, 2100, 2105, 2110, 2115, 2120, 2125, 2130, 2135, 2140, 2145, 2150, 2155, 2160, 2165, 2170, 2200, 2205, 2210, 2215, 2220, 2225, 2230, 2235, 2400, 2405, 2410, 2415, 2420, 2425, 2430, 2435, 2440, 2445, 2450, 2455, 2460, 2465, 2470, 2500, 2505, 2510, 2515, 2520, 2525, 2530, 2535, 2540, 2545, 2650, 2690, 2700, 2702, 2704, 2706, 2708, 2716, 2718, 2720, 2752, 2754, 2756, 2758, 2800, 2834, 2840, 2842, 2844, 2846, 2848, 2900, 2905, 2910, 2915, 2920, 2925, 2930, 2935, 3000, 3005, 3204, 3206, 3208, 3210, 3212, 3214, 3216, 6100, 8000		
TOTAL QUALIFICATIONS STAGE (QUAL)										0	0	0	0	4	16.0

DESIGNATIONS (DESG)																		
DESG	6320	Basic Instructor (BI)	B	-	-	-	-	L	*					1.0	5000, 5010, 5020, 6100	-	-	-
DESG	6321	Senior Instructor (SI)	B	-	-	-	-	L	*					1.0	5000, 5010, 5020, 5100, 5110, 5120, 5130, 6100 or 6105, 6320	-	-	-
DESG	6500	SAFETY CD	B	-	-	-	-	L	*		0		0	2.0	2500, 2525, 2530	-	-	-
DESG	6505	HAZMAT CD	B	-	-	-	-	L	*		0		0	2.0	2500, 2525, 2530	-	-	-
DESG	6510	PUB CD	B	-	-	-	-	L	*		0		0	2.0	2500, 2520	-	-	-
DESG	6515	TRAINING CD	B	-	-	-	-	L	*		0		0	2.0	2500	-	-	-
DESG	6520	TOOLS CD	B	-	-	-	-	L	*		0		0	2.0	2500, 2515, 2545	-	-	-
DESG	6525	CAL CD	B	-	-	-	-	L	*		0		0	2.0	2500, 2505, 2545	-	-	-
DESG	6530	MOD CD	B	-	-	-	-	L	*		0		0	2.0	2500, 2510, 2545	-	-	-
DESG	6535	EMBARK CD	B	-	-	-	-	L	*		0		0	2.0	2500, 2535, 2545	-	-	-
DESG	6540	MIMMS CD	B	-	-	-	-	L	*		0		0	2.0	2500, 2540, 2545	-	-	-
DESG	6545	QC CD	B	-	-	-	-	L	*		0		0	2.0	2500	-	-	-



DESG	6555	ACSMC	B	-	-	-	-	L	*	0	0	0.0	2000, 2005, 2010, 2015, 2100, 2105, 2110, 2115, 2120, 2125, 2130, 2135, 2140, 2145, 2150, 2155, 2160, 2165, 2170, 2200, 2205, 2210, 2215, 2220, 2225, 2230, 2235, 2400, 2405, 2410, 2415, 2420, 2425, 2430, 2435, 2440, 2445, 2450, 2455, 2460, 2465, 2470, 2500, 2505, 2510, 2515, 2520, 2525, 2530, 2535, 2540, 2545, 2650, 2690, 2700, 2702, 2704, 2706, 2708, 2710, 2712, 2716, 2718, 2720, 2722, 2724, 2726, 2728, 2730, 2732, 2734, 2736, 2738, 2742, 2744, 2746, 2748, 2750, 2752, 2754, 2756, 2758, 2800, 2802, 2804, 2806, 2830, 2832, 2834, 2836, 2838, 2840, 2842, 2844, 2846, 2848, 2900, 2905, 2910, 2915, 2920, 2925, 2930, 2935, 2940, 2945, 2950, 3000, 3005, 3010, 3100, 3105, 3110, 3202, 3204, 3206, 3208, 3210, 3212, 3214, 3216, 3218, 6100, 8000, 8020, 8060, 8080	
TOTAL DESIGNATIONS STAGE (DESG)										0	0	0	15	22.0
TOTAL REQUIREMENTS, QUALIFICATIONS, CERTIFICATIONS, AND DESIGNATIONS PHASE (ROCD)										0	0	0	19	38.0

2.17 AVIATION TRAINING FORMS (ATF). This form is found within Appendix B of the C3 Course Catalog. The Course Catalog can be found on the MAWTS-1 website at the following URL.

[https://www.intranet.tecom.usmc.mil/sites/mawts1/mawts1%20webpages/c3\\_wttp.asp](https://www.intranet.tecom.usmc.mil/sites/mawts1/mawts1%20webpages/c3_wttp.asp)  
x

2.18 TRAINING DEVICE ESSENTIAL SUBSYSTEMS MATRIX (EESM). None.

