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From: Commandant of the Marine Corps
To: Distribution List

Subj: METEOROLOGICAL AND OCEANOGRAPHIC TRAINING AND READINESS MANUAL

Ref: (a) NAVMC 3500.14E

Encl: (1) METOC T&R Manual

1. Purpose. Per the reference, the Meteorological and Oceanographic (METOC) Training and Readiness (T&R) Manual contained in enclosure (1) provides revised standards, regulations, and policy regarding the training of METOC personnel.

2. Cancellation. NAVMC 3500.38C.

3. Scope. Highlights of major changes are:

a. Chapter 1

(1) Readiness metrics, instructor designations, certifications, qualifications, and designations have been revised to align more closely with updates to readiness reporting directives and a recent update to reference (a).

(2) Restructured core model minimum requirements to reflect current mission essential task requirements and recent changes to reference (a).

b. Chapter 2

(1) Training for the military occupational specialty (MOS) 5951, Meteorological Equipment Technician has been removed and relocated to the Marine Air Command and Control Squadron Maintenance T&R Manual. This chapter addresses the MOS 6842, METOC Enlisted Services.

(2) The career progression model has been reconstructed to provide a bridge connecting first-term Marines and senior staff non-commissioned officers.

c. Chapter 3. There are five 1000 Phase events that have been created for the newly developed METOC Officer Course.

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

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

6. Certification. Reviewed and approved this date.

K. M. IIAMS
Commanding General
Training and Education Command
By direction

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CHAPTER 1
METEOROLOGICAL AND OCEANOGRAPHIC (METOC) SERVICES TRAINING AND READINESS REQUIREMENTS

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CHAPTER 1
METEOROLOGICAL AND OCEANOGRAPHIC (METOC) SERVICES TRAINING AND READINESS REQUIREMENTS

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

1.1 MISSION.

1.1.1 The mission of the Marine Air Control Squadron (MACS), which is accomplished partly by the Marine Air Traffic Control Detachment (MATCD), is to provide air surveillance and control of friendly aircraft and surface-to-air weapons in support of offensive air support and anti-air warfare, continuous all-weather radar, non-radar, tower air traffic control services, airspace management, and meteorological and oceanographic services in support of the Marine air-ground task force and joint force commander.

1.1.2 Intelligence Battalion (INTEL BN) supports the Marine Expeditionary Force (MEF) by planning, directing, collecting, processing, producing and disseminating intelligence, and by providing counterintelligence support to the MEF Command Element, MEF Major Subordinate Commands, subordinate Marine Air Ground Task Forces (MAGTF), and other commands, as directed. Within this mission, the METOC section characterizes the METOC environment through collection, analysis, and prediction; and then exploits this information with tailored and

1.1.3 Installation Services support all Marine Corps Installations, Marine Aircraft Wing (MAW), transient aircraft, and personnel in garrison by collecting, evaluating, interpreting, and disseminating METOC observations and forecasts; preparing and disseminating weather watches, warnings, and advisories (WWAs); preparing and briefing aviation flight weather briefs; forecasting upper-level winds; preparing and disseminating yearly astronomical data; providing climatological data upon request; and completing all other METOC request for information (RFI) as requested.

1.1.4 Intelligence Support Battalion supports the Marine Forces Reserve (MARFORRES) by planning, directing, collecting, processing, producing and disseminating intelligence, and by providing counterintelligence support to the MARFORRES as well as augmenting and reinforcing the Active Component with trained units and individual Marines as a sustainable and ready operational reserve in order to augment and reinforce active forces for employment across the full spectrum of crisis and global engagement. Within this mission, the METOC section characterizes the METOC environment through collection, analysis, and prediction; and then exploits this information with tailored and integrated METOC products.

1.2 TABLE OF ORGANIZATION (T/O). Refer to table of organization (T/O) managed by Total Force Structure Division, MCCDC, for current authorized organizational structure and personnel strength for squadron/unit. As of this publication date, a squadron/unit is authorized:

1.2.1 Tactical and Reserve Squadron / Unit

MACS		
TABLE OF ORGANIZATION T/O		
	METOC Services Enlisted (6842)	METOC Services Officer (6802)
Sqdn	72	3
Sqdn (OCONUS)	39	3
Sqdn (RSV)	12	1

INTEL BN		
TABLE OF ORGANIZATION T/O		
	METOC Services Enlisted (6842)	METOC Services Officer (6802)
Battalion	50	2
Battalion (OCONUS)	25	1
Battalion (RSV)	25	1

INSTALLATION SERVICES		
TABLE OF ORGANIZATION T/O		
	METOC Services Enlisted (6842)	METOC Services Officer (6802)
RMC	32	2
Station	22	0
Station (OCONUS)	29	3

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

MACS			
MISSION ESSENTIAL TASK LIST (METL)			
MET	**ABBR**	**DESCRIPTION**	**AGENCY**
CORE METs			
5.3.5.8	AVNMETOC	Conduct Meteorological and Oceanographic (METOC) Operations	METOC, MACCS MX
5.3.5.8.1	METOCMST	Conduct Meteorological and Oceanographic (METOC) Support Team (MST) Operations	METOC, MACCS MX

INTEL BATTALION			
MISSION ESSENTIAL TASK LIST (METL)			
MET	**ABBR**	**DESCRIPTION**	**AGENCY**
CORE METs			
2.1.2.7	METOC	Conduct Meteorology and Oceanography (METOC) Support	METOC

INSTALLATION SERVICES			
MISSION ESSENTIAL TASK LIST (METL)			
MET	**ABBR**	**DESCRIPTION**	**AGENCY**
CORE METs			

4.6.3.10	METOC	Provide Meteorological Services	METOC

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

MACS									
MISSION ESSENTIAL TASK (MET) TO SIX FUNCTIONS OF MARINE AVIATION									
MET	ABBR	MANUAL	SIX FUNCTIONS OF MARINE AVIATION					
			OAS	ASPT	AAW	EW	CoA&M	AerRec
CORE METs								
MCT 2.1.2.7	METOCSPT	METOC	X	X	X	X	X	X
MCT 4.6.3.10	METOCSVCS	METOC	X	X	X	X	X	X
MCT 5.3.5.8	AVNMETOC	METOC, MACCS MX	X	X	X	X	X	X
MCT 5.3.5.8.1	METOCMST	METOC, MACCS MX	X	X	X	X	X	X

1.5 MET TO CORE/MISSION/CORE PLUS SKILL MATRIX. Depicts the relationship between a MET and each core/mission/core plus/mission plus skill associated with the MET for readiness reporting and resource allocation purposes. There should normally be a one-to-one relationship between the MET and a corresponding mission skill. Shading indicates core plus.

MET	METOC MISSION ESSENTIAL TASK (MET) TO CORE/MISSION/CORE PLUS SKILL MATRIX													
	CORE SKILL													
	2000 PHASE													
	MSO	UAS	ATD	FAM	EQPT	AMS	MDA	METF	MPB	COMM	MDN	MGT	LFA	MIA
MCT 5.3.5.8	X	X	X	X	X	X	X	X	X	X	X	X	X	X
MCT 5.3.5.8.1	X	X	X	X	X	X	X	X	X	X	X	X	X	X

MET	MISSION SKILL										
	3000 PHASE										
	MSO	ATD	EQPT	METF	MPB	LFA	MIA	MGT	MPC	TDL	DEPL
MCT 2.1.2.7	X	X	X	X	X	X	X	X	X		X
MCT 4.6.3.10	X	X	X	X	X	X	X	X	X		
MCT 5.3.5.8	X	X	X	X	X	X	X	X	X	X	X
MCT 5.3.5.8.1	X	X	X	X	X	X	X	X	X	X	X

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

MACS METOC		
MET OUTPUT STANDARDS		
AVIATION GROUND CORE METL OUTPUT STANDARDS		
MCT	**ABBR**	**NUMBER OF CREWS**
5.3.5.8	AVNMETOC	2
5.3.5.8.1	METOCMST	4

INTEL BATTALION METOC		
MET OUTPUT STANDARDS		
AVIATION GROUND CORE METL OUTPUT STANDARDS		
MCT	**ABBR**	**NUMBER OF CREWS**
2.1.2.7	METOC	4

INSTALLATION SERVICES METOC		
MET OUTPUT STANDARDS		
AVIATION GROUND CORE METL OUTPUT STANDARDS		
MCT	**ABBR**	**NUMBER OF CREWS**
4.6.3.10	METOC	**3** REGIONAL METOC CENTER (RMC) **1** STATION (CONUS) **3** STATION (OCONUS) **2** STATION (OCONUS IWAKUNI)

*Note: May not run 24 hour, continuous operations.

1.7 CORE MODEL MINIMUM REQUIREMENTS (CMMR) / ADVANCED AND BASELINE TRAINING STANDARDS FOR READINESS REPORTING (DRRS-MC). The paragraphs and tables below delineate the minimum pilot qualifications, designations, and/or training for the Advanced and Baseline Training Standards.

1.7.1 CMMR / Advanced Training Standard: The minimum pilot qualifications, designations, and/or training required to execute the MET output standards of paragraph 1.6. Units can be expected to perform a critical role in a mission or OPLAN and normally requires external MAGTF support.

1.7.2 Baseline Training Standard: The level of readiness expected from a unit sustained through core training at home station. Normally equates to approximately 70% of CMMR.

1.7.3 In the matrix below the first number in the “crews trained” columns reflect the CMMR or advanced training standard. The numbers in parentheses indicate the baseline training standard.

Note: Combat leadership is depicted as only one value (CMMR)

MACS METOC								
CMMR / ADVANCED AND BASELINE READINESS REPORTING MATRIX								
MET	SHARED	CREW POSITION				CREWS TRAINED		
		AF	TAMAF	JMAF	MMAF	Sqdn	Sqdn (OCO)	Sqdn (RSV)
CORE METs								
MCT 5.3.5.8 AVNMETOC		AF	TAMAF	JMAF	MMAF	2 (2)	2 (2)	2 (2)
MCT 5.3.5.8.1 METOCMST		AF	TAMAF		MMAF	4 (4)	4 (4)	4 (4)

MACS METOC				
COMBAT LEADERSHIP				
DESIGNATION	SHARED	Sqdn	Sqdn (OCO)	Sqdn (RSV)
		MMC	MMC	MMC
MMC	No	1	1	1

INTEL BATTALION							
CMMR / ADVANCED AND BASELINE READINESS REPORTING MATRIX							
MET	SHARED	CREW POSITION			CREWS TRAINED		
		AF	TAMAF	JMAF	Bn	Bn (OCO)	Bn (RSV)
CORE METs							
MCT 2.1.2.7 METOC		AF	TAMAF	JMAF	4 (4)	4 (4)	4 (4)

INTEL BATTALION				
COMBAT LEADERSHIP				
DESIGNATION	SHARED	Bn	Bn (OCO)	Bn (RSV)
		IMC	IMC	IMC
IMC	No	1	1	1

INSTALLATION SERVICES								
CMMR / ADVANCED AND BASELINE READINESS REPORTING MATRIX								
MET	SHARED	CREW POSITION			CREWS TRAINED			
		AF	AMAF	JMAF	RMC	STATION	STATION (OCO HAWAII)	STATION (OCO FUTENMA / IWAKUNI)
CORE METs								
MCT 4.6.3.10 METOC		AF	AMAF	JMAF	4 (4)	3(3)	5 (5)	3 (3)

INSTALLATION SERVICES					
COMBAT LEADERSHIP					
DESIGNATION	SHARED	RMC	STATION	STATION (OCO HAWAII)	STATION (OCO FUTENMA / IWAKUNI)
		RMCC			
RMCC	No	1	0	0	0

1.8 CORE MODEL TRAINING STANDARD (CMTS). Not applicable.

1.9 INSTRUCTOR DESIGNATIONS.

1.9.1 Tactical Unit

MACS METOC			
INSTRUCTOR DESIGNATIONS			
DESIGNATION	SHARED	SQUADRON	
		6842	6802
BI		9	0
SI		6	0
WTI		1	3

MACS METOC			
INSTRUCTOR DESIGNATIONS			
DESIGNATION	SHARED	SQUADRON (OCONUS)	
		6842	6802
BI		6	0
SI		4	0
WTI		1	2

MACS METOC			
INSTRUCTOR DESIGNATIONS			
DESIGNATION	SHARED	SQUADRON (RSV)	
		6842	6802
BI		1	0
SI		1	0
WTI		0	1

INTEL BATTALION			
INSTRUCTOR DESIGNATIONS			
DESIGNATION	SHARED	BATTALION	
		6842	6802
BI		4	0
SI		2	0
WTI		0	2

INTEL BATTALION			
INSTRUCTOR DESIGNATIONS			
DESIGNATION	SHARED	BATTALION (OCONUS)	
		6842	6802
BI		2	0
SI		1	0
WTI		0	1

INTEL BATTALION			
INSTRUCTOR DESIGNATIONS			
DESIGNATION	SHARED	BATTALION (RSV)	
		6842	6802
BI		1	0
SI		1	0
WTI		0	1

INSTALLATION SERVICES			
INSTRUCTOR DESIGNATIONS			
DESIGNATION	SHARED	RMC	
		6842	6802
BI		4	0
SI		2	0
WTI		0	2

INSTALLATION SERVICES			
INSTRUCTOR DESIGNATIONS			
DESIGNATION	SHARED	STATION	
		6842	6802
BI		5	0
SI		5	0
WTI		5	0

INSTALLATION SERVICES			
INSTRUCTOR DESIGNATIONS			
DESIGNATION	**SHARED**	**STATION (OCONUS HAWAII)**	
		6842	**6802**
BI		4	0
SI		2	0
WTI		0	1

INSTALLATION SERVICES			
INSTRUCTOR DESIGNATIONS			
DESIGNATION	**SHARED**	**STATION (OCONUS FUTENMA / IWAKUNI)**	
		6842	**6802**
BI		4	0
SI		2	0
WTI		0	2

1.10 CERTIFICATIONS, QUALIFICATIONS, DESIGNATIONS (CQD).

MACS METOC							
CQD							
CREDENTIAL	**SHARED**	**SQUADRON**		**SQUADRON (OCONUS)**		**SQUADRON (RSV)**	
		6842	**6802**	**6842**	**6802**	**6842**	**6802**
CERTIFICATION							
AF		6	0	4	0	3	0
AMAF		3	0	2	0	2	0
MIA		3*	0	2*	0	1*	0
JMAF		3	0	2	0	1	0
MMAF		3	0	2	0	1	0
QUALIFICATION							
SAF		**0**	**0**	**0**	**0**	**0**	**0**
SAMAF		**0**	**0**	**0**	**0**	**0**	**0**
MSTM		**0**	**0**	**0**	**0**	**0**	**0**
TAMAF		**3**	**0**	**2**	**0**	**0**	**0**
DESIGNATION							
MSTL		3*	**0**	2*	**0**	1*	**0**
QCS		0	**0**	0	**0**	0	**0**
RMCC		0	**0**	0	**0**	0	**0**
MMC		3**	**0**	2**	**0**	1**	**0**

IMC		0	**0**	0	**0**	0	**0**
JMO		0	3**	0	2**	0	1**
MMO		0	3*	0	2*	0	1*

INTEL BATTALION METOC							
CQD							
CREDENTIAL	**SHARED**	**BATTALION**		**BATTALION (OCONUS)**		**BATTALION (RSV)**	
		6842	**6802**	**6842**	**6802**	**6842**	**6802**
CERTIFICATION							
AF		2	**0**	1	**0**	1	**0**
AMAF		4	**0**	2	**0**	1	**0**
MIA		2*	**0**	1*	**0**	1*	**0**
JMAF		2	**0**	1	**0**	1	**0**
MMAF		2	**0**	1	**0**	1*	**0**
QUALIFICATION							
SAF		**0**	**0**	**0**	**0**	**0**	**0**
SAMAF		**0**	**0**	**0**	**0**	**0**	**0**
MSTM		**4***	**0**	**2***	**0**	**2***	**0**
TAMAF		**0**	**0**	**0**	**0**	**0**	**0**
DESIGNATION							
MSTL		2*	0	1*	0	1*	0
QCS		0	0	0	0	0	0
RMCC		0	0	0	0	0	0
MMC		0	0	0	0	0	0
IMC		2**	0	1**	0	1**	0
JMO		0	2**	0	1**	0	1**
MMO		0	0	0	0	0	0

INSTALLATION SERVICES METOC									
CQD									
CREDENTIAL	SHARED	RMC		STATION (CONUS)		STATION (OCONUS HAWAII)		STATION (OCONUS FUTENMA / IWAKUNI)	
		6842	6802	6842	6802	6842	6802	6842	6802
CERTIFICATION									
AF		2	0	1	0	2	0	1	0
AMAF		6	0	1	0	2	0	1	0
MIA		2	0	1*	0	1*	0	1*	0
JMAF		2	0	1	0	1	0	1	0
MMAF		2	0	0	0	1	0	1	0
QUALIFICATION									
SAF		2	0	1	0	2	0	1	0
SAMAF		6	0	1	0	2	0	1	0
MSTM		2	**0**	1	**0**	1	**0**	0	0
TAMAF		2	**0**	0	**0**	**0**	**0**	0	0
DESIGNATION									
MSTL		0	**0**	0	**0**	0	**0**	0	0
QCS		2*	**0**	1*	**0**	1*	**0**	1*	0
RMCC		2**	**0**	0	**0**	0	**0**	0	0
MMC		0	**0**	0	**0**	0	**0**	0	0
IMC		0	**0**	0	**0**	0	**0**	0	0
JMO		0	0	0	0	0	1**	0	1**
MMO		0	2	0	0	0	0	0	0

* Note: These are additional qualifications for mission enhancement, but are not required.
** Note: Designation numbers can be filled by any individual with that MOS. Only one person needs to be designated at any given time.

CHAPTER 2
METEOROLOGICAL AND OCEANOGRAPHIC (METOC) SERVICES ENLISTED 6842 INDIVIDUAL TRAINING AND READINESS REQUIREMENTS

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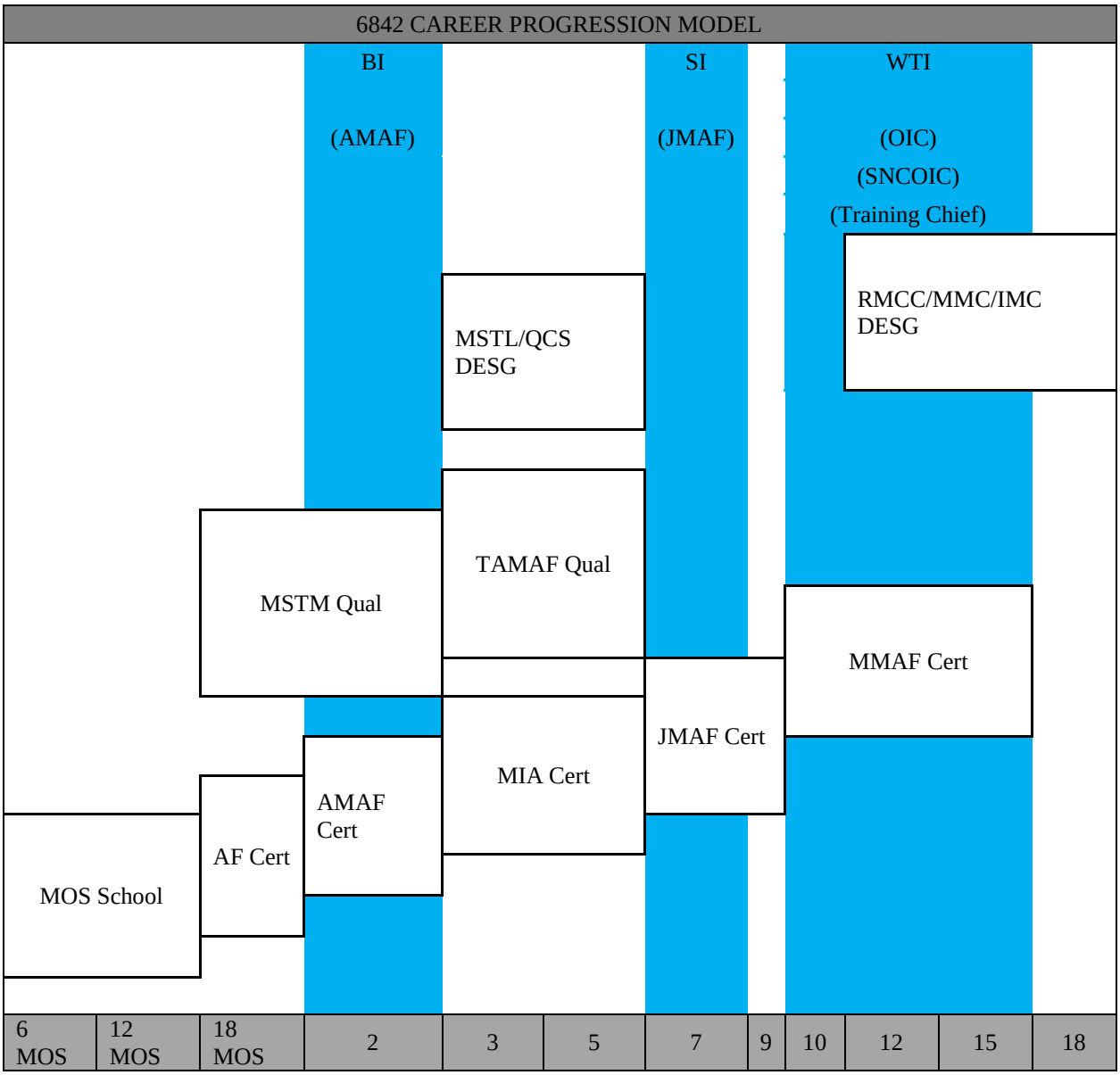
CHAPTER 2
METOC SERVICES
INDIVIDUAL TRAINING AND READINESS REQUIREMENTS

2.0 METOC ANALYST FORECASTER/6842 INDIVIDUAL TRAINING AND READINESS REQUIREMENTS. The METOC training progression model represents training progression. 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 warfighting capabilities.

2.1 MOS 6842 TRAINING PROGRESSION MODEL. This model represents the recommended training progression for the average 6842 METOC Analyst Forecaster. Units should use the model as a point of departure to generate individual training plans.



2.2 6842 PROGRAMS OF INSTRUCTION (POI).

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

2.2.2 Basic POI

METOC ANALYST FORECASTER 6842 BASIC POI		
WEEKS	PHASE OF INSTRUCTION	UNIT RESPONSIBLE
1-32	METOC ANALYST FORECASTER FORECASTER COURSE	KEESLER AFB, MS
33-64	CORE SKILL TRAINING	FMF UNIT
65-116	MISSION SKILL TRAINING	FMF UNIT
AS REQ	CORE PLUS TRAINING	FMF UNIT

2.2.3 Refresher POI

METOC ANALYST FORECASTER 6842 REFRESHER POI		
WEEKS	PHASE OF INSTRUCTION	UNIT RESPONSIBLE
VARIES	CORE SKILL TRAINING	FMF UNIT
VARIES	MISSION SKILL TRAINING	FMF UNIT
VARIES	CORE PLUS	FMF UNIT

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

2.3 PROFICIENCY AND CURRENCY.

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

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

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

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

Loss of Unit Skill Proficiency. If an entire unit loses proficiency in an Event, unit instructors shall regain proficiency by completing the Event with an instructor from a like unit. If not feasible, the instructor shall regain

proficiency by completing the Event with another Instructor. For flying communities, if a unit has only one instructor and cannot complete the Event with an instructor from another unit, the instructor shall regain proficiency with another aircraft commander or as designated by the commanding officer.

Proficiency Status. Proficiency is a "Yes/No" status by skill assigned to an individual. When an individual attains and maintains Core Skill Proficiency (CSP), Mission Skill Proficiency (MSP), Core Plus Skill Proficiency (CPSP), or Mission Plus Skill Proficiency (MPSP), the individual may count towards CMMR or CMTS.

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

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

2.4.1 Instructor Designations

INSTRUCTOR DESIGNATION	EVENTS
Basic Instructor (BI)	5000, 5010, 5020, 6320
Senior Instructor (SI)	5000, 5010, 5020, 5100, 5110, 5120, 5130, 6320, 6321
Weapons And Tactics Instructor (WTI)	6000, 6322
Formal Learning Center Instructor (FLC)	6096, 6330

2.4.2 Certifications, Qualifications, and Designations

METOC ANALYST 6842	
CERTIFICATIONS, QUALIFICATIONS, AND DESIGNATIONS (CQD)	
CERTIFICATION	EVENTS
Assistant Forecaster (AF)	2200, 2201, 2202, 2204, 2205, 2206, 2250, 2251, 2300, 2301, 2351, 2400, 2500, 2501, 2502, 2503, 3100, 3101, 3102, 3150, 3151, 6200, 6500
Apprentice METOC Analyst Forecaster (AMAF)	2250, 2251, 2252, 2400, 2550, 2551, 2552, 2553, 2554, 2555, 2556, 2600, 2601, 2602, 2603, 2650, 3302, 6200, 6500, 6502
Mission Impact Analyst (MIA)	2750, 2751, 2851, 2852, 2856, 2901, 2950, 2951, 2952, 2953, 2954, 3251, 3303, 3304, 3305, 3306, 3307, 3350, 3400, 3401, 3402, 3403, 3404, 6201
Journeyman METOC Analyst Forecaster (JMAF)	2352, 3500, 3501, 6001, 6201, 6202, 6303, 8040, 8041, 8042, 8043, 8044, 8060, 8061, 8062, 8063, 8064, 8065, 8066, 8067, 8080, 8081, 8082, 8083, 8084, 8085, 8086, 8087, 8088
Master METOC Analyst Forecaster (MMAF)	6002, 6003, 6004, 6005, 6006, 6203
QUALIFICATION	EVENTS

Station Assistant Forecaster (SAF)	2350, 6200
Station Apprentice METOC Analyst Forecaster (SAMAF)	6201, 6300
METOC Support Team Member (MSTM)	2700, 2701, 2702, 2703, 3203, 3204, 3205, 3206, 6200
Tactical Apprentice METOC Analyst Forecaster (TAMAF)	2850, 3207, 3208, 3209, 3210, 3211, 3212, 3213, 3214, 3215, 3216, 3217, 3218, 3219, 3220, 3221, 3222, 3223, 3224, 3225, 3226, 3251, 6201, 6302, 6503, 6504, 6505, 6506, 6507, 6508, 8000, 8001, 8002, 8003, 8004, 8005, 8006, 8007, 8008, 8020, 8021, 8022, 8023, 8024, 8025, 8026, 8027, 8028
DESIGNATION	EVENTS
METOC Support Team Leader (MSTL)	6202, 6303
Quality Control Supervisor (QCS)	2857, 6202, 6301
Regional METOC Center Chief (RMCC)	3452, 6204
Marine Air Traffic Control Detachment METOC Chief (MMC)	3450, 3451, 6204
Intel METOC Chief (IMC)	3450, 3451, 6204

2.5 SYLLABUS NOTES.

2.5.1 Environmental Conditions Matrix.

Environmental Conditions	
Code	Meaning
D	Shall be conducted during hours of daylight: (by exception - there is no use of a symbol)
N	Shall be conducted during hours of darkness, may be aided or unaided
(N)	May be conducted during darkness – If conducted during hours of darkness; may be flown aided or unaided

2.5.2 Device Matrix.

DEVICE	
Symbol	Meaning
L	Event shall be conducted live (conducted in the field/garrison, during an exercise, etc). Requires live (non-simulated) execution of the event.
L/S	Event performed live preferred/simulator optional.
S/L	Event performed in simulator preferred/live optional.

G	Ground/academic training. May include Distance Learning, CBT, lectures, and self-paced.

2.5.3 Program of Instruction Matrix.

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

2.5.4 Event Terms.

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

2.6 CORE SKILL INTRODUCTION PHASE (1000 PHASE)

2.6.1 Purpose. To provide entry-level instruction to develop the basic skills necessary for a Marine to meet the requirements to be assigned MOS 6842, METOC Analyst Forecaster. This training includes meteorology, computers, satellite, meteorological reports, chart analysis, air mass sounding (Skew-T) analysis, space environment, and climatology. Upon graduation from the Meteorological and Oceanographic Analyst Forecaster Course (MOAF), the Marine is designated with the MOS 6842.

2.6.2 General.

Admin Notes. MOAF (CID F02WAK1) located at Keesler AFB, MS.

Prerequisite. None.

Stage. The following stage is included in the Core Skill Introduction Phase of training.

PAR NO.	STAGE NAME	PAGE NUMBER
2.6.3	METEOROLOGY AND OCEANOGRAPHY ANALYST FORECASTER (MOAF)	2-8

2.6.3 METEOROLOGY AND OCEANOGRAPHY ANALYST FORECASTER (MOAF) STAGE

2.6.3.1 Purpose. To teach the Marine in the required skills to perform as a basic Meteorology and Oceanography Analyst Forecaster, MOS 6842.

2.6.3.2 General.

Admin Notes. None.

Prerequisite. IAW MOS Manual (MCO 1200.17_).

Crew Requirements. None.

MOAF-1000 * B (N) G

Goal. Identify facts about space environment.

Requirement. Describe fundamental principles of:

1. Space environment.
2. Impacts to operations.
3. Solar network.

Performance Standard. In accordance with the POI, complete the knowledge based objective measurement.

Instructor. FLC Instructor

Prerequisite. None.

References.
1. AFSPCPAM 15-2
2. USAFETAC/ TN-90/001
3. USAFETAC TN 91/006
4. AFMAN 15-129
5. AFWAMAN 15-1
6. FYI 37 & 51
7. Space Weather CBT

MOAF-1001 * B (N) G

Goal. Identify facts about the elements of a weather observation.

Requirement. Describe fundamental principles of:

1. Sky condition.
2. Visibility.

3. Atmospheric phenomenon.
4. Temperature.
5. Wind.
6. Atmospheric pressure.

Performance Standard. In accordance with the POI, complete the knowledge based objective measurement to a minimum.

Instructor. FLC Instructor

Prerequisite. None.

References.
1. AFMAN 15-111
2. Cloud Types for Observers
3. COMOCNOPSINST 3141.2

MOAF-1002 * B (N) G

Goal. Relate principles about the Earth and its atmosphere.

Requirement. Describe fundamental principles of:

1. Meteorology.
2. Geography.
3. Oceanography.
4. Climatology.

Performance Standard. In accordance with the POI, complete the knowledge based objective measurement.

Instructor. FLC Instructor

Prerequisite. None.

References.
1. AFWA/TN-98/002
2. AFCCC 14WS website https://notus2.14WS.af.mil
3. AFH 11-203(v1)
4. Meteorology Today 9th Edition By: C. Donald Ahrens Publication Date 02 July 2008 ISBN-10: 0495555738
5. Meteorology for Scientists and Engineers 2nd Edition By: Roland B. Stull
6. Publication Date: 2000 ISBN: 0-534-37214-7
7. Aerographers' Mate, 1 & C, 1995
8. Aerographers' Mate, 2, 1995
9. Oceanic and Riverine Applications QTP

MOAF-1003 * B (N) G

Goal. Relate principles about atmospheric physics.

Requirement. Describe fundamentals of atmospheric motion.

1. Standard units of measure.

2. Fundamental concepts.
3. Atmospheric pressure.
4. Parcel pressure.
5. Atmospheric heating.
6. Atmospheric temperature.
7. Water vapor/moisture.
8. Energy.
9. Hydrologic cycle.
10. Meteorological processes.

Performance Standard. In accordance with the POI, complete the knowledge based objective measurement.

Instructor. FLC Instructor

Prerequisite. None.

References.
1. AFWA/TN-98/002
2. AFH 11-203(v1)
3. Meteorology Today 9th Edition By: C. Donald Ahrens Publication Date: 02 July 2008 ISBN-10: 0495555738
4. Meteorology for Scientists and Engineers 2nd Edition By: Roland B. Stull Publication Date: 2000 ISBN: 0-534-37214-7

MOAF-1004 * B (N) G

Goal. Relate principles about atmospheric dynamics.

Requirement. Describe fundamentals of:

1. Newton's three laws of motion.
2. Buys Ballot's Law.
3. Forces affecting parcel movement.
4. Momentum and winds.
5. Vorticity.
6. Dynamic processes.
7. Principles of global circulation.
8. Three cell model - Northern Hemisphere.
9. Jet streams.

Performance Standard. In accordance with the POI, complete the knowledge based objective measurement.

Instructor. FLC Instructor

Prerequisite. None.

References.
1. AFWA/TN-98/002
2. AFH 11-203(v1)
3. Meteorology Today 9th Edition By: C. Donald Ahrens Publication Date: 02 July 2008 ISBN-10: 0495555738
4. Meteorology for Scientists and Engineers 2nd Edition By: Roland B. Stull Publication Date: 2000 ISBN: 0-534-37214-7

MOAF-1005 * B (N) G

Goal. Relate principles about hemispheric weather features.

Requirement. Discuss the fundamental of:

1. Definitions and basic concepts.
2. Hemispheric features.
3. Other barotropic circulations.

Performance Standard. In accordance with the POI, complete the knowledge based objective measurement.

Instructor. FLC Instructor

Prerequisite. None.

References.
1. AFWA/TN-98/002
2. AFH 11-203(v1)
3. Meteorology Today 9th Edition By: C. Donald Ahrens Publication Date: 02 July 2008 ISBN-10: 0495555738
4. Meteorology for Scientists and Engineers 2nd Edition By: Roland B. Stull Publication Date: 2000 ISBN: 0-534-37214-7
5. COMET Skew-T Mastery CBT

MOAF-1006 * B (N) G

Goal. Relate principles about continental weather features.

Requirement. Discuss the fundamentals of:

1. Definitions and basic concepts.
2. Continental features.

Performance Standard. In accordance with the POI, complete the knowledge based objective measurement.

Instructor. FLC Instructor

Prerequisite. None.

References.
1. AFWA/TN-98/002
2. AFH 11-203(v1)
3. Meteorology Today 9th Edition By: C. Donald Ahrens Publication Date: 02 July 2008 ISBN-10: 0495555738
4. Meteorology for Scientists and Engineers 2nd Edition By: Roland B. Stull Publication Date: 2000 ISBN: 0-534-37214-7

MOAF-1007 * B (N) G

Goal. Relate principles about regional weather features.

Requirement. Discuss the fundamentals of:

1. Tertiary circulations.

2. Thunderstorm basic concepts.
3. Hazardous weather elements.

Performance Standard. In accordance with the POI, complete the knowledge based objective measurement.

Instructor. FLC Instructor

Prerequisite. None.

References.
1. AFWA/TN-98/002
2. AFH 11-203(v1)
3. Meteorology Today 9th Edition By: C. Donald Ahrens Publication Date: 02 July 2008 ISBN-10: 0495555738
4. Meteorology for Scientists and Engineers 2nd Edition By: Roland B. Stull Publication Date: 2000 ISBN: 0-534-37214-7

MOAF-1008 * B (N) G

Goal. Relate principles about tropical weather features.

Requirement. Discuss the fundamentals of:

1. Tropics.
2. Hemispheric features.
3. Continental features.
4. Regional features - tropical waves.

Performance Standard. In accordance with the POI, complete the knowledge based objective measurement.

Instructor. FLC Instructor

Prerequisite. None.

References.
1. AFWA/TN-98/002
2. AFH 11-203(v1)
3. Meteorology Today 9th Edition By: C. Donald Ahrens Publication Date: 02 July 2008 ISBN-10: 0495555738
4. Meteorology for Scientists and Engineers 2nd Edition By: Roland B. Stull Publication Date: 2000 ISBN: 0-534-37214-7
5. National Hurricane Center

MOAF-1009 * B (N) G

Goal. Relate principles about the types of meteorological satellite systems.

Requirement. Discuss the fundamentals of:

1. Meteorological satellite systems.
2. Detection process.
3. Advantages and limitations.
4. Imagery colorization.
5. Imagery types.

6. Image resolution.
7. Interpretation considerations.

Performance Standard. In accordance with the POI, complete the knowledge based objective measurement.

Instructor. FLC Instructor

Prerequisite. None.

References.
1. AFMAN 15-129
2. GOES Users Guide
3. SSM/I Interpretation Guide
4. WRTA 80-15

MOAF-1010 * B (N) G

Goal. Relate satellite imagery to meteorological and non-meteorological features or events.

Requirement. Discuss the fundamentals of:

1. Non-cloud features.
2. Cloud features.
3. Meteorological events.

Performance Standard. In accordance with the POI, complete the knowledge based objective measurement.

Instructor. FLC Instructor

Prerequisite. None.

References.
1. AFMAN 15-129
2. GOES Users Guide
3. SSM/I Interpretation Guide
4. WRTA 80-15

MOAF-1011 * B (N) G

Goal. Decode a METAR observation

Requirement. Given canned observations, decode:

1. Symbolic format.
2. Observation type.
3. Station identifier.
4. Date and time of observation.
5. Modifier.
6. Wind.
7. Variable wind direction.
8. Prevailing visibility.
9. Runway visual range (RVR).
10. Present weather.
11. Sky condition.

12. Temperatures.
13. Pressure.
14. Remarks.

Performance Standard. Using applicable data, decode a METAR observation.

Instructor. FLC Instructor

Prerequisite. None.

References.
1. AFMAN 15-111
2. Cloud Types for Observers
3. COMOCNOPSINST 3141.2

MOAF-1012 * B (N) G

Goal. Encode/Decode Pilot Reports (PIREPS).

Requirement. Given all information for a PIREP, complete the following:

1. Encode the PIREP.
2. Decode the PIREP.

Performance Standard. Using applicable reference, encode/decode three pilot reports.

Instructor. FLC Instructor

Prerequisite. None.

References.
1. FMH-12
2. NAVMETOCCOMINST 3142.1
3. NMOC FORM 3140/10 (Rev. 7/96)

MOAF-1013 * B (N) G

Goal. Decode land and ship synoptic data.

Requirement. Given canned data, in land and/or ship symbolic format, decode the observation.

Performance Standard. Given FCM-T1, Surface Synoptic Code Tables, and applicable data, decode Land and Ship Synoptic observations.

Instructor. FLC Instructor

Prerequisite. None.

References.
1. FMH-2
2. FM 13-XI
3. AFVA 15-117
4. FM 12-XI

MOAF-1014 * B (N) G

Goal. Decode a rawinsonde observation.

Requirement. Given a coded rawinsonde observation, decode:

1. Symbolic format.
2. Decode TTAA.
3. Decode TTBB.
4. Decode PPBB.

Performance Standard. Using applicable data, decode a rawinsonde observation.

Instructor. FLC Instructor

Prerequisite. None.

References.
1. AFWA/TN-98/002
2. COMET Skew-T Mastery CBT
3. Plotting and Analyzing a Skew-T Log-P Diagram by: Cyclogenesis, Inc. ISBN# 1-881877-14-0

MOAF-1015 * B (N) G

Goal. Decode a plotted Skew-T/Log-P diagram.

Requirement. Given a plotted Skew-T/Log P diagram, analyze:

1. Chart features.
2. Basic analysis techniques.

Performance Standard. Using applicable data, decode a Skew-T/Log-P diagram.

Instructor. FLC Instructor

Prerequisite. None.

References.
1. AFWA/TN-98/002
2. COMET Skew-T Mastery CBT
3. Plotting and Analyzing a Skew-T Log-P Diagram by: Cyclogenesis, Inc. ISBN# 1-881877-14-0

MOAF-1016 * B (N) G

Goal. Analyze upper-air and surface charts.

Requirement. Discuss, then analyze the following basic features given canned upper-air and surface charts:

1. Purpose of chart analysis.
2. Three step analysis process.
3. Basic analysis charts.

4. Standard plot models.
5. General chart preparation requirements.
6. 300 mb chart requirements.
7. 500 mb chart requirements.
8. 700 mb chart requirements
9. 850 mb chart requirements.
10. Surface analysis chart requirements.

Performance Standard. Given appropriate chart sets, analyze upper-air and surface charts.

Instructor. FLC Instructor

Prerequisite. None.

References.
1. WRTA 81-14
2. CRTA 91-19
3. AFWA/TN 98-002
4. Meteorology Today 9th Edition By: C. Donald Ahrens Publication Date 02 July 2008 ISBN-10: 0495555738
5. Meteorology for Scientists and Engineers 2nd Edition By: Roland B. Stull Publication Date: 2000 ISBN: 0-534-37214-7

MOAF-1017 * B (N) G

Goal. Select effective quality assurance program procedures.

Requirement. Discuss the fundamentals of the following:

1. Quality assurance.
2. Verification programs.
3. Quality control (QC) procedures.

Performance Standard. In accordance with the POI, complete the knowledge based objective measurement.

Instructor. FLC Instructor

Prerequisite. None.

References.
1. AFMAN 15-129
2. AFH 33-337

MOAF-1018 * B (N) G

Goal. Identify facts about the components of an effective regime forecast process.

Requirement. Discuss the fundamentals of:

1. Regimes.
2. Macroscale regimes.
3. The Regime Forecast Process.

Performance Standard. In accordance with the POI, complete the knowledge based objective measurement.

Instructor. FLC Instructor

Prerequisite. None.

References.
1. AFMAN 15-129
2. AFWA/TN 98-002

MOAF-1019 * B (N) G

Goal. Relate principles about macroscale weather analysis techniques.

Requirement. Discuss the fundamentals of:

1. Atmospheric motion.
2. Atmospheric dynamics.
3. Characteristics of long waves.
4. Long-wave patterns - two types.
5. Special case - blocking systems.
6. Jet streams.
7. Analysis Tools.
8. Interpreting Models.

Performance Standard. In accordance with the POI, complete the knowledge based objective measurement.

Instructor. FLC Instructor

Prerequisite. None.

References.
1. WRTA 81-14
2. AFWA/TN 98-002

MOAF-1020 * B (N) G

Goal. Analyze macroscale weather features.

Requirement. Utilizing the following METOC products, identify macroscale atmospheric features:

1. Satellite imagery - water vapor and infrared.
2. 500-mb Wave Hemispheric chart.
3. Model chart analysis requirements.
4. Initialize model products.

Performance Standard. Given hemispheric weather charts and satellite imagery, analyze macroscale weather features.

Instructor. FLC Instructor

Prerequisite. None.

References.
1. WRTA 81-14
2. AFWA/TN 98-002

MOAF-1021 * B (N) G

Goal. Relate principles about synoptic scale weather analysis techniques.

Requirement. Discuss the fundamentals of:

1. Physics.
2. Dynamics.
3. Upper atmospheric weather features.
4. Lower atmospheric weather features.
5. Surface layer weather features.
6. Vertical interactions.
7. Analysis process.
8. Analysis tools.
9. Model interpretation.
10. Tropical weather.

Performance Standard. In accordance with the POI, complete the knowledge based objective measurement.

Instructor. FLC Instructor

Prerequisite. None.

References.
1. AFMAN 15-129
2. AFWATN/98-002
3. NWS Forecaster Handbook No. 1

MOAF-1022 * B (N) G

Goal. Identify facts about synoptic weather regimes.

Requirement. Discuss the fundamentals of:

1. Weather regime characteristics.
2. Dependent on macroscale environment.
3. Barotropic regime (4) Baroclinic regimes.

Performance Standard. In accordance with the POI, complete the knowledge based objective measurement.

Instructor. FLC Instructor

Prerequisite. None.

References.
1. AFMAN 15-129
2. AFWATN/98-002
3. NWS Forecaster Handbook No. 1

MOAF-1023 * B (N) G

Goal. Analyze synoptic scale weather features.

Requirement. Utilizing satellite imagery, upper air charts and surface charts, discuss and identify the following:

1. Chart descriptions.
2. Analysis process.
3. Analyze the hemispheric satellite image.
4. Analyze the 500-mb hemispheric chart.
5. Streamline CONUS water vapor image.
6. Analyze CONUS IR image.
7. Analyze 300 mb chart.
8. Analyze 500 mb chart.
9. Analyze 700 mb chart.
10. Analyze 850 mb chart.
11. Analyze surface chart.
12. 1,000-500-mb Thickness chart.
13. 500-mb Heights and Vorticity chart.
14. Initialize model products.
15. Regime analysis briefing.

Performance Standard. Given satellite imagery, upper air charts and surface charts for the United States, analyze synoptic scale weather features.

Instructor. FLC Instructor

Prerequisite. None.

References.
1. AFMAN 15-129
2. AFWATN/98-002
3. NWS Forecaster Handbook No. 1

MOAF-1024 * B (N) G

Goal. Encode METAR observations.

Requirement. Given a scenario, perform the following functions:

1. State general information.
2. Identify service specific information.
3. Identify form entries.
4. State required entries on every METAR observation.
5. Properly encode a METAR observations.

Performance Standard. Given applicable regulations and an observation scenario, encode three METAR observations.

Instructor. FLC Instructor

Prerequisite. None.

References.
1. AFMAN 15-111
2. COMOCNOPSINST 3142.2 3. 3. CNMOC 3140/12

MOAF-1025 * B (N) G

Goal. Relate principles about mesoscale weather analysis techniques.

Requirement. Discuss the fundamentals of:

1. Atmospheric stability.
2. Mass continuity theory.
3. Convective severe weather.
4. Non-convective severe weather.

Performance Standard. In accordance with the POI, complete the knowledge based objective measurement.

Instructor. FLC Instructor

Prerequisite. None.

References.
1. AFMAN 15-129
2. AFWATN/98-002
3. NWS Forecaster Handbook No. 1

MOAF-1026 * B (N) G

Goal. Identify facts about radar theory and radar system components.

Requirement. Identify the following:

1. National weather radar network.
2. System user classifications.
3. Major components.
4. Volume coverage pattern.
5. Electromagnetic energy.
6. Beam characteristics.
7. Pulse characteristics.
8. Atmospheric interactions.
9. Velocity.

Performance Standard. In accordance with the POI, complete the knowledge based objective measurement.

Instructor. FLC Instructor

Prerequisite. None.

References.
1. FMH-11
2. WSR-88D Operating Instructions

MOAF-1027 * B (N) G

Goal. Relate principles about weather radar products.

Requirement. Discuss the fundamentals of:

1. Single Polarization Base Products.
2. Dual Polarization Base Products.

Performance Standard. In accordance with the POI, complete the knowledge based objective measurement.

Instructor. FLC Instructor

Prerequisite. None.

References.
1. FMH-11
2. WSR-88D Operating Instructions

MOAF-1028 * B (N) G

Goal. Analyze mesoscale weather features.

Requirement. Perform the following:

1. State general requirements.
2. Streamline low-level features.
3. Analyze 300-mb chart.
4. Analyze 500-mb chart.
5. Analyze 700-mb chart.
6. Analyze 850-mb chart.
7. Analyze surface features on a local area work chart.
8. Analyze Skew-T/Log-P diagram.

Performance Standard. Given a Skew-T diagram, upper air and surface charts, and satellite imagery, analyze mesoscale weather features.

Instructor. FLC Instructor

Prerequisite. None.

References.
1. AFMAN 15-129
2. AFWATN/98-002
3. NWS Forecaster Handbook No. 1

MOAF-1029 * B (N) G

Goal. Relate principles about macroscale weather forecast techniques.

Requirement. Discuss the fundamentals of:

1. The forecast regime process - forecast phase.

2. Macroscale weather features.
3. Macroscale regimes.
4. Long-wave patterns.
5. Prognosis rules and forecast techniques.
6. Numerical weather model types.

Performance Standard. In accordance with the POI, complete the knowledge based objective measurement.

Instructor. FLC Instructor

Prerequisite. None.

References.
1. WRTA 81-14
2. AFWA/TN 98-002

MOAF-1030 * B (N) G

Goal. Identify facts about numerical model processes.

Requirement. Discuss the fundamentals of:

1. Definitions.
2. Deterministic models.
3. Stochastic model.
4. Deterministic and stochastic examples.

Performance Standard. In accordance with the POI, complete the knowledge based objective measurement.

Instructor. FLC Instructor

Prerequisite. None.

Reference.
1. AFWA/TN 98-002

MOAF-1031 * B (N) G

Goal. Relate principles about flight hazard forecast techniques.

Requirement. Discuss the following fundamentals:

1. Turbulence
2. Icing

Performance Standard. In accordance with the POI, complete the knowledge based objective measurement.

Instructor. FLC Instructor

Prerequisite. None.

References.
1. AFMAN 15-129
2. AFWATN/98-002

3. NWS Forecaster Handbook No. 1

MOAF-1032 * B (N) G

Goal. Relate principles about synoptic scale weather forecast techniques.

Requirement. Discuss the fundamentals of:

1. Synoptic weather features.
2. Vertical consistency.
3. Prognosis rules and forecast techniques.
4. Using models to produce forecast.

Performance Standard. In accordance with the POI, complete the knowledge based objective measurement.

Instructor. FLC Instructor

Prerequisite. None.

References.
1. AFMAN 15-129
2. AFWATN/98-002
3. NWS Forecaster Handbook No. 1

MOAF-1033 * B (N) G

Goal. Take a surface observation.

Requirement. Utilizing the METAR code, take and record a surface observation:

1. Evaluate outside weather elements.
2. Evaluate inside weather elements.

Performance Standard. Given appropriate weather data, references and equipment, encode a METAR observation.

Instructor. FLC Instructor

Prerequisite. None.

References.
1. AFMAN 15-111
2. COMOCNOPSINST 3142.2 3. 3. CNMOC 3140/12

MOAF-1034 * B (N) G

Goal. Forecast tropical weather elements.

Requirement. Perform the following functions:

1. Identify tropical weather features.
2. Apply tropical forecast techniques.

3. Identify tropical cyclones and other tropical weather elements.

Performance Standard. Given analyzed charts and diagrams, forecast tropical weather elements.

Instructor. FLC Instructor

Prerequisite. None.

References.
1. AFMAN 15-129
2. AFWATN/98-002
3. NWS Forecaster Handbook No. 1

MOAF-1035 * B (N) G

Goal. Forecast macroscale and synoptic scale weather features.

Requirement. Perform the following functions:

1. Review climatology and continuity.
2. Perform analysis features.
3. Apply prognosis rules and forecast techniques.
4. Initialize and verify models.
5. Produce a 24-hour forecast of macroscale and synoptic scale features on forecast charts.
6. Provide briefing of analysis and forecast products.
7. Compare new analysis chart to previous forecast chart.
8. Chart analysis software – Leading Environmental Analysis and Display System (LEADS).
9. Build presentation using PowerPoint – Format.

Performance Standard. Given a computer to display appropriate weather charts and references, forecast macroscale and synoptic scale weather features.

Instructor. FLC Instructor

Prerequisite. None.

References.
1. AFMAN 15-129
2. AFWATN/98-002
3. NWS Forecaster Handbook No. 1

MOAF-1036 * B (N) G

Goal. Relate principles about mesoscale and microscale weather forecast techniques.

Requirement. Identify the following:

1. Precipitation forecast techniques.
2. Obstructions forecast techniques.
3. Low-level turbulence forecast techniques.
4. Pressure forecast techniques.

Performance Standard. In accordance with the POI, complete the knowledge based objective measurement.

Instructor. FLC Instructor

Prerequisite. None.

References.
1. AFMAN 15-129
2. AFWATN/98-002
3. NWS Forecaster Handbook No. 1

MOAF-1037 * B (N) G

Goal. Identify meteorological parameters from microscale numerical weather prediction text products.

Requirement. Utilizing the products below, identify METOC parameters:

1. Numerical weather prediction products.
2. Numerical guidance.
3. Model output statistic (MOS) products.

Performance Standard. Using appropriate weather data, select meteorological parameters from microscale numerical weather prediction text products with at least 70% accuracy and one instructor assist.

Instructor. FLC Instructor

Prerequisite. None.

Reference.
1. AFWA/TN 98-002

MOAF-1038 * B (N) G

Goal. Forecast mesoscale and microscale weather features.

Requirement. Perform the following functions:

1. Evaluate synoptic scale.
2. Determine predominant synoptic regimes.
3. Evaluate meteogram.
4. Evaluate current and forecast Skew-Ts.
5. Apply mesoscale/microscale forecast techniques.

Performance Standard. Given a computer to display appropriate weather data and references, forecast mesoscale and microscale weather features.

Instructor. FLC Instructor

Prerequisite. None.

References.
1. AFMAN 15-129
2. AFWATN/98-002
3. NWS Forecaster Handbook No. 1

MOAF-1039 * B (N) G

Goal. Prepare a Terminal Aerodrome Forecast (TAF).

Requirement. Perform the following functions:

1. Describe Terminal Aerodrome Forecast (TAF) code.
2. Complete TAF worksheet.

Performance Standard. Using appropriate weather data and a computer, prepare a terminal aerodrome forecast.

Instructor. FLC Instructor

Prerequisite. None.

References.
1. NAVMETOCCOMINST 3143.1_
2. AFMAN 15-124
3. FM51-XII TAF Code

MOAF-1040 * B (N) G

Goal. Demonstrate proficiency of atmospheric physics.

Requirement. Demonstrate knowledge of fundamental concepts of the following subjects:

1. Atmospheric structure.
2. Atmospheric variables.
3. Pressure.
4. Temperature and moisture.
5. Fundamentals of atmospheric concepts.
6. Advection.
7. Thickness values.
8. Cloud formation and dissipation.
9. Precipitation types.

Performance Standard. Define the subjects listed and determine how each subject affects the other.

Instructor. FLC Instructor

Prerequisite. None.

References.
1. UCAR CoMet In-Depth Physics Lessons
2. UCAR CoMet S290 Unit 4: Basic Weather Processes
3. UCAR CoMet S-290 Unit: 5 Temperature and Relative Humidity Relationships
4. UCAR CoMet Topics in Precipitation Type Forecasting
5. UCAR CoMet Principles of Convection 1: Buoyancy and CAPE
6. UCAR CoMet Frongenetical Circulations and Stability (Dr. James Moore)
7. Meteorology Today 9th Edition By: C. Donald Ahrens Publication Date 02 July 2008 ISBN-10: 0495555738

AFWA TN 98-002 (revised Feb. 2012)
8. Meteorology for Scientists and Engineers 2nd Edition By: Roland B. Stull Publication Date: 2000 ISBN: 0-534-37214-7

MOAF-1041 * B (N) G

Goal. Describe the dynamic atmospheric principles.

Requirement. Describe fundamental concepts of the following subjects:

1. Rotational and circular motion.
2. Atmospheric forces.
3. Divergence/convergence (speed & directional).
4. Vorticity.
5. Jet streams.
6. Atmospheric wave terminology.
7. Vertical motions.
8. Air masses.
9. Frontal systems.
10. Evolution of frontal systems.
11. Synoptic scale systems.
12. Evolution of synoptic scale baroclinic systems.
13. Local modification to large-scale circulations.

Performance Standard. Explain each of the concepts listed and state the development and dissipation processes, where applicable.

Instructor. FLC Instructor

Prerequisite. None.

References.
1. Meteorology Today 9th Edition By: C. Donald Ahrens Publication Date 02 July 2008 ISBN-10: 0495555738
2. AFWA TN 98-002 (revised Feb. 2012), Meteorology for Scientists and Engineers 2nd Edition By: Roland B. Stull Publication Date: 2000 ISBN: 0-534-37214-7

MOAF-1042 * B (N) G

Goal. Analyze and interpret a thickness chart.

Requirement. Given a SFC-500mb thickness chart, analyze and depict the features listed:

1. Warm/cold air advection.
2. High and low pressure centers.
3. Fronts.
4. 540 Dam line.
5. Troughs.
6. Label air masses.
7. Jet stream.

Performance Standard. Complete requirement within 30 minutes of chart receipt. Discuss meteorological reasoning for placement of features.

Instructor. FLC Instructor

Prerequisite. None.

References.
1. Meteorology Today 9th Edition By: C. Donald Ahrens Publication Date 02 July 2008 ISBN-10: 0495555738
2. AFWA TN 98-002 (revised Feb. 2012), Air Force Weather Training Package
3. Analysis and Prognosis, Trainee Booklet, Trainer's Guide, Evaluation Package, Meteorology for Scientists and Engineers 2nd Edition By: Roland B. Stull Publication Date: 2000 ISBN: 0-534-37214-7

MOAF-1043 * B (N) G

Goal. Analyze and interpret a vorticity chart.

Requirement. Given a 500mb vorticity chart, analyze and depict the following features:

1. Positive/negative vorticity advection areas.
2. Shear lobes.
3. Advection lobes.
4. Jet stream.
5. X-N distribution.

Performance Standard. Complete requirement within 30 minutes of chart receipt. Explain meteorological reasoning for placement of features.

Instructor. FLC Instructor

Prerequisite. None.

References.
1. Meteorology Today 9th Edition By: C. Donald Ahrens Publication Date 02 July 2008 ISBN-10: 0495555738, AFWA TN 98-002 (revised Feb. 2012)
2. Air Force Weather Training Package, Analysis and Prognosis, Trainee Booklet, Trainer's Guide, Evaluation Package
3. Meteorology for Scientists and Engineers 2nd Edition By: Roland B. Stull Publication Date: 2000 ISBN: 0-534-37214-7

MOAF-1044 * B (N) G

Goal. (Re)Analyze and interpret upper atmospheric weather charts.

Requirement. Provided standard level chart set (850mb, 700mb, 500mb, 300mb, and 200mb) analyze the mandatory level constant pressure charts for features listed below (as applicable):

1. Isoheights.
2. Isotherms.
3. Areas of significant moisture.
4. Major short wave axis, troughs and ridges.
5. Minor short wave axis, troughs and ridges.
6. High and low height centers.
7. Warm and cold pockets.

8. Upper fronts.
9. Jet stream features.

Performance Standard. Complete requirement within 30 minutes of chart receipt. Explain meteorological reasoning for placement of features.

Instructor. FLC Instructor

Prerequisite. None.

References.
1. Meteorology Today 9th Edition By: C. Donald Ahrens Publication Date 02 July 2008 ISBN-10: 0495555738
2. AFWA TN 98-002 (revised Feb. 2012), Air Force Weather Training Package, Analysis and Prognosis, Trainee Booklet, Trainer's Guide, Evaluation Package, Unified Surface Analysis Manual
3. Meteorology for Scientists and Engineers 2nd Edition By: Roland B. Stull Publication Date: 2000 ISBN: 0-534-37214-7

MOAF-1045 * B (N) G

Goal. Analyze and interpret a surface chart.

Requirement. Given a surface chart, depict the following features:

1. Isobars.
2. High and low pressure centers.
3. Fronts.
4. Highlight weather symbols.
5. Troughs.
6. Label air masses.
7. Dry lines.
8. Isallobars.
9. Isodrosotherms.
10. Identify outflow boundaries.
11. Nephanalysis.

Performance Standard. Complete requirement within 45 minutes of chart receipt and explain meteorological reasoning for placement of features.

Instructor. FLC Instructor

Prerequisite. None.

References.
1. Meteorology Today 9th Edition By: C. Donald Ahrens Publication Date 02 July 2008 ISBN-10: 0495555738
2. AFWA TN 98-002 (revised Feb. 2012), Air Force Weather Training Package, Analysis and Prognosis, Trainee Booklet, Trainer's Guide, Evaluation Package, Unified Surface Analysis Manual
3. Meteorology for Scientists and Engineers 2nd Edition By: Roland B. Stull Publication Date: 2000 ISBN: 0-534-37214-7

MOAF-1046 * B (N) G

Goal. Brief synoptic chart set.

Requirement. Utilizing an analyzed chart set, brief meteorological features from the following products:

1. Surface chart.
2. Constant pressure charts.
3. 0-5 Hemispheric Wave chart
4. Support charts:
   a. Satellite imagery.
   b. Vorticity.
   c. 1000-500mb Thickness.

Performance Standard. Conduct brief until individual demonstrates mastery of sound atmospheric fundamentals.

Instructor. FLC Instructor

Prerequisite. None.

References.
1. Meteorology Today 9th Edition By: C. Donald Ahrens Publication Date 02 July 2008 ISBN-10: 0495555738
2. AFWA TN 98-002 (revised Feb. 2012)
3. Air Force Weather Training Package, Analysis and Prognosis, Trainee Booklet, Trainer's Guide, Evaluation Package
4. Meteorology for Scientists and Engineers 2nd Edition By: Roland B. Stull Publication Date: 2000 ISBN: 0-534-37214-7

MOAF-1047 * B (N) G

Goal. Encode/Decode a TAF.

Requirement. In accordance with the reference, encode and decode three TAF's.

Performance Standard. Given applicable regulations, encode/decode three TAFs.

Prerequisite. None.

References.
1. NAVMETOCCOMINST 3143.1_Terminal Aerodrome Forecast (TAF)
2. FM51-XII TAF code

MOAF-1048 * B (N) G

Goal. Describe US Marine Corps (USMC) METOC doctrine, organization, core capabilities and operations.

Requirement. Complete the knowledge based objective measurement.

1. Explain the USMC METOC Doctrine and Operational Concept.
2. Identify the METOC Organization.
3. Identify USMC METOC capabilities.
4. Describe METOC Integration in USMC operations.

Performance Standard. In accordance with the POI, Demonstrate understanding.

Instructor. FLC Instructor

Prerequisite. None.

References.
1. MCRP 2-10B.6
2. MAWTS-1, "METOC Support to the MAGTF" class
3. JP 3-59

MOAF-1049 * B (N) G

Goal. Facilitate information on DOD and the NWS terminology and severe weather criteria used for determining and setting weather warnings and advisories.

Requirement. Complete the knowledge based objective measurement.
1. Identify types of weather warnings and conditions set on Navy and Marine Corps Installations.
2. Identify tropical cyclone, sub-tropical, extra-tropical wind storms warning criteria.

Performance Standard. In accordance with the POI, complete the knowledge based objective measurement.

Instructor. FLC Instructor

Prerequisite. None.

References.
1. MCO 3140.24_ / Local Destructive Wx Order
2. Local METOC SOP
3. Current operations Annex H

MOAF-1050 * B (N) G

Goal. Identify METOC's role in the Marine Corps Planning Process (MCPP).

Requirement. Complete the knowledge based objective measurement.

1. Discuss METOC's role in the Marine Corps Planning Process (MCPP).
2. Discuss METOC's role in deliberate planning.
3. Discuss METOC's role in Rapid Response Planning Process (R2P2).
4. Discuss METOC's role in the Operational Planning Teams (OPT).
5. Discuss METOC's role in Intelligence Preparation of the Operational Environment (IPOE).

Performance Standard. In accordance with the POI, Demonstrate understanding.

Instructor. FLC Instructor

Prerequisite. None.

References.
1. MCDP 1
2. MCDP 1-0
3. MCDP 1-2
4. MCDP 1-4
5. MCDP 5

6. MCWP 3-40.1
7. MCWP 5-1
8. MCDP 6
9. FM 2-01.3/MCRP 2-3A
10. MSTP Pamphlet 5-0.2

MOAF-1051 * B (N) G

Goal. Familiarize with how to conduct Intelligence Preparation of the Battlefield (IPB).

Requirement. Complete the knowledge based objective measurement.

1. Conduct the analysis of weather effects.
2. Conduct the evaluation of terrain effects.
3. Conduct the analysis of the effect of the human factors.
4. Conduct the evolution of the effect of human factors.
5. Identify the exploitation opportunities.
6. Discuss intelligence gaps.

Performance Standard. In accordance with the POI, Demonstrate understanding.

Instructor. FLC Instructor

Prerequisite. None.

References.
1. MCDP 1
2. MCDP 1-0
3. MCDP 1-2
4. MCDP 5
5. MCDP 6
6. FM 2-01.3/MCRP 2-3A
7. MCRP 2-10B.6
8. MSTP Pamphlet 5-0.2
9. MSTP Pamphlet 2-0.1
10. MCRP 2-10B.6

MOAF-1052 * B (N) G

Goal. Introduction of organic METOC Weather Equipment and capabilities by supporting echelon.

Requirement. Complete the knowledge based objective measurement.

1. Identify the METMF (R) NEXGEN.
2. Identify the METMF (R) NEXGEN IBV.
3. Identify the KESTREL.
4. Identify the HMMWV.
5. Identify PRC 117.
6. Identify ASOS.
7. Identify NITES NEXT
8. Identify ADVANCED MICRO WEATHER SENSOR

Performance Standard. In accordance with the POI, Identify the METOC equipment.

Instructor. FLC Instructor

Prerequisite. None.

References.
1. EM000-CD-OMP-01 Operation and Maintenance Manual with Parts List
2. EE100-FF-OMI-01 Operation and Maintenance Instruction
3. 334-192046 Embarkation Guide

MOAF-1053 * B (N) G

Goal. Introduction to METOC security and proper handling, storage, and spillage of classified information and materials.

Requirement. Complete the knowledge based objective measurement.

1. Identify the different levels of classification.
2. Identify marking requirements for each level of classification.
3. Identify the two person Integrity (TPI) rule.
4. Identify the purpose of a SF-702 form.
5. Identify the purpose of a storage container.
6. Identify spillage.

Performance Standard. In accordance with the POI, Identify proper classification storing and storing classified materials.

Instructor. FLC Instructor

Prerequisite. None.

References.
1. SECNAVINST 5510.36.
2. EKMS-1.
3. MCO P5510.18.
4. Unit EKMS SOP.

2.7 CORE SKILL PHASE (2000 PHASE)

2.7.1 Purpose. To train METOC Analyst Forecaster in the skills necessary to master the core competency of meteorology (operational atmospheric forecasting). This phase of training also introduces follow-on skills to broaden individual skill beyond that of atmospheric forecasting. Core skills and supporting events are specific mission-related task areas that support METOC METLs. Core skills are grouped into T&R events and are appropriately labeled as stages of training. The core model requires individual and unit proficiency in 2000 level core skills in order to perform all tasks in the unit METL and to execute the unit core capability. This phase is essential to wartime employment of the unit. Individuals should normally complete this phase of training within the first year of assignment to a unit (approximately 14-18 months).

2.7.2 General.

Admin Notes. None.

Prerequisite. None.

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

2.7.3 METEOROLOGICAL SURFACE OBSERVATIONS (MSO) STAGE

2.7.3.1 Purpose. To develop proficiency in observing, recording and disseminating meteorological elements that comprise the surface meteorological reports (observations).

2.7.3.2 General.

Admin Notes. Upon completion of this stage of training, METOC personnel shall be competent at observing atmospheric phenomenon, units of measurement, quality control procedures and dissemination of parameters.

Prerequisite. None.

Crew Requirements. None.

MSO-2200 2.0 * B (N) G

Goal. State and discuss the elements of a METAR surface observation.

Requirement. State and discuss, in detail, the elements that comprise a METAR surface observation. Discussion will include:

1. Sky condition.
2. Visibility.
3. Weather and obstructions to vision.
4. Pressure.
5. Temperature.
6. Wind.
7. Remarks/additive data.
8. Local Criteria.
9. Rules governing the observing and recording elements.
10. Conversion or computation (as required).
11. Encoding

Performance Standard. Pass an exam with 80% accuracy.

Instructor. BI

Prerequisite. 6500

References.
1. NAVMETOCCOMINST 3141.2_ (Surface Meteorological Observation Procedures)
2. Federal Meteorological Handbook No. 1 - Surface Weather Observation and Reports, September 2005, FCM-H1-2005 http://www.ofcm.gov/publications/fmh/allfmh2.htm

MSO-2201 1.0 * B (N) G

Goal. State the criteria for a SPECI surface observation.

Requirement. State the criteria that comprise a SPECI surface observation for the following elements:

1. Wind.
2. Visibility.
3. Weather and precipitation.
4. Sky and ceiling.
5. Volcanic eruption.
6. Runway conditions.
7. Aircraft mishap.
8. Miscellaneous
9. Change in level of service.

Performance Standard. Pass an exam with 80% accuracy.

Instructor. BI

Prerequisite. 2200

References.
1. NAVMETOCCOMINST 3141.2_ (Surface Meteorological Observation Procedures)
2. Federal Meteorological Handbook No. 1 - Surface Weather Observation and Reports, September 2005, FCM-H1-2005 http://www.ofcm.gov/publications/fmh/allfmh2.htm

MSO-2202 2.0 * B (N) L/S

Goal. Compute meteorological values.

Requirement. With the aid of reference given the appropriate elements, compute the following values:

1. Pressure altitude.
2. Density altitude.
3. Altimeter.
4. Wet Bulb Globe Temperature Index (WBGTI).
5. Wind chill temperature.
6. Absolute humidity.
7. Relative humidity.
8. Dew point.
9. Crosswind, headwind, and tailwind.

10. Fahrenheit to Celsius.
11. Knots to mph.

Performance Standard. Compute meteorological values without error.

Instructor. BI

Prerequisite. 6500

References.
1. NAVMETOCCOMINST 3141.2_ (Surface Meteorological Observation Procedures)
2. Aerographer's Mate Third Class METOC Training Manual
3. Meteorological Techniques AFWA/TN-98/002 Revised 13 February 2012 (https://afwkc.adls.af.mil/)

MSO-2204 2.0 * B (N) G

Goal. State and discuss the elements of a Terminal Aerodrome Forecast (TAF).

Requirement. State and discuss, in detail, the elements that comprise a TAF. Discussion will include:

1. Message header.
2. Wind group.
3. Visibility group.
4. Weather group.
5. Sky cover group.
6. Non-convective low level wind shear group.
7. Icing group.
8. Turbulence group.
9. Predicted lowest altimeter group.
10. Remarks.
11. Temperature group.

Performance Standard. Pass an exam with 80% accuracy.

Instructor. BI

Prerequisite. 6500

References.
1. NAVMETOCCOMINST 3143.1_, Terminal Aerodrome Forecast (TAF) and the FM51-XII TAF Code
2. Aerographer's Mate Third Class METOC Training Manual

MSO-2205 0.5 365 B, R, M (N) L/S

Goal. Decode a Terminal Aerodrome Forecast (TAF).

Requirement. In accordance with the reference, decode 15 TAFs.

Performance Standard. Complete the requirement by practical application IAW the Reference.

Instructor. BI

Prerequisite. 2204

References.

1. NAVMETOCCOMINST 3143.1_, Terminal Aerodrome Forecast (TAF) and the FM51-XII TAF Code
2. Aerographer's Mate Third Class METOC Training Manual

MSO-2206 1.0 * B (N) G

Goal. Define the criteria for setting weather warnings, watches, and advisories.

Requirement. Without the aid of reference, define criteria for setting weather warnings, watches, and advisories.

Performance Standard. Pass an exam with 80% accuracy.

Instructor. BI

Prerequisite. 6500

References.
1. MCO 3140.24_ / Local Destructive Wx Order
2. Local METOC SOP
3. Current operations Annex H

2.7.4 UPPER ATMOSPHERIC SENSING (UAS) STAGE

2.7.4.1 Purpose. To develop proficiency sensing and collecting data above the Earth's surface.

2.7.4.2 General.

Admin Notes. Upon completion of this stage of training, METOC personnel shall be competent at the analyzation of upper atmospheric sounding and upper air observational equipment.

Prerequisite. 6501

Crew Requirements. None.

UAS-2250 1.0 365 B, R, M (N) L/S

Goal. Decode upper air messages.

Requirement. Decode five upper atmospheric soundings and exhibit an understanding of the scales and features of a Skew-T, Log P diagram.
1. Decode upper atmospheric sounding per applicable references.
2. Identify scales and use of scales located on the Skew-T, Log P diagram.

Performance Standard. Complete the requirement by practical application IAW the reference.

Instructor. BI

Prerequisite. 6500

References.
1. Federal Meteorological Handbook No. 3 - Rawinsonde and Pibal Observations, May 1997, FCM-H3-1997, http://www.ofcm.gov/homepage/text/pubs.htm
2. Aerographer's Mate Third Class METOC Training Manual, Chapter 2

UAS-2251 1.0 365 B, R, M (N) L/S

Goal. Analyze a Skew-T Log P diagram.

Requirement. Utilizing a Skew-T diagram and/or appropriate software and upper air sounding, plot and analyze upper-air data. Perform the following:

1. Obtain upper-air observation data.
2. Plot mandatory levels, significant levels, and significant wind data or import upper-air data into appropriate software.
3. Define the following:
   a. CCL.
   b. LCL.
   c. LFC.
   d. PEA.
   e. NEA.
   f. T1.
   g. T2.
   h. Forecasted maximum temperature.
   i. Forecasted minimum temperature.
   j. Freezing level.
   k. Contrails.
   l. Tropopause.
   m. EL
   n. Turbulent areas.
   o. Potential temperature.
   p. Icing types and levels.
   q. Areas of moisture.
   r. D-Values.
   s. Fog dissipation.
   t. Cloud height, types, and coverage.
2. Compute following stability indices (at a minimum).
   a. Lifted index.
   b. K index.
   c. Sweat index.
   d. Showalter's index.
   e. Total totals.

Performance Standard. Complete the requirement by practical application IAW the reference. Within a 60 minute period, analyze a Skew-T Log P diagram.

Instructor. BI

Prerequisite. 2250

References.
1. Federal Meteorological Handbook No. 3 - Rawinsonde and Pibal Observations, May 1997, FCM-H3-1997
2. Aerographer's Mate Third Class METOC Training Manual, Chapter 2

UAS-2252 2.0 * B (N) G

Goal. Identify the components of an upper-air sensor and upper-air sensing equipment.

Requirement. Identify use of the components required for taking an upper air observation.
1. Identify the following components:
   a. Upper air sensing equipment and antennas.
   b. Upper air sensor /transmitter.
   c. Required weight sets if applicable.
2. State the use of the following components:
   a. Upper air sensing equipment and antennas.
   b. Upper air sensor /transmitter.
   c. Required weight sets if applicable.
3. Read and comprehend procedures for conducting upper air observations.

Performance Standard. Complete the requirement by practical application IAW the reference.

Instructor. BI

Prerequisite. None.

References.
1. Operations and Maintenance Manual with Parts List, AN/TMQ-56 Measuring Set, METMF(R) NEXGEN, EM000-CD-OMP-010
2. Federal Meteorological Handbook No. 3 - Rawinsonde and Pibal Observations, May 1997, FCM-H3-199

2.7.5 ASTRONOMICAL/TIDAL DATA (ATD) STAGE

2.7.5.1 Purpose. To develop proficiency at deriving astronomical and tidal data.

2.7.5.2 General.

Admin Notes. Upon completion of this stage of training, METOC personnel shall be able to compute or retrieve astronomical or tidal data.

Prerequisite. 6500

Crew Requirements. None.

ATD-2300 1.0 * B (N) G

Goal. Define and state the difference between civil, nautical, and astronomical twilight.

Requirement. Without the aid of reference, define and state the difference between civil, nautical, and astronomical twilight.

Performance Standard. Pass an exam with 80% accuracy.

Instructor. BI

Prerequisite. None.

Reference.
1. https://www.usno.navy.mil/USNO/astronomical-applications/astronomical-information-center

ATD-2301 1.0 * B (N) G

Goal. State the relationship between lunar illumination, moon rise, moon set, low light level, and high light level.

Requirement. Without the aid of reference, describe the relationship between lunar illumination, moon rise, moon set, low light level, and high light level.

Performance Standard. Pass an exam with 80% accuracy.

Instructor. BI

Prerequisite. 2300

Reference.
1. https://www.usno.navy.mil/USNO/astronomical-applications/astronomical-information-center

2.7.6 FAMILIARIZATION (FAM) STAGE

2.7.6.1 Purpose. To familiarize METOC personnel with aspects of the local area assigned.

2.7.6.2 General.

Admin Notes. Upon completion of this stage of training, METOC personnel shall be knowledgeable of the local area procedures and policies they have been assigned to.

Prerequisite. None.

Crew Requirements. None.

FAM-2350 2.0 * B (N) G

Goal. Identify and define local area policies and procedures.

Requirement. Without the aid of reference, define and discuss the listed local area knowledge:

1. Airfield/Location description.
2. SOP.
3. Command support structure.
4. Destructive weather procedures.
5. Security requirements.
6. Watch composition and schedule.
7. Watch procedures.
8. Local forms.
9. Reference and technical library procedures.
10. Local area forecaster handbook.
11. Weather regimes.
12. Local security procedures.
13. Watch routine.
14. METOC equipment.
15. Command structure.

16. Warning criteria/procedures.
17. Quality Assurance Programs.
18. Communication configurations and procedures.
19. Administrative Reports.

Performance Standard. Pass an exam with 80% accuracy.

Instructor. BI

Prerequisite. None.

References.
1. Local SOP
2. Forecasters Handbook

FAM-2351 1.0 * B (N) L/S

Goal. Disseminate weather watches, warnings, and advisories.

Requirement. With the aid of reference; disseminate weather watches, warnings, and advisories.

Performance Standard. Complete the requirement by practical application.

Instructor. BI

Prerequisite. 2206

References.
1. MCO 3140.24
2. Local METOC SOP
3. Current operations Annex H

2.7.7 EQUIPMENT (EQPT) STAGE

2.7.7.1 Purpose. To develop proficiency with equipment used in the meteorological field.

2.7.7.2 General.

Admin Notes. Upon completion of this stage of training, METOC personnel shall be proficient in the utilization of equipment within the meteorological community.

Prerequisite. 6501

Crew Requirements. None.

EQPT-2400 3.0 365 B, R, M (N) L

Goal. Operate handheld meteorological devices.

Requirement. Operate all handheld sensing devices indigenous to the unit. Conduct sensing of environmental elements utilizing devices like those listed below. Devices may vary from site to site, unit commanders shall identify devices to be evaluated.

1. Wind sensing devices.
2. Pressure sensing devices.
3. Temperature sensing devices.

Performance Standard. Complete the requirement by practical application.

Instructor. BI

Prerequisite. 6500

References.
1. PMQ http://meteorologytraining.tpub.com/14269/css/14269_105.htm
2. Kestrel http://www.kestrelmeters.com/

EQPT-2401 2.0 365 B, R, M (N) L

Goal. Operate a handheld GPS device.

Requirement. Given a handheld GPS receiver and the references:

1. Describe the purpose and use of the device.
2. Describe the components of the device.
3. Report current location in both latitude/longitude and MGRS coordinates.
4. Fill the device with the appropriate crypto for precision positioning system (PPS) operations.
5. Report current location in both latitude/longitude and MGRS coordinates in PPS operations.

Performance Standard. Complete the requirement items IAW the References. Device was programmed properly, current position was accurate, and device was operated with appropriate crypto fills.

Instructor. BI

Prerequisite. None

References.
1. DAGR Operator's Pocket Guide.
2. AN/PSN-13A DAGR Computer Based Training.
3. DAGR Technical Manual 11-5820-1172-13.

2.7.8 APPLIED METEOROLOGICAL SCIENCE (AMS) STAGE

2.7.8.1 Purpose. To introduce the fundamental principles of the atmosphere required to produce mission specific products.

2.7.8.2 General.

Admin Notes. Upon completion of this stage of training, METOC personnel shall possess and demonstrate proficiency in meteorological fundamentals.

Prerequisite. 6500, 6501

Crew Requirements. None.

AMS-2500 15.0 * B (N) G

Goal. Describe principles of atmospheric physics.

Requirement. Describe principles of atmospheric physics:

1. Atmospheric structure.
2. Atmospheric variables.
3. Vectors.
4. Pressure.
5. Temperature and moisture.
6. Fundamentals of atmospheric concepts.
7. Advection.
8. Thermal winds.
9. Thickness values.
10. Heat transfer.
11. Cloud formation and dissipation.
12. Precipitation types.

Performance Standard. Pass an exam with 80% accuracy.

Instructor. BI

Prerequisite. 6502

References.
1. Meteorology Today 11th Edition By: C. Donald Ahrens Publication Date 02 July 2008 ISBN-10: 1305113586
2. Meteorology for Scientist and Engineers 2nd Edition By: Roland B. Stull Publication Date: 2000 ISBN: 0-534-37214-7
3. Aerographer's Mate Second Class, Volume I METOC Training Manual
4. Aerographer's Mate Second Class, Volume II METOC Training Manual
5. AFWA/TN-98/002 Revised, 13 February 2012
6. AFH 11-203(v2), 16 May 2002

AMS-2501 15.0 * B (N) G

Goal. Describe principles of atmospheric dynamics.

Requirement. Describe principles of atmospheric dynamics:

1. Rotational and circular motion.
2. Atmospheric forces.
3. Divergence/convergence (speed & directional).
4. Vorticity.
5. Jet streams.
6. Atmospheric wave terminology.
7. Vertical motions.
8. Air masses.
9. Frontal systems.
10. Evolution of frontal systems.
11. Synoptic scale systems.
12. Evolution of synoptic scale baroclinic systems.
13. Local modification to large-scale circulations.

Performance Standard. Pass an exam with 80% accuracy.

Instructor. BI

Prerequisite. 6502

References.
1. AFWA/TN-98/002 Revised, 13 February 2012
2. AFH 11-203(v2), 16 May 2002
3. Meteorology Today 11th Edition By: C. Donald Ahrens Publication Date 02 July 2008 ISBN-10: 1305113586
4. Meteorology for Scientists and Engineers 2nd Edition By: Roland B. Stull Publication Date: 2000 ISBN: 0-534-37214-7
5. Atmospheric Science: An Introductory Survey 2nd Edition Ch. 7 By: John M. Wallace and Peter V. Hobbs Publication Date: 15 February 2006 ISBN-10: 0-12-732951-X
6. An Introduction to Atmospheric Physics 2nd Edition Ch. 2,4,5 By: David G. Andrews Publication Date: 2010 ISBN: 978-0-521-87220-1
7. Atmosphere, Ocean, and Climate Dynamics: An Introductory Text By: John Marshall and R. Alan c Plumb Publication Date: 2008 ISBN 13: 978-0-12-558691-7

AMS-2502 5.0 * B (N) G

Goal. Describe atmospheric fundamentals.

Requirement. Verbally define and discuss the atmospheric fundamentals listed below during a technical discussion with qualified METOC personnel.
1. Long/short wave trough/ridges.
   a. Deepening/building/intensifying.
   b. Filling/weakening.
   c. Cyclogenesis/frontogenesis.
   d. Cyclolysis/frontolysis.
2. Pressure systems.
   a. Baroclinic/barotropic.
3. Frontal systems.
   a. Active/inactive cold fronts.
   b. Active/inactive warm fronts.
   c. Stationary fronts.
   d. Warm/Cold occlusions.
   e. Type “A”/”B” occlusions.
   f. Warm/cold air advection.
   g. Dry/moist air advection.
4. Jet properties of:
   a. Polar front jet stream.
   b. Arctic jet stream.
   c. Subtropical jet stream.
   d. Low-level jets.
5. Vorticity.
6. Thickness.Condensation/evaporation/sublimation.
7. Convergence/confluence.
8. Divergence/diffluence.
9. Pressure gradient.
10. Gradient / Geostrophic / Ageostrophic / Cyclostrophic winds.
11. Relative/absolute/specific humidity.
12. Cloud identification/formation.

Performance Standard. Pass an exam with 80% accuracy.

Instructor. BI

Prerequisite. 6502

References.
1. Meteorology Today 11th Edition By: C. Donald Ahrens Publication Date 02 July 2008 ISBN-10: 1305113586
2. Meteorology for Scientists and Engineers 2nd Edition By: Roland B. Stull Publication Date: 2000 ISBN: 0-534-37214-7
3. Atmospheric Science: An Introductory Survey 2nd Edition Ch. 7-8 By: John M. Wallace and Peter V. Hobbs Publication Date: 15 February 2006 ISBN-10: 0-12-732951-X
4. An Introduction to Atmospheric Physics 2nd Edition Ch. 2,4,5 By: David G. Andrews Publication Date: 2010 ISBN: 978-0-521-87220-1
5. Atmosphere, Ocean, and Climate Dynamics: An Introductory Text By: John Marshall and R. Alan Plumb Publication Date: 2008 ISBN 13: 978-0-12-558691-7
6. AFWA/TN-98/002 Revised, 13 February 2012
7. AFH 11-203(v2), 16 May 2002

AMS-2503 1.0 * B (N) G

Goal. State the use of graphical METOC products.

Requirement. State the elements of the following graphical products used to assist in the forecast process:

1. Horizontal/vertical weather depiction.
2. Satellite imagery.
3. Radar imagery.
4. Surface chart.
5. Constant pressure charts.
6. Oceanographic charts.
7. Vorticity charts.
8. Thickness charts.
9. SKEW-T LOG P Diagram.

Performance Standard. Pass an exam with 80% accuracy.

Instructor. BI

Prerequisite. 6502

Reference.
1. AFWA/TN-98/002 Revised, 13 February 2012
2. AFH 11-203(v2), 16 May 2002
3. Aerographer's Mate Second Class, Volume I METOC Training Manual
4. Aerographer's Mate Second Class, Volume II METOC Training Manual
5. Weather Analysis and Forecasting By: Patrick Santurette and Christo G. Georgiev Publication Date: N: 0-12-619262-6
6. Weather Map Handbook 2nd Edition By: Tim Vasquez Publication Date: 2008 ISBN: 0-9706840-7-X

2.7.9 METOC DATA ANALYSIS (MDA)STAGE

2.7.9.1 Purpose. To develop proficiency in the analysis of basic atmospheric features on surface and upper-level atmospheric data.

2.7.9.2 General.

Admin Notes. Upon completion of this stage of training, METOC personnel shall be competent at analyzing and interpreting surface and atmospheric phenomena.

Prerequisite. None.

Crew Requirements. None.

MDA-2550 2.0 * B (N) L/S

Goal. Initialize and verify meteorological model output.

Requirement. Initialize and verify meteorological model output of global, regional, and mesoscale numerical models.

Performance Standard. Complete the requirement by practical application followed by guided discussion.

Instructor. BI

Prerequisite. 2500, 2501, 2502, 2503

References.
1. AFWA/TN-98/002 Revised, 13 February 2012
2. AFH 11-203(v2), 16 May 2002
3. An Introduction to Atmospheric Physics 2nd Edition Ch. 1,9 By: David G. Andrews Publication Date: 2010 ISBN: 978-0-521-87220-1
4. Numerical Weather and Climate Prediction By: Thomas Tomkins Warner Publication Date: 2011 ISBN: 978-0-521-51389-0
5. Atmospheric Modeling, Data Assimilation and Predictability By: Eugenia Kalnay Publication Date: 2010 ISBN: 978-0-521-79179-3
6. Fundamentals of Atmospheric Modeling 2nd Edition By: Mark Z. Jacobson Publication Date: 2005 ISBN: 978-0-521-83970-9
7. Meteorology for Scientists and Engineers 2nd Edition Ch. 14 By: Roland B. Stull Publication Date: 2000 ISBN: 0-534-37214-7
8. GFS model performance https://www.wpc.ncep.noaa.gov/mdlbias/biastext.shtml

MDA-2551 2.0 * B (N) L/S

Goal. Identify strengths and weaknesses of meteorological model output.

Requirement. Identify strengths and weaknesses of global, regional, and mesoscale numerical models.

Performance Standard. Complete the requirement by practical application followed by guided discussion.

Instructor. BI

Prerequisite. 2500, 2501, 2502, 2503

References.
1. AFWA/TN-98/002 Revised, 13 February 2012
2. AFH 11-203(v2), 16 May 2002
3. An Introduction to Atmospheric Physics 2nd Edition Ch. 1,9 By: David G. Andrews Publication Date: 2010 ISBN: 978-0-521-87220-1

4. Numerical Weather and Climate Prediction By: Thomas Tomkins Warner Publication Date: 2011 ISBN: 978-0-521-51389-0
5. Atmospheric Modeling, Data Assimilation and Predictability By: Eugenia Kalnay Publication Date: 2010 ISBN: 978-0-521-79179-3
6. Fundamentals of Atmospheric Modeling 2nd Edition By: Mark Z. Jacobson Publication Date: 2005 ISBN: 978-0-521-83970-9
7. Meteorology for Scientists and Engineers 2nd Edition Ch. 14 By: Roland B. Stull Publication Date: 2000 ISBN: 0-534-37214-7
8. GFS model performance https://www.wpc.ncep.noaa.gov/mdlbias/biastext.shtml

MDA-2552 1.0 365 B, R, M (N) L/S

Goal. Analyze and interpret a thickness chart or thickness model.

Requirement. Given a SFC-500mb thickness chart or thickness model, analyze and depict the following features within 30 mins and provide meteorological reasoning for placement:

1. Warm/cold air advection.
2. High and low pressure centers.
3. Fronts.
4. 540 Dam line.
5. Troughs.
6. Label air masses.
7. Jet stream.

Performance Standard. Practical application. Minor errors are allowed as long as the trainee self corrects. Instructor will discuss each item with the trainee.

Instructor. BI

Prerequisite. 2550, 2551

References.
1. AFWA/TN-98/002 Revised, 13 February 2012
2. AFH 11-203(v2), 16 May 2002
3. Aerographer's Mate Second Class, Volume I METOC Training Manual
4. Aerographer's Mate Second Class, Volume II METOC Training Manual
5. Weather Map Handbook 2nd Edition By: Tim Vasquez Publication Date: 2008 ISBN: 0-9706840-7-X
6. Weather Maps: How to Read and Interpret All the Basic Weather Charts 3rd Edition By: Peter R. Chaston Publication Date: 2002 ISBN 13: 9780964517271

MDA-2553 1.0 365 B, R, M (N) L/S

Goal. Analyze and interpret a vorticity chart or vorticity model.

Requirement. Given a 500mb vorticity chart or vorticity model, analyze and depict the following features within 30 mins and provide meteorological reasoning for placement:

1. Positive/negative vorticity advection areas.
2. Shear lobes.
3. Advection lobes.
4. Jet stream.
5. X-N distribution.

Performance Standard. Practical application. Minor errors are allowed as long as the trainee self corrects. Instructor will discuss each item with the trainee.

Instructor. BI

Prerequisite. 2550, 2551

References.
1. AFWA/TN-98/002 Revised, 13 February 2012
2. AFH 11-203(v2), 16 May 2002
3. Aerographer's Mate Second Class, Volume I METOC Training Manual
4. Aerographer's Mate Second Class, Volume II METOC Training Manual
5. Weather Map Handbook 2nd Edition By: Tim Vasquez Publication Date: 2008 ISBN: 0-9706840-7-X
6. Weather Analysis and Forecasting By: Patrick Santurette and Christo G. Georgiev Publication Date: 2005 ISBN: 0-12-619262-6
7. Weather Maps : How to Read and Interpret All the Basic Weather Charts 3rd Edition By: Peter R. Chaston Publication Date: 2002 ISBN 13: 9780964517271

MDA-2554 6.0 365 B, R, M (N) L/S

Goal. Analyze and interpret upper atmospheric weather data.

Requirement. Provided standard level chart or model set (850mb, 700mb, 500mb, 300mb, and 200mb) analyze the mandatory level constant pressure charts for features listed below (as applicable) within 3 hours and provide meteorological reasoning for placement:

1. Isoheights.
2. Isotherms.
3. Areas of significant moisture.
4. Major short wave axis, troughs and ridges.
5. Minor short wave axis, troughs and ridges.
6. High and low height centers.
7. Warm and cold pockets.
8. Upper fronts.
9. Jet stream features.
10. Isodrosotherms

Performance Standard. Practical application. Minor errors are allowed as long as the trainee self corrects. Instructor will discuss each item with the trainee.

Instructor. BI

Prerequisite. 2552, 2553

References.
1. AFWA/TN-98/002 Revised, 13 February 2012
2. AFH 11-203(v2), 16 May 2002
3. Aerographer's Mate Second Class, Volume I METOC Training Manual
4. Aerographer's Mate Second Class, Volume II METOC Training Manual
5. Weather Map Handbook 2nd Edition By: Tim Vasquez Publication Date: 2008 ISBN: 0-9706840-7-X
6. Weather Analysis By: Dusan Djuric Date: 2 February 1994 ISBN-10: 0135011493
7. Weather Maps : How to Read and Interpret All the Basic Weather Charts 3rd Edition By: Peter R. Chaston Publication Date: 2002 ISBN 13: 9780964517271

MDA-2555 2.0 365 B, R, M (N) L/S

Goal. Analyze and interpret a surface weather chart and model.

Requirement. Given a surface chart, depict the following features within 45 minutes and provide meteorological reasoning for placement:

1. Isobars.
2. High and low pressure centers.
3. Fronts.
4. Highlight weather symbols.
5. Troughs.
6. Label air masses.
7. Dry lines.
8. Isallobars.
9. Isodrosotherms.
10. Identify outflow boundaries.
11. Nephanalysis.

Performance Standard. Practical application. Minor errors are allowed as long as the trainee self corrects. Instructor will discuss each item with the trainee.

Instructor. BI

Prerequisite. 2554

References.
1. AFWA/TN-98/002 Revised, 13 February 2012
2. AFH 11-203(v2), 16 May 2002
3. Aerographer's Mate Second Class, Volume I METOC Training Manual
4. Aerographer's Mate Second Class, Volume II METOC Training Manual
5. Weather Map Handbook 2nd Edition By: Tim Vasquez Publication Date: 2008 ISBN: 0-9706840-7-X
6. Weather Analysis By: Dusan Djuric Date: 2 February 1994 ISBN-10: 0135011493
7. Weather Maps : How to Read and Interpret All the Basic Weather Charts 3rd Edition By: Peter R. Chaston Publication Date: 2002 ISBN 13: 9780964517271

MDA-2556 2.0 365 B, R, M (N) L/S

Goal. Analyze meteorological features on satellite imagery.

Requirement. Correctly analyze synoptic and/or mesoscale meteorological features on IR, Visual, Water Vapor, and Multi-spectral satellite imagery (SSMI) and provide meteorological reasoning for placement:

1. Areas of high pressure.
2. Areas of low pressure.
3. Frontal boundaries.
4. Thunderstorms.
5. Basic and significant cloud elements.
6. Jet streams.
7. Land/terrain features.
8. Non-cloud features (i.e. smoke, dust).
9. Significant weather phenomena.
10. Tropical features.

a. Tropical cyclones.
b. Tropical upper tropospheric troughs.

Performance Standard. Practical application. Minor errors are allowed as long as the trainee self corrects. Instructor will discuss each item with the trainee.

Instructor. BI

Prerequisite. 2500, 2501, 2502, 2503, 2504

References.
1. AFWA/TN-98/002 Revised, 13 February 2012
2. AFH 11-203(v2), 16 May 2002
3. Aerographer's Mate Second Class, Volume I METOC Training Manual
4. Aerographer's Mate Second Class, Volume II METOC Training Manual
5. An Introduction to Satellite Image Interpretation By: Eric D. Conway and The Maryland Space Grant Corporation Published 1997 ISBN: 0-8018-5576-4
6. Weather Analysis and Forecasting By: Patrick Santurette and Christo G. Georgiev Publication Date: 2005 ISBN: 0-12-619262-6
7. Images in Weather Forecasting: A Practical Guide for Interpreting Satellite and Radar Imagery By: M. J. Bader, G. S. Forbes, J. R. Grant, R. B. E. Lilley, A. J. Waters Publication Date: 10 July 1997 ISBN: 9780521629157

MDA-2557 2.0 365 B, R, M (N) L/S

Goal. Analyze meteorological features on radar products.

Requirement. Utilizing live or archived base radar products, identify the following features:

1. Base reflectivity:
   a. Precipitation.
   b. Thunderstorms.
   c. Outflow boundaries.
2. Base velocity:
   a. Convergence and divergence.
   b. Cyclonic and anti-cyclonic rotation.
3. Base spectrum width products:
   a. Significant motion.
   b. Turbulence.

Performance Standard. Practical application. Minor errors are allowed as long as the trainee self corrects. Instructor will discuss each item with the trainee.

Instructor. BI

Prerequisite. 2500, 2501, 2502, 2503, 2504

References.
1. AFWA/TN-98/002 Revised, 13 February 2012
2. AFH 11-203(v2), 16 May 2002
3. Aerographer's Mate Second Class, Volume I METOC Training Manual
4. Aerographer's Mate Second Class, Volume II METOC Training Manual
5. Doppler Radar Meteorological Observations Part D By: Office Of The Federal Coordinator For Meteorological Services (OFCM) Publication Date: February 2006
6. Doppler Radar Meteorological Observations Part B By: Office Of The Federal Coordinator For Meteorological Services (OFCM) Publication Date: December 2005

2.7.10 METEOROLOGICAL FORECASTING (METF) STAGE

2.7.10.1 Purpose. To develop proficiency in meteorological forecasting and mission specific equipment, elements and products.

2.7.10.2 General.

Admin Notes. Upon completion of this stage of training, METOC personnel shall be proficient in meteorological forecasting and mission specific support requirements.

Prerequisite. None.

Crew Requirements. None.

METF-2600 3.0 365 B, R, M (N) L/S

Goal. Forecast macro/synoptic scale features.

Requirement. Given a chart set or model data, forecast intensity and movement of surface and upper-level features listed for the following and provide sound meteorological reasoning:

1. Major short wave troughs/ridges.
2. High and low pressure system(s).
3. Moisture.
4. Frontal systems.
5. Weather elements.
6. Long wave patterns.
7. Jet streams.

Performance Standard. Practical application. Minor errors are allowed as long as the trainee self corrects. Instructor will discuss each item with the trainee.

Instructor. BI

Prerequisite. 2554, 2555

References.
1. AFWA/TN-98/002 Revised, 13 February 2012
2. AFH 11-203(v2), 16 May 2002
3. Aerographer's Mate Second Class, Volume I METOC Training Manual
4. Aerographer's Mate Second Class, Volume II METOC Training Manual
5. Weather Map Handbook 2nd Edition By: Tim Vasquez Publication Date: 2008 ISBN: 0-9706840-7-X
6. Weather Analysis and Forecasting Handbook By: Tim Vasquez Publication Date: 2011 ISBN-10: 0-978-0-9832533-0-3

METF-2601 10.0 365 B, R, M (N) L/S

Goal. Develop synoptic scale forecast using prognosis techniques.

Requirement. Analyze centrally prepared products, apply academic principles, and forecast synoptic scale features by completing the listed items:

1. Initialize model data.
2. Analyze or re-analyze:
   a. Surface chart.
   b. Thickness chart.
   c. Vorticity.
   d. Standard Upper Air chart set.
   e. Satellite imagery.
   f. Radar imagery.
3. Develop forecasted intensity and location of weather features.
4. Discuss meteorological reasoning for forecasted elements.

Performance Standard. Practical application. Minor errors are allowed as long as the trainee self corrects. Instructor will discuss each item with the trainee.

Instructor. BI

Prerequisite. 2600

References.
1. AFWA/TN-98/002 Revised, 13 February 2012
2. AFH 11-203(v2), 16 May 2002
3. Aerographer's Mate Second Class, Volume I METOC Training Manual
4. Aerographer's Mate Second Class, Volume II METOC Training Manual
5. Weather Analysis and Forecasting Handbook By: Tim Vasquez Publication Date: 2011 ISBN-10: 0-978-0-9832533-0-3
6. Weather Analysis and Forecasting By: Patrick Santurette and Christo G. Georgiev Publication Date: 2005 ISBN: 0-12-619262-6
7. Weather Map Handbook 2nd Edition By: Tim Vasquez Publication Date: 2008 ISBN: 0-9706840-7-X
8. Weather Maps : How to Read and Interpret All the Basic Weather Charts 3rd Edition By: Peter R. Chaston Publication Date: 2002 ISBN 13: 9780964517271

METF-2602 2.0 365 B, R, M (N) L/S

Goal. Forecast local area (mesoscale/microscale) meteorological elements and phenomenon.

Requirement. Utilizing available resources assess and forecast meteorological elements. Prepare a local area forecast for a 96-hour period for the following:

1. Cloud types, height and coverage.
2. Precipitation types, intensity and duration.
3. Surface visibility.
4. Weather and obstruction(s) to visibility.
5. Maximum/Minimum temperatures.
6. Wind Speed, Direction, and character.
7. Icing type, height, and intensity.
8. Turbulence type, height, and intensity.
9. Atmospheric pressure.

Performance Standard. Practical application. Minor errors are allowed as long as the trainee self corrects. Instructor will discuss each item with the trainee.

Instructor. BI

Prerequisite. 2601

References.
1. AFWA/TN-98/002 Revised, 13 February 2012
2. AFH 11-203(v2), 16 May 2002
3. Aerographer's Mate Second Class, Volume I METOC Training Manual
4. Aerographer's Mate Second Class, Volume II METOC Training Manual
5. Weather Analysis and Forecasting Handbook By: Tim Vasquez Publication Date: 2011 ISBN-10: 0-978-0-9832533-0-3
6. Weather Analysis and Forecasting By: Patrick Santurette and Christo G. Georgiev Publication Date: 2005 ISBN: 0-12-619262-6
7. Weather Map Handbook 2nd Edition By: Tim Vasquez Publication Date: 2008 ISBN: 0-9706840-7-X

METF-2603 1.0 365 B, R, M (N) L/S

Goal. Forecast severe weather.

Requirement. Given METOC data and a designated Area Of Responsibility (AOR), analyze and forecast for the severe weather elements listed and provide meteorological reasoning for each:

1. Convective phenomena.
2. Non-convective phenomena.

Performance Standard. Practical application. Minor errors are allowed as long as the trainee self corrects. Instructor will discuss each item with the trainee.

Instructor. BI

Prerequisite. 2602

References.
1. AFWA/TN-98/002 Revised, 13 February 2012
2. AFH 11-203(v2), 16 May 2002
3. Aerographer's Mate Second Class, Volume I METOC Training Manual
4. Aerographer's Mate Second Class, Volume II METOC Training Manual
5. Weather Analysis and Forecasting Handbook Ch. 9 By: Tim Vasquez Publication Date: 2011 ISBN-10: 0-978-0-9832533-0-3
6. Meteorology for Scientists and Engineers 2nd Edition Ch. 15 By: Roland B. Stull Publication Date: 2000 ISBN: 0-534-37214-7
7. Atmosphere, Ocean, and Climate Dynamics: An Introductory Text By: John Marshall and R. Alan Plumb Publication Date: 2008 ISBN 13: 978-0-12-558691-7
8. MCO 3140.24

2.7.11 METOC PRODUCT BRIEFING (MPB) STAGE

2.7.11.1 Purpose. To develop proficiency in the techniques and tactics used to verbally present current and future states of the atmosphere.

2.7.11.2 General.

Admin Notes. Upon completion of this stage of training, METOC personnel shall be competent at conducting METOC briefings in support of mission requirements.

Prerequisite. None.

Crew Requirements. None.

MPB-2650 3.0 365 B, R, M (N) L/S

Goal. Brief synoptic chart set.

Requirement. Utilizing an analyzed chart set or model charts, brief meteorological features from the following products:

1. Surface chart.
2. Constant pressure charts.
3. Support charts:
   a. Satellite Imagery.
   b. Vorticity.
   c. 1000-500mb Thickness.

Performance Standard. Practical application. Minor errors are allowed as long as the trainee self corrects. Instructor will discuss each item with the trainee.

Instructor. BI

Prerequisite. 2602

References.
1. AFWA/TN-98/002 Revised, 13 February 2012
2. AFH 11-203(v2), 16 May 2002
3. Aerographer's Mate Second Class, Volume I METOC Training Manual
4. Aerographer's Mate Second Class, Volume II METOC Training Manual
5. Weather Map Handbook 2nd Edition By: Tim Vasquez Publication Date: 2008 ISBN: 0-9706840-7-X
6. The Art of Public Speaking 11th Edition By: Stephen E. Lucas Publication Date: 2011 ISBN13: 978-0073406732

MPB-2651 3.5 365 B, R, M (N) L

Goal. Demonstrate proficiency in completing a flight weather briefing (DD 175-1).

Requirement. With the aid of reference, complete 10 DD-175-1's with the following minimum accuracy requirements:

1. Sky conditions (within 500 feet of actual arrival conditions).
2. Visibility (within 1 mile of the actual arrival conditions).
3. Type and character of precipitation or obstruction to visibility.
4. Wind direction (within 30 degrees if wind speed greater than six knots of actual arrival conditions).
5. Wind speed (within 5 knots of actual conditions).
6. Altimeter setting (within 0.02 inches of mercury of actual arrival conditions).

Performance Standard. Complete the requirement by practical application IAW the Reference.

Instructor. BI

Prerequisite. 2550

References.
1. Flight Weather Briefing Manual, NAVMETOCCOMINST 3140.14_
2. NATOPS General Flight and Operating Instructions, OPNAV Instruction 3710.7_
3. Terminal Aerodrome Forecast (TAF) Code, NAVMETOCCOMINST 3143.1_

2.7.12 COMMUNICATIONS (COMM) STAGE

2.7.12.1 Purpose. To develop proficiency in the communications assets available to METOC personnel.

2.7.12.2 General.

Admin Notes. Upon completion of this stage of training, METOC personnel shall be proficient in the utilization of communications assets and COMSEC procedures.

Prerequisite. None.

Crew Requirements. None.

COMM-2700 5.0 * B (N) G

Goal. Describe the fundamentals of Communications.

Requirement. Given the references:

1. Discuss the following voice/electrical transmission communications methods used by your command:
   a. Secure communications
   b. Local Area Network (LAN)/Internet
   c. Message traffic
   d. Electronic mail (e-mail)
   e. Facsimile equipment
2. Discuss the following terms as it relates to the preparation of naval messages:
   a. Precedence:
      (1) Routine (R)
      (2) Priority (P)
      (3) Immediate (O)
      (4) Flash (Z)
      (5) Administrative messages
      (6) Operational messages
   b. Plain Language Address (PLA)
   c. Message addressing
   d. Classification
   e. SSIC
   f. Subject
   g. Reference lines
   h. Addressees (action and info)
   i. NOTAL
   j. Readdressal
   k. DECL
   l. DTG
   m. MINIMIZE
3. Discuss the various forms of written communication used by your command.
4. Discuss contingency procedures for obtaining information when normal methods are not available.

5. Discuss the effects of Emission Control (EMCON) and MINIMIZE on your local communication procedures.

Performance Standard. Without the aid of reference, discuss or explain the requirement. Minor errors self-corrected by the trainee are permitted. Instructor will discuss each item with the trainee.

Instructor. BI

Prerequisite. None.

References.
1. NTP-3 (J), Naval Telecommunications Procedure, Telecommunications User's Manual
2. Local Directives and Standard Operating Procedures (SOP)

COMM-2701 8.0 365 B, R, M (N) L

Goal. Operate HF man-pack communications equipment.

Requirement. Given a HF man-pack radio and the references:

1. Describe the purpose and use of an HF man-pack radio.
2. Describe the capabilities and limitations of the radio.
3. Set up radio with applicable SL3.
4. Construct a field-expedient antenna.
5. Program radio and establish secure/non-secure HF communications.
6. Demonstrate preventative maintenance procedures.

Performance Standard. Complete the requirement items IAW the references. Communications equipment and field expedient antenna was set up and programmed accurately and a radio check was performed without error.

Instructor. BI

Prerequisite. 2700.

References.
1. Radio Operator Manual.
2. Harris Premier website computer-based training.
3. JSC-HDBK-98-091, Joint Spectrum Center Field Antenna Handbook

COMM-2702 2.0 365 B, R, M (N) L

Goal. Operate intra-team communications equipment.

Requirement. Given an intra-team radio and the references:

1. Describe the purpose and use of an intra-team radio.
2. Describe the capabilities and limitations of the radio.
3. Set up radio with applicable SL3 gear.
4. Program radio and establish secure/non-secure intra-team communications.
5. Demonstrate preventative maintenance procedures.

Performance Standard. Complete the requirement items IAW the references. Communication equipment

was set up and programmed accurately and a radio check was performed without error.

Instructor. BI

Prerequisite. 2700

References.
1. Harris AN/PRC-152 Multiband Handheld Radio Operation Manual.
2. Thales AN/PRC-148 MBITR Operation and Maintenance Instructions.

COMM-2703 4.0 365 B, R, M (N) L

Goal. Operate UHF/VHF/SATCOM man-pack communications equipment.

Requirement. Given an UHF/VHF/SATCOM man-pack radio and the references:

1. Describe the purpose and use of an UHF/VHF/SATCOM man-pack radio.
2. Describe the capabilities and limitations of the man-pack radio.
3. Set up radio with applicable SL3
4. Program radio and establish secure/non-secure UHF/VHF/SATCOM communications.
5. Demonstrate preventative maintenance procedures.

Performance Standard. Complete the requirement items IAW the references. Communication equipment was set up and programmed accurately and a radio check was performed without error.

Instructor. BI

Prerequisite. 2700

References.
1. Radio Operator's Manual.
2. Harris Premier website computer-based training.

COMM-2704 2.0 * B (N) G

Goal. Describe proper handling and storage of classified materials.

Requirement. Given the references:

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 (CCI).

Performance Standard. State the above requirement items without error.

Instructor. SI

Prerequisite. None.

References.

1. SECNAVINST 5510.36.
2. EKMS-1.
3. MCO P5510.18.
4. Unit EKMS SOP.

COMM-2705 2.0 * B (N) G

Goal. Plan physical security for classified areas.

Requirement. Given a scenario and references, plan 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. Develop a plan and provide a diagram for requirement items. Instructor will validate that the plan supports the scenario.

Instructor. BI

Prerequisite. None.

Reference.
1. MCO P5530.14.

COMM-2707 2.0 365 B, R, M (N) L

Goal. Operate a common fill device (CFD) and extract key material from EKMS callout.

Requirement. Given a CFD, a tactical radio, EKMS COMSEC callout and the references:

1. Describe the purpose and use of a CFD.
2. Identify the components of the CFD.
3. Transfer an encryption key to a tactical radio.
4. State the purpose of the EKMS COMSEC callout.
5. Identify the four main pieces of key information:
   a. Short Title.
   b. Edition.
   c. Segment.
   d. Classification.
   e. Super-session date.

Performance Standard. Complete the requirement items IAW the references. State the purpose of the EKMS COMSEC callout and identify the key information on the callout and aaccurately transmit the encryption key and successfully conduct a secure radio check without error.

Instructor. BI

Prerequisite. 2704

References.
1. CMS-1

2. COMSEC callout.

2.7.13 METOC DOCTRINE (MDN) STAGE

2.7.13.1 Purpose. To demonstrate familiarity with the Marine Corps METOC support architecture, missions and local operating procedures.

2.7.13.2 General.

Admin Notes. The following notes apply to this stage of training:

1. All personnel shall be assigned this stage of training upon completion of the Core Skill Introduction phase and prior to assignment to any other stage.

2. Academic training syllabus shall be developed and approved by the TMSG METOC officer prior to implementation. Checklists contained within this Manual are provided to ensure comprehensive and cohesive training within the METOC community. Local mission and operating procedures will dictate the academic training in support of the events. Local mission and operating procedures will dictate academic training required to support events. Local METOC officers and/or qualified METOC personnel shall review academic POIs for applicability and content and utilize Academic Support Packages (ASP) when appropriate.

Prerequisite. None.

Crew Requirements. None.

MDN-2750 4.0 * B (N) G

Goal. Describe METOC's role in the Marine Corps Planning Process (MCPP).

Requirement. Conduct a self-paced reading of the references, then without the aid of reference, perform the following:
1. Discuss METOC's role in the Marine Corps Planning Process (MCPP).
2. Discuss METOC's role in deliberate planning.
3. Discuss METOC's role in Rapid Response Planning Process (R2P2).
4. Discuss METOC's role in the Operational Planning Teams (OPT).
5. Discuss METOC's role in Intelligence Preparation of the Operational Environment (IPOE).

Performance Standard. Complete all the requirement items IAW the references. Minor errors are allowed as long as the trainee self corrects. Instructor will discuss each item with the trainee.

Instructor. BI

Prerequisite. None.

References.
1. MCDP 1
2. MCDP 1-0
3. MCDP 1-2
4. MCDP 5
5. MCWP 3-40.1
6. MCWP 5-1
7. MCDP 6
8. FM 2-01.3/MCRP 2-3A
9. MSTP Pamphlet 5-0.2

10. MSTP Pamphlet 2-0.1
11. MCRP 2-10B.6

MDN-2751 4.0 * B (N) G

Goal. Describe US Marine Corps (USMC) METOC doctrine, organization, core capabilities and operations.

Requirement. Given a period of instruction, pass a closed book examination of the following learning objectives:
1. Explain the USMC METOC Doctrine and Operational Concept.
2. Identify the METOC Organization.
3. Identify USMC METOC capabilities.
4. Describe METOC Integration in USMC operations.

Performance Standard. Complete all the requirement items IAW the references. Minor errors are allowed as long as the trainee self corrects. Instructor will discuss each item with the trainee.

Instructor. BI

Prerequisite. None.

References.
1. MCRP 2-10B.6
2. MAWTS-1, "METOC Support to the MAGTF" class
3. Joint METOC Officer's Course, "Lesson 4.4: US Marine Corps METOC Capabilities" lecture

2.7.14 MANAGEMENT (MGT) STAGE

2.7.14.1 Purpose. To become proficient in the basic management skills required to direct METOC support operations.

2.7.14.2 General.

Admin Notes. None.

Prerequisites. None.

Crew Requirements. None.

MGT-2850 4.0 * B (N) G

Goal. Identify the embarkation requirements for the METOC section.

Requirement. Conduct a self-paced reading of the references, then without the aid of reference, perform the following:

1. Identify Hazardous Material requirements.
2. Identify Physical Security requirements.
3. Identify Material Handling Equipment (MHE) requirements.
4. Identify equipment specific transportation requirements.
5. Identify FMF Deployment Support System II (MDSS II) elements.
6. Identify support material requirements.

Performance Standard. Complete all the requirement items IAW the references. Minor errors are allowed as long as the trainee self corrects. Instructor will discuss each item with the trainee.

Instructor. BI

Prerequisite. None.

References.
1. MCO 4030.33
2. MCRP 4-11
3. Local Directives and Standard Operating Procedures (SOP)

MGT-2851 1.0 * B (N) G

Goal. State the key elements of an OPORDER and discuss how they relate to METOC support.

Requirement. Conduct a self-paced reading of the references. Without the aid of reference and provided a contingency plan, perform the following:

1. Identify and discuss the four levels of planning detail.
2. Identify the purpose and major sections of the OPORD.
3. State the purpose and content of the Base Order.
4. State the purpose and content of the Annex A.
5. State the purpose and content of the Annex B.
6. State the purpose and content of the Annex H.
7. State the purpose and content of the Annex K.

Performance Standard. Complete all the requirement items IAW the references. Minor errors are allowed as long as the trainee self corrects. Instructor will discuss each item with the trainee.

Instructor. BI

Prerequisite. None.

References.
1. JP 1-02
2. JP 3-0
3. JP 5-0
4. JP 5-00.1
5. CJCSM 3130.03
6. MCDP 1
7. MCDP 1-0
8. MCDP 1-2
9. MCDP 5
10. MCWP 3-40.1
11. MCWP 5-1
12. MCDP 6
13. FM 2-01.3/MCRP 2-3A
14. MSTP Pamphlet 5-0.2
15. MSTP Pamphlet 2-0.1
16. ADP 5-0
17. ADP 6-0
18. ADRP 5-0
19. ATTP 5-0.1

20. "MAGTF Staff Training Program (MSTP) Classes" on MCPP can be found at: https://www.mstp.usmc.mil/classes/default.aspx
21. '8653AZ, Marine Corps Planning Process' as part of '8650AZ, Expeditionary Warfare School Distance Education Program.'

MGT-2852 2.0 * B (N) G

Goal. State the METOC products and services required for operational decision-making and joint operations.

Requirement. Conduct a self-paced reading of the references. Without the aid of reference, perform the following:

1. State the purpose of the Joint Operational Area Forecast (JOAF).
2. Explain the typical process for developing the JOAF.
3. Explain the format and environmental parameters that are included in the JOAF.
4. Discuss other METOC products and services required for operational decision-making.

Performance Standard. Complete all the requirement items IAW the references. Instructor will discuss each item with the trainee. Minor errors are allowed as long as the trainee self corrects.

Instructor. BI

Prerequisite. None.

References.
1. JP 3-59
2. CJCSI 3810.01C
3. DoD CIO Memo, 9 May 2003, "DoD Net-Centric Data Strategy"
4. DoDD 8320.2
5. DoD Implementation Guide 8320.2

MGT-2856 2.0 * B (N) G

Goal. State the purpose of a METOC sensing strategy.

Requirement. Conduct a self-paced reading of the references. Without the aid of reference, perform the following:

1. State the purpose of a sensing strategy and collection plan.
2. Explain the development and implementation of a collection plan using the existing sensing strategy.
3. Manage resources to affect the collection plan.

Performance Standard. Complete all the requirement items IAW the references. Instructor will discuss each item with the trainee. Minor errors are allowed as long as the trainee self corrects.

Instructor. BI

Prerequisite. None.

References.
1. JP 2-01
2. JP 3-59
3. CJCSI 3810.01C

MGT-2857 2.0 * B (N) G

Goal. State the purpose of the quality control program.

Requirement. Conduct a self-paced reading of the references. Without the aid of reference, perform the following:
1. State the purpose of quality control (QC).
2. Discuss procedures/processes to determine the effectiveness of METOC support to operations.
3. Discuss mechanisms to obtain feedback on the effectiveness of METOC support to operations.
4. Discuss lessons learned and after action reports.

Performance Standard. Complete all the requirement items IAW the references. Instructor will discuss each item with the trainee. Minor errors are allowed as long as the trainee self corrects.

Instructor. BI

Prerequisite. None.

References.
1. CJCSI 3150.25E
2. AFI 15-114
3. NAVY OPNAV 3500.37C

2.7.15 LITTORAL FORECASTING/ANALYSIS (LFA) STAGE

2.7.15.1 Purpose. To acquire proficiency in collecting, analyzing and forecasting oceanographic and littoral parameters.

2.7.15.2 General.

Admin Notes. Upon completion of this stage of training, METOC personnel shall be competent at forecasting and analyzing oceanographic and littoral parameters.

Prerequisite. None.

Crew Requirements. None.

LFA-2900 5.0 * B (N) G

Goal. State the elements of a surf observation.

Requirement. Without the aid of reference, define and/or explain the following:

1. Significant breaker height.
2. Maximum breaker height.
3. Breaker period.
4. Breaker types.
5. Angle of breaker relative to beach.
6. Littoral current.
7. Modified surf index.
8. Impact of wind direction in surf zone.
9. Beach profile data.

Performance Standard. Pass an exam with 80% accuracy.

Instructor. BI

Prerequisite. 6502

References.
1. MCRP 2-10.3_.
2. Aerographer's Mate Third Class METOC Training Manual (https://www.nko.navy.mil/group/aviation/ag)
3. MCRP 2-10B.6

LFA-2901 4.0 * B (N) G

Goal. Describe properties of tropical meteorological phenomena and the effects of tropical weather systems on naval operations.

Requirement. Describe the following properties:

1. Shear lines
2. Easterly waves
3. Tropical Upper Tropospheric Trough (TUTT)
4. Inter-Tropical Convergence Zone (ITCZ)
5. Tropical cyclones
6. Navigation at sea
7. Conditions of Readiness (COR)

Performance Standard. Pass an exam with 80% accuracy.

Instructor. BI

Prerequisite. None.

Reference.
1. Introduction to Tropical Meteorology, 2nd Edition, Chapter 1: Introduction Module from COMET UCAR.

LFA-2902 1.0 365 B, R, M (N) G

Goal. Describe the influences to the oceanographic environment.

Requirement. Without the aid of reference, define the following influences to the oceanographic environment:

1. Ocean circulations and currents.
2. Key maritime terrain features.
   a. sub-surface continents
   b. oceanic basins
   c. oceanic seamounts, trenches, and rises
   d. archipelagos
   e. island chains
   f. straits
   g. peninsulas
   h. seas and large bays
3. Large scale weather circulations.

a. high latitude systems
b. maritime air masses
c. low latitude/tropical systems.

Performance Standard. Pass an exam with 80% accuracy.

Instructor. BI

Prerequisite. 6502

References.
1. MCRP 2-10B.6 MAGTF Meteorological and Oceanographic Operations
2. Aerographer's Mate Third Class METOC Training Manual (https://www.nko.navy.mil/group/aviation/ag)
3. Aerographer's Mate Second Class Volume I METOC Training Manual (https://www.nko.navy.mil/group/aviation/ag)
4. Aerographer's Mate Second Class Volume II METOC Training Manual (https://www.nko.navy.mil/group/aviation/ag)
5. Aerographer's Mate First Class and Chief METOC Training Manual (https://www.nko.navy.mil/group/aviation/ag)
6. Oceanography: An Invitation to Marine Science, 7th Edition, ISBN-13: 978-0-495-39193-7, ISBN-10: 0-495-39193-X

LFA-2903 1.0 365 B, R, M (N) G

Goal. Describe the influences to the littoral environment.

Requirement. Without the aid of reference, define the following influences to the littoral environment:

1. Near-shore littoral currents.
2. Key maritime terrain features.
   a. continental shelfs
   b. ocean banks
   c. coral reefs
   d. kelp beds
   e. seagrass meadows
   f. estuaries
   g. intertidal zone
   h. littoral zone
3. Tidal characteristics.
   a. gravitational influences
   b. amphidromic tidal nodes
4. Surf zone characteristics (LFA-2900)
5. Riverine characteristics.

Performance Standard. Pass an exam with 80% accuracy.

Instructor. BI

Prerequisite. 6502

References.
1. MCRP 2-10B.6 MAGTF Meteorological and Oceanographic Operations
2. Aerographer's Mate Third Class METOC Training Manual

(https://www.nko.navy.mil/group/aviation/ag)
3. Aerographer's Mate Second Class Volume I METOC Training Manual
(https://www.nko.navy.mil/group/aviation/ag)
4. Aerographer's Mate Second Class Volume II METOC Training Manual
(https://www.nko.navy.mil/group/aviation/ag)
5. Aerographer's Mate First Class and Chief METOC Training Manual
(https://www.nko.navy.mil/group/aviation/ag)
6. Oceanography: An Invitation to Marine Science, 7th Edition, ISBN-13: 978-0-495-39193-7, ISBN-10: 0-495-39193-X

2.7.16 METOC IMPACT ASSESSMENT (MIA) STAGE

2.7.16.1 Purpose. To acquire proficiency in the processes and products that assist in providing assessment of atmospheric conditions to mission specific support requirements.

2.7.16.2 General.

Admin Notes. None.

Prerequisite. None.

Crew Requirements. None.

MIA-2950 3.0 * B (N) G

Goal. State the physical METOC effect on land domain and how they affect operations.

Requirement. Conduct a self-paced reading of the references. Without the aid of reference, perform the following:
1. State physical METOC effects on the land domain.
2. State how the above effects impact land component operations.
3. Identify METOC thresholds associated with mission/operations.

Performance Standard. Pass an exam with 80% accuracy.

Instructor. BI

Prerequisite. None.

References.
1. JP 3-59
2. U.S. Joint Forces Command, Joint Meteorology and Oceanography (METOC) Handbook (JMH) (2011)
3. ENMOD Treaty (5 Oct 78)
4. CJCSI 3810.01C
5. AR 115-10/AFI 15-157 (IP)
6. FM 34-81-1 Battlefield Weather Effects 23 Dec 92 (rescinded) Replaced with Integrated Weather Effects Decision Aid (IWEDA).
7. MCRP 2-10B.6

MIA-2951 1.0 * B (N) G

Goal. State the physical METOC effect on the maritime domain and how they affect operations.

Requirement. Conduct a self-paced reading of the references. Without the aid of reference, perform the following:
1. State physical METOC effects on the maritime domain.

2. State how the above effects impact maritime component operations.
3. Identify METOC thresholds associated with mission/ operations.

Performance Standard. Pass an exam with 80% accuracy.

Instructor. BI

Prerequisite. None.

References.
1. Naval Rules Database
2. MCRP 2-10B.6

MIA-2952 1.0 * B (N) G

Goal. State the physical METOC effect on the air domain and how they affect operations.

Requirement. Conduct a self-paced reading of the references. Without the aid of reference, perform the following:
1. State physical METOC effects on the air domain.
2. State how the above effects impact air component operations.
3. Identify METOC thresholds associated with mission/ operations.

Performance Standard. Pass an exam with 80% accuracy.

Instructor. BI

Prerequisite. None.

References.
1. U.S. Joint Forces Command Joint Meteorology & Oceanography (METOC) Handbook. 1st JMOC edition, April 2011
2. Aircraft Icing Handbook, Civil Aviation Authority, 2000
3. AFH 11-203V1, Weather For Aircrews, 12 Jan 12
4. AFH 11-203V2, Weather For Aircrews, 16 May 02 (currently in revision)
5. USSOCOM Manual 525-6, Meteorological and Oceanographic Thresholds for Special Operations Forces (SOF), 29 May 2009
6. MCRP 2-10B.6

MIA-2953 1.0 * B (N) G

Goal. State the physical METOC effect on the space domain and how they affect operations.

Requirement. Conduct a self-paced reading of the references. Without the aid of reference, perform the following:
1. State physical METOC effects on the space domain.
2. State how the above effects impact space operations.
3. Identify METOC thresholds associated with mission/ operations.

Performance Standard. Pass an exam with 80% accuracy.

Instructor. BI

Prerequisite. None.

References.

1. AFH 11-203V1 (12 Jan 2012), Weather For Aircrews (Chapter 18: Space Weather)
2. AFSPCPAM 15-2 (1 Oct 2003), Space Environmental Impacts on DoD Operations
3. MCRP 2-10B.6

MIA-2954 2.0 * B (N) G

Goal. Describe the effects of physical and biological oceanography on naval operations.

Requirement. Describe the effects of the following:

1. Oceanic circulation
2. Physical features of the ocean
3. Marine life

Performance Standard. Pass an exam with 80% accuracy.

Instructor. BI

Prerequisite. None.

References.
1. United Stated Naval Oceanography Portal/Astronomical Application/Astronomical information center
2. https://www.usno.navy.mil/USNO/astronomical-applications/astronomical-information-center

2.8 MISSION SKILL PHASE (3000)

2.8.1 Purpose.

1. To provide standardized training standards for individuals performing advanced level forecasting techniques.

2. To evaluate the METOC Marine for the qualification as a JMA once all core skill training requirements have been completed. Mission skill training consists of events required to be recommended for position qualification. Upon qualification, the individual has achieved the mission skill proficiency to support the unit MET(s) and counts towards CMMR.

2.8.2 General.

Admin Notes. This level contains advanced Core Skill training. It increases proficiency in basic Core Skills and develops mission-specific knowledge, skills and leadership that leads to combat qualifications and leadership designations. Individuals proficient in this phase of training should be capable of planning/leading/directing METOC support requirements in a contingency operation or personnel within command and control or MEF support agencies.

Prerequisites. Core Skill complete for the Mission Skill attempting to attain.

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

PAR NO.	STAGE NAME	PAGE NUMBER
2.8.3	METEOROLOGICAL SURFACE OBSERVATIONS (MSO)	2-86
2.8.4	ASTRONOMICAL/TIDAL DATA (ATD)	2-89
2.8.5	EQUIPMENT (EQPT)	2-90
2.8.6	METEOROLOGICAL FORECASTING (METF)	2-106
2.8.7	METOC PRODUCT BRIEFING (MPB)	2-107

2.8.3 METEOROLOGICAL SURFACE OBSERVATIONS (MSO) STAGE

2.8.3.1 Purpose. To develop proficiency in observing, recording and disseminating meteorological elements that comprise the surface meteorological reports (observations).

2.8.3.2 General.

Prerequisite. None.

Admin Notes. Upon completion of this stage of training, METOC personnel shall be competent at observing atmospheric phenomenon, units of measurement, quality control procedures and dissemination of parameters.

Crew Requirements. None.

MSO-3100 30.0 365 B, R, M D L/S

Goal. Conduct a daytime surface meteorological observation.

Requirement. Observe, record, and disseminate 30 surface meteorological observations from automated sensing equipment under supervision; five of which must be a SPECI. Perform the following:

1. Determine type of observation
2. Record type of observation.
3. Record time of observation.
4. Verify and record wind direction, speed, character, and significant wind events.
5. Evaluate, verify and record visibility.
   a. Types and direction of obscuring phenomena.
   b. Types and intensity of weather.
6. Determine and record sky condition.
   a. Cloud type.
   b. Cloud height.
   c. Cloud direction and movement.
   d. Cloud amount.
7. Read and record dry bulb and dew point temperatures.
8. Read and record current altimeter setting.
9. Encode and record applicable remarks.
10. Read and record station pressure.
11. Read and record sea level pressure.
12. Proof read recorded elements.
13. Initial observation, confirming accuracy of report.
14. Record summary of the day.
15. Disseminate observation per unit SOP.

Performance Standard. Complete the requirement by practical application IAW the reference.

Instructor. SI

Prerequisite. 2202

Reference.
1. NAVMETOCCOMINST 3141.2_ (Surface Meteorological Observation Procedures)
2. Federal Meteorological Handbook No. 1 - Surface Weather Observation and Reports, September 2005, FCM-H1-2005 http://www.ofcm.gov/publications/fmh/allfmh2.htm

MSO-3101 30.0 365 B, R, M N L/S

Goal. Conduct a nighttime surface meteorological observation.

Requirement. Observe night time, record, and disseminate (as applicable) 30 surface meteorological observations from automated sensing equipment under supervision; five of which must be a SPECI. Perform the following:

1. Determine type of observation
2. Record type of observation.
3. Record time of observation.
4. Verify and record wind direction, speed, character, and significant wind events.
5. Evaluate, verify and record visibility.
   a. Types and direction of obscuring phenomena.
   b. Types and intensity of weather.
6. Determine and record sky condition.
   a. Cloud type.
   b. Cloud height.
   c. Cloud direction and movement.
   d. Cloud amount.
7. Read and record dry bulb and dew point temperatures.
8. Read and record current altimeter setting.
9. Encode and record applicable remarks.
10. Read and record station pressure.
11. Read and record sea level pressure.
12. Proof read recorded elements.
13. Initial observation, confirming accuracy of report.
14. Record summary of the day.
15. Disseminate observation per unit SOP.

Performance Standard. Complete the requirement by practical application IAW the reference.

Instructor. SI

Prerequisite. 2202

Reference.
1. NAVMETOCCOMINST 3141.2_ (Surface Meteorological Observation Procedures)
2. Federal Meteorological Handbook No. 1 - Surface Weather Observation and Reports, September 2005, FCM-H1-2005 http://www.ofcm.gov/publications/fmh/allfmh2.htm

MSO-3102 1.0 365 B, R, M (N) L/S

Goal. Encode and disseminate a pilot weather report (PIREP).

Requirement. Given a PIREP and appropriate forms, correctly encode and disseminate 10 PIREPs. Perform the following:
1. Receive the PIREP via available communication device.
2. Annotate the data on the correct form.
3. Encode the PIREP.
4. Disseminate the PIREP via local and longline resources.

Performance Standard. Complete the requirement by practical application IAW the reference.

Instructor. SI

Prerequisite. 6500

Reference.
1. NAVMETOCCOMINST 3142.1_
2. Aerographer's Mate Third Class METOC Training Manual

MSO-3103 2.0 * B (N) L/S

Goal. Decode surface/ship synoptic observations.

Requirement. Decode 10 surface synoptic observations and 10 ship synoptic observations.

Performance Standard. Complete the requirement by practical application IAW the reference.

Instructor. BI

Prerequisite. 6501

References.
1. NAVMETOCCOMINST 3141.2_ (Surface Meteorological Observation Procedures)
2. NWSI 10-1301 February 9, 2010 (Aviation and Synoptic Observations)
3. Federal Meteorological Handbook No. 2 - Surface Synoptic Codes, March 2005, FCM-H2-1988 http://www.ofcm.gov/publications/fmh/allfmh2.htm
4. NAVMETOCCOMINST 3144.1D Ch. 1 (U.S. Navy Manual for Ship's Surface Weather Observations)

2.8.4 ASTRONOMICAL/TIDAL DATA (ATD) STAGE

2.8.4.1 Purpose. To develop proficiency at deriving astronomical and tidal data.

2.8.4.2 General.

Admin Notes. Upon completion of this stage of training, METOC personnel shall be able to compute or retrieve astronomical or tidal data.

Prerequisite. 6500

Crew Requirements. None.

ATD-3150 1.0 365 B, R, M (N) L/S

Goal. Produce astronomical data.

Requirement. Utilizing appropriate software, produce the following astronomical data for 10 locations:

1. Sunrise/sunset.
2. Sun elevation angles/azimuth.
3. Beginning/ending of civil/nautical twilights.
4. Moonrise/moonset.
5. Lunar illumination.
6. Moon elevation angles/azimuth.
7. LUX values.
8. Shadows.

Performance Standard. Complete the requirement by practical application IAW the reference.

Instructor. BI

Prerequisite. 2301

References.
1. https://www.usno.navy.mil/USNO/astronomical-applications/astronomical-information-center
2. MCRP 2-10.3

ATD-3151 1.5 365 B, R, M (N) L/S

Goal. Produce tidal data.

Requirement. Utilizing appropriate software, produce the following tidal data for 10 locations:

1. Tide height for a specific time.
2. Tide range for a specific time.
3. High tide.
4. Low Tide.

Performance Standard. Complete the requirement by practical application IAW the reference.

Instructor. BI

Prerequisite. 6500

References.
1. CTG 80.7 Tidal Application
2. MCRP 2-10.3

2.8.5 EQUIPMENT (EQPT) STAGE

2.8.5.1 Purpose. To introduce academic or practical application of METOC equipment.

2.8.5.2 General.

Admin Notes.

1. These events are related to mission skill proficiency readiness, and assist in core skill training.
2. Local mission and operating procedures will dictate academic training required to support events. Local METOC officers and/or qualified METOC personnel shall review academic POIs for applicability and content and utilize Academic Support Packages (ASP) when appropriate.

Prerequisite. None.

Crew Requirements. None.

EQPT-3203 4.0 365 B, R, M (N) L

Goal. Conduct a site survey for METOC equipment.

Requirement. In accordance with the references, conduct site survey for METOC equipment. Ensure the following areas are considered:

1. Terrain.
2. Obstructions.
3. Utility requirements.
4. Radio frequency interference.
5. Embarkation.
6. HERP, HERO, and HERF.
7. Network support.

Performance Standard. Complete the requirement by practical application.

Instructor. BI

Prerequisite. None.

References.
1. MCRP 2-10B.6
2. Organizational Level Maintenance Instructions for AN/UMK-4(v)4, TESS/NITES
3. NITES Organization Level Maintenance Instructions_
4. NITES System Administrator's Guide_
5. Automated Weather Observing System Operating Instructions
6. Embarkation Plan for the METMF(R) NEXGEN, 334-192046
7. Operations and Maintenance Manual with Parts List, AN/TMQ-56 Measuring Set, METMF(R) NEXGEN, EM000-CD-OMP-010

EQPT-3204 1.0 365 B, R, M (N) L

Goal. Participate in the setup of the AN/UMK-4(v)4, TESS/NITES.

Requirement. In accordance with the references, setup or assist with the setup of the AN/UMK-4(v)4, TESS/NITES.

Performance Standard. Complete the requirement by practical application IAW the reference.

Instructor. BI

Prerequisite. 3203

References.
1. Organizational Level Maintenance Instructions for AN/UMK-4(v)4, TESS/NITES,
2. NITES Organization Level Maintenance Instructions_
3. NITES System Administrator's Guide_
4. Automated Weather Observing System Operating Instructions

EQPT-3205 12.0 365 B, R, M (N) L

Goal. Operate the AN/UMK-4(v)4 TESS/NITES.

Requirement. In a simulated or actual deployed environment, perform the following actions:

1. Deploy and setup of NITES IV.
2. Utilize directed means to provide METOC impact assessment to supported element.
3. Conduct satellite or radio communications operations (if available) for data receipt and communications.
4. Conduct data receipt operations.
5. Conduct data transfer to and from the common operating picture via predetermined software to determine and provide relevant tactical METOC impact assessments.
6. Conduct graphical data retrieval and analyzation in support of impact assessment.
7. Conduct analyzation of locally sensed data for METOC impact assessment.
8. Develop impact assessment briefing for applicable FMF component for large-scale dissemination via oral, electronic and remote video means.
9. Demonstrate how to send and receive e-mail's with the STRATOS Software.

Performance Standard. Complete the requirement by practical application IAW the reference.

Instructor. BI

Prerequisite. 3204

References.
1. NITES Organization Level Maintenance Instructions_
2. NITES System Administrator's Guide_
3. NITES SYSTEM MANUAL EE100-FF-OMI-010.
4. NITES SYSTEM ADMINISTRATOR MANUAL EE100-PR-SAM-010.
5. Harris Premier CBTs via Harris website.

EQPT-3206 1.0 365 B, R, M (N) L

Goal. Participate in the pack-out of the AN/UMK-4(v)4, TESS/NITES.

Requirement. In accordance with the references, pack-out or assist with the pack-out of the AN/UMK-4(v)4, TESS/NITES.

Performance Standard. Complete the requirement by practical application IAW the reference.

Instructor. BI

Prerequisite. None.

References.
1. Organizational Level Maintenance Instructions for AN/UMK-4(v)4, TESS/NITES
2. NITES Organization Level Maintenance Instructions_
3. NITES System Administrator's Guide_
4. Automated Weather Observing System Operating Instructions

EQPT-3207 1.0 365 B, R, M (N) L

Goal. Setup surface meteorological sensing systems.

Requirement. As a member of a crew, given tools, the reference and a surface meteorological sensing system, complete the following steps:

1. Identify personnel and safety requirements.
2. Unpack the equipment.
3. Setup meteorological sensing equipment.
4. Ground system.

Performance Standard. Complete the requirement by practical application IAW the reference. The surface meteorological system must be setup within 45 minutes.

Instructor. BI

Prerequisite. 3203

References.
1. EM000-CD-OMP-01 Operation and Maintenance Manual with Parts List
2. EE100-FF-OMI-01 Operation and Maintenance Instruction
3. NITES Organization Level Maintenance Instructions_
4. NITES System Administrator's Guide_

EQPT-3208 1.0 365 B, R, M (N) L

Goal. Pack the surface meteorological sensing system.

Requirement. Given the reference, an assembled surface meteorological sensing system, perform the following:

1. Inventory equipment and materials.
2. Disassemble the system.
3. Pack the system.

Performance Standard. Complete the requirement by practical application IAW the reference.

Instructor. BI

Prerequisite. None.

References.
1. EM000-CD-OMP-01 Operation and Maintenance Manual with Parts List
2. EE100-FF-OMI-01 Operation and Maintenance Instruction
3. 334-192046 Embarkation Guide

EQPT-3209 2.0 365 B, R, M (N) L

Goal. Setup the meteorological radar subsystem.

Requirement. As a member of a crew, given tools, the reference and a surface meteorological sensing system, complete the following steps:

1. Identify personnel and safety requirements.
2. Unpack the equipment.
3. Setup meteorological radar equipment in all modes.
4. Ground system.

Performance Standard. Complete the requirement by practical application IAW the reference.

Instructor. BI

Prerequisite. None.

References.
1. EM000-CD-OMP-01 Operation and Maintenance Manual with Parts List
2. E700XD Doppler Weather Radar Installation Guide and User's Manual

EQPT-3210 2.0 365 B, R, M (N) L

Goal. Pack the meteorological radar subsystem.

Requirement. Given the reference, an assembled surface meteorological sensing system, perform the following:

1. Inventory equipment and materials.
2. Disassemble the system.
3. Pack the system.

Performance Standard. Complete the requirement by practical application IAW the reference.

Instructor. BI

Prerequisite. None.

References.
1. EM000-CD-OMP-01 Operation and Maintenance Manual with Parts List
2. E700XD Doppler Weather Radar Installation Guide and User's Manual
3. 334-192046 Embarkation Guide

EQPT-3211 1.0 365 B, R, M (N) L

Goal. Setup the meteorological satellite subsystem.

Requirement. As a member of a crew, given tools, the reference and a surface meteorological sensing system, complete the following steps:

1. Identify personnel and safety requirements.
2. Unpack the equipment.
3. Setup meteorological satellite equipment.
4. Ground system.

Performance Standard. Complete the requirement by practical application IAW the reference.

Instructor. BI

Prerequisite. None.

Reference.
1. EM000-CD-OMP-01 Operation and Maintenance Manual with Parts List

EQPT-3212 1.0 365 B, R, M (N) L

Goal. Pack the meteorological satellite subsystem.

Requirement. Given the reference, an assembled surface meteorological sensing system, perform the following:
1. Inventory equipment and materials.
2. Disassemble the system.
3. Pack the system.

Performance Standard. Complete the requirement by practical application IAW the reference.

Instructor. BI

Prerequisite. None.

References.
1. EM000-CD-OMP-01 Operation and Maintenance Manual with Parts List
2. 334-192046 Embarkation Guide

EQPT-3213 1.0 365 B, R, M (N) L

Goal. Setup the meteorological upper air subsystem for integrated operations.

Requirement. As a member of a crew, given tools, the reference and a surface meteorological sensing system, complete the following steps:

1. Identify personnel and safety requirements.
2. Unpack the equipment.
3. Setup meteorological upper air equipment in both modes.
4. Ground system.

Performance Standard. Complete the requirement by practical application IAW the reference.

Instructor. BI

Prerequisite. None.

References.
1. EM000-CD-OMP-01 Operation and Maintenance Manual with Parts List

EQPT-3214 1.0 365 B, R, M (N) L

Goal. Pack the meteorological upper air subsystem.

Requirement. Given the reference, an assembled surface meteorological sensing system, perform the following:

1. Inventory equipment and materials.
2. Disassemble the system.
3. Pack the system.

Performance Standard. Complete the requirement by practical application IAW the reference.

Instructor. BI

Prerequisite. None.

References.
1. EM000-CD-OMP-01 Operation and Maintenance Manual with Parts List
2. 334-192046 Embarkation Guide

EQPT-3215 1.0 365 B, R, M (N) L

Goal. Setup the meteorological communication subsystem.

Requirement. As a member of a crew, given tools, the reference and a surface meteorological sensing system, complete the following steps:

1. Identify personnel and safety requirements.
2. Unpack the equipment.
3. Setup meteorological communication equipment.
4. Ground system.

Performance Standard. Complete the requirement by practical application IAW the reference.

Instructor. BI

Prerequisite. None.

References.
1. EM000-CD-OMP-01 Operation and Maintenance Manual with Parts List

EQPT-3216 1.0 365 B, R, M (N) L

Goal. Pack the meteorological communication subsystem.

Requirement. Given the reference, an assembled surface meteorological sensing system, perform the following:
1. Inventory equipment and materials.
2. Disassemble the system.
3. Pack the system.

Performance Standard. Complete the requirement by practical application IAW the reference.

Instructor. BI

Prerequisite. None.

References.
1. EM000-CD-OMP-01 Operation and Maintenance Manual with Parts List
2. EE100-FF-OMI-01 Operation and Maintenance Instruction
3. 334-192046 Embarkation Guide

EQPT-3217 1.0 365 B, R, M (N) L

Goal. Setup the meteorological product generation and dissemination subsystem.

Requirement. As a member of a crew, given tools, the reference and a surface meteorological sensing

system, complete the following steps:

1. Identify personnel and safety requirements.
2. Unpack the equipment.
3. Setup meteorological product generation and dissemination system.
4. Ground system.
5. Configure METCAST for respective AOR (all satellite imagery, worldwide text, all model data except NAVGEM) and ingest data.
6. Configure CAGIPS shopping cart for respective AOR (NAVGEM data only).
7. Configure RuleBot Downloader and ingest data.

Performance Standard. Complete the requirement by practical application IAW the reference.

Instructor. BI

Prerequisite. None.

References.
1. EM000-CD-OMP-01 Operation and Maintenance Manual with Parts List
2. EE100-FF-OMI-01 Operation and Maintenance Instruction

EQPT-3218 1.0 365 B, R, M (N) L

Goal. Pack the meteorological product generation and dissemination subsystem.

Requirement. Given the reference, an assembled surface meteorological sensing system, perform the following:

1. Inventory equipment and materials.
2. Disassemble the system.
3. Pack the system.

Performance Standard. Complete the requirement by practical application IAW the reference.

Instructor. BI

Prerequisite. None.

References.
1. EM000-CD-OMP-01 Operation and Maintenance Manual with Parts List
2. EE100-FF-OMI-01 Operation and Maintenance Instruction
3. 334-192046 Embarkation Guide

EQPT-3219 2.0 365 B, R, M (N) S/L

Goal. Operate the Meteorological Radar Subsystem (MRS).

Requirement. In a simulated or actual deployed environment, perform the following:

1. Establish and coordinate background maps.
2. Establish radar alerts and thresholds.
3. Establish radar product set lists.
4. Retrieve a base reflectivity product.
5. Retrieve a base velocity product.

6. Retrieve a base spectrum width product.
7. Retrieve a composite reflectivity product.
8. Retrieve a Vertically Integrated Liquid (VIL) product.
9. Retrieve an Echo Top (ET) product.
10. Retrieve an overlay storm relative motion product.
11. Display radar products via the Forecaster Tool Kit (FTK)

Performance Standard. Practical application IAW the reference. Minor assistance is allowed.

Instructor. BI

Prerequisite. None.

References.
1. EM000-CD-OMP-01 Operation and Maintenance Manual with Parts List

EQPT-3220 2.0 365 B, R, M (N) S/L

Goal. Operate the Meteorological Satellite Subsystem (MSS).

Requirement. In a simulated or actual deployed environment, perform the following:

1. Update of Ephemeris Data.
2. Retrieve an infrared satellite image.
3. Retrieve a water vapor satellite image.
4. Retrieve a visible satellite image.
5. Post process satellite imagery.
   a. Color enhancement.
   b. Align geopolitical borders.
   c. Archive image.
6. Display archived image.
7. Display satellite image via the Forecaster Tool Kit (FTK).

Performance Standard. Practical application IAW the reference. Minor assistance is allowed.

Instructor. BI

Prerequisite. None.

Reference.
1. EM000-CD-OMP-01 Operation and Maintenance Manual with Parts List

EQPT-3221 2.0 365 B, R, M (N) S/L

Goal. Operate the Communications Subsystem (CSS).

Requirement. In a simulated or actual deployed environment, perform the following:

1. Setup and configure the Broad Global Area Network.
   a. Retrieve products.
2. Perform radio checks.
   a. PRC 150
   b. PRC 117

3. Operate the vehicle intercom system.

Performance Standard. Practical application IAW the reference. Minor assistance is allowed.

Instructor. BI

Prerequisite. None.

Reference.
1. EM000-CD-OMP-01 Operation and Maintenance Manual with Parts List

EQPT-3222 2.0 365 B, R, M (N) S/L

Goal. Operate the Local Subsystem (LSS).

Requirement. In a simulated or actual deployed environment, perform the following:

1. Retrieve meteorological parameters.

Performance Standard. Practical application IAW the reference. Minor assistance is allowed.

Instructor. BI

Prerequisite. None.

Reference.
1. EM000-CD-OMP-01 Operation and Maintenance Manual with Parts List

EQPT-3223 1.0 365 B, R, M (N) S/L

Goal. Operate the Remote Subsystem (RSS).

Requirement. In a simulated or actual deployed environment, perform the following:

1. Configure observation transmission times.
2. Retrieve meteorological parameters.

Performance Standard. Practical application IAW the reference. Minor assistance is allowed.

Instructor. BI

Prerequisite. None.

Reference.
1. EM000-CD-OMP-01 Operation and Maintenance Manual with Parts List

EQPT-3224 1.0 365 B, R, M (N) S/L

Goal. Operate the Upper Air Subsystem (UAS).

Requirement. In a simulated or actual deployed environment, perform the following:

1. Prepare sonde for launch.
2. Enter local weather observation.
3. Launch sonde.
4. Ensure receipt of data.

Performance Standard. Practical application IAW the reference. Minor assistance is allowed.

Instructor. BI

Prerequisite. 2252

Reference.
1. EM000-CD-OMP-01 Operation and Maintenance Manual with Parts List

EQPT-3225 1.0 365 B, R, M (N) L

Goal. Operate the Processing Subsystem (PCS).

Requirement. Live (non-simulated) execution of the following:

1. Listen to audio file on workstation 2 via MCS/FSCS/loud speaker.
2. Display a column max product within Dispatch Weather.
3. Import RAOB data into GFMPL, upload meteorological parameters and raw data to the METMF(R)NEXGEN website under "Text Products"
4. Create and analyze a surface chart using Dispatch Weather software, publish to the website under "Forecast Products" as a PNG.
5. Create and analyze a thickness chart using Dispatch Weather software, publish to the website under "Forecast Products" as a PNG.
6. Create and analyze a synoptic chart set utilizing Dispatch Weather software, publish to the website under "Forecast Products" as a PNG.
7. Create and analyze a 500mb vorticity chart using Dispatch Weather software, publish to the website under "Forecast Products" as a PNG.
8. Create an HWD using an IR image for respective theater of operations as the background, publish to website under "Forecast Products" as a PNG.
9. Using only NEXGEN assets (no NIPRNET, OWS, AF-WEBS, etc.) generate a TAF and publish to the website under "Text Products".
10. On the website under "Charts/nongeoreferenced" create a 24 hour synoptic chart set loop utilizing available model data.
11. On the website under "Charts/nongeoreferenced" create a 24 hour thickness chart loop using GFS data.
12. On the website under "Charts/nongeoreferenced" create a 24 hour 500mb vorticity chart loop using GFS data.
13. Automate the process of creating and exporting C2PC underlays to the website folder "Charts/georeferenced".
14. Automate the process of ingesting and displaying visible satellite imagery using a blue marble background, publish under the "RADSAT/AOI" folder.
15. Using DMSP imagery, automate the process of ingesting and displaying scatterometer data on the website under the "RADSAT/AOI" folder.
16. In conjunction with the Meteorological Satellite Subsystem, highlight in red all cloud tops which are below 020 and publish on the website under "Forecast Products".
17. In conjunction with the Meteorological Satellite Subsystem, highlight in blue all cloud tops between 120-160, open in Dispatch Weather and add nephanalysis then publish on the website under "Forecast Products" as a PNG.

Performance Standard. Complete the requirement by practical application IAW the reference.

Instructor. BI

Prerequisite. None.

References.
1. Em000-Cy-Sum-010 Software User Manual (Sum) For The Meteorological Mobile Facility (Replacement) Next Generation (Metmf(R) Nexgen)
2. Em000-Cy-Sam-010 Network Administrators Manual (Nam) For The Meteorological Mobile Facility (Replacement) Next Generation (Metmf(R) Nexgen)

EQPT-3226 24.0 365 B, R, M (N) S/L

Goal. Operate the AN/TMQ-56 METMF(R).

Requirement. In a simulated or actual deployed environment, perform the following actions:

1. Provide secured and unsecured pilot to METRO communications.
2. Provide tower to METRO communications.
3. Conduct METOC impact assessments to operations in Area of interest.
4. Conduct data transmission and reception operations.
   a. Configure METCAST.
   b. Retrieve CAGIPS data.
   c. Run NOWCAST model.
5. Conduct data transfer to and from the common operating picture to determine and provide relevant tactical METOC pictures.
6. Conduct secured and unsecured voice communications.
7. Retrieve the following products utilizing Dispatch Weather.
   a. Acquire and analyze all satellite imagery for the production of forecasts and assessment of impacts to FMF operations.
   b. Acquire and analyze all radar imagery for the production of forecasts/warnings, advisories and assessment of impacts to FMF operations.
   c. Acquire and analyze synoptic, mesoscale and microscale METOC model output for the production of forecasts and assessment of impacts to FMF operations
8. Acquire, analyze, encode and disseminate local and remotely sensed surface observations for the production of forecasts and assessment of impacts to FMF operations.
9. Conduct upper atmospheric observations for the production of forecasts and assessment of impacts to FMF operations.
10. Acquire and analyze all lightning data for the production of forecasts/warnings, advisories and assessment of impacts to FMF operations.
11. Develop impact assessment briefing, for applicable FMF components, for large-scale dissemination via oral, electronic, or remote means.

Performance Standard. Complete the requirement by practical application IAW the reference.

Instructor. BI

Prerequisite. 3219, 3220, 3221, 3222, 3223, 3224, 3225

Reference.
1. Operations and Maintenance Manual with Parts List, AN/TMQ-56 Measuring Set, METMF(R) NEXGEN, EM000-CD-OMP-010

2.8.6 METEOROLOGICAL FORECASTING (METF) STAGE

2.8.6.1 Purpose. To develop proficiency in meteorological forecasting and mission specific equipment, elements and products.

2.8.6.2 General.

Admin Notes. Upon completion of this stage of training, METOC personnel shall be proficient in meteorological forecasting and mission specific support requirements.

Prerequisites. None.

Crew Requirements. None.

METF-3250 26.0 365 B, R, M (N) L/S

Goal. Produce a Terminal Aerodrome Forecast (TAF).

Requirement. Use available meteorological data to assess and interpret meteorological conditions to complete a minimum of 12 TAFS with 50% of the TAFS for other than their current location.

Performance Standard. Complete the requirement by practical application IAW the reference.

Instructor. SI

Prerequisite. 2603

References.
1. NAVMETOCCOMINST 3143.1_, Terminal Aerodrome Forecast (TAF) and the FM51-XII TAF Code
2. AFWA/TN-98/002 Revised, 13 February 2012 3. 3. AFH 11-203(v2), 16 May 2002
4. Aerographer's Mate Second Class, Volume I METOC Training Manual
5. Aerographer's Mate Second Class, Volume II METOC Training Manual

METF-3251 6.0 * B (N) L/S

Goal. Produce a limited data forecast.

Requirement. Given three METOC products and a location, produce a limited data forecast for a period of 48 hours and verify for accuracy.

Performance Standard. Complete the requirement by practical application.

Instructor. SI

Prerequisite. None

References.
1. AFWA/TN-98/002 Revised, 13 February 2012
2. AFH 11-203(v2), 16 May 2002
3. Aerographer's Mate Second Class, Volume I METOC Training Manual
4. Aerographer's Mate Second Class, Volume II METOC Training Manual

2.8.7 METOC PRODUCT BRIEFING (MPB) STAGE

2.8.7.1 Purpose. To develop proficiency in the techniques and tactics used to verbally present current and future states of the atmosphere.

2.8.7.2 General.

Admin Notes. Upon completion of this stage of training, METOC personnel shall be proficient in conducting METOC briefings in support of mission requirements.

Prerequisites. None.

Crew Requirements. None.

MPB-3300 2.0 365 B, R, M (N) L/S

Goal. Produce a flight weather packet.

Requirement. In accordance with the reference and given a flight weather packet request, prepare and brief 2 flight weather packets within 2 hours.

Performance Standard. Complete the requirement by practical application IAW the reference.

Instructor. SI

Prerequisite. 2603

References.
1. Flight Weather Briefing Manual, NAVMETOCCOMINST 3140.14F, May 2011.
2. NATOPS General Flight and Operating Instructions, OPNAV Instruction 3710.7U, November 2009.
3. Terminal Aerodrome Forecast (TAF) Code, NAVMETOCCOMINST 3143.1H, June 2011.
4. AFWA/TN-98/002 Revised, 13 February 2012
5. AFH 11-203(v2), 16 May 2002
6. Aerographer's Mate Second Class, Volume I METOC Training Manual
7. Aerographer's Mate Second Class, Volume II METOC Training Manual

MPB-3301 0.5 365 B, R, M (N) L/S

Goal. Brief a flight weather briefing (DD 175-1).

Requirement. Conduct a brief for 10 DD 175-1s. Instructor will ensure all pertinent information is briefed.

Performance Standard. Complete the requirement by practical application IAW the reference.

Instructor. SI

Prerequisite. 2651

References.
1. Flight Weather Briefing Manual, NAVMETOCCOMINST 3140.14_
2. NATOPS General Flight and Operating Instructions, OPNAV Instruction 3710.7_
3. Terminal Aerodrome Forecast (TAF) Code, NAVMETOCCOMINST 3143.1_

MPB-3302 12.0 180 B, R, M (N) L

Goal. Produce a 96-hour graphical METOC brief.

Requirement. Use available meteorological data to assess and interpret meteorological conditions to complete a minimum 6, 96-hour graphical METOC briefs. The brief should include the following at a minimum:
1. Forecast conditions.
2. Sky condition.
3. Min and max temp
4. Winds.
5. Visibility.
6. Weather.
7. Astronomical data.
8. Brief the final product.

Performance Standard. Complete the requirement by practical application.

Instructor. SI

Prerequisite. 2603

References.
1. AFWA/TN-98/002 Revised, 13 February 2012
2. AFH 11-203(v2), 16 May 2002
3. Aerographer's Mate Second Class, Volume I METOC Training Manual
4. Aerographer's Mate Second Class, Volume II METOC Training Manual
5. Weather Map Handbook 2nd Edition By: Tim Vasquez Publication Date: 2008 ISBN: 0-9706840-7-X
6. Weather Analysis and Forecasting Handbook By: Tim Vasquez Publication Date: 2011 ISBN-10: 0-978-0-9832533-0-3
7. MCRP 2-10B.6

MPB-3303 12.0 * B (N) L

Goal. Generate and conduct a climatology brief.

Requirement. Research and prepare a three-month climatology brief for a specified Area of Operation (AO) and Area of interest (AI). Elements to be included in the brief include, but are not limited to, the following:

1. Overview.
2. Geography.
3. Terrain.
4. Oceanography.
5. Astronomical.
6. Specific weather elements, if applicable:
   a. Relative humidity.
   b. Temperature.
   c. Thunderstorms/precipitation.
   d. Prevailing winds.
   e. Sky condition.
   f. IFR/VFR/Marginal VFR percentages.

Performance Standard. Complete the requirement by practical application.

Instructor. SI

Prerequisite. None

Reference.
1. Global Physical Climatology Volume 56 By: Dennis Hartmann ,14 June 1994 ISBN-10: 0123285305
2. MCRP 2-10B.6

MPB-3304 3.0 * B (N) L/S

Goal. Conduct an aviation strike brief.

Requirement. Prepare and present an aviation (mission specific) strike weather brief within 3-hours. Include the following information:

1. Enroute weather.
   a. Sky condition.
   b. Weather.
   c. Visibility/Slant range visibility (NM).
   d. Sea surface temperature/in-water survival time.
   e. Winds.
   f. Temperatures.
   g. Turbulence.
   h. Icing.
   i. Contrail formation.
   j. Ditch heading (if applicable).
2. Target Area Weather (repeat for each area).6652426
3. Asronomical data
   a. Sky condition.
   b. Weather.
   c. Visibility/slant range visibility (NM).
   d. Surface winds.
   e. Maximum/minimum temperatures.
   f. Cloud tops/ceilings.
   g. Freezing level.
   h. D-Values (if applicable).
4. Astronomical Data.
   a. Sunrise/Sunset.
   b. Sun elevation angles/azimuth.
   c. Beginning/ending civil/nautical twilights.
   d. Moonrise/moonset.
   e. Lunar illumination.
   f. Moon angles elevation/azimuth.
   g. Lux values.
   h. Shadow forecast.
5. 48-hour outlook.
6. Tactical assessment.
7. Electro-Optical sensor performance predictions.

Performance Standard. Complete the requirement by practical application.

Instructor. SI

Prerequisite. None

Reference.
1. MCRP 2-10B.6

MPB-3305 3.0 * B (N) L/S

Goal. Conduct an aviation assault brief.

Requirement. Prepare and present an aviation (mission specific) assault weather brief within 3-hours. Include the following information:

1. Enroute weather.
   a. Sky condition.
   b. Weather.
   c. Visibility/Slant range visibility (NM).
   d. Sea surface temperature/in-water survival time.
   e. Winds.
   f. Temperatures.
   g. Turbulence.
   h. Icing.
   i. Contrail formation.
   j. Ditch heading (if applicable).
2. Target Area Weather (repeat for each area).
   a. Sky condition.
   b. Weather.
   c. Visibility/slant range visibility (NM).
   d. Surface winds.
   e. Maximum/minimum temperatures.
   f. Cloud tops/ceilings.
   g. Freezing level.
   h. D-Values (if applicable).
3. Astronomical Data.
   a. Sunrise/Sunset.
   b. Sun elevation angles/azimuth.
   c. Beginning/ending civil/nautical twilights.
   d. Moonrise/moonset.
   e. Lunar illumination.
   f. Moon angles elevation/azimuth.
   g. Lux values.
   h. Shadow forecast.
4. 48-hour outlook.
5. Tactical assessment.
6. Electro-Optical sensor performance predictions.

Performance Standard. Complete the requirement by practical application.

Instructor. SI

Prerequisite. None

Reference.
1. MCRP 2-10B.6

MPB-3306 6.0 * B (N) L/S

Goal. Conduct an amphibious warfare brief.

Requirement. Prepare and present an amphibious warfare brief within 6-hours. Include the following information:

1. Current weather information.
2. 24-hour weather forecast.
3. Aviation parameters.
4. Surf/MSI observation/forecast.
5. Sea conditions observation/forecast.
6. Tactical assessment.
7. Atmospheric refractive summary.
8. Astronomical data.

Performance Standard. Complete the requirement by practical application.

Instructor. SI

Prerequisite. None

Reference.
1. MCRP 2-10B.6

MPB-3307 2.0 * B (N) L/S

Goal. Conduct a Search and Rescue (SAR) brief.

Requirement. Prepare and conduct the following:

1. Current and forecast weather information for predetermined areas of operation.
2. Utilizing appropriate software and/or charts, provide mission planning forecasts to include, but not limited to:
   a. Water temperatures.
   b. Drift data.
   c. Survival times.
   d. Current speed and direction.

Performance Standard. Complete the requirement by practical application.

Instructor. SI

Prerequisite. None.

References.
1. Navy Search and Rescue (SAR) Manual, NTTP 3-50.1
2. MCRP 2-10B.6
3. https://portal.fnmoc.navy.mil/websar/cgi-bin/websar.cgi?submitButton=Start

2.8.8 LITTORAL FORECASTING/ANALYSIS (LFA) STAGE

2.8.8.1 Purpose. To acquire proficiency in collecting, analyzing and forecasting oceanographic and littoral parameters.

2.8.8.2 General.

Admin Notes. Upon completion of this stage of training, METOC personnel shall be competent at

forecasting and analyzing oceanographic and littoral parameters.

Prerequisites. None.

Crew Requirements. None.

LFA-3350 1.0 365 B, R, M (N) L/S

Goal. Compute Modified Surf Index (MSI).

Requirement. Given mission parameters, observed/forecasted conditions/parameters and appropriate software or forms, generate MSI for three locations.

Performance Standard. Complete the requirement by practical application.

Instructor. SI

Prerequisite. 2900, 3100, 3101, 3102, 3151

References.
1. MCRP 2-10.3_.
2. Aerographer's Mate Third Class METOC Training anual (https://www.nko.navy.mil/group/aviation/ag)

LFA-3351 24.0 365 B, R, M (N) L/S

Goal. Create a surf forecast.

Requirement. Utilizing appropriate program and requirements for operations, generate a surf forecast that contains the listed components:

1. Beach survey.
2. Significant breaker height.
3. Maximum breaker height.
4. Breaker period.
5. Breaker type.
6. Breaker angle.
7. Littoral current speed and direction.
8. Modified surf index.
9. Wind direction in surf zone.
10. Beach profile data.

Performance Standard. Complete the requirement by practical application.

Instructor. SI

Prerequisite. 3100, 3101, 3102, 3350

References.
1. MCRP 2-10.3_.
2. Aerographer's Mate Third Class METOC Training Manual (https://www.nko.navy.mil/group/aviation/ag)
3. Aerographer's Mate Second Class Vol II METOC Training Manual https://www.nko.navy.mil/group/aviation/ag)

LFA-3352 1.0 365 B, R, M (N) G

Goal. Describe the impacts to the littoral environment to naval surface and military sealift maneuvers.

Requirement. Without the aid of reference, describe the impacts to the following:

1. Naval Surface Vessels.
2. Military Sealift Vessels.
   a. Fleet Oiler
   b. Fleet Ordnance and Dry Cargo
   c. Special Mission
   d. Prepositioning
   e. Expeditionary Fast Transport
   f. Service Support
   g. Sealift
   h. Dry Cargo and Tankers

Performance Standard. Pass an exam with 80% accuracy.

Instructor. BI

Prerequisite. 6500, 6501, 6502, 2902

References.
1. MCRP 2-10B.6 MAGTF Meteorological and Oceanographic Operations
2. Aerographer's Mate Third Class METOC Training Manual (https://www.nko.navy.mil/group/aviation/ag)
3. Aerographer's Mate Second Class Volume II METOC Training Manual (https://www.nko.navy.mil/group/aviation/ag)
4. NWP4-01.4 Undersea Replenishment
5. ATP 4-15 Army Watercraft Operations
6. JP 3-15 Barriers, Obstacles, and Mine Warfare for Joint Operations
7. JP 3.36 Joint Air Mobility and Sealift Operations
8. MCTP 13-10K Naval Logistics

LFA-3353 1.0 365 B, R, M (N) G

Goal. Describe the impacts to the littoral environment to naval surface, intra-theater maneuver, and amphibious operations.

Requirement. Without the aid of reference, describe the impacts to the following:

1. Impacts to Naval Vessels
   a. Amphibious Assault Ship (LHA/LHD)
   b. Landing Platform Dock (LPD)/Land Ship Dock (LSD)
   c. Landing Craft Utility (LCU)/Landing Craft Mechanized (LCM)
   d. Landing Craft Air Cushion (LCAC)
   e. Amphibious Assault Vehicles (AAV)
   f. Combat Rubber Raiding Craft (CRRC)
2. Maritime Sealift Vessels
   a. Expeditionary Fast Transport
   b. Expeditionary Transfer Dock
   c. Vehicle Landing Ship
   d. Landing Craft Utility 2000 (LCU-2000)

Performance Standard. Pass an exam with 80% accuracy.

Instructor. BI

Prerequisite. 6500, 6501, 6502, 2903

References.
1. MCRP 2-10B.6 MAGTF Meteorological and Oceanographic Operations
2. Aerographer's Mate Third Class METOC Training Manual (https://www.nko.navy.mil/group/aviation/ag)
3. Aerographer's Mate Second Class Volume II METOC Training Manual (https://www.nko.navy.mil/group/aviation/ag)
4. ATP 4-15 Army Watercraft Operations
5. JP 3-02 Amphibious Operations
6. JP 3-18 Joint Forcible Entry Operations
7. JP 4-01.6 Joint Logistics Over-the-Shore
8. SEAOPS Vol I, LCAC Operation
9. MCWP 3.13 AAV Operations
10. Commander's Quick Reference Amphibious Warfare Handbook

2.8.9 METOC IMPACT ASSESSMENT (MIA) STAGE

2.8.9.1 Purpose. To acquire proficiency in the processes and products that assist in providing assessment of atmospheric conditions to mission specific support requirements.

2.8.9.2 General.

Admin Notes. None.

Prerequisites. None.

Crew Requirements. None.

MIA-3400 3.0 365 B, R, M (N) L/S

Goal. Produce METOC impacts on command, control, and communication (C3) operations.

Requirement. Assess and brief the METOC impacts on C3 operations. The assessment will consider, at a minimum, the following:

1. Space weather.
2. Temperature profile.
3. Precipitation.
4. Snow depth and coverage.
5. EM propagation.
6. Hazardous weather.

Performance Standard. Complete the requirement by practical application.

Instructor. SI

Prerequisite. None

Reference.

1. MCRP 2-10B.6

MIA-3401 3.0 * B (N) L/S

Goal. Produce METOC impact products on FMF operations.

Requirement. After conducting a thorough mission analysis, utilize METOC equipment to assess and brief METOC impacts on FMF operations. The assessment shall include, at a minimum, the following essential elements:

1. Mission weather.
2. Tactical Decision Aids.
3. Astronomical data.

Performance Standard. Complete the requirement by practical application.

Instructor. SI

Prerequisite. None

Reference.
1. MCRP 2-10B.6

MIA-3402 3.0 * B (N) L/S

Goal. Produce METOC impact products to support planning and execution of joint and/or coalition operations and missions.

Requirement. Produce mission specific impact assessments for the listed missions. Exhibit a comprehensive knowledge of METOC element impacts on the major platforms and support activities of the following:

1. Humanitarian aid missions.
2. Deep strike missions.
3. Force on force missions.
4. Over the horizon missions.
5. Counterinsurgency missions.
6. Tactical Decision Aids.
   a. Weapons of mass destruction.
   b. Laser guided munitions.
   c. Infrared guided munitions.
   d. Visual guided munitions.
   e. GPS guided munitions.
7. Communications.
   a. Satellite.
   b. UHF/VHF.
8. Trafficability.

Performance Standard. Complete the requirement by practical application.

Instructor. SI

Prerequisite. None

References.
1. MCRP 2-10B.6
2. Applicable JPs

MIA-3403 2.0 * B (N) L/S

Goal. Produce polar METOC impacts on naval operations.

Requirement. Assess and brief the METOC impacts on naval operations. The assessment will consider, at a minimum, the following:

1. Geography and general circulation
2. Synoptic pressure systems
3. Snow and ice
4. Sea ice and icebergs
5. General weather characteristics
6. Icing

Performance Standard. Complete the requirement by practical application.

Instructor. SI

Prerequisite. 2950, 2951, 2952, 2953, 2954

Reference.
1. Arctic Meteorology and Oceanography, https://www.meted.ucar.edu/training_module.php?id=758
2. Forecaster Handbook for the Arctic, https://ntrl.ntis.gov/NTRL/dashboard/searchResults/titleDetail/ADA238424.xhtml
3. U.S. National Ice Center, https://usicecenter.gov/
4. Aircraft Icing Handbook, http://www.tc.faa.gov/its/worldpac/techrpt/ct888-1.pdf
5. AFH 11-203 Weather For Aircrews, https://www.e-publishing.af.mil/
6. MCRP 2-10B.6
7. FM 34-81-1 Battlefield Weather Effects, https://www.globalsecurity.org/intell/library/policy/army/fm/34-81-1/index.html

2.8.10 MANAGEMENT (MGT) STAGE

2.8.10.1 Purpose. To acquire proficiency in the management of METOC operations within a FMF unit, Joint or Coalition Command.

2.8.10.2 General.

Admin Notes. The following apply to this stage of training:

1. All personnel shall be assigned this stage of training upon completion of the Core Skill Introduction phase and prior to assignment to any other stage.

2. Upon completion of this stage of training, all METOC personnel shall be competent in managing a FMF, Joint, or Coalition METOC capability.

Prerequisite. None.

Crew Requirements. None.

MGT-3450 24.0 365 B, R, M (N) L

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

Requirement. Given a scenario or operational deployment and Commander's Guidance, employ the METOC 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 SECREP 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.
7. Coordinate with external agencies as required.
8. Submit frequencies requests.
9. Requests for additional support.

Performance Standard. With the aid of reference, complete the requirement.

Instructor. WTI

Prerequisite. 2704, 2705, 2750, 2751, 2850, 2851, 2852, 3203, 3204, 3205, 3206, 3207, 3208, 3209, 3210, 3211, 3212, 3213, 3214, 3215, 3216, 3218, 3225, 3226, 3500

References.
1. MCRP 2-10B.6
2. Local Directives and Standard Operating Procedures (SOP)
3. JP 3-59
4. CJCSM 3825.01 Joint METOC Manual

MGT-3451 12.0 365 B, R, M (N) L

Goal. Manage METOC Operations in support of unit mission.

Requirement. Given a scenario or operational deployment and Commander's Guidance, manage METOC operations:

1. Develop and/or revise SOPs.
2. Develop crew schedules.
3. Coordinate METOC support requirements/products with external agencies.
4. Develop, implement, and execute a training plan.
5. Ensure security procedures are being followed.

Performance Standard. With the aid of reference, complete the requirement.

Instructor. WTI

Prerequisite. 2704, 2705, 2750, 2751, 2850, 2851, 2852, 3203, 3204, 3205, 3206, 3207, 3208, 3209, 3210, 3211, 3212, 3213, 3214, 3215, 3216, 3218, 3225, 3226, 3450, 3500

References.

1. MCRP 2-10B.6
2. JP 3-59
3. CJCSM 3825.01 Joint METOC Manual

MGT-3452 24.0 365 B, R, M (N) L

Goal. Manage a METOC section in support of garrison operations.

Requirement. Given a scenario or Commander's Guidance, manage garrison METOC operations:

1. Develop and/or revise SOPs.
2. Develop crew schedules.
3. Coordinate METOC support requirements/products with external agencies.
4. Develop, implement, and execute a training plan.
5. Ensure security procedures are being followed.
6. Develop, implement, and execute a quality control program.

Performance Standard. With the aid of reference, complete the requirement.

Instructor. WTI

Prerequisite. None.

References.
1. MCRP 2-10B.6
2. Local Directives and Standard Operating Procedures (SOP)
3. JP 3-59
4. CJCSM 3825.01 Joint METOC Manual

2.8.11 METOC PLANNING COORDINATION (MPC) STAGE

2.8.11.1 Purpose. To acquire proficiency in the development of Annexes and Op Orders. This stage also develops an understanding of the METOC integration into Joint Operations and support of Intel Operations.

2.8.11.2 General.

Admin Notes. None.

Prerequisite. None.

Crew Requirements. None.

MPC-3500 8.0 365 B, R, M (N) L/S

Goal. Submit input to annexes of operational orders.

Requirement. Submit METOC input to the annexes of operational orders and LOIs to the requesting command. Complete the requirement on each of the following:

1. Intelligence operations, Annex B.
2. Environmental operations, Annex H.
3. Collection plan, Annex J.

4. Communications and information systems, Annex K.

Performance Standard. Complete the requirement by practical application.

Instructor. WTI

Prerequisite. None.

Reference.
1. MCRP 2-10B.6

MPC-3501 35.0 * B (N) L/S

Goal. Conduct METOC support for Intelligence Operations.

Requirement. Provide METOC support through all phases of Intelligence Operations execution operations. Complete, at a minimum, the following items:

1. Participate in target package development.
2. Coordinate METOC support requirements for the targeting cycle.
3. Develop and produce Targeting METOC Products.
4. Participate in Collections Operations Management (COM) working group.
5. Coordinate METOC support requirements for COM.
6. Develop and produce COM METOC Products.

Performance Standard. Complete the requirement by practical application.

Instructor. WTI

Prerequisite. None.

References.
1. MCRP 2-10B.6
2. MCWP 2-2
3. MCWP 2-21
4. MCWP 2-22
5. MCWP 2-24B
6. MCWP 2-26
7. MCWP 2-3
8. MCWP 2-4
9. MCWP 2-6
10. Local Directives and Standard Operating Procedures (SOP)
11. JP 3-60
12. MCRP 3-16A
13. MCWP 2-1
14. MCWP 2-3

2.9 CORE PLUS SKILL PHASE (4000) N/A. (THERE ARE NO TRAINING EVENTS IN THIS PHASE)

2.10 INSTRUCTOR TRAINING (5000) PHASE

2.10.1 Purpose. This phase contains instructor workup and evaluation certification syllabus events. This level will also contain instructor workup and certification syllabus events as applicable for Contract Instructors (CI) who

instructs simulator events.

2.10.2 General.

Admin Notes.

1. Each event specifies the location of the training materials.
2. Upon completion of academic events, personnel should print completion certificates for entry into Basic Training Records (BTR). Copies of completion certificates shall be placed within and maintained in individual training jackets.

3. A general description of each type of training materials is as follows:

a. Correspondence Course – A written publication that may or may not include testing materials.

b. Computer Based Training – Self-paced learning modules that may be accessed via a CD-ROM/DVD or website.

c. Instructor-Led Distance Learning – Formal courses of instruction that are accessed and facilitated via the internet (NIPRNET or SIPRNET)

d. Resident Courses – Formal courses of instruction in which the student physically attends, normally at another location. Total Training Events. 9 Events, XX.X Hours

Prerequisite. None.

Stages. The following stage is included in the Instructor Phase of training.

PAR NO.	STAGE NAME	PAGE NUMBER
2.10.3	INSTRUCTOR UNDER TRAINING (IUT)	2-170

2.10.3 INSTRUCTOR UNDER TRAINING (IUT) STAGE.

General. The MAWTS-1 C3 Course catalog contains the training requirements for above listed instructors. The catalog is located at the MAWTS-1 website, https://www.intranet.tecom.usmc.mil/sites/mawts1/default.aspx. The table below lists all IUT events. 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 and recommend for qualification Endorse recommendations for position designations
Notes	1. The Commanding Officer is the approving authority for qualifications and designations.

IUT-5000 2.0 * B (N) L

Goal. Introduce principals of instruction.

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

instructor:

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

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

Instructor. SI

Prerequisite. None.

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

IUT-5010 2.0 * B (N) L

Goal. Describe individual T&R requirements.

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

1. Training progression model
2. Programs of Instruction
   a. Basic
   b. Refresher
   c. Conversion
   d. Series Conversion
   e. Transition
   f. Maintain
3. T&R attain and maintain tables
4. Syllabus notes.
5. T&R syllabus structure
   a. Phase
   b. Stage
   c. Event
   d. Skill
   e. Syllabus
6. Event format
   a. Header
      (1) Event prefix - event code
      (2) Projected event duration

(3) Proficiency period
(4) Programs of instruction (POI)
(5) Event conditions
(6) Device options
(7) Device number
(8) Device type

b. Body
(1) Goal
(2) Requirement
(3) Performance standard
(4) Equipment

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

Instructor. SI

Prerequisite. None.

References.
1. NAVMC 3500.14
2. NAVMC 1553.1

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

Goal. Conduct T&R instruction.

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

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

Performance Standard. Complete the requirement items IAW the reference and ensure training is

doctrinally and technically current. Instructor shall use the instructor evaluation form from the SAT user's guide for each class and a mark of satisfactory must be achieved for each of the three classes.

Instructor. SI

Prerequisite. 5000, 5010

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

IUT-5100 2.0 * B (N) L

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

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

1. Describe the Weapons and Tactics Training Program (WTTP).
2. Define each element of the Core Model:
   a. Mission statements
   b. Core Mission Essential Task List (METL)
   c. Output standards
   d. Core Skills (How to attain and maintain)
   e. Mission Skills (How to attain and maintain)
   f. Combat Leadership
3. Define each of the following elements of unit training:
   a. Training Exercise Employment Plan (TEEP)
   b. Core Model Minimum Requirements (CMMR)
   c. Instructors
   d. Core Model Training Report (CMTR)
   e. T&R manual connection to readiness reporting
4. Define each of the following elements of training:
   a. Certification
   b. Qualification
   c. Designation
5. Performance Record Explain how changes are made to the Program manual:
   a. Explain T&R conference procedures.
   b. Explain correspondence change procedures.

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

Instructor. SI

Prerequisite. None.

References.
1. NAVMC 3500.14
2. MCO 3500.109

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

Goal. Conduct instructor evaluations.

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

Performance Standard. Complete the requirements IAW the reference.

Instructor. SI

Prerequisite. 5100

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

IUT-5120 2.0 * B (N) L

Goal. Perform T&R administration.

Requirement. Document training to include:

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

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

Instructor. SI

Prerequisite. 5100, 5110

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

IUT-5130 2.0 * B (N) L

Goal. Develop a training plan.

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

1. Review Commander's training guidance.
2. Analyze the CMTR to determine training deficiencies and how to achieve CMMR.
3. Identify and schedule T&R training opportunities IAW the TEEP to achieve requirements.
4. Determine instructors required.
5. Determine equipment required.
6. Determine external support required.
7. Deliver a brief to the instructor that shows:

a. Crew manning and training requirements.
b. Current training status.
c. Identify the training deficiencies and resource shortfalls.
d. Explain the training plan to correct the training deficiencies.
e. Training plan meets commander's guidance.

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

Instructor. SI

Prerequisite. 5100, 5110, 5120

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

2.11 CERTIFICATIONS, QUALIFICATIONS AND DESIGNATIONS (6000)

2.11.1 Purpose. This phase contains tracking codes for designations and training that provide community standardization for combat leadership and instructor designations. This syllabus does not include "one time" certification training.

2.11.2 General.

Admin Notes.

1. The squadron WTI shall review the Individual Performance Record (IPR) to ensure all required training, documentation and administrative actions have been completed prior to staffing qualification or designation recommendations for approval.

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

Prerequisite. None.

Stages. The following stage is included in the Instructor Under Training Phase of training.

PAR NO.	STAGE NAME	PAGE NUMBER
2.11.3	CERTIFICATIONS (CERT)	2-180
2.11.4	QUALIFICATIONS (QUAL)	2-177
2.11.5	DESIGNATIONS (DESG)	2-181
2.11.6	SCHOOL CODES (SCHL)	2-177

2.11.7	ONLINE TRAINING (OLT)	2-203
2.11.8	ADVANCED TRAINING TRACKING CODES	

2.11.3 CERTIFICATIONS (CERT) STAGE

2.11.3.1 Purpose. To certify personnel in unit specific METOC positions.

2.11.3.2 General.

Administrative Notes. These certifications are coupled with the base qualification.

Prerequisite. Completion of the required academic modules and core mission, and certification events for the position being trained in.

Crew Requirement. None.

CERT-6200 1.0 * B (N) G

Goal. Assistant Forecaster (AF).

Requirement. Complete the required training in the AF POI.

Performance Standard. N/A

Prerequisite. 2200, 2201, 2202, 2204, 2205, 2206, 2250, 2251, 2300, 2301, 2400, 2500, 2501, 2502, 2503, 3100, 3101, 3102, 3150, 3151

Reference. None.

CERT-6201 1.0 * B (N) G

Goal. Apprentice METOC Analyst Forecaster (AMAF).

Requirement. Complete the required training in the AMAF POI.

Performance Standard. N/A

Prerequisite. 2250, 2251, 2252, 2553, 2554, 2555, 2556, 2600, 2601, 2602, 2603, 2650, 2651, 3250, 3300, 3301, 3302, 6200, 6500, 6501, 6502

Reference. None.

CERT-6202 1.0 * B (N) G

Goal. Mission Impact Analyst.

Requirement. Complete the required training in the MIA POI. Be recommended by a WTI to the commanding officer who will approve the qualification in writing.

Performance Standard. N/A

Prerequisite. 2750, 2751, 2851, 2852, 2856, 2901, 2950, 2951, 2952, 2953, 2954, 3251, 3303, 3304, 3305, 3306, 3307, 3350, 3400, 3401, 3402, 3403, 3404, 6201

Reference. None.

CERT-6203 1.0 * B (N) G

Goal. Journeyman METOC Analyst Forecaster (JMAF).

Requirement. Complete the required training in the JMAF POI. Be recommended by a WTI to the commanding officer who will approve the qualification in writing.

Performance Standard. N/A

Prerequisite. 2352, 3500, 3501, 6001, 6201, 6202, 6303, 8040, 8041, 8042, 8043, 8044, 8060, 8061, 8062, 8063, 8064, 8065, 8066, 8067, 8080, 8081, 8082, 8083, 8084, 8085, 8086, 8087, 8088

Reference. None.

CERT-6204 1.0 * B (N) G

Goal. Master METOC Analyst Forecaster (MMAF).

Requirement. Must be recommended by a WTI to the commanding officer who will approve the qualification in writing.

Performance Standard. N/A

Prerequisite. 6002, 6003, 6004, 6005, 6006, 6203

Reference. None.

2.11.4 QUALIFICATIONS (QUAL) STAGE

2.11.4.1 Purpose. To qualify personnel in various METOC positions.

2.11.4.2 General.

Administrative Notes.

1. During evaluation of the event performance standard, the instructor may provide minimal guidance. However, the instructor should guide and mentor the trainee during the training session and after an event evaluation.

2. Personnel being recommended for qualification must perform the evaluation event to a proficient level. A proficient level is defined as the ability to efficiently and skillfully correct errors without hesitation and with minimal or no input from the Instructor.

3. All METOC qualification events will be evaluated by a SI or WTI, and recommended by a WTI for approval. If a squadron does not have a WTI, the commanding officer can assign an SI who is proficient in the position being evaluated to serve as the evaluator.

4. Policy on attaining, maintaining and regaining a qualification is contained in chapter 2 of reference (a).

5. All qualifications in this syllabus are E-coded, therefore, the event evaluation forms used for qualification events shall be retained in the IPR permanently.

Prerequisite. Completion of the required academic modules and core mission, and core plus skill events for the position being trained in.

Crew Requirement. None.

QUAL-6300 1.0 * B (N) G

Goal. Qualify as a Station Assistant Forecaster (SAF).

Requirement. Complete the required training in the Station AF POI. Be recommended by a WTI to the commanding officer who will approve the certification in writing.

Performance Standard. N/A

Prerequisite. 2350, 6200

Reference. None.

QUAL-6301 1.0 * B (N) G

Goal. Qualify as a Station Apprentice METOC Analyst Forecaster (SAMAF).

Requirement. Complete the required training in the Station AF POI. Be recommended by a WTI to the commanding officer who will approve the certification in writing.

Performance Standard. N/A

Prerequisite. 6201, 6300

Reference. None.

QUAL-6302 1.0 * B (N) G

Goal. Qualify as a METOC Support Team Member (MSTM).

Requirement. Complete the required training in the Station AF POI. Be recommended by a WTI to the commanding officer who will approve the certification in writing.

Performance Standard. N/A

Prerequisite. 2700, 2701, 2702, 2703, 3203, 3204, 3205, 3206, 6200

Reference. None.

QUAL-6303 1.0 * B (N) G

Goal. Qualify as a Tactical Apprentice METOC Analyst Forcaster (TMAF).

Requirement. Complete the required training in the Station AF POI. Be recommended by a WTI to the commanding officer who will approve the certification in writing.

Performance Standard. N/A

Prerequisite. 2850, 3207, 3208, 3209, 3210, 3211, 3212, 3213, 3214, 3215, 3216, 3217, 3218, 3219, 3220, 3221, 3222, 3223, 3224, 3225, 3226, 3251, 6201, 6302, 6503, 6504, 6505, 6506, 6507, 6508, 8000, 8001, 8002, 8003, 8004, 8005, 8006, 8007, 8008, 8020, 8021, 8022, 8023, 8024, 8025, 8026, 8027, 8028

Reference. None.

2.11.5 DESIGNATIONS (DESG) STAGE

2.11.5.1 Purpose. To designate personnel in various METOC positions.

2.11.5.2 General.

Administrative Notes.

1. Once an individual has met the designation prerequisites and has been recommended for the combat leadership position or instructor position, they may be designated by the Commanding Officer or the CO's designated individual.

2. Designation of instructors is done once an individual has completed the 5000 phase events for that instructor position and has been found to meet all instructor requirements.

3. Designations are at the discretion of the Commanding Officer and can be revoked upon CO decision or transfer from command.

Prerequisite. Completion of the required academic modules and core mission, and designation events for the position being trained in.

Crew Requirement. None.

DESG-6400 1.0 * B (N) G

Goal. METOC Support Team Leader (MSTL).

Requirement.
1. Complete the prerequisites under the supervision of a unit Instructor.
2. Be recommended by a unit WTI.
3. The commanding officer will designate the MSTL in writing.
4. Designation is not effective until appropriate entries are made in MSHARP, required administration is completed and signed letter in IPR.

Performance Standard. N/A

Instructor. WTI

Prerequisite. 6202, 6303

Reference. None.

DESG-6401 1.0 * B (N) G

Goal. Quality Control Supervisor (QCS).

Requirement.
1. Complete the prerequisites under the supervision of a unit Instructor.
2. Be recommended by a unit WTI.
3. The commanding officer will designate the QCS in writing.
4. Designation is not effective until appropriate entries are made in MSHARP, required administration is completed and the signed letter filed in IPR.

Performance Standard. N/A

Instructor. WTI

Prerequisite. 2857, 6202, 6301

Reference. None.

DESG-6402 1.0 * B (N) G

Goal. Regional METOC Center Chief (RMCC).

Requirement.
1. Complete the prerequisites under the supervision of a unit Instructor.
2. Be recommended by a unit WTI.
3. The commanding officer will designate the RMCC in writing.
4. Designation is not effective until appropriate entries are made in MSHARP, required administration is completed and the signed letter filed in IPR.

Performance Standard. N/A

Instructor. WTI

Prerequisite. 3452, 6204

Reference. None.

DESG-6403 1.0 * B (N) G

Goal. Marine Air Traffic Control Detachment METOC Chief (MMC).

Requirement.
1. Complete the prerequisites under the supervision of a unit Instructor.
2. Be recommended by a unit WTI.
3. The commanding officer will designate the MCC in writing.
4. Designation is not effective until appropriate entries are made in MSHARP, required administration is completed and the signed letter filed in IPR.

Performance Standard. N/A

Instructor. WTI

Prerequisite. 3450, 3451, 6204

Reference. None.

DESG-6404 1.0 * B (N) G

Goal. Intel METOC Chief (IMC).

Requirement.
1. Complete the prerequisites under the supervision of a unit Instructor.
2. Be recommended by a unit WTI.
3. The commanding officer will designate the IMC in writing.
4. Designation is not effective until appropriate entries are made in MSHARP, required administration is completed and the signed letter filed in IPR.

Performance Standard. N/A

Instructor. WTI

Prerequisite. 3450, 3451, 6204

Reference. None.

DESG-6320 1.0 * B (N) G

Goal. Designation as a Basic Instructor (BI).

Requirement.
1. Complete the prerequisites under the supervision of a unit Instructor.
2. Be recommended by a unit SI or WTI.
3. The BI will be designated in writing by appropriate authority.
4. Designation is not effective until appropriate entries are made in MSHARP, required administration is completed and the signed letter filed in the performance record.

Performance Standard. N/A

Prerequisite. 5020

Reference. None.

DESG-6321 1.0 * B (N) G

Goal. Designation as a Senior Instructor (SI).

Requirement.
1. Be recommended for SI designation by a WTI.
2. MATC Marines attached to an air station may be designated as SI by another MATC SI due to the unique nature of the station ATC training curriculum.
3. The SI will be designated in writing by appropriate authority.
4. Designation is not effective until appropriate entries are made in MSHARP, required administration is completed and the signed letter filed in the performance record.

Performance Standard. N/A

Prerequisite. 5130, 6320

Reference. None.

DESG-6322 1.0 * B (N) G

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

Requirement. Be certified by MAWTS-1 as a WTI, designated by the commanding officer in writing, appropriate entry made in M-SHARP and a letter filed in the performance record.

Performance Standard. N/A

Prerequisite. 6000

Reference. None.

DESG-6330 1.0 * B (N) G

Goal. Designation as Formal Learning Center Instructor.

Requirement. Complete applicable formal learning center instructor's course.

Performance Standard. N/A

Instructor. WTI

Prerequisite. 6096

Reference. None.

2.11.6 SCHOOL CODES (SCHL) STAGE

2.11.6.1 Purpose. To designate courses for METOC personnel to attend to meet training requirements.

2.11.6.2 General.

Administrative Notes. None.

Prerequisite. As dictated by individual school.

Crew Requirement. None.

SCHL-6000 1.0 * B (N) G

Goal. Weapons and Tactics Instructors (WTI) Course

Requirement. Graduate from WTI Course at MAWTS-1. (CID: M14P2A1)

Performance Standard. N/A

Instructor. FLC Instructor

Prerequisite. None.

Reference. None.

SCHL-6001 1.0 * B (N) G

Goal. Target Acquisitions Weapons Software (TAWS) Primer.

Requirement. Complete the course requirements in accordance with the established POI. (Course Code: S-5B-0001)

Performance Standard. Complete the resident course.

Instructor. BI

Prerequisite. None.

Reference.
1. Information Warfare Training Group.

SCHL-6002 1.0 * B (N) G

Goal. Builder Primer course.

Requirement. Complete the course requirements in accordance with the established POI.

Performance Standard. Complete the resident course.

Instructor. FLC Instructor

Prerequisite. None.

Reference.
1. Information Warfare Training Group

SCHL-6003 1.0 * B (N) G

Goal. METOC Support for Strike Warfare primer course.

Requirement. Complete the course requirements in accordance with the established POI. (Course Code: C-5B-0014)

Performance Standard. Obtain completion certificate.

Instructor. FLC Instructor

Prerequisite. 6001, 6002

Reference.
1. Information Warfare Training Group

SCHL-6004 1.0 * B (N) G

Goal. METOC Support for Amphibious Warfare primer course.

Requirement. Complete the course requirements in accordance with the established POI. (Course Code: C-5B-0017)

Performance Standard. Obtain completion certificate.

Instructor. FLC Instructor

Prerequisite. None.

Reference.
1. Information Warfare Training Group

SCHL-6005 1.0 * B (N) G

Goal. Littoral Oceanography resident course.

Requirement. Complete the course requirements in accordance with the established POI. (Course Code: METOC 045-825-410-001)

Performance Standard. Obtain completion certificate.

Instructor. BI

Prerequisite. None.

Reference.
1. Information Warfare Training Group

SCHL-6006 1.0 * B (N) G

Goal. Mediterranean Forecast resident course.

Requirement. Complete the course requirements in accordance with the established POI. (Course Code: S-5B-0003)

Performance Standard. Obtain completion certificate.

Instructor. FLC Instructor

Prerequisite. None.

Reference.
1. Information Warfare Training Group

SCHL-6007 1.0 * B (N) G

Goal. Central Command (CENTCOM) AOR Forecasting resident course.

Requirement. Complete the course requirements in accordance with the established POI. (Course Code: S-5B-0005)

Performance Standard. Obtain completion certificate.

Instructor. FLC Instructor

Prerequisite. None.

Reference.
1. Information Warfare Training Group

SCHL-6008 1.0 * B (N) G

Goal. METOC Forecasting for COMSEVENTHFLT AOR resident course.

Requirement. Complete the course requirements in accordance with the established POI. (Course Code: TOC 045-841-411-011)

Performance Standard. Obtain completion certificate.

Instructor. FLC Instructor

Prerequisite. None.

Reference.
1. Information Warfare Training Group (IWTG).

SCHL-6009 8.0 * B (N) G

Goal. METOC Support for Combat Search and Rescue/ Search and Rescue (CSAR/SAR) resident course.

Requirement. Complete the course requirements in accordance with the established POI. (Course Code: C-5B-0015)

Performance Standard. Obtain completion certificate.

Instructor. BI

Prerequisite. None.

Reference.
1. Information Warfare Training Group (IWTG)

SCHL-6010 8.0 * B (N) G

Goal. Mobile Environmental Team Primer resident course.

Requirement. Complete the course requirements in accordance with the established POI. (Course Code: METOC 045-849-411-001)

Performance Standard. Obtain completion certificate.

Instructor. BI

Prerequisite. None.

Reference.
1. Information Warfare Training Group (IWTG)

SCHL-6011 16.0 * B (N) G

Goal. Mobile Environmental Team Trainer resident course.

Requirement. Complete the course requirements in accordance with the established POI. (Course Code: METOC 045-849-411-002)

Performance Standard. Obtain completion certificate.

Instructor. BI

Prerequisite. 6010

Reference.
1. Information Warfare Training Group (IWTG)

SCHL-6012 24.0 * B (N) G

Goal. METOC Support for Air Defense, Surface Warfare, and Information Warfare (AD, SW, IW) resident course.

Requirement. Complete the course requirements in accordance with the established POI. (Course Number: C-5B-0013)

Performance Standard. Obtain completion certificate.

Instructor. BI

Prerequisite. 6002

Reference.
1. Information Warfare Training Group (IWTG

SCHL-6013 40.0 * B (N) G

Goal. Riverine Analysis and Forecasting Course resident course.

Requirement. Complete the course requirements in accordance with the established POI. (Course Code: METOC-045-798-410-009)

Performance Standard. Obtain completion certificate.

Instructor. FLC Instructor

Prerequisite. 6552, 6553, 6557

References.
1. Watershed Assessment of River Stability and Sediment Supply (WARSSS) 1st Edition, By: Dave Rosgen, Wildland Hydrology, 1 February 2007, ISBN-10: 0979130808
2. Applied River Morphology 2nd Edition, By: Dave Rosgen, Wildland Hydrology, 1 October 1996, ISBN-10: 0965328902
3. NOAA; http://www.nwrfc.noaa.gov/info/water_cycle/hydrology.cgi
4. NTTP 3-06.1, Riverine Operations
5. SUNY ESF, Department of Environmental Resources Engineering
6. FM 90-13, River-Crossing Operations
7. Meteorology Today 9th Edition By: C. Donald Ahrens Publication Date 02 July 2008 ISBN-10: 0495555738 AFWA TN 98-002 (revised Feb. 2012)
8. Kelsch, Matthew. Basic Hydrologic Sciences Distance Learning Course" MetEd, retrieved from http://meted.ucar.edu/.
9. All images are used under the Creative Commons© Licensing Program.
10. Meteorology for Scientist and Engineers 2nd Edition By: Roland B. Stull Publication Date: 2000 ISBN: 0-534-37214-7

SCHL-6014 8.0 * B (N) G

Goal. METOC Support for Chemical, Biological, Radiological, and Nuclear Environment (CBRNE) resident course.

Requirement. Complete the course requirements in accordance with the established POI.(Course Code: C-5B-0020)

Performance Standard. Obtain completion certificate.

Instructor. BI

Prerequisite. None.

References.
1. ATP-45
2. HPAC User's Manual
3. HPAC NBC Primer
4. METOC Considerations for Chemical, Biological, and Nuclear WMD Analysis
5. Military Forces Guidebook SIPR Website
6. ATHENA-S WMO Share Counter-Proliferations Information Space
7. NBC Analysis Warning System
8. DTRA Website

SCHL-6015 24.0 * B (N) G

Goal. METOC Support for Naval Special Warfare (NSW) resident course.

Requirement. Complete the course requirements in accordance with the established POI. (Course Code: C-5B-0021)

Performance Standard. Obtain completion certificate.

Instructor. FLC Instructor

Prerequisite. None.

Reference.
1. Information Warfare Training Group (IWTG)

SCHL-6016 24.0 * B (N) G

Goal. Tactical Forecasting for Naval Special Warfare (NSW) resident course.

Requirement. Complete the course requirements in accordance with the established POI. (Course Code: METOC 045-792-410-008)

Performance Standard. Obtain completion certificate.

Instructor. FLC Instructor

Prerequisite. None.

Reference.
1. Information Warfare Training Group (IWTG)

SCHL-6017 32.0 * B (N) G

Goal. OA Division Tactical Team (OATT) Trainer: Basic resident course.

Requirement. Complete the course requirements in accordance with the established POI. (Course Code: C-5B-0019)

Performance Standard. Complete resident course.

Instructor. FLC Instructor

Prerequisite. None.

Reference.
1. Information Warfare Training Group (IWTG)

SCHL-6018 32.0 * B (N) G

Goal. OA Division Tactical Team (OATT) Trainer: Intermediate resident course.

Requirement. Complete the course requirements in accordance with the established POI. (Course Code: C-5B-0023)

Performance Standard. Complete resident course.

Instructor. FLC Instructor

Prerequisite. None.

Reference.
1. Information Warfare Training Group (IWTG)

SCHL-6096 0.5 * B (N) G

Goal. Attend respective instructor development course.

Requirement. Successfully complete course curriculum.

Performance Standard. N/A

Instructor. N/A

Prerequisite. None.

Reference. None.

2.11.7 ONLINE TRAINING STAGE

2.11.7.1 Purpose. The stage outlines all relevant computer based training modules, correspondence courses, and instructor-led distance learning courses.

2.11.7.2 General.

Admin Notes. None.

Prerequisites. None.

OLT-6500 12.0 * B (N) G

Goal. Complete 'Aerographer's Mate Third Class METOC Training Manual (AG3)' Module.

Requirement. Perform the module requirements of the 'Aerographer's Mate Third Class METOC Training Manual' Module. (NKO Course Code: METOC-045-841-612-001)

Performance Standard. Pass the end of course exam available via Navy e-Learning.

Instructor. BI

Prerequisite. None.

References.
1. Aerographer's Mate Third Class METOC Training Manual
2. Navy e-Learning (https://nel.navy.mil/)

OLT-6501 12.0 * B (N) G

Goal. Complete 'Aerographer's Mate Second Class (AG2) Vol I METOC Training Manual' Module.

Requirement. Perform the module requirements of the 'Aerographer's Mate Second Class Vol I METOC Training Manual' Module. (NKO Course Code: METOC-045-841-610-002)

Performance Standard. Pass the end of course exam available via Navy e-Learning.

Instructor. BI

Prerequisite. 6500

References.
1. Aerographer's Mate Third Class METOC Training Manual
2. Navy e-Learning (https://nel.navy.mil/)

OLT-6502 12.0 * B (N) G

Goal. Complete 'Aerographer's Mate Second Class (AG2) Vol II METOC Training Manual' Module.

Requirement. Perform the module requirements of the 'Aerographer's Mate Second Class Vol II METOC Training Manual' Module. (NKO Course Code: METOC-045-841-611-003)

Performance Standard. Pass the end of course exam available via Navy e-Learning.

Instructor. BI

Prerequisite. 6501

References.
1. Aerographer's Mate Third Class METOC Training Manual
2. Navy e-Learning (https://nel.navy.mil/)

OLT-6503 1.0 * B (N) G

Goal. Complete 'Space Weather Basics' Module.

Requirement. Perform the requirements of the 'Space Weather Basics' module.

Performance Standard. Obtain completion certificate.

Instructor. BI

Prerequisite. 6502

Reference.
1. https://www.meted.ucar.edu/index.php

OLT-6504 2.0 * B (N) G

Goal. Complete 'Space Weather Impacts on Aviation' module.

Requirement. Perform the requirements of the 'Space Weather Impacts on Aviation' module.

Performance Standard. Obtain completion certificate.

Instructor. BI

Prerequisite. 6503

Reference.
1. https://www.meted.ucar.edu/index.php

OLT-6505 1.0 * B (N) G

Goal. Complete ‘Space Weather - Layers of the Sun’ module.

Requirement. Perform the requirements of the ‘Space Weather - Layers of the Sun’ module.

Performance Standard. Obtain completion certificate.

Instructor. BI

Prerequisite. 6503

Reference.
1. https:// www.afwkc.adls.af.mil

OLT-6506 1.0 * B (N) G

Goal. Complete ‘Space Weather – Active Regions’ module.

Requirement. Perform the requirements of the ‘Space Weather – Active Regions’ module.

Performance Standard. Obtain completion certificate.

Instructor. BI

Prerequisite. 6503

Reference.
1. https:// www.afwkc.adls.af.mil

OLT-6507 1.0 * B (N) G

Goal. Complete ‘Solar X-Ray Flares & HF Communications’ module.

Requirement. Perform the requirements of the ‘Solar X-Ray Flares & HF Communications’ module.

Performance Standard. Obtain completion certificate.

Instructor. BI

Prerequisite. 6503

Reference.
1. https:// www.afwkc.adls.af.mil

OLT-6508 1.0 * B (N) G

Goal. Complete ‘Equatorial Scintillation and UHF SATCOM’ module.

Requirement. Perform the requirements of the ‘Equatorial Scintillation and UHF SATCOM’ module.

Performance Standard. Obtain completion certificate.

Instructor. BI

Prerequisite. 6503

Reference.
1. https:// www.afwkc.adls.af.mil

OLT-6509 1.0 365 B, R, M (N) G

Goal. Complete 'Security Policy and Procedures' course.

Requirement. Perform the requirements of the 'Security Policy and Procedures' course. (Course Number: CID 002SP0)

Performance Standard. Complete the course.

Instructor. BI

Prerequisite. None.

Reference.
1. Navy eLearning: https://lms.nel.navy.mil/Atlas2/faces/page/desktop/DesktopHome.seam?cid=tab_2&tabId=2

OLT-6510 2.0 * B (N) G

Goal. Complete 'Fog: Its Processes and Impacts to Aviation and Aviation Forecasting' Module.

Requirement. Perform the module requirements of the 'Fog: Its Processes and Impacts to Aviation and Aviation Forecasting' Module from COMET UCAR.

Performance Standard. Obtain completion certificate.

Instructor. BI

Prerequisite. 6500

Reference.
1. https://www.meted.ucar.edu/index.php

OLT-6511 2.0 * B (N) G

Goal. Complete 'Forecasting Radiation Fog' Module.

Requirement. Perform the module requirements of the 'Forecasting Radiation Fog' Module from NKO or COMET UCAR. (NKO Course Code: NMOPDC-FRF-2.0)

Performance Standard. Obtain completion certificate from NKO or COMET UCAR.

Instructor. BI

Prerequisite. 6502

References.

1. https://www.aas.prod.nel.training.navy.mil/ELIAASv2p/EV2NKOLoginListener
2. https://www.meted.ucar.edu/index.php

OLT-4402 3.0 * B (N) G

Goal. Complete 'Dynamically Forced Fog' Module.

Requirement. Perform the module requirements of the 'Dynamically Forced Fog' Module from NKO or COMET UCAR. (NKO Course Code: NMOPDC-DFF-1)

Performance Standard. Obtain completion certificate from NKO or COMET UCAR.

Instructor. BI

Prerequisite. 6502

References.
1. https://www.aas.prod.nel.training.navy.mil/ELIAASv2p/EV2NKOLoginListener
2. https://www.meted.ucar.edu/index.php

OLT-6513 3.0 * B (N) G

Goal. Complete 'Local Influences on Fog and Low Stratus' Module.

Requirement. Perform the module requirements of the 'Local Influences on Fog and Low Stratus' Module from COMET UCAR.

Performance Standard. Obtain completion certificate.

Instructor. BI

Prerequisite. 6502

Reference.
1. https://www.meted.ucar.edu/index.php

OLT-6514 1.0 * B (N) G

Goal. Complete 'Thermally-Forced Circulation I: Sea Breezes' Module.

Requirement. Perform the module requirements of the 'Thermally-Forced Circulation I: Sea Breezes' Module from NKO or COMET UCAR. (NKO Course Code: CNET 12007)

Performance Standard. Obtain completion certificate from NKO or COMET UCAR.

Instructor. BI

Prerequisite. 6502

References.
1. https://www.aas.prod.nel.training.navy.mil/ELIAASv2p/EV2NKOLoginListener
2. https://www.meted.ucar.edu/index.php

OLT-6515 1.0 * B (N) G

Goal. Complete 'Thermally-Forced Circulation II: Mountain Valley Winds' Module.

Requirement. Perform the module requirements of the 'Thermally-Forced Circulation I: Mountain Valley Winds' Module from NKO or COMET UCAR. (NKO Course Code: CNET 12010)

Performance Standard. Obtain completion certificate from NKO or COMET UCAR.

Instructor. BI

Prerequisite. 6502, 6514

References.
1. https://www.aas.prod.nel.training.navy.mil/ELIAASv2p/EV2NKOLoginListener
2. https://www.meted.ucar.edu/index.php

OLT-6516 3.0 * B (N) G

Goal. Complete 'Cold Air Damming' Module.

Requirement. Perform the module requirements of the 'Cold Air Damming' Module from NKO or COMET UCAR. (NKO Course Code: CNET 12013)

Performance Standard. Obtain completion certificate from NKO or COMET UCAR.

Instructor. BI

Prerequisite. 6502

References.
1. https://www.aas.prod.nel.training.navy.mil/ELIAASv2p/EV2NKOLoginListener
2. https://www.meted.ucar.edu/index.php

OLT-6517 3.0 * B (N) G

Goal. Complete 'Coastally Trapped Wind Reversals' Module.

Requirement. Perform the module requirements of the 'Coastally Trapped Wind Reversals' Module from NKO or COMET UCAR. (NKO Course Code: CNET 12016)

Performance Standard. Obtain completion certificate from NKO or COMET UCAR.

Instructor. BI

Prerequisite. 6502

References.
1. https://www.aas.prod.nel.training.navy.mil/ELIAASv2p/EV2NKOLoginListener
2. https://www.meted.ucar.edu/index.php

OLT-6518 2.0 * B (N) G

Goal. Complete 'Gap Winds' Module.

Requirement. Perform the module requirements of the 'Gap Winds' Module from NKO or COMET UCAR. (NKO Course Code: CNET 12022)

Performance Standard. Obtain completion certificate from NKO or COMET UCAR.

Instructor. BI

Prerequisite. 6502

References.
1. https://www.aas.prod.nel.training.navy.mil/ELIAASv2p/EV2NKOLoginListener
2. https://www.meted.ucar.edu/index.php

OLT-6519 1.0 * B (N) G

Goal. Complete 'Flow Interaction with Topography' Module.

Requirement. Perform the module requirements of the 'Flow Interaction with Topography' Module from NKO or COMET UCAR. (NKO Course Code: NMOPDC-FIWT-1.0)

Performance Standard. Obtain completion certificate from NKO or COMET UCAR.

Instructor. BI

Prerequisite. 6502

References.
1. https://www.aas.prod.nel.training.navy.mil/ELIAASv2p/EV2NKOLoginListener
2. https://www.meted.ucar.edu/index.php

OLT-6520 1.0 * B (N) G

Goal. Complete 'Mountain Waves and Downslope Winds' Module.

Requirement. Perform the module requirements of the 'Mountain Waves and Downslope Winds' Module from NKO or COMET UCAR. (NKO Course Code: NMOPDC-MWADW-1.0)

Performance Standard. Obtain completion certificate from NKO or COMET UCAR.

Instructor. BI

Prerequisite. 6502

References.
1. https://www.aas.prod.nel.training.navy.mil/ELIAASv2p/EV2NKOLoginListener
2. https://www.meted.ucar.edu/index.php

OLT-6521 3.0 * B (N) G

Goal. Complete ‘Atmospheric Dust’ Module.

Requirement. Perform the module requirements of the ‘Atmospheric Dust’ Module from COMET UCAR.

Performance Standard. Obtain completion certificate.

Instructor. BI

Prerequisite. 6502

References.
1. https://www.meted.ucar.edu/index.php

OLT-6522 2.0 * B (N) G

Goal. Complete ‘Forecasting Dust Storms Version 2’ Module.

Requirement. Perform the module requirements of the ‘Atmospheric Dust’ Module from COMET UCAR.

Performance Standard. Obtain completion certificate.

Instructor. BI

Prerequisite. 6521

Reference.
1. https://www.meted.ucar.edu/index.php

OLT-6523 1.0 * B (N) G

Goal. Complete ‘Low-Level Coastal Jets’ Module.

Requirement. Perform the module requirements of the ‘Low-Level Coastal Jets’ Module from NKO or COMET UCAR. (NKO Course Code: METOC-045-841-106-015)

Performance Standard. Obtain completion certificate from NKO or COMET UCAR.

Instructor. BI

Prerequisite. 6502

References.
1. https://www.aas.prod.nel.training.navy.mil/ELIAASv2p/EV2NKOLoginListener
2. https://www.meted.ucar.edu/index.php

OLT-6524 2.0 * B (N) G

Goal. Complete ‘Jet Streak Circulations’ Module.

Requirement. Perform the module requirements of the ‘Jet Streak Circulations’ Module from NKO or COMET UCAR. (NKO Course Code: METOC-045-838-106-007)

Performance Standard. Obtain completion certificate from NKO or COMET UCAR.

Instructor. BI

Prerequisite. 6502

References.
1. https://www.aas.prod.nel.training.navy.mil/ELIAASv2p/EV2NKOLoginListener
2. https://www.meted.ucar.edu/index.php

OLT-6525 0.5 * B (N) G

Goal. Complete 'Vorticity Maxima and Comma Patterns' Module.

Requirement. Perform the module requirements of the 'Vorticity Maxima and Comma Patterns' Module from COMET UCAR.

Performance Standard. Obtain completion certificate.

Instructor. BI

Prerequisite. 6502

Reference.
1. https://www.meted.ucar.edu/index.php

OLT-6526 0.4 * B (N) G

Goal. Complete 'Dynamic Feature Identification: Vorticity Minima and Anticomma Patterns' Module.

Requirement. Perform the module requirements of the 'Dynamic Feature Identification: Vorticity Minima and Anticomma Patterns' Module from COMET UCAR.

Performance Standard. Obtain completion certificate.

Instructor. BI

Prerequisite. 6502

Reference.
1. https://www.meted.ucar.edu/index.php

OLT-6527 0.5 * B (N) G

Goal. Complete 'Recognition and Impact of Vorticity Maxima and Minima in Satellite Imagery' Module.

Requirement. Perform the module requirements of the 'Recognition and Impact of Vorticity Maxima and Minima in Satellite Imagery' Module from COMET UCAR.

Performance Standard. Obtain completion certificate.

Instructor. BI

Prerequisite. 6502

Reference.
1. https://www.meted.ucar.edu/index.php

OLT-6528 1.0 * B (N) G

Goal. Complete 'Principles of Convection I: Buoyancy and CAPE' Module.

Requirement. Perform the requirements within the 'Principles of Convection I: Buoyancy and CAPE' Module from NKO or COMET UCAR. (NKO Course Code: NMOPDC-BAC-1.0)

Performance Standard. Obtain completion certificate from NKO or COMET UCAR.

Instructor. BI

Prerequisite. 6502

References.
1. https://www.aas.prod.nel.training.navy.mil/ELIAASv2p/EV2NKOLoginListener
2. https://www.meted.ucar.edu/index.php

OLT-6529 1.0 * B (N) G

Goal. Complete 'Principles of Convection II: Using Hodographs' Module.

Requirement. Perform the module requirements of the 'Principles of Convection II: Using Hodographs' Module from NKO or COMET UCAR. (NKO Course Code: NMOPDC-UH-1.0)

Performance Standard. Obtain completion certificate from NKO or COMET UCAR.

Instructor. BI

Prerequisite. 6528

References.
1. https://www.aas.prod.nel.training.navy.mil/ELIAASv2p/EV2NKOLoginListener
2. https://www.meted.ucar.edu/index.php

OLT-6530 1.0 * B (N) G

Goal. Complete 'Principles of Convection III: Shear and Convective Storms' Module.

Requirement. Perform the module requirements of the 'Principles of Convection III: Shear and Convective Storms' Module from NKO or COMET UCAR. (NKO Course Code: NMOPD-SACS-1.0)

Performance Standard. Obtain completion certificate from NKO or COMET UCAR.

Instructor. BI

Prerequisite. 6529

References.
1. https://www.aas.prod.nel.training.navy.mil/ELIAASv2p/EV2NKOLoginListener
2. https://www.meted.ucar.edu/index.php

OLT-6531 8.0 * B (N) G

Goal. Complete 'Lectures on Radar Applications in Mesoscale Meteorology' Module.

Requirement. Describe the following:

1. Microphysical Characterization of Precipitation Systems Using Dual-Polarization Radar Measurements
2. Single Doppler Retrieval and Assimilation Techniques for Use in Mesoscale Models
3. Analysis of Mesoscale Processes Using Wind Profiling Radars and Velocity Azimuth Display (VAD)
4. Airborne Doppler Radar Analysis of Tropical and Extratropical Mesoscale Systems

Performance Standard. Participate in guided discussion.

Instructor. SI

Prerequisite. 6502

Reference.
1. https://www.meted.ucar.edu/index.php

OLT-6532 2.0 * B (N) G

Goal. Complete 'Landfalling Fronts and Cyclones' Module.

Requirement. Perform the module requirements of the 'Landfalling Fronts and Cyclones' Module from NKO or COMET UCAR. (NKO Course Code: METOC-045-838-106)

Performance Standard. Obtain completion certificate from NKO or COMET UCAR.

Instructor. BI

Prerequisite. 6502

References.
1. https://www.aas.prod.nel.training.navy.mil/ELIAASv2p/EV2NKOLoginListener
2. https://www.meted.ucar.edu/index.php

OLT-6533 1.0 * B (N) G

Goal. Complete 'How Mesoscale Models Work' Module.

Requirement. Perform the module requirements of the 'How Mesoscale Models Work' Module from NKO or COMET UCAR. (NKO Course Code: CNET 12031)

Performance Standard. Obtain completion certificate from NKO or COMET UCAR.

Instructor. BI

Prerequisite. 6502

References.
1. https://www.aas.prod.nel.training.navy.mil/ELIAASv2p/EV2NKOLoginListener
2. https://www.meted.ucar.edu/index.php

OLT-6524 1.0 * B (N) G

Goal. Complete 'Definition of the Mesoscale' Module.

Requirement. Perform the module requirements of the 'Definition of the Mesoscale' Module from NKO or COMET UCAR. (NKO Course Code: CNET 12025)

Performance Standard. Obtain completion certificate from NKO or COMET UCAR.

Instructor. BI

Prerequisite. 6502

References.
1. https://www.aas.prod.nel.training.navy.mil/ELIAASv2p/EV2NKOLoginListener
2. https://www.meted.ucar.edu/index.php

OLT-6535 2.0 * B (N) G

Goal. Complete 'Introduction to Ensemble Prediction' Module.

Requirement. Perform the module requirements of the 'Introduction to Ensemble Prediction' Module from NKO or COMET UCAR. (NKO Course Code: METOC-045-838-106-005)

Performance Standard. Obtain completion certificate from NKO or COMET UCAR.

Instructor. BI

Prerequisite. 6502

References.
1. https://www.aas.prod.nel.training.navy.mil/ELIAASv2p/EV2NKOLoginListener
2. https://www.meted.ucar.edu/index.php

OLT-6536 2.0 * B (N) G

Goal. Complete 'Ten Common NWP Misconceptions' Module.

Requirement. Perform the module requirements of the 'Ten Common NWP Misconceptions' Module from NKO or COMET UCAR. (NKO Course Code: METOC-045-792-106-016)

Performance Standard. Obtain completion certificate from NKO or COMET UCAR.

Instructor. BI

Prerequisite. 6502

References.
1. https://www.aas.prod.nel.training.navy.mil/ELIAASv2p/EV2NKOLoginListener
2. https://www.meted.ucar.edu/index.php

OLT-6537 5.0 * B (N) G

Goal. Complete 'Mesoscale Convective Systems: Squall Lines and Bow Echoes' Module.

Requirement. Perform the module requirements of the 'Mesoscale Convective Systems: Squall Lines and Bow Echoes' Module from COMET UCAR.

Performance Standard. Obtain completion certificate.

Instructor. BI

Prerequisite. 6502

Reference.
1. https://www.meted.ucar.edu/index.php

OLT-6538 4.0 * B (N) G

Goal. Complete 'Mesoscale Banded Precipitation' Module.

Requirement. Perform the module requirements of the 'Mesoscale Banded Precipitation' Module from NKO or COMET UCAR. (NKO Course Code: NMOPDC-MBP-1)

Performance Standard. Obtain completion certificate from NKO or COMET UCAR.

Instructor. BI

Prerequisite. 6502

References.
1. https://www.aas.prod.nel.training.navy.mil/ELIAASv2p/EV2NKOLoginListener
2. https://www.meted.ucar.edu/index.php

OLT-6539 2.0 * B (N) G

Goal. Complete 'Intelligent Use of Model-Derived Products –Version 2' Module.

Requirement. Perform the module requirements of the 'Intelligent Use of Model-Derived Products – Version 2' Module from NKO or COMET UCAR. (NKO Course Code: METOC-045-833-106-042)

Performance Standard. Obtain completion certificate from NKO or COMET UCAR.

Instructor. BI

Prerequisite. 6502

References.

1. https://www.aas.prod.nel.training.navy.mil/ELIAASv2p/EV2NKOLoginListener
2. https://www.meted.ucar.edu/index.php

OLT-6540 0.5 * B (N) G

Goal. Complete 'Effective Use of NWP in the Forecast Process: Introduction' Module.

Requirement. Identify the following:

1. How human forecasters add value to NWP.
2. How understanding NWP adds value.

Performance Standard. Obtain completion certificate.

Instructor. BI

Prerequisite. 6502

Reference.
1. https://www.meted.ucar.edu/index.php

OLT-6541 1.5 * B (N) G

Goal. Complete 'Influence of Model Physics on NWP Forecasts-Version 2' Module.

Requirement. Perform the module requirements of the 'Influence of Model Physics on NWP Forecasts-Version 2' Module from COMET UCAR.

Performance Standard. Obtain completion certificate.

Instructor. BI

Prerequisite. 6502

Reference.
1. https://www.meted.ucar.edu/index.php

OLT-6542 1.0 * B (N) G

Goal. Complete 'Introduction to Climatology' Module.

Requirement. Perform the module requirements of the 'Introduction to Climatology' Module from COMET UCAR.

Performance Standard. Obtain completion certificate.

Instructor. BI

Prerequisite. 6502

Reference.
1. https://www.meted.ucar.edu/index.php

OLT-6543 1.0 * B (N) G

Goal. Complete 'Isentropic Analysis' Module.

Requirement. Perform the module requirements of the 'Isentropic Analysis' Module from COMET UCAR.

Performance Standard. Obtain completion certificate.

Instructor. BI

Prerequisite. 6502

Reference.
1. https://www.meted.ucar.edu/index.php

OLT-6544 1.0 * B (N) G

Goal. Complete 'PBL in Complex Terrain - Part 1' Module.

Requirement. Perform the module requirements of the 'PBL in Complex Terrain – Part 1' Module from COMET UCAR.

Performance Standard. Obtain completion certificate.

Instructor. BI

Prerequisite. 6502

Reference.
1. https://www.meted.ucar.edu/index.php

OLT-6545 1.2 * B (N) G

Goal. Complete 'PBL in Complex Terrain – Part 2' Module.

Requirement. Perform the module requirements of the 'PBL in Complex Terrain – Part 2' Module from COMET UCAR.

Performance Standard. Obtain completion certificate.

Instructor. BI

Prerequisite. 6544

Reference.
1. https://www.meted.ucar.edu/index.php

OLT-6546 1.0 * B (N) G

Goal. Complete 'Mesoscale Aspects of Winter Weather Forecasting Topics' Module.

Requirement. Perform the module requirements of the ‘Mesoscale Aspects of Winter Weather Forecasting Topics’ Module from COMET UCAR.

Performance Standard. Obtain completion certificate.

Instructor. BI

Prerequisite. 6502

Reference.
1. https://www.meted.ucar.edu/index.php

OLT-6547 2.0 * B (N) G

Goal. Complete ‘Forecasting Aviation Icing: Icing Type and Severity’ Module.

Requirement. Perform the module requirements of the ‘Forecasting Aviation Icing: Icing Type and Severity’ Module from NKO or COMET UCAR. (NKO Course Code: METOC-045-816-106-003)

Performance Standard. Obtain completion certificate from NKO or COMET UCAR.

Instructor. BI

Prerequisite. 6502

References.
1. https://www.aas.prod.nel.training.navy.mil/ELIAASv2p/EV2NKOLoginListener
2. https://www.meted.ucar.edu/index.php

OLT-6548 2.0 * B (N) G

Goal. Complete ‘Writing Effective TAFS’ Module.

Requirement. Perform the module requirements of the ‘Writing Effective TAFS’ Module.

Performance Standard. Obtain completion certificate.

Instructor. BI

Prerequisite. 6502

Reference.
1. https://www.meted.ucar.edu/index.php

OLT-6549 2.0 * B (N) G

Goal. Complete ‘Writing TAFS for Convective Weather’ Module.

Requirement. Perform the module requirements of the ‘Writing TAFS for Convective Weather’ Module.

Performance Standard. Obtain completion certificate.

Instructor. BI

Prerequisite. 6548

Reference.
1. https://www.meted.ucar.edu/index.php

OLT-6550 3.0 * B (N) G

Goal. Complete 'Writing TAFS for Winds and LLWS' Module.

Requirement. Perform the module requirements of the 'Writing TAFS for Winds and LLWS' Module.

Performance Standard. Obtain completion certificate.

Instructor. BI

Prerequisite. 6549

Reference.
1. https://www.meted.ucar.edu/index.php

OLT-6551 2.0 * B (N) G

Goal. Complete 'Writing TAFs for Ceiling and Visibility' Module.

Requirement. Perform the module requirements of the 'Writing TAFs for Ceiling and Visibility' Module.

Performance Standard. Obtain completion certificate.

Instructor. BI

Prerequisite. 6548

Reference.
1. https://www.meted.ucar.edu/index.php

OLT-6552 1.0 * B (N) G

Goal. Complete 'Introduction to Distributed Hydrologic Modeling' Module.

Requirement. Perform the module requirements of the 'Introduction to Distributed Hydrologic Modeling' Module.

Performance Standard. Obtain completion certificate.

Instructor. BI

Prerequisite. 6502

Reference.

1. https://www.meted.ucar.edu/index.php

OLT-6553 2.0 * B (N) G

Goal. Complete 'Understanding the Hydrologic Cycle' Module.

Requirement. Perform the module requirements of the 'Understanding the Hydrologic Cycle' Module from NKO or COMET UCAR. (NKO Course Code: METOC-045-809-106-016)

Performance Standard. Obtain completion certificate from NKO or COMET UCAR.

Instructor. BI

Prerequisite. 6502

References.
1. https://www.aas.prod.nel.training.navy.mil/ELIAASv2p/EV2NKOLoginListener
2. https://www.meted.ucar.edu/index.php

OLT-6554 2.0 * B (N) G

Goal. Complete 'Introduction to Ocean Tides' Module.

Requirement. Perform the module requirements of the 'Introduction to Ocean Tides' Module from NKO or COMET UCAR. (NKO Course Code: METOC-045-804-106-006)

Performance Standard. Obtain completion certificate from NKO or COMET UCAR.

Instructor. BI

Prerequisite. 6502

References.
1. https://www.aas.prod.nel.training.navy.mil/ELIAASv2p/EV2NKOLoginListener
2. https://www.meted.ucar.edu/index.php

OLT-6555 2.0 * B (N) G

Goal. Complete 'Rip Currents: Forecasting' Module.

Requirement. Perform the module requirements of the 'Rip Currents: Forecasting' Module from NKO or COMET UCAR. (NKO Course Code: METOC-045-792-106-008)

Performance Standard. Obtain completion certificate from NKO or COMET UCAR.

Instructor. BI

Prerequisite. 6502

References.
1. https://www.aas.prod.nel.training.navy.mil/ELIAASv2p/EV2NKOLoginListener
2. https://www.meted.ucar.edu/index.php

OLT-6556 2.0 * B (N) G

Goal. Complete 'Introduction to Ocean Currents' Module.

Requirement. Perform the module requirements of the 'Rip Currents: Forecasting' Module from NKO or COMET UCAR. (NKO Course Code: METOC-045-804-107-080)

Performance Standard. Obtain completion certificate from NKO or COMET UCAR.

Instructor. BI

Prerequisite. 6502

Reference.
1. https://www.aas.prod.nel.training.navy.mil/ELIAASv2p/EV2NKOLoginListener
2. https://www.meted.ucar.edu/index.php

OLT-6557 2.0 * B (N) G

Goal. Complete 'Introduction to the Verification of Hydrologic Forecasts' Module.

Requirement. Perform the module requirements of the 'Introduction to the Verification of Hydrologic Forecasts' Module.

Performance Standard. Obtain completion certificate.

Instructor. BI

Prerequisite. 6552, 6553

Reference.
1. https://www.meted.ucar.edu/index.php

OLT-6558 2.0 * B (N) G

Goal. Complete 'Unit Hydrograph Theory' Module.

Requirement. Perform the module requirements of the 'Unit Hydrograph Theory' Module from NKO or COMET UCAR. (NKO Course Code: METOC-045-809-106-015).

Performance Standard. Obtain completion certificate from NKO or COMET UCAR.

Instructor. BI

Prerequisite. 6502

References.
1. https://www.aas.prod.nel.training.navy.mil/ELIAASv2p/EV2NKOLoginListener
2. https://www.meted.ucar.edu/index.php

OLT-6559 3.0 * B (N) G

Goal. Complete ‘Weather Radar Fundamentals’ Module.

Requirement. Perform the requirements of the ‘Weather Radar Fundamentals’ Module.

Performance Standard. Obtain completion certificate.

Instructor. BI

Prerequisite. 6531

Reference.
1. https://www.meted.ucar.edu/index.php

OLT-6560 2.0 * B (N) G

Goal. Complete ‘Basics of Visible and Infrared Remote Sensing’ Module.

Requirement. Perform the requirements of the ‘Basics of Visible and Infrared Remote Sensing’ Module.

Performance Standard. Obtain completion certificate.

Instructor. BI

Prerequisite. 6500

Reference.
1. https://www.meted.ucar.edu/index.php

OLT-6561 2.0 * B (N) G

Goal. Complete ‘Microwave Remote Sensing: Clouds, Precipitation, and Water Vapor' Module.

Requirement. Perform the requirements of the ‘Microwave Remote Sensing: Clouds, Precipitation, and Water Vapor' Module.

Performance Standard. Obtain completion certificate.

Instructor. BI

Prerequisite. 6502, 6560

Reference.
1. https://www.meted.ucar.edu/index.php

OLT-6562 1.5 * B (N) G

Goal. Complete ‘Operational Use of Wave Watch III’ Module.

Requirement. Perform the module requirements of the ‘Operational Use of Wave Watch III’ Module.

Performance Standard. Obtain completion certificate.

Instructor. BI

Prerequisite. 6502

Reference.
1. https://www.meted.ucar.edu/index.php

OLT-6563 2.0 * B (N) G

Goal. Complete 'Introduction to Ocean Models' Module.

Requirement. Perform the module requirements of the 'Introduction to Ocean Models' Module from NKO or COMET UCAR. (NKO Course Code: METOC-045-871-107-078)

Performance Standard. Obtain completion certificate from NKO or COMET UCAR.

Instructor. BI

Prerequisite. 6502

References.
1. https://www.aas.prod.nel.training.navy.mil/ELIAASv2p/EV2NKOLoginListener
2. https://www.meted.ucar.edu/index.php

OLT-6564 0.25 * B (N) G

Goal. Complete 'Topics in Tropical Meteorology' Module.

Requirement. Perform the module requirements of the 'Topics in Tropical Meteorology' Module from COMET UCAR.

Performance Standard. Obtain completion certificate.

Instructor. BI

Prerequisite. 6502

Reference.
1. https://www.meted.ucar.edu/index.php

OLT-6565 2.0 * B (N) G

Goal. Complete 'Introduction to Tropical Meteorology, 2nd Edition, Chapter 1: Introduction' Module.

Requirement. Perform the module requirements of the 'Introduction to Tropical Meteorology, 2nd Edition, Chapter 1: Introduction' Module from COMET UCAR.

Performance Standard. Obtain completion certificate.

Instructor. BI

Prerequisite. 4459

Reference.
1. https://www.meted.ucar.edu/index.php

OLT-6566 1.0 * B (N) G

Goal. Complete 'Introduction to Tropical Meteorology, 2nd Edition, Chapter 2: Tropical Remote Sensing Applications' Module.

Requirement. Perform the module requirements of the 'Introduction to Tropical Meteorology, 2nd Edition, Chapter 2: Tropical Remote Sensing Applications' module from COMET UCAR.

Performance Standard. Obtain completion certificate.

Instructor. BI

Prerequisite. 6565

Reference.
1. https://www.meted.ucar.edu/index.php

OLT-6567 2.0 * B (N) G

Goal. Complete 'Introduction to Tropical Meteorology, 2nd Edition, Chapter 3: Global Circulation' Module.

Requirement. Perform the module requirements of the 'Introduction to Tropical Meteorology, 2nd Edition, Chapter 3: Global Circulation' module from COMET UCAR.

Performance Standard. Obtain completion certificate.

Instructor. BI

Prerequisite. 6566

Reference.
1. https://www.meted.ucar.edu/index.php

OLT-6568 3.0 * B (N) G

Goal. Complete 'Introduction to Tropical Meteorology, 2nd Edition, Chapter 4: Tropical Variability' Module.

Requirement. Perform the module requirements of the 'Introduction to Tropical Meteorology, 2nd Edition, Chapter 4: Tropical Variability' Module from COMET UCAR.

Performance Standard. Obtain completion certificate.

Instructor. BI

Prerequisite. 6567

Reference.

1. https://www.meted.ucar.edu/index.php

OLT-6569 2.0 * B (N) G

Goal. Complete 'Introduction to Tropical Meteorology, 2nd Edition, Chapter 5: The Distribution of Moisture and Precipitation' Module.

Requirement. Perform the module requirements of the 'Introduction to Tropical Meteorology, 2nd Edition, Chapter 5: The Distribution of Moisture and Precipitation' Module from COMET UCAR.

Performance Standard. Obtain completion certificate.

Instructor. BI

Prerequisite. 6568

Reference.
1. https://www.meted.ucar.edu/index.php

OLT-6570 0.5 * B (N) G

Goal. Complete 'Conceptual Models of Tropical Waves' Module.

Requirement. Perform the module requirements of the 'Conceptual Models of Tropical Waves' Module from COMET UCAR.

Performance Standard. Obtain completion certificate.

Instructor. BI

Prerequisite. 6502

Reference.
1. https://www.meted.ucar.edu/index.php

OLT-6571 2.0 * B (N) G

Goal. Complete 'Polar Satellite Products for the Operational Forecaster: Microwave Analysis of Tropical Cyclones' Module.

Requirement. Perform the module requirements of the 'Polar Satellite Products for the Operational Forecaster: Microwave Analysis of Tropical Cyclones' Module from NKO or COMET UCAR. (NKO Course Code: METOC-51T-0602)

Performance Standard. Obtain completion certificate.

Instructor. BI

Prerequisite. 6502

References.
1. https://www.aas.prod.nel.training.navy.mil/ELIAASv2p/EV2NKOLoginListener

2. https://www.meted.ucar.edu/index.php

OLT-6572 1.0 * B (N) G

Goal. Complete 'Wave Types and Characteristics' Module.

Requirement. Perform the module requirements of the 'Wave Types and Characteristics' Module from NKO or COMET UCAR. (NKO Course Code: NMOPDC-WTC-1.0)

Performance Standard. Obtain completion certificate from NKO or COMET UCAR.

Instructor. BI

Prerequisite. 6502

References.
1. https://www.aas.prod.nel.training.navy.mil/ELIAASv2p/EV2NKOLoginListener
2. https://www.meted.ucar.edu/index.php

OLT-6573 1.0 * B (N) G

Goal. Complete 'Rip Currents: Nearshore Fundamentals' Module.

Requirement. Perform the module requirements of the 'Rip Currents: Nearshore Fundamentals' Module

Performance Standard. Obtain completion certificate.

Instructor. BI

Prerequisite. 6572

Reference.
1. https://www.meted.ucar.edu/index.php

OLT-6574 1.5 * B (N) G

Goal. Complete 'Shallow-Water Waves' Module.

Requirement. Perform the module requirements of the 'Shallow Water Waves' Module from NKO or COMET UCAR. (NKO Course Code: METOC-045-792-106-002)

Performance Standard. Obtain completion certificate from NKO or COMET UCAR.

Instructor. BI

Prerequisite. 6502

References.
1. https://www.aas.prod.nel.training.navy.mil/ELIAASv2p/EV2NKOLoginListener
2. https://www.meted.ucar.edu/index.php

OLT-6575 0.6 * B (N) G

Goal. Complete 'Remote Sensing of Ocean Wind Speed and Direction: An Introduction to Scatterometry' Module.

Requirement. Perform the module requirements of the 'Remote Sensing of Ocean Wind Speed and Direction: An Introduction to Scatterometry' Module from NKO or COMET UCAR. (NKO Course Code: METOC-045-800-106-004)

Performance Standard. Obtain completion certificate from NKO or COMET UCAR.

Instructor. BI

Prerequisite. 6502

References.
1. https://www.aas.prod.nel.training.navy.mil/ELIAASv2p/EV2NKOLoginListener
2. https://www.meted.ucar.edu/index.php

OLT-6576 7.0 * B (N) G

Goal. Complete 'Systems Approach to Training (SAT)' course.

Requirement. Perform the course requirements of the 'Systems Approach to Training (SAT)' course. (Course Number: UT01AO)

Performance Standard. Obtain completion certificate.

Instructor. BI

Prerequisite. None.

Reference.
1. https://www.marinenet.usmc.mil/MarineNet/Home.aspx

OLT-6577 3.0 * B (N) G

Goal. Complete 'Skew-T Mastery' Module.

Requirement. Perform the module requirements of the 'Skew-T Mastery' Module from NKO or COMET UCAR. (NKO Course Code: METOC 045-833-106-009)

Performance Standard. Obtain completion certificate from NKO or COMET UCAR.

Instructor. BI

Prerequisite. 6500

References.
1. https://www.aas.prod.nel.training.navy.mil/ELIAASv2p/EV2NKOLoginListener
2. https://www.meted.ucar.edu/index.php

OLT-6578 3.0 * B (N) G

Goal. Complete 'AFW Cloud Modeling 101' Module.

Requirement. Perform the course requirements of the 'AFW Cloud Modeling 101' module.

Performance Standard. Complete the course.

Instructor. BI

Prerequisite. None.

Reference.
1. https:// www.afwkc.adls.af.mil

OLT-6579 3.0 * B (N) G

Goal. Complete 'AFW Overview of MSI' Module.

Requirement. Perform the course requirements of the 'AFW Overview of MSI' module.

Performance Standard. Complete the course.

Instructor. BI

Prerequisite. None.

Reference.
1. https:// www.afwkc.adls.af.mil

OLT-6580 3.0 * B (N) G

Goal. Complete 'Observer Refresher Training: Additive Data and Summary of the Day' Module.

Requirement. Perform the course requirements of the 'Observer Refresher Training: Additive Data and Summary of the Day' module.

Performance Standard. Complete the course

Instructor. BI

Prerequisite. None.

Reference.
1. https:// www.afwkc.adls.af.mil

OLT-6581 3.0 * B (N) G

Goal. Complete 'Observer Refresher Training: Sky Condition' Module.

Requirement. Perform the course requirements of the 'Observer Refresher Training: Sky Condition' module.

Performance Standard. Complete the course.

Instructor. BI

Prerequisite. None.

Reference.
1. https:// www.afwkc.adls.af.mil

OLT-6582 3.0 * B (N) G

Goal. Complete 'Observer Refresher Training: Special Criteria' Module.

Requirement. Perform the course requirements of the 'Observer Refresher Training: Special Criteria' module.

Performance Standard. Complete the course.

Instructor. BI

Prerequisite. None.

Reference.
1. https:// www.afwkc.adls.af.mil

OLT-6583 3.0 * B (N) G

Goal. Complete 'Observer Refresher Training: Visibility' Module.

Requirement. Perform the course requirements of the 'Observer Refresher Training: Visibility' module.

Performance Standard. Complete the course.

Instructor. BI

Prerequisite. None.

Reference.
1. https:// www.afwkc.adls.af.mil

OLT-6584 3.0 * B (N) G

Goal. Complete 'Pilot-to-Metro Service (PMSV) and Pilot Reports (PIREPS)' Module.

Requirement. Perform the course requirements of the 'Pilot-to-Metro Service (PMSV) and Pilot Reports (PIREPS)' module.

Performance Standard. Complete the course.

Instructor. BI

Prerequisite. None.

Reference.
1. https:// www.afwkc.adls.af.mil

OLT-6585 3.0 * B (N) G

Goal. Complete 'AFW Forecasting Wet Microburst' Module.

Requirement. Perform the course requirements of the 'AFW Forecasting Wet Microburst' Module

Performance Standard. Complete the course.

Instructor. BI

Prerequisite. None.

Reference.
1. https:// www.afwkc.adls.af.mil

OLT-6586 3.0 * B (N) G

Goal. Complete 'AFW Intro to Ensemble Verification Technique' Module.

Requirement. Perform the course requirements of the 'AFW Intro to Ensemble Verification Technique' module.

Performance Standard. Complete the course.

Instructor. BI

Prerequisite. None.

Reference.
1. https:// www.afwkc.adls.af.mil

ADVANCED TRAINING TRACKING CODES

2.11.8 Purpose. The following advanced training events are tracked here.

2.11.8.2 General.

Admin Notes. Events contained herein are associated with the following categories:
1. Littoral Forecasting Analysis (LFA)
2. METOC Impacts Assessment (MIA)
3. Equipment (EQPT)

Prerequisites. None.

LFA-6100 30.0 * B (N) L

Goal. Conduct a surf observation.

Requirement. Utilize appropriate equipment to observe and annotate a surf observation. Perform the following:

1. Determine point of observations.
2. Determine and annotate:
   a. Significant breaker height.
   b. Maximum breaker height.
   c. Breaker period.
   d. Breaker types.
   e. Angle of breaker relative to beach.
   f. Littoral current.
   g. Surf zone.
   h. Additional remarks.

Performance Standard. Complete the requirement by practical application.

Instructor. SI

Prerequisite. 2900, 3100, 3351

References.
1. MCRP 2-10.3_.
2. Aerographer's Mate Third Class METOC Training Manual (https://www.nko.navy.mil/group/aviation/ag)

LFA-6103 2.0 365 B, R, M (N) L/S

Goal. Analyze and assess oceanographic and littoral impacts to operational plans, operational orders, and concepts of employments.

Requirement. Given a scenario, conduct climatological analysis on oceanographic and littoral features for Intelligence Preparation of the Environment/Intelligence Preparation of the Battlespace briefs:

1. Analysis on oceanographic features
2. Analysis on near-shore littoral features
3. Impacts on sea ports of debarkations
4. Impacts on beach landing site
5. Impacts on riverine areas.

Performance Standard. Complete the requirement by practical application.

Instructor. SI

Prerequisite. 6500, 6501, 6502, 2902, 2903, 3100, 3352, 3353, 6100

References.
1. MCRP 2-10B.6 MAGTF Meteorological and Oceanographic Operations
2. Aerographer's Mate Third Class METOC Training Manual (https://www.nko.navy.mil/group/aviation/ag)
3. Aerographer's Mate Second Class Volume I METOC Training Manual (https://www.nko.navy.mil/group/aviation/ag)
4. Aerographer's Mate Second Class Volume II METOC Training Manual

(https://www.nko.navy.mil/group/aviation/ag)
5. Aerographer's Mate First Class and Chief METOC Training Manual
(https://www.nko.navy.mil/group/aviation/ag)
6. Oceanography: An Invitation to Marine Science, 7th Edition, ISBN-13: 978-0-495-39193-7, ISBN-10: 0-495- 39193-X
7. JP 2-01.3 Joint Intelligence Preparation of the Operational Environment
8. JP 2-03 Geospatial Intelligence in Joint Operations
9. JP 3-59 Meteorological and Oceanographic Operations
10. Army Technical Publication 2-01.3 Intelligence Preparation of the Battlespace

LFA-6104 2.0 365 B, R, M (N) L/S

Goal. Analyze and assess key oceanographic and littoral features on satellite derived products.

Requirement. Given a scenario and geo-spatial derived imagery, conduct a key maritime terrain analysis on a beach landing site product:

1. Littoral features
   a. sand spit/bay mouth bar/inlet
   b. bay/lagoon
   c. barrier island/tombolo/sea island
2. Beach type
3. Longshore current direction
4. Key nearshore beach characteristics
   a. shore zone
   b. beach or shore
   c. shorerise/foreshore/backshore
   d. surf zone
   e. breakers (height, period, types, angle)
   f. storm bar/longshore bar/longshore trough
   g. terrace/face/berms/wave-cut terrace/storm scarp/sea cliff
5. Littoral current
6. Modified surf index
7. Tidal ebb/flow direction
8. Riverine impacts
9. Impact of wind direction in surf zone

Performance Standard. Complete the requirement by practical application.

Instructor. SI

Prerequisite. 6500, 6501, 6502, 2902, 2903, 3100, 3352, 3353, 6100

References.
1. MCRP 2-10B.6 MAGTF Meteorological and Oceanographic Operations
2. Aerographer's Mate Third Class METOC Training Manual
(https://www.nko.navy.mil/group/aviation/ag)
3. Aerographer's Mate Second Class Volume I METOC Training Manual
(https://www.nko.navy.mil/group/aviation/ag)
4. Aerographer's Mate Second Class Volume II METOC Training Manual
(https://www.nko.navy.mil/group/aviation/ag)
5. Aerographer's Mate First Class and Chief METOC Training Manual
(https://www.nko.navy.mil/group/aviation/ag)
6. MCRP 2-10B.4 Geospatial Information and Intelligence
7. Oceanography: An Invitation to Marine Science, 7th Edition, ISBN-13: 978-0-495-39193-7, ISBN-10:

0-495- 39193-X
8. JP 2-01.3 Joint Intelligence Preparation of the Operational Environment
9. JP 2-03 Geospatial Intelligence in Joint Operations
10. JP 3-15 Barriers, Obstacles, and Mie Warfare
11. JP 3-59 Meteorological and Oceanographic Operations
12. Army Technical Publication 2-01.3 Intelligence Preparation of the Battlespace

MIA-6151 3.0 * B (N) L

Goal. Assess METOC impacts on Chemical, Biological, Radiological and Nuclear (CBRN) defensive operations.

Requirement. Assess and brief METOC impacts on CBRN operations. The assessment will consider, at a minimum, the following:

1. Meteorological Forecast and/or Observation to include at a minimum:
   a. Sky condition.
   b. Humidity.
   c. Wind.
   d. Temperature.
   e. Atmospheric stability.
   f. Precipitation.

Performance Standard. Complete the requirement by practical application.

Instructor. SI

Prerequisite. None.

Reference.
1. MCRP 2-10B.6

EQPT-6152 6.0 365 B, R, M (N) L

Goal. Conduct management operations for the meteorological radar system.

Requirement. Given a Doppler radar system, applicable operating manuals and understanding the configurations, limitations, and capabilities of Doppler radar systems, display a working knowledge of Doppler radar management functions. Configuration should allow for ingest, analysis, manipulation, and production of derived radar products. Perform, at a minimum, the following tasks:

1. Ensure configuration is commensurate with desired product generation.
   a. Pulse repetition frequency.
   b. Sample rates.
   c. Gate width.
   d. Beam width.
   e. Operating frequency.
   f. Scanning speeds.
2. Archive generated products.
3. Ensure Doppler radar products are available through electronic means to the end customer.
4. Ensure hazards of electromagnetic radiation to fuels (HERF) procedures are implemented and adhered to.
5. Ensure hazards of electromagnetic radiation to personnel (HERP) procedures are implemented and

adhered to.
6. Ensure hazards of electromagnetic radiation to ordnance (HERO) procedures are implemented and adhered to.

Performance Standard. Complete the requirement by practical application IAW the Reference.

Instructor. SI

Prerequisite. 3219

Reference.
1. Local SOP.

2.12 MISSION ESSENTIAL TASK (MET) PHASE (7000)

2.12.1 Purpose. This phase takes 6321 proficient Marines from multiple PMOS, puts them in CMMR representative crews, and trains them as combat effective teams in combined events.

2.12.2 General.

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

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

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

PAR NO.	STAGE NAME	PAGE NUMBER
2.12.3	CONDITION (COND)	2-185

2.12.3 CONDITION (COND) STAGE

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

2.12.3.2 General.

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

Letter Of Intent (LOI)
Personnel Roster
Bill Of Material (BOM)
Equipment Density List (EDL)

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

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

COND-7800 80.0 545 B, R, M (N) L

Goal. Conduct Meteorology and Oceanography (METOC) Support (Intel).

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

1. Conduct Mission Analysis.
2. Review Operational Planning Documents.
3. Identify required support personnel.
4. Identify Administrative (ADCON) and Tactical Control (TACON).
5. Identify equipment requirements.
6. Conduct a site survey.
7. Identify, create, and finalize administrative documents supporting the operation.
8. Coordinate with external agencies.
9. Conduct embarkation, and retrograde of personnel and equipment.
10. Maintain accountability of personnel.
11. Conduct METOC support operations.
12. Conduct crew evaluations.
13. Compile After-Action items.

Performance Standard. Perform the requirement items listed and conduct METOC support operations during a real world operation or training exercise.

Instructor. WTI

Prerequisite. (3) Intel CMMR METOC crews

Range. Range space capable of supporting METOC equipment.

External Syllabus Support. Representatives from the S-1, S-3, S-4, S-6. Live execution will require specific T/M/S aviation assets or a specific unit to be supported.

References.
1. JP 3-59
2. MCRP 2-10B.6, METOC Operations
3. Unit SOP
4. CJCSM 3825.01 Joint METOC Manual

COND-7801 80.0 545 B, R, M (N) L

Goal. Conduct METOC Support Team (MST) Services (Intel).

Requirement. Given the references, a Table of Equipment (T/E) and/or Equipment Density List (EDL), Commander's guidance, and an operation plan's initiating order, employ a MST during day or night conditions to include the following:

1. Conduct Problem Framing.
2. Review Operational Planning Documents.
3. Identify personnel and equipment requirements.
4. Conduct a site survey (as required).
5. Coordinate with external agencies.
6. Identify, create and finalize administrative documents supporting the operations.

7. Brief supported personnel (as required).
8. Inspect MST personnel and equipment to be deployed.
9. Coordinate arrival into the landing area appropriate to the plan.
10. Maintain accountability of personnel.
11. Upon arrival at a site, take a weather observation to establish LZ heading.
12. Within one hour of arrival at the site, setup appropriate weather sensing equipment, establishing winds temperature, dewpoint and pressure capability.
13. Within 1.5 hours of arrival at the site, establish appropriate enhanced weather sensing equipment (ifapplicable). Enhancements include visibility, present weather, ceilometer and lightening detector.
14. Provide timely coordination with refueling and/or arming personnel for warnings, watches and advisories.
15. As appropriate to the plan, retrograde from the landing zone with the last available transportation.
16. Conduct crew evaluations.
17. Compile After-Action items.

Performance Standard. Perform the requirement items listed and conduct METOC support operations during a real world operation or training exercise.

Instructor. WTI

Prerequisite. (2) CMMR METOC crew.

Range. Range space capable of supporting METOC equipment.

External Syllabus Support. Detachment Commander and representatives from the S-1, S-2, S-3, S-4, S-6. Live execution will require specific T/M/S aviation assets or a specific unit to be supported.

References.
1. JP 3-59
2. MCRP 2-10B.6
3. Squadron SOP
4. CJCSM 3825.01 Joint METOC Manual

COND-7802 80.0 545 B, R, M (N) L

Goal. Provide Meteorological Services (IS).

Requirement. Given the references, a Table of Equipment (T/E) and/or Equipment Density List (EDL), Commander's guidance, provide meteorological services to include the following:

1. Identify required support personnel.
2. Identify required equipment.
3. Identify, create, and finalize administrative documents supporting airfield operations.
4. Coordinate with external agencies.
5. Provide augmentation of the Automated Surface Observation System (ASOS).
6. Provide meteorological services.
7. Conduct watch turnover briefs to maintain environmental situational awareness.
8. Conduct crew evaluations.

Performance Standard. Perform the requirement items listed and provide meteorological services to airfield operations.

Instructor. WTI

Prerequisite. (4) CMMR METOC crews

Range. Range space capable of supporting METOC equipment.

External Syllabus Support. Airfield Operations Officer and representatives from the S-1, S-2, S-3, S-4, S-6. Live execution will require specific T/M/S aviation assets or a specific unit to be supported.

References.
1. JP 3-59
2. MCRP 2-10B.6
3. Unit SOP
4. CJCSM 3825.01 Joint METOC Manual

COND-7803 80.0 545 B, R, M (N) L

Goal. Provide Meteorological/Oceanographic (METOC) Services (C2).

Requirement. Given the references, a T/E and/or EDL, Commander's guidance, one CMMR qualified METOC crew, and an operation order/initiating directive, provide METOC services.

1. Planning Phase
   a. Identify key elements of an OPORDER and how it relates to METOC services (MGT-2851, 3450)
   b. Identify METOC products and services required for operational decision making and joint operations as it applies to given operation/scenario (MGT-2852)
   c. Identify personnel requirements (Ref: CMMR)
   d. Identify equipment requirements (MGT-3450)
   e. Develop METOC sensing strategy (MGT-2856, MGT-3450)
   f. Identify communication requirements (COMM-2700)
   g. Identify classified material handling requirements (COMM-2704)
   h. Identify physical security requirements (COMM-2705)
   i. Identify embarkation requirement for the METOC section (MGT-2850, MGT-3450)
   j. Conduct site survey (EQPT-3203)
   k. Conduct internal/external agency coordination (MGT-3450)
   l. Identify, create, and finalize administrative documents ISO operation/scenario (MGT-3450, MPC-3500)
   m. Define policies and procedures (FAM-2350, MGT-3451)
      (1) CCIR/PIR/Impacts
      (2) Destructive WX procedures
      (3) Watch composition, schedule, and requirements
      (4) Security requirements
      (5) Local forms, administrative reports
      (6) References/technical library (Forecaster handbook)
      (7) WWA criteria/procedure
      (8) QA procedure (MGT-2857)
2. Deploy
   a. Deploy METOC section ISO operations/scenario (MGT-3450)
   b. Set-up/assist with set-up of the NITES IV (EQPT-3204)
   c. Set-up/assist with set-up of the Surface Meteorological Sensing System (EQPT-3207)
   d. Set-up/assist with set-up of the Meteorological Radar Subsystem (EQPT-3209)
   e. Set-up the Meteorological Satellite Subsystem (EQPT-3211)
   f. Set-up the Meteorological Upper Air Subsystem (EQPT-3213)
   g. Set-up the Meteorological Communication Subsystem (EQPT-3215)
   h. Set-up the Meteorological Product generation and dissemination Subsystem (EQPT-3217)
   i. Operate NITES IV (EQPT-3205)
   j. Operate Meteorological Radar Subsystem (EQPT-3219)

k. Operate Meteorological Satellite Subsystem (EQPT-3220)
l. Operate Meteorological Communication Subsystem (EQPT-3221)
m. Operate Local Subsystem (EQPT-3222)
n. Operate Remote Subsystem (EQPT-3223)
o. Operate Upper Air Subsystem (EQPT-3224)
p. Operate Processing Subsystem (EQPT-3225)

3. Production
   a. Conduct MSO during high and low light (MSO-3100, 3101)
   b. Encode and disseminate a PIREP (MSO-3102)
   c. Produce astronomical data (ATD-3150)
   d. Produce tidal data (ATD-3151)
   e. Produce a TAF (METF-3250)
   f. Produce a limited data forecast (METF-3251)
   g. Produce a 96-hour graphical METOC brief to include impact assessment to C3, MAGTF operations (MPB-3302, MIA-3400, MIA-3401)
   h. Generate and conduct a climatology brief (MPB-3303)
   i. Conduct search and rescue brief (MPB-3307)
   j. Produce at least one of the following products ISO applicable operations
      (1) Produce a flight weather packet (MPB-3300)
      (2) Brief a flight weather brief DD175-1 (MPB-3301)
      (3) Conduct aviation strike brief (MPB-3304)
      (4) Conduct aviation assault brief (MPB-3305)
      (5) Conduct an amphibious warfare brief (MPB-3306)
      (6) Create surf forecast (LFA-3351)

4. Dissemination
   a. Exchange data over both classified and unclassified Internet Protocol Network.
   b. Provide METOC services through user interface web based display.
5. Re-Deploy
   a. Pack-out or assist with the pack-out of the NITES IV (EQPT-3206)
   b. Pack the Surface Meteorological Sensing System (EQPT-3208)
   c. Pack the Meteorological Radar Subsystem (EQPT-3210)
   d. Pack the Meteorological Satellite Subsystem (EQPT-3212)
   e. Pack the Upper Air Subsystem (EQPT-3214)
   f. Pack the Meteorological Communication Subsystem (EQPT-3216)
   g. Pack the Meteorological Product generation and dissemination Subsystem (EQPT-3218)

Performance Standard. Perform the requirement items listed and provide METOC services in real world operations or training simulation.

Instructor. WTI

Prerequisite. Two CMMR METOC crews

Range. Range space capable of supporting METOC equipment and weather balloon launch.

External Syllabus Support. Detachment Commander and representatives from the S-1, S-2, S-3, S-4, S-6. Live execution will require specific T/M/S aviation assets or a specific unit to be supported.

References.
1. JP 3-59
2. MCRP 2-10B.6
3. Unit SOP
4. CJCSM 3825.01 Joint METOC Manual

COND-7804 80.0 545 B, R, M (N) L/S

Goal. Conduct METOC Support Team (MST) Services (C2).

Requirement. Given the references, a Table of Equipment (T/E) and/or Equipment Density List (EDL), Commander's guidance, and an operation plan's initiating order, employ a MST during day or night conditions to include the following:

1. Planning Phase
a. Identify key elements of an OPORDER and how it relates to METOC services (MGT-2851, 3450)
b. Identify METOC products and services required for operational decision making and joint operations as it applies to given operation/scenario (MGT-2852)
c. Identify personnel requirements (Ref: CMMR)
d. Identify equipment requirements (MGT-3450)
e. Develop METOC sensing strategy (MGT-2856, MGT-3450)
f. Identify communication requirements (COMM-2700)
g. Identify classified material handling requirements (COMM-2704)
h. Identify embarkation requirement for the METOC section (MGT-2850, MGT-3450)
i. Conduct site survey (EQPT-3203)
j. Conduct internal/external agency coordination (MGT-3450)
k. Identify, create, and finalize administrative documents ISO operation/scenario (MGT-3450, MPC-3500)
l. Define policies and procedures (FAM-2350, MGT-3451)
(1) CCIR/PIR/Impacts
(2) Destructive WX procedures
(3) Watch composition, schedule, and requirements
(4) Security requirements
(5) Local forms, administrative reports
(6) References/technical library (Forecaster handbook)
(7) WWA criteria/procedure
(8) QA procedure (MGT-2857)
2. Deploy
a. Deploy METOC section ISO operations/scenario (MGT-3450)
b. Set-up/assist with set-up of the NITES IV (EQPT-3204)
c. Operate NITES IV (EQPT-3205)
3. Production
a. Conduct MSO during high and low light (MSO-3100, 3101)
b. Encode and disseminate a PIREP (MSO-3102)
c. Produce astronomical data (ATD-3150)
d. Produce tidal data (ATD-3151)
4. Dissemination
a. Exchange data over both classified and unclassified Internet Protocol Network.
5. Re-Deploy
a. Pack-out or assist with the pack-out of the NITES IV (EQPT-3206)

Performance Standard. Perform the requirement items listed and conduct METOC support operations during a real world operation or training exercise.

Instructor. WTI

Prerequisite. Two CMMR METOC crew.

Range. Range space capable of supporting METOC equipment and weather balloon launch.

External Syllabus Support. Detachment Commander and representatives from the S-1, S-2, S-3, S-4, S-6.

Live execution will require specific T/M/S aviation assets or a specific unit to be supported.

References.
1. JP 3-59
2. MCRP 2-10B.6
3. Squadron SOP
4. CJCSM 3825.01 Joint METOC Manual

2.13 AVIATION CAREER PROGRESSION MODEL (8000).

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

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

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

Refer to the MAWTS-1 ACPM link for the current ACPM program of instruction: https://vcepub.tecom.usmc.mil/sites/msc/magtftc/mawts1/Aviation%20Career%20Progression%20Model/Forms/All Items.aspx

ACPM-8000 1.0 * B (N) G

Goal. Describe the MACCS stage.

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

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

Instructor. SI.

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

Reference. C3 Course Catalog.

ACPM-8001 4.0 * B (N) G

Goal. Describe the Marine Air Command and Control System (MACCS).

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

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

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

Instructor. BI.

Prerequisite. None.

References.
1. MAWTS-1 MACCS Agencies, Functions and the Control of Aircraft and Missiles Class
2. MCTP 3-20F Control of Aircraft and Missiles

ACPM-8002 4.0 * B (N) G

Goal. Describe the Tactical Air Command Center (TACC).

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

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

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

Instructor. BI.

Prerequisite. None.

References.
1. MAWTS-1 TACC Class
2. MCRP 3-20F.4 Marine TACC Handbook

ACPM-8003 4.0 * B (N) G

Goal. Describe the Direct Air Support Center (DASC).

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

1. Identify the role of the DASC.
2. List the structure and task organization of the DASC.
3. Identify the major end items and their characteristics used by the DASC.
4. List the capabilities and limitations of the DASC.

5. Identify how the DASC is doctrinally employed as part of the MACCS.

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

Instructor. BI.

Prerequisite. None.

References.
1. MAWTS-1 DASC Class
2. MCRP 3-20F.5 DASC Handbook

ACPM-8004 4.0 * B (N) G

Goal. Describe the Tactical Air Operations Center (TAOC).

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

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

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

Instructor. BI.

Prerequisite. None.

References.
1. MAWTS-1 TAOC Class
2. MCRP 3-20F.6 TAOC Handbook

ACPM-8005 4.0 * B (N) G

Goal. Describe the Marine Air Traffic Control (MATC).

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

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

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

Instructor. BI.

Prerequisite. None.

References.
1. MAWTS-1 MATC Employment Class
2. MCTP 3-20F
3. MCRP 3-20F.7 Marine Air Traffic Control Detachment Handbook

ACPM-8006 4.0 * B (N) G

Goal. Describe the Low Altitude Air Defense (LAAD).

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

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

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

Instructor. BI.

Prerequisite. None.

References.
1. MAWTS-1 LAAD Employment Class
2. MCRP 3-20F.8 LAAD Battalion Handbook
3. MCRP 3-20F.9 LAAD Gunner's Handbook

ACPM-8008 4.0 * B (N) G

Goal. Describe the Marine Wing Communications Squadron (MWCS).

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

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

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

Instructor. BI

Prerequisite. None.

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

ACPM-8020 1.0 * B (N) G

Goal. Describe the ACE stage of the MACCS ACPM.

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

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

Instructor. BI.

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

Reference. C3 Course Catalog.

ACPM-8021 4.0 * B (N) G

Goal. Describe the USMC aviation operations doctrine.

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

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

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

Instructor. BI.

Prerequisite. None.

Reference. MCWP 3-2 Aviation Operations

ACPM-8022 4.0 * B (N) G

Goal. Describe the USMC doctrine for the control of aircraft and missiles.

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

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

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

Instructor. BI.

Prerequisite. None.

References.
1. MAWTS-1 Control of Aircraft and Missiles Class
2. MCTP 3-20F Control of Aircraft and Missiles

ACPM-8023 4.0 * B (N) G

Goal. Describe the USMC Offensive Air Support (OAS) doctrine.

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

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

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

Instructor. BI.

Prerequisite. None.

References.
1. MAWTS-1 OAS Class
2. MCTP 3-20D Offensive Air Support

ACPM-8024 4.0 * B (N) G

Goal. Describe the USMC Assault Support doctrine.

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

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

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

Instructor. BI.

Prerequisite. None.

References.
1. MAWTS-1 Assault Support Class
2. MCTP 3-20E Assault Support

ACPM-8025 4.0 * B (N) G

Goal. Describe the USMC Air Reconnaissance doctrine.

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

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

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

Instructor. BI.

Prerequisite. None.

Reference. MCTP 3-20G Air Reconnaissance

ACPM-8026 4.0 * B (N) G

Goal. Describe the USMC Electronic Warfare (EW) doctrine.

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

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

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

Instructor. BI.

Prerequisite. None.

References.
1. MCRP 3-32D.1 Electronic Warfare

ACPM-8027 4.0 * B (N) G

Goal. Describe the USMC Antiair Warfare (AAW) doctrine.

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

1. Define AAW.
2. Define the two subsets of AAW.
3. Identify the principles of AAW.
4. Identify the types of Offensive Antiair Warfare (OAAW).

5. Identify the active air defense functions.
6. List three examples of passive air defense measures.
7. Define a Joint Engagement Zone (JEZ), Fighter Engagement Zone (FEZ), Missile Engagement Zone (MEZ), and Base Defense Zone (BDZ).
8. Define the air defense warning conditions.
9. Define the weapons control statuses.
10. Identify the responsibilities of the Regional Air Defense Commander (RADC) and the Sector Air Defense Commander (SADC).

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

Instructor. BI.

Prerequisite. None.

References.
1. MCTP 3-20C Anti-air Warfare

ACPM-8028 4.0 * B (N) G

Goal. Describe the USMC Ground Support (AGS) doctrine.

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

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

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

Instructor. BI.

Prerequisite. None.

References.
1. MAWTS-1 AGS Class
2. MCTP 3-20B Aviation Ground Support

ACPM-8040 1.0 * B (N) G

Goal. Describe the Threat stage of the MACCS ACPM

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

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

Instructor. SI.

Prerequisite. 8041, 8042, 8043, 8044.

Reference. C3 Course Catalog.

ACPM-8041 4.0 * B (N) G

Goal. Describe the surface-to-antiair threat to the MAGTF.

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

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

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

Instructor. BI.

Prerequisite. None.

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

ACPM-8042 4.0 * B (N) G

Goal. Describe the fixed wing threat to the MAGTF.

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

1. Identify the role of the AN-2 Colt.
2. Identify the role of the MIG-23 Flogger.
3. Identify the role of the MIG-29 Fulcrum.
4. Identify the role of the MIG-31 Foxhound.
5. Identify the role of the Su-24 Fencer.
6. Identify the role of the Su-25 Frogfoot.
7. Identify the role of the Su-27 Flanker.
8. Identify the role of the Su-30 Flanker.

9. Identify the role of the Tu-22M Backfire.
10. Identify the role of the Tu-95 Bear.
11. Identify the role of the Tu-160 Blackjack.
12. Identify the role of the J-7 Fishbed.
13. Identify the role of the JH-7 Flounder.
14. Identify the role of the J-8 Finback.
15. Identify the role of the J-10 Firebird.
16. Identify the role of the H-6 Badger.

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

Instructor. BI.

Prerequisite. None.

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

ACPM-8043 4.0 * B (N) G

Goal. Describe the rotary wing threat to the MAGTF.

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

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

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

Instructor. BI.

Prerequisite. None.

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

ACPM-8044 4.0 * B (N) G

Goal. Describe the missile and Unmanned Aircraft System (UAS) threat to the MAGTF.

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

1. Match the system name with the terminal guidance for the following Air-to-Surface Missiles:
   a. AS-10 Karen
   b. AS-11 Kilter
   c. AS-12 Kegler
   d. AS-14 Kedge
   e. AS-17 Krypton

2. Match the system name with the warhead and guidance for the following Surface-to-Surface Missiles:
   a. FROG-7
   b. SCUD-B
   c. SCUD-C
   d. Nodong 1
   e. C 801
   f. C 802
3. Identify the mission of the following threat UAS:
   a. Ababil
   b. Mohajer
   c. Harpy
   d. Heron
   e. ASN-206
   f. Pchela-1T

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

Instructor. BI.

Prerequisite. None.

References.
1. MAWTS-1 Marine Aviation Intelligence Reference
https://vcepub.tecom.usmc.mil/sites/msc/magtftc/mawts1/departments1/newc3/default.aspx
2. Marine Corps Intelligence Activity Iran Country Handbook (appendix A)
3. Marine Corps Intelligence Activity North Korea Country Handbook (page 86)
4. Marine Corps Intelligence Activity China Country Handbook (appendix A)
https://www.intelink.gov/mcia/handbook.htm
5. MCIA UAV Recognition Guide https://www.intelink.gov/mcia/index.htm

ACPM-8060 1.0 * B (N) G

Goal. Describe the MAGTF stage of the MACCS ACPM.

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

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

Instructor. SI.

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

Reference. C3 Course Catalog.

ACPM-8061 4.0 * B (N) G

Goal. Describe the MAGTF ground combat operations.

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

1. Identify how the Ground Combat Element (GCE) is employed as part of the MAGTF and the capabilities the GCE provides to the MAGTF commander
2. Define the following items related to command and control of ground combat operations:
   a. Echelons of the GCE headquarters

b. Battlespace Organization
c. Battlespace Framework
3. Define the five types of amphibious operations.
4. Identify the following items related to offensive operations:
a. Types of offensive operations
b. Types of attack
c. Forms of maneuver
d. Distribution of forces
5. Identify the following items related to defensive operations:
a. Organization of the defense
b. Distribution of forces
c. Types of defensive operations
d. Defensive methods

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

Instructor. BI.

Prerequisite. None.

Reference.
1. MCDP 1-0 Marine Corps Operations

ACPM-8062 4.0 * B (N) G

Goal. Describe the fire support coordination in the Ground Combat Element (GCE).

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

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

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

Instructor. BI.

Prerequisite. None.

References.
1. MAWTS-1 MAGTF Targeting and Fire Support Planning Class
2. MCTP 3-10F Fire Support Coordination in the GCE

ACPM-8063 4.0 * B (N) G

Goal. Describe the MAGTF command and control.

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

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

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

Instructor. BI.

Prerequisite. None.

Reference.
1. MCWP 3-30 MAGTF Command and Control

ACPM-8064 4.0 * B (N) G

Goal. Describe MAGTF communications.

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

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

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

Instructor. BI.

Prerequisite. None.

Reference. MCRP 3-30B.2 MAGTF Communications System

ACPM-8065 4.0 * B (N) G

Goal. Describe phasing control ashore.

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

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

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

Instructor. BI.

Prerequisite. None.

References.
1. JP 3-02 Amphibious Operations
2. MCTP 3-20F Control of Aircraft and Missiles (Appendix C)

ACPM-8066 4.0 * B (N) G

Goal. Describe information management.

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

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

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

Instructor. BI.

Prerequisite. None.

Reference.
1. MCTP 3-30B Information Management

ACPM-8067 4.0 * B (N) G

Goal. Describe Unmanned Aircraft Systems in support of MAGTF operations.

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

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

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

Instructor. BI.

Prerequisite. None.

References.
1. MCRP 3-42.1A
2. NTTP 3-22.3-VMU

ACPM-8080 1.0 * B (N) G

Goal. Describe the MAGTF stage of the joint air operations stage of the MACCS ACPM.

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

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

Instructor. SI.

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

Reference. C3 Course Catalog.

ACPM-8081 4.0 * B (N) G

Goal. Describe the command and control of joint air operations.

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

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

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

Instructor. BI.

Prerequisite. None.

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

ACPM-8082 4.0 * B (N) G

Goal. Describe theater air ground system (TAGS).

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

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

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

Instructor. BI.

Prerequisite. None.

References.
1. MCRP 3-20.1 Multi-Service Tactics, Techniques, and Procedures for the Theater Air-Ground System

ACPM-8083 4.0 * B (N) G

Goal. Describe joint fire support doctrine.

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

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

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

Instructor. BI.

Prerequisite. None.

References.
1. JP 3-09 Joint Fire Support

ACPM-8084 4.0 * B (N) G

Goal. Describe close air support (CAS) doctrine.

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

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

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

Instructor. BI.

Prerequisite. None.

References.
1. JP 3-09.3 Close Air Support

ACPM-8085 4.0 * B (N) G

Goal. Describe the joint targeting doctrine.

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

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

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

Instructor. BI.

Prerequisite. None.

References.
1. JP 3-60 Joint Targeting

ACPM-8086 4.0 * B (N) G

Goal. Describe the North Atlantic Treaty Organization (NATO).

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

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

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

Instructor. BI.

Prerequisite. None.

References.
1. MAWTS-1 NATO Class
2. North Atlantic Treaty Organization Handbook
3. "What is NATO" Brief (http://www.nato.int/welcome/intro_to_NATO_en.ppt)
4. AJP-01(D)

ACPM-8087 4.0 * B (N) G

Goal. Describe the joint airspace control doctrine.

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

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

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

Instructor. BI.

Prerequisite. None.

References.
1. JP 3-30 C2 of Joint Air Operations
2. JP 3-52 Joint Airspace Control

ACPM-8088 4.0 * B (N) G

Goal. Describe the joint doctrine for countering air and missile threats.

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

1. Identify the purposes of counter air missions (offensive and defensive).
2. Identify roles and responsibilities related to counter air missions.
3. Identify key considerations for the planning of offensive counter air operations.
4. Identify key considerations for the planning of defensive counter air operations.
5. Identify key principles and consideration related to the command and control of counter air operations

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

Instructor. BI.

Prerequisite. None.

Reference.
1. JP 3-01 Countering Air and Missile Threats

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.

2.14 SYLLABUS MATRIX.

6842 T&R SYLLABUS MATRIX											
STAGE	CODE	TITLE	POI	DEVICE	COND	REFLY	TIME	PREREQ	MIRROR	CHAIN	EVENT CONV
CORE SKILL INTRODUCTION TRAINING (1000 PHASE EVENTS)											
METEOROLOGY AND OCEANOGRAPHY ANALYST FORECASTER (MOAF)											
MOAF	1000	Identify facts about space environment	B	G	*	*	0	*	*	*	*
MOAF	1001	Identify facts about the elements of a weather observation	B	G	*	*	0	*	*	*	*
MOAF	1002	Relate principles about the Earth and its atmosphere	B	G	*	*	0	*	*	*	*
MOAF	1003	Relate principles about atmospheric physics	B	G	*	*	0	*	*	*	*
MOAF	1004	Relate principles about atmospheric dynamics	B	G	*	*	0	*	*	*	*
MOAF	1005	Relate principles about hemispheric weather features	B	G	*	*	0	*	*	*	*
MOAF	1006	Relate principles about continental weather features	B	G	*	*	0	*	*	*	*
MOAF	1007	Relate principles about regional weather features	B	G	*	*	0	*	*	*	*
MOAF	1008	Relate principles about tropical weather features	B	G	*	*	0	*	*	*	*
MOAF	1009	Relate principles about the types of meteorological satellite systems	B	G	*	*	0	*	*	*	*
MOAF	1010	Relate satellite imagery to meteorological and non-meteorological features or events	B	G	*	*	0	*	*	*	*
MOAF	1011	Decode a METAR observation	B	G	*	*	0	*	*	*	*
MOAF	1012	Encode/Decode Pilot Reports (PIREPS)	B	G	*	*	0	*	*	*	*

6842 T&R SYLLABUS MATRIX											
STAGE	CODE	TITLE	POI	DEVICE	COND	REFLY	TIME	PREREQ	MIRROR	CHAIN	EVENT CONV
MOAF	1013	Decode land and ship synoptic data	B	G	*	*	0	*	*	*	*
MOAF	1014	Decode a rawinsonde observation	B	G	*	*	0	*	*	*	*
MOAF	1015	Decode a plotted Skew-T/Log-P diagram	B	G	*	*	0	*	*	*	*
MOAF	1016	Analyze upper-air and surface charts	B	G	*	*	0	*	*	*	*
MOAF	1017	Select effective quality assurance program procedures	B	G	*	*	0	*	*	*	*
MOAF	1018	Identify facts about the components of an effective regime forecast process	B	G	*	*	0	*	*	*	*
MOAF	1019	Relate principles about macroscale weather analysis techniques	B	G	*	*	0	*	*	*	*
MOAF	1020	Analyze macroscale weather features	B	G	*	*	0	*	*	*	*
MOAF	1021	Relate principles about synoptic scale weather analysis techniques	B	G	*	*	0	*	*	*	*
MOAF	1022	Identify facts about synoptic weather regimes	B	G	*	*	0	*	*	*	*
MOAF	1023	Analyze synoptic scale weather features	B	G	*	*	0	*	*	*	*
MOAF	1024	Encode METAR observations	B	G	*	*	0	*	*	*	*
MOAF	1025	Relate principles about mesoscale weather analysis techniques	B	G	*	*	0	*	*	*	*
MOAF	1026	Identify facts about radar theory and radar system components	B	G	*	*	0	*	*	*	*
MOAF	1027	Relate principles about weather radar products	B	G	*	*	0	*	*	*	*
MOAF	1028	Analyze mesoscale weather features	B	G	*	*	0	*	*	*	*

6842 T&R SYLLABUS MATRIX											
STAGE	CODE	TITLE	POI	DEVICE	COND	REFLY	TIME	PREREQ	MIRROR	CHAIN	EVENT CONV
MOAF	1029	Relate principles about macroscale weather forecast techniques	B	G	*	*	0	*	*	*	*
MOAF	1030	Identify facts about numerical model processes	B	G	*	*	0	*	*	*	*
MOAF	1031	Relate principles about flight hazard forecast techniques	B	G	*	*	0	*	*	*	*
MOAF	1032	Relate principles about synoptic scale weather forecast techniques	B	G	*	*	0	*	*	*	*
MOAF	1033	Take a surface observation	B	G	*	*	0	*	*	*	*
MOAF	1034	Forecast tropical weather elements	B	G	*	*	0	*	*	*	*
MOAF	1035	Forecast macroscale and synoptic scale weather features	B	G	*	*	0	*	*	*	*
MOAF	1036	Relate principles about mesoscale and microscale weather forecast techniques	B	G	*	*	0	*	*	*	*
MOAF	1037	Identify meteorological parameters from microscale numerical weather prediction text products	B	G	*	*	0	*	*	*	*
MOAF	1038	Forecast mesoscale and microscale weather features	B	G	*	*	0	*	*	*	*
MOAF	1039	Prepare a Terminal Aerodome Forecast (TAF)	B	G	*	*	0	*	*	*	*
MOAF	1040	Demonstrate proficiency of atmospheric physics	B	G	*	*	0	*	*	*	*
MOAF	1041	Describe the dynamic atmospheric principles	B	G	*	*	0	*	*	*	*
MOAF	1042	Analyze and interpret a thickness chart	B	G	*	*	0	*	*	*	*
MOAF	1043	Analyze and interpret a vorticity chart	B	G	*	*	0	*	*	*	*

6842 T&R SYLLABUS MATRIX											
STAGE	CODE	TITLE	POI	DEVICE	COND	REFLY	TIME	PREREQ	MIRROR	CHAIN	EVENT CONV
MOAF	1044	(Re)Analyze and interpret upper atmospheric weather charts	B	G	*	*	0	*	*	*	*
MOAF	1045	Analyze and interpret a surface chart	B	G	*	*	0	*	*	*	*
MOAF	1046	Brief synoptic chart set	B	G	*	*	0	*	*	*	*
MOAF	1047	Encode/Decode a TAF	B	G	*	*	0	*	*	*	*
MOAF	1048	Describe US Marine Corps (USMC) METOC doctrine, organization, core capabilities and operations	B	G	*	*	0	*	*	*	*
MOAF	1049	To facilitate information on DOD and the NWS terminology and severe weather criteria used for determining and setting weather warnings and advisories	B	G	*	*	0	*	*	*	*
MOAF	1050	Identify METOC's role in the Marine Corps Planning Process (MCPP)	B	G	*	*	0	*	*	*	*
MOAF	1051	Familiarize with how to conduct Intelligence Preparation of the Battlefield (IPB)	B	G	*	*	0	*	*	*	*
MOAF	1052	Introduction of organic METOC Weather Equipment and capabilies by supporting echelon	B	G	*	*	0	*	*	*	*
MOAF	1053	Introduction to METOC security and proper handling, storage, and spillage of classified information and materials	B	G	*	*	0	*	*	*	*
TOTAL HOURS METEOROLOGY AND OCEANOGRAPHY ANALYST FORECASTER (MOAF)							0				
TOTAL HOURS CORE SKILL INTRODUCTION TRAINING (1000 PHASE)							0				
CORE SKILL TRAINING (2000 PHASE EVENTS)											
METEOROLOGICAL SURFACE OBSERVATIONS (MSO)											

6842 T&R SYLLABUS MATRIX											
STAGE	CODE	TITLE	POI	DEVICE	COND	REFLY	TIME	PREREQ	MIRROR	CHAIN	EVENT CONV
MSO	2200	State and discuss the elements of a METAR surface observation	B	G	(N)	*	2	6500	*	*	*
MSO	2201	State the criteria for a SPECI surface observation	B	G	(N)	*	1	2200	*	*	*
MSO	2202	Compute meteorological values	B	L/S	(N)	*	2	6500	*	*	*
MSO	2204	State and discuss the elements of a Terminal Aerodrome Forecast (TAF)	B	G	(N)	*	2	6500	*	*	*
MSO	2205	Decode a Terminal Aerodrome Forecast (TAF)	B,R,M	L/S	(N)	365	0.5	2204	*	*	*
MSO	2206	Define the criteria for setting weather warnings, watches, and advisories	B	G	(N)	*	1	6500	*	*	*
TOTAL HOURS METEOROLOGICAL SURFACE OBSERVATIONS (MSO)							10.5				
UPPER ATMOSPHERIC SENSING (UAS)											
UAS	2250	Decode upper air messages	B,R,M	L/S	(N)	365	1	6500	*	*	*
UAS	2251	Analyze a Skew-T Log P diagram	B,R,M	L/S	(N)	365	1	2250	*	*	*
UAS	2252	Identify the components of an upper-air sensor and upper-air sensing equipment	B	G	(N)	*	2	*	*	*	*
TOTAL HOURS UPPER ATMOSPHERIC SENSING (UAS)							4				
ASTRONOMICAL/TIDAL DATA (ATD)											
ATD	2300	Define and state the difference between civil, nautical, and astronomical twilight	B	G	(N)	*	1	*	*	*	*
ATD	2301	State the relationship between lunar illumination, moon rise, moon set, low light level, and high light level	B	G	(N)	*	1	2300	*	*	*
TOTAL HOURS ASTRONOMICAL/TIDAL DATA (ATD)							2				
FAMILIARIZATION (FAM)											

6842 T&R SYLLABUS MATRIX											
STAGE	CODE	TITLE	POI	DEVICE	COND	REFLY	TIME	PREREQ	MIRROR	CHAIN	EVENT CONV
FAM	2350	Identify and define local area policies and procedures	B	G	(N)	*	2	*	*	*	*
FAM	2351	Disseminate weather watches, warnings, and advisories	B	L/S	(N)	*	1	2206	*	*	*
TOTAL HOURS FAMILIARIZATION (FAM)							3				
EQUIPMENT (EQPT)											
EQPT	2400	Operate handheld meteorological devices	B,R,M	L	(N)	365	3	6500	*	*	*
EQPT	2401	Operate a handheld GPS device	B,R,M	L	(N)	365	2	*	*	*	*
TOTAL HOURS EQUIPMENT (EQPT)							5				
APPLIED METEOROLOGICAL SCIENCE (AMS)											
AMS	2500	Describe principles of atmospheric physics	B	G	(N)	*	15	6502	*	*	*
AMS	2501	Describe principles of atmospheric dynamics	B	G	(N)	*	15	6502	*	*	*
AMS	2502	Describe atmospheric fundamentals	B	G	(N)	*	5	6502	*	*	*
AMS	2503	State the use of graphical METOC products	B	G	(N)	*	1	6502	*	*	*
TOTAL HOURS APPLIED METEOROLOGICAL SCIENCE (AMS)							36				
METOC DATA ANALYSIS (MDA)											
MDA	2550	Initialize and verify meteorological model output	B	L/S	(N)	*	2	2500, 2501, 2502, 2503	*	*	*
MDA	2551	Identify strengths and weaknesses of meteorological model output	B	L/S	(N)	*	2	2500, 2501, 2502, 2503	*	*	*
MDA	2552	Analyze and interpret a thickness chart or thickness model	B,R,M	L/S	(N)	365	1	2550, 2551	*	*	*
MDA	2553	Analyze and interpret a vorticity chart or vorticity model	B,R,M	L/S	(N)	365	1	2550, 2551	*	*	*
MDA	2554	Analyze and interpret upper atmospheric weather data	B.R.M	L/S	(N)	365	6	2552, 2553	*	*	*

6842 T&R SYLLABUS MATRIX											
STAGE	CODE	TITLE	POI	DEVICE	COND	REFLY	TIME	PREREQ	MIRROR	CHAIN	EVENT CONV
MDA	2555	Analyze and interpret a surface weather chart and model	B,R,M	L/S	(N)	365	2	2554	*	*	*
MDA	2556	Analyze meteorological features on satellite imagery	B,R,M	L/S	(N)	365	2	2500, 2501, 2502, 2503, 2504	*	*	*
MDA	2557	Analyze meteorological features on radar products	B,R,M	L/S	(N)	365	2	2500, 2501, 2502, 2503, 2504	*	*	*
TOTAL HOURS METOC DATA ANALYSIS (MDA)							18				
METEOROLOGICAL FORECASTING (METF)											
METF	2600	Forecast macro/synoptic scale features	B,R,M	L/S	(N)	365	2	2554, 2555	*	*	*
METF	2601	Develop synoptic scale forecast using prognosis techniques	B,R,M	L/S	(N)	365	10	2600	*	2552, 2553, 2554, 2555, 2556	*
METF	2602	Forecast local area (mesoscale/microscale) meteorological elements and phenomenon	B,R,M	L/S	(N)	365	2	2601	*	*	*
METF	2603	Forecast severe weather	B,R,M	L/S	(N)	365	1	2602	*	*	*
TOTAL HOURS METEOROLOGICAL FORECASTING (METF)							15				
METOC PRODUCT BRIEFING (MPB)											
MPB	2650	Brief synoptic chart set	B,R,M	L/S	(N)	365	3	2602	*	*	*
MPB	2651	Demonstrate proficiency in completing a flight weather briefing (DD 175-1)	B,R	L/S	(N)	365	3.5	2550	*	*	*
TOTAL HOURS METOC PRODUCT BRIEFING (MPB)							6.5				
COMMUNICATIONS (COMM)											
COMM	2700	Describe the fundamentals of Communications	B	G	(N)	*	5	*	*	*	*
COMM	2701	Operate HF man-pack communications equipment	B,R,M	L	(N)	365	8	2700	*	*	*

6842 T&R SYLLABUS MATRIX											
STAGE	CODE	TITLE	POI	DEVICE	COND	REFLY	TIME	PREREQ	MIRROR	CHAIN	EVENT CONV
COMM	2702	Operate intra-team communications equipment	B,R,M	L	(N)	365	2	2700	*	*	*
COMM	2703	Operate UHF/VHF/SATCOM man-pack communications equipment	B,R,M	L	(N)	365	4	2700	*	*	*
COMM	2704	Describe proper handling and storage of classified materials	B	G	(N)	*	2	*	*	*	*
COMM	2705	Plan physical security for classified areas	B	G	(N)	*	2	*	*	*	*
COMM	2707	Operate a common fill device (CFD) and extract key material from EKMS callout	B,R,M	L	(N)	365	2	2704	*	*	*
TOTAL HOURS COMMUNICATIONS (COMM)							25				
METOC DOCTRINE (MDN)											
MDN	2750	Describe METOC's role in the Marine Corps Planning Process (MCPP)	B	G	(N)	*	4	*	*	*	*
MDN	2751	Describe US Marine Corps' (USMC) METOC doctrine, organization, core capabilities and operations	B	G	(N)	*	4	*	*	*	*
TOTAL HOURS METOC DOCTRINE (MDN)							8				
MANAGEMENT (MGT)											
MGT	2850	Identify the embarkation requirements for the METOC section	B	G	(N)	*	4	*	*	*	*
MGT	2851	State the key elements of an OPORDER and discuss how they relate to METOC support	B	G	(N)	*	1	*	*	*	*
MGT	2852	State the METOC products and services required for operational decision-making and joint operations	B	G	(N)	*	2	*	*	*	*
MGT	2856	State the purpose of a METOC sensing strategy	B	G	(N)	*	2	*	*	*	*
MGT	2857	State the purpose of the quality control program	B	G	(N)	*	2	*	*	*	*

6842 T&R SYLLABUS MATRIX											
STAGE	CODE	TITLE	POI	DEVICE	COND	REFLY	TIME	PREREQ	MIRROR	CHAIN	EVENT CONV
TOTAL HOURS MANAGEMENT (MGT)							11				
LITTORAL FORECASTING/ANALYSIS (LFA)											
LFA	2900	State the elements of a surf observation	B	G	(N)	*	5	6502	*	*	*
LFA	2901	Describe properties of tropical meteorological phenomena and the effects of tropical weather systems on naval operations	B	G	(N)	*	4	*	*	*	*
LFA	2902	Describe the influences to the oceanographic environment	B,R,M	G	(N)	365	1	6502	*	*	*
LFA	2903	Describe the influences to the littoral environment	B,R,M	G	(N)	365	1	6502	*	*	*
TOTAL HOURS LITTORAL FORECASTING/ANALYSIS (LFA)							11				
METOC IMPACT ASSESSMENT (MIA)											
MIA	2950	State the physical METOC effect on the land domain and how they affect operations	B	G	(N)	*	3	*	*	*	*
MIA	2951	State the physical METOC effect on the maritime domain and how they affect operations	B	G	(N)	*	1	*	*	*	*
MIA	2952	State the physical METOC effect on the air domain and how they affect operations	B	G	(N)	*	1	*	*	*	*
MIA	2953	State the physical METOC effect on the space domain and how they affect operations	B	G	(N)	*	1	*	*	*	*
MIA	2954	Describe the effects of physical and biological oceanography on Naval operations	B	G	(N)	*	2	*	*	*	*
TOTAL HOURS METOC IMPACT ASSESSMENT (MIA)							8				
TOTAL HOURS CORE SKILL TRAINING (2000 PHASE)							201				
MISSION SKILL TRAINING (3000 PHASE EVENTS)											

6842 T&R SYLLABUS MATRIX											
STAGE	CODE	TITLE	POI	DEVICE	COND	REFLY	TIME	PREREQ	MIRROR	CHAIN	EVENT CONV
METEOROLOGICAL SURFACE OBSERVATION (MSO)											
MSO	3100	Conduct a daytime surface meteorological observation	B,R,M	L/S	D	365	30	2202	*	*	*
MSO	3101	Conduct a night time surface meteorological observation	B,R,M	L/S	N	365	30	2202	*	*	*
MSO	3102	Encode and disseminate a pilot weather report (PIREP)	B,R,M	L/S	(N)	365	1	6500	*	*	*
MSO	3103	Decode surface/ship synoptic observations	B	L/S	(N)	*	2	6501	*	*	*
TOTAL HOURS METEOROLOGICAL SURFACE OBSERVATION (MSO)							63				
ASTRONOMICAL/TIDAL DATA (ATD											
ATD	3150	Produce astronomical data	B,R,M	L/S	(N)	365	1	2301	*	*	*
ATD	3151	Produce tidal data	B,R,M	L/S	(N)	365	1.5	6500	*	*	*
TOTAL HOURS ASTRONOMICAL/TIDAL DATA (ATD							2.5				
EQUIPMENT (EQPT)											
EQPT	3203	Conduct a site survey for METOC equipment	B,R,M	L	(N)	365	4	*	*	*	*
EQPT	3204	Setup or assist with the setup of the AN/UMK-4(v)4, TESS/NITES	B,R,M	L	(N)	365	1	3203	*	*	*
EQPT	3205	Operate the AN/UMK-4(v)4 TESS/NITES	B,R,M	L	(N)	365	12	3204	*	*	*
EQPT	3206	Pack-out or assist with the pack-out of the AN/UMK-4(v)4, TESS/NITES	B,R,M	L	(N)	365	1	*	*	*	*
EQPT	3207	Setup surface meteorological sensing systems	B,R,M	L	(N)	365	1	3203	*	*	*
EQPT	3208	Pack the surface meteorological sensing system	B,R,M	L	(N)	365	1	*	*	*	*
EQPT	3209	Setup the meteorological radar subsystem for integrated operations	B,R,M	L	(N)	365	2	*	*	*	*
EQPT	3210	Pack the meteorological radar subsystem	B,R,M	L	(N)	365	2	*	*	*	*

6842 T&R SYLLABUS MATRIX											
STAGE	CODE	TITLE	POI	DEVICE	COND	REFLY	TIME	PREREQ	MIRROR	CHAIN	EVENT CONV
EQPT	3211	Setup the meteorological satellite subsystem	B,R,M	L	(N)	365	1	*	*	*	*
EQPT	3212	Pack the meteorological satellite subsystem	B,R,M	L	(N)	365	1	*	*	*	*
EQPT	3213	Setup the meteorological upper air subsystem for integrated operations	B,R,M	L	(N)	365	1	*	*	*	*
EQPT	3214	Pack the meteorological upper air subsystem	B,R,M	L	(N)	365	1	*	*	*	*
EQPT	3215	Setup the meteorological communication subsystem	B,R,M	L	(N)	365	1	*	*	*	*
EQPT	3216	Pack the meteorological communication subsystem	B,R,M	L	(N)	365	1	*	*	*	*
EQPT	3217	Setup the meteorological product generation and dissemination subsystem	B,R,M	L	(N)	365	1	*	*	*	*
EQPT	3218	Pack the meteorological product generation and dissemination subsystem	B,R,M	L	(N)	365	1	*	*	*	*
EQPT	3219	Operate the Meteorological Radar Subsystem (MRS)	B,R,M	S/L	(N)	365	2	*	*	*	*
EQPT	3220	Operate the Meteorological Satellite Subsystem (MSS)	B,R,M	S/L	(N)	365	2	*	*	*	*
EQPT	3221	Operate the Communications Subsystem (CSS)	B,R,M	S/L	(N)	365	2	*	*	*	*
EQPT	3222	Operate the Local Subsystem (LSS)	B,R,M	S/L	(N)	365	2	*	*	*	*
EQPT	3223	Operate the Remote Subsystem (RSS)	B,R,M	S/L	(N)	365	1	*	*	*	*
EQPT	3224	Operate the Upper Air Subsystem (UAS)	B,R,M	S/L	(N)	365	1	2252	*	*	*
EQPT	3225	Operate the Processing Subsystem (PCS)	B,R,M	L	(N)	365	1	*	*	*	*
EQPT	3226	Operate the AN/TMQ-56 METMF(R) NEXGEN or IBV	B,R,M	S/L	(N)	365	24	3219, 3220, 3221, 3222, 3223, 3224, 3225	*	*	3219

6842 T&R SYLLABUS MATRIX											
STAGE	CODE	TITLE	POI	DEVICE	COND	REFLY	TIME	PREREQ	MIRROR	CHAIN	EVENT CONV
TOTAL HOURS EQUIPMENT (EQPT)							67				
METEOROLOGICAL FORECASTING (METF)											
METF	3250	Produce a Terminal Aerodrome Forecast (TAF)	B,R,M	L/S	(N)	365	26	2603	*	*	*
METF	3251	Produce a limited data forecast	B	L/S	(N)	*	6	*	*	*	*
TOTAL HOURS METEOROLOGICAL FORECASTING (METF)							32				
METOC PRODUCT BRIEFING (MPB)											
MPB	3300	Produce a flight weather packet	B,R,M	L/S	(N)	365	2	2603	*	*	*
MPB	3301	Brief a flight weather briefing (DD 175-1)	B,R,M	L/S	(N)	365	0.5	2651	*	*	*
MPB	3302	Produce a 96-hour graphical METOC brief	B,R,M	L	(N)	180	12	2603	*	*	*
MPB	3303	Generate and conduct a climatology brief	B	L/S	(N)	*	12	*	*	*	*
MPB	3304	Conduct an aviation strike brief	B	L/S	(N)	*	3	*	*	*	*
MPB	3305	Conduct an aviation assault brief	B	L/S	(N)	*	3	*	*	*	*
MPB	3306	Conduct an amphibious warfare brief	B	L/S	(N)	*	6	*	*	*	*
MPB	3307	Conduct a Search and Rescue (SAR) brief	B	L/S	(N)	*	2	*	*	*	*
TOTAL HOURS METOC PRODUCT BRIEFING (MPB)							40.5				
LITTORAL FORECASTING/ANALYSIS (LFA)											
LFA	3350	Compute Modified Surf Index (MSI)	B,R,M	L/S	(N)	365	1	2900, 3100, 3101, 3102, 3151	*	*	*
LFA	3351	Create a surf forecast	B,R,M	L/S	(N)	365	24	3100, 3101, 3102, 3350	*	*	*
LFA	3352	Describe the impacts to the littoral environment to naval surface and military sealift maneuvers	B,R,M	G	(N)	365	1	2902, 6500, 6501, 6502	*	*	*
LFA	3353	Describe the impacts to the littoral environment to naval surface, intra-theater maneuver, and amphibious operations	B,R,M	G	(N)	365	1	2903, 6500, 6501, 6502	*	*	*

6842 T&R SYLLABUS MATRIX											
STAGE	CODE	TITLE	POI	DEVICE	COND	REFLY	TIME	PREREQ	MIRROR	CHAIN	EVENT CONV
TOTAL HOURS LITTORAL FORECASTING/ANALYSIS (LFA)							27				
METOC IMPACT ASSESSMENT (MIA)											
MIA	3400	Produce METOC impacts on command, control, and communication (C3) operations	B,R,M	L/S	(N)	365	3	*	*	*	*
MIA	3401	Produce METOC impact products on FMF operations	B	L/S	(N)	*	3	*	*	*	*
MIA	3402	Produce METOC impact products to support planning and execution of joint and/or coalition operations and missions	B	L/S	(N)	*	3	*	*	*	*
MIA	3403	Produce polar METOC impacts on naval operations	B	L	(N)	*	2	2950, 2951, 2952, 2953, 2954	*	*	*
TOTAL HOURS METOC IMPACT ASSESSMENT (MIA)							11				
MANAGEMENT (MGT)											
MGT	3450	Deploy a METOC section in support of unit operations	B,R,M	L	(N)	365	24	2704, 2705, 2750, 2751, 2850, 2851, 2852, 3203, 3204, 3205, 3206, 3207, 3208, 3209, 3210, 3211, 3212, 3213, 3214, 3215, 3216, 3218, 3225, 3226, 3500	*	*	*
MGT	3451	Manage METOC Operations in support of unit exercise or mission.	B,R,M	L	(N)	365	12	2704, 2705, 2750, 2751, 2850, 2851, 2852, 3203, 3204, 3205, 3206, 3207, 3208, 3209, 3210, 3211, 3212, 3213, 3214, 3215, 3216, 3218, 3225, 3226, 3450, 3500	*	*	*
MGT	3452	Manage a METOC section in support of garrison operations	B,R,M	L	(N)	365	24	*	*	*	*
TOTAL HOURS MANAGEMENT (MGT)							60				
METOC PLANNING COORDINATION (MPC)											
MPC	3500	Submit input to annexes of operational orders	B,R,M	L/S	(N)	365	8	*	*	*	*
MPC	3501	Conduct METOC support for Intelligence Operations	B	L/S	(N)	*	35	*	*	*	*
TOTAL HOURS METOC PLANNING COORDINATION (MPC)							43				

6842 T&R SYLLABUS MATRIX											
STAGE	CODE	TITLE	POI	DEVICE	COND	REFLY	TIME	PREREQ	MIRROR	CHAIN	EVENT CONV
TOTAL HOURS MISSION SKILL TRAINING (3000 PHASE)							354				
INSTRUCTOR TRAINING (5000 PHASE EVENTS)											
INSTRUCTOR UNDER TRAINING (IUT)											
IUT	5000	Introduce principles of instruction	B	L	(N)	*	2	*	*	*	*
IUT	5010	Describe individual T&R requirements	B	G	(N)	*	2	*	*	*	*
IUT	5020	Conduct T&R instruction	B	L	(N)	90	12	5000, 5010	*	*	*
IUT	5100	Describe the Aviation Training and Readiness (T&R) Program	B	G	(N)	*	2	6320	*	*	*
IUT	5110	Conduct instructor evaluations	B	L	(N)	365	4	5100	*	*	*
IUT	5120	Perform T&R administration	B	L	(N)	*	2	5110	*	*	*
IUT	5130	Develop a training plan	B	L	(N)	365	2	5120	*	*	*
TOTAL HOURS INSTRUCTOR UNDER TRAINING (IUT)							26				
TOTAL HOURS INSTRUCTOR TRAINING (5000 PHASE)							26				
REQUIREMENTS, QUALIFICATIONS, CERTIFICATIONS, AND DESIGNATIONS (RQCD) (6000 PHASE EVENTS)											
CERTIFICATIONS (CERT)											
CERT	6200	Assistant Forecaster (AF)	B	G	(N)	*	1	2200, 2201, 2202, 2204, 2205, 2206, 2250, 2251, 2300, 2301, 2400, 2500, 2501, 2502, 2503, 3100, 3101, 3102, 3150, 3151	*	*	*
CERT	6201	Apprentice METOC Analyst Forecaster (AMAF)	B	G	(N)	*	1	2001, 2002, 2250, 2251, 2252, 2550, 2551, 2552, 2553, 2554, 2555, 2556, 2600, 2601, 2602, 2603, 2650, 2651, 3250, 3300, 3301, 3302, 6200, 6500, 6502	*	*	*
CERT	6202	Mission Impact Analyst	B	G	(N)	*	1	2750, 2751, 2851, 2852, 2856, 2901, 2950, 2951, 2952, 2953, 2954, 3251, 3303, 3304, 3305, 3306, 3307, 3350, 3400, 3401, 3402, 3403, 3404, 6201	*	*	*
CERT	6203	Journeyman METOC Analyst Forecaster (JMAF)	B	G	(N)	*	1	2352, 3500, 3501, 6001, 6201, 6202, 6303, 8040, 8041, 8042, 8043, 8044, 8060, 8061, 8062, 8063, 8064, 8065, 8066, 8067, 8080, 8081, 8082, 8083, 8084, 8085, 8086, 8087, 8088	*	*	*

6842 T&R SYLLABUS MATRIX											
STAGE	CODE	TITLE	POI	DEVICE	COND	REFLY	TIME	PREREQ	MIRROR	CHAIN	EVENT CONV
CERT	6204	Master METOC Analyst Forecaster (MMAF)	B	G	(N)	*	1	6002, 6003, 6004, 6005, 6006, 6203	*	*	*
TOTAL HOURS CERTIFICATIONS (CERT)							5				
QUALIFICATIONS (QUAL)											
QUAL	6300	Station Assistant Forecaster (SAF)	B	G	(N)	*	1	2350, 6200	*	*	*
QUAL	6301	Station Apprentice METOC Analyst Forecaster (SAMAF)	B	G	(N)	*	1	6201, 6300	*	*	*
QUAL	6302	METOC Support Team Member (MSTM)	B	G	(N)	*	1	2700, 2701, 2702, 2703, 3203, 3204, 3205, 3206, 6200	*	*	*
QUAL	6303	Tactical Apprentice METOC Analyst Forcaster (TMAF)	B	G	(N)	*	1	2850, 3005, 3006, 3007, 3008, 3009, 3010, 3207, 3208, 3209, 3210, 3211, 3212, 3213, 3214, 3215, 3216, 3217, 3218, 3219, 3220, 3221, 3222, 3223, 3224, 3225, 3226, 3251, 6201, 6302, 6503, 6504, 6505, 6506, 6507, 6508, 8000, 8001, 8002, 8003, 8004, 8005, 8006, 8007, 8008, 8020, 8021, 8022, 8023, 8024, 8025, 8026, 8027, 8028	*	*	*
TOTAL HOURS QUALIFICATIONS (QUAL)							4				
DESIGNATIONS (DESG)											
DESG	6400	METOC Support Team Leader (MSTL)	B	G	(N)	*	1	6202, 6303	*	*	*
DESG	6401	Quality Control Supervisor (QCS)	B	G	(N)	*	1	2857, 6202, 6301	*	*	*
DESG	6402	Regional METOC Center Chief (RMCC)	B	G	(N)	*	1	3452, 6204	*	*	*
DESG	6403	Marine Air Traffic Control Detachment METOC Chief (MMC)	B	G	(N)	*	1	3450, 3451, 6204	*	*	*
DESG	6404	Intel METOC Chief (IMC)	B	G	(N)	*	1	3450, 3451, 6204	*	*	*
DESG	6320	Designation as a Basic Instructor (BI)	B	G	(N)	*	1	5020	*	*	*
DESG	6321	Designation as a Senior Instructor (SI)	B	G	(N)	*	1	5130, 6320	*	*	*

6842 T&R SYLLABUS MATRIX											
STAGE	CODE	TITLE	POI	DEVICE	COND	REFLY	TIME	PREREQ	MIRROR	CHAIN	EVENT CONV
DESG	6322	Designation as Weapons and Tactics Instructor (WTI)	B	G	(N)	*	1	6000	*	*	*
DESG	6330	Designation as Formal Learning Center (FLC) Instructor.	B	G	(N)	*	1	6096	*	*	*
TOTAL HOURS DESIGNATIONS (DESG)							9				
SCHOOL CODES (SCHL)											
SCHL	6000	Weapons and Tactics Instructors (WTI) Course	B	G	(N)	*	1	*	*	*	*
SCHL	6001	Target Acquisitions Weapons Software (TAWS) Primer	B	G	(N)	*	1	*	*	*	*
SCHL	6002	Complete Builder Primer	B	G	(N)	*	1	*	*	*	*
SCHL	6003	METOC Support for Strike Warfare' primer course	B	G	(N)	*	1	6001, 6002	*	*	*
SCHL	6004	METOC Support for Amphibious Warfare primer course	B	G	(N)	*	1	*	*	*	*
SCHL	6005	Littoral Oceanography resident course	B	G	(N)	*	1	*	*	*	*
SCHL	6006	Mediterranean Forecast resident course	B	G	(N)	*	1	*	*	*	*
SCHL	6007	Central Command (CENTCOM) AOR Forecasting resident course	B	G	(N)	*	1	*	*	*	*
SCHL	6008	METOC Forecasting for COMSEVENTHFLT AOR resident course	B	G	(N)	*	1	*	*	*	*
SCHL	6009	METOC Support for Combat Search and Rescue/ Search and Rescue (CSAR/SAR) resident course	B	G	(N)	*	8	*	*	*	3002
SCHL	6010	Mobile Environmental Team Primer resident course	B	G	(N)	*	8	*	*	*	3004
SCHL	6011	Mobile Environmental Team Trainer resident course	B	G	(N)	*	16	6010	*	*	3005

6842 T&R SYLLABUS MATRIX											
STAGE	CODE	TITLE	POI	DEVICE	COND	REFLY	TIME	PREREQ	MIRROR	CHAIN	EVENT CONV
SCHL	6012	METOC Support for Air Defense, Surface Warfare, and Information Warfare (AD, SW, IW) resident course	B	G	(N)	*	24	6002	*	*	3006
SCHL	6013	Riverine Analysis and Forecasting Course resident course	B	G	(N)	*	40	6552, 6553, 6557	*	*	3022
SCHL	6014	METOC Support for Chemical, Biological, Radiological, and Nuclear Environment (CBRNE) resident course	B	G	(N)	*	8	*	*	*	3023
SCHL	6015	METOC Support for Naval Special Warfare (NSW) resident course	B	G	(N)	*	24	*	*	*	3024
SCHL	6016	Tactical Forecasting for Naval Special Warfare (NSW) resident course	B	G	(N)	*	24	*	*	*	3025
SCHL	6017	OA Division Tactical Team (OATT) Trainer: Basic resident course	B	G	(N)	*	32	*	*	*	3026
SCHL	6018	OA Division Tactical Team (OATT) Trainer: Intermediate resident course	B	G	(N)	*	32	*	*	*	3027
SCHL	6096	Respective instructor development course	B	G	(N)	*	1	*	*	*	*
TOTAL HOURS SCHOOL CODES (SCHL)							227				
ONLINE TRAINING (OLT)											
OLT	6500	Aerographer's Mate Third Class METOC Training Manual (AG3) Module	B	G	(N)	*	12	*	*	*	*
OLT	6501	Aerographer's Mate Second Class (AG2) Vol I METOC Training Manual Module	B	G	(N)	*	12	6500	*	*	2003

6842 T&R SYLLABUS MATRIX											
STAGE	CODE	TITLE	POI	DEVICE	COND	REFLY	TIME	PREREQ	MIRROR	CHAIN	EVENT CONV
OLT	6502	Aerographer's Mate Second Class (AG2) Vol II METOC Training Manual Module	B	G	(N)	*	12	6501	*	*	2004
OLT	6503	Space Weather Basics Module	B	G	(N)	*	1	6502	*	*	
OLT	6504	Space Weather Impacts on Aviation module	B	G	(N)	*	2	6503	*	*	3007
OLT	6505	Space Weather - Layers of the Sun module	B	G	(N)	*	1	6503	*	*	3008
OLT	6506	Space Weather – Active Regions module	B	G	(N)	*	1	6503	*	*	
OLT	6507	Solar X-Ray Flares & HF Communications module	B	G	(N)	*	1	6503	*	*	3010
OLT	6508	Equatorial Scintillation and UHF SATCOM module	B	G	(N)	*	1	6503	*	*	3011
OLT	6509	Security Policy and Procedures course	B,R,M	G	(N)	365	1	*	*	*	2107
OLT	6510	Fog: Its Processes and Impacts to Aviation and Aviation Forecasting Module	B	G	(N)	*	2	6500	*	*	2002
OLT	6511	Forecasting Radiation Fog Module	B	G	(N)	*	2	6502	*	*	2005
OLT	6512	Dynamically Forced Fog Module	B	G	(N)	*	3	6502	*	*	2006
OLT	6513	Local Influences on Fog and Low Stratus Module	B	G	(N)	*	3	6502	*	*	2007
OLT	6514	Thermally-Forced Circulation I: Sea Breezes Module	B	G	(N)	*	1	6502	*	*	2008
OLT	6515	Thermally-Forced Circulation II: Mountain Valley Winds Module	B	G	(N)	*	1	6502, 6514	*	*	2009
OLT	6516	Cold Air Damming Module	B	G	(N)	*	3	6502	*	*	2010
OLT	6517	Coastally Trapped Wind Reversals Module	B	G	(N)	*	3	6502	*	*	2011
OLT	6518	Gap Winds Module	B	G	(N)	*	2	6502	*	*	2012
OLT	6519	Flow Interaction with Topography Module	B	G	(N)	*	1	6502	*	*	2013

6842 T&R SYLLABUS MATRIX											
STAGE	CODE	TITLE	POI	DEVICE	COND	REFLY	TIME	PREREQ	MIRROR	CHAIN	EVENT CONV
OLT	6520	Mountain Waves and Downslope Winds Module	B	G	(N)	*	1	6502	*	*	2014
OLT	6521	Atmospheric Dust Module	B	G	(N)	*	3	6502	*	*	2015
OLT	6522	Forecasting Dust Storms Version 2 Module	B	G	(N)	*	2	6521	*	*	2016
OLT	6523	Low-Level Coastal Jets Module	B	G	(N)	*	1	6502	*	*	2017
OLT	6524	Jet Streak Circulations Module	B	G	(N)	*	2	6502	*	*	2018
OLT	6525	Vorticity Maxima and Comma Patterns Module	B	G	(N)	*	0.5	6502	*	*	2019
OLT	6526	Dynamic Feature Identification: Vorticity Minima and Anticomma Patterns Module	B	G	(N)	*	0.4	6502	*	*	2020
OLT	6527	Recognition and Impact of Vorticity Maxima and Minima in Satellite Imagery Module	B	G	(N)	*	0.5	6502	*	*	2021
OLT	6528	Principles of Convection I: Buoyancy and CAPE Module	B	G	(N)	*	1	6502	*	*	2022
OLT	6529	Principles of Convection II: Using Hodographs Module	B	G	(N)	*	1	6528	*	*	2023
OLT	6530	Principles of Convection III: Shear and Convective Storms Module	B	G	(N)	*	1	6529	*	*	2024
OLT	6531	Lectures on Radar Applications in Mesoscale Meteorology Module	B	G	(N)	*	8	6502	*	*	2025
OLT	6532	Landfalling Fronts and Cyclones Module	B	G	(N)	*	2	6502	*	*	2026
OLT	6533	How Mesoscale Models Work Module	B	G	(N)	*	1	6502	*	*	2027
OLT	6534	Definition of the Mesoscale Module	B	G	(N)	*	1	6502	*	*	2028
OLT	6535	Introduction to Ensemble Prediction Module	B	G	(N)	*	2	6502	*	*	2029

6842 T&R SYLLABUS MATRIX											
STAGE	CODE	TITLE	POI	DEVICE	COND	REFLY	TIME	PREREQ	MIRROR	CHAIN	EVENT CONV
OLT	6536	Ten Common NWP Misconceptions Module	B	G	(N)	*	2	6502	*	*	2030
OLT	6537	Mesoscale Convective Systems: Squall Lines and Bow Echoes Module	B	G	(N)	*	5	6502	*	*	2031
OLT	6538	Mesoscale Banded Precipitation Module	B	G	(N)	*	4	6502	*	*	2032
OLT	6539	Intelligent Use of Model-Derived Products –Version 2 Module	B	G	(N)	*	2	6502	*	*	2033
OLT	6540	Effective Use of NWP in the Forecast Process: Introduction Module	B	G	(N)	*	0.5	6502	*	*	2034
OLT	6541	Influence of Model Physics on NWP Forecasts-Version 2 Module	B	G	(N)	*	1.5	6502	*	*	2035
OLT	6542	Introduction to Climatology Module	B	G	(N)	*	1	6502	*	*	2036
OLT	6543	Isentropic Analysis Module	B	G	(N)	*	1	6502	*	*	2037
OLT	6544	PBL in Complex Terrain - Part 1 Module	B	G	(N)	*	1	6502	*	*	2038
OLT	6545	PBL in Complex Terrain – Part 2 Module	B	G	(N)	*	1.2	6544	*	*	2039
OLT	6546	Mesoscale Aspects of Winter Weather Forecasting Topics Module	B	G	(N)	*	1	6502	*	*	2040
OLT	6547	Forecasting Aviation Icing: Icing Type and Severity Module	B	G	(N)	*	2	6502	*	*	2041
OLT	6548	Writing Effective TAFS Module	B	G	(N)	*	2	6502	*	*	2042
OLT	6549	Writing TAFS for Convective Weather Module	B	G	(N)	*	2	6548	*	*	2043
OLT	6550	Writing TAFS for Winds and LLWS Module	B	G	(N)	*	3	6549	*	*	2044
OLT	6551	Writing TAFs for Ceiling and Visibility Module	B	G	(N)	*	2	6548	*	*	2045
OLT	6552	Introduction to Distributed Hydrologic Modeling Module	B	G	(N)	*	1	6502	*	*	2046

6842 T&R SYLLABUS MATRIX											
STAGE	CODE	TITLE	POI	DEVICE	COND	REFLY	TIME	PREREQ	MIRROR	CHAIN	EVENT CONV
OLT	6553	Understanding the Hydrologic Cycle Module	B	G	(N)	*	2	6502	*	*	2047
OLT	6554	Introduction to Ocean Tides Module	B	G	(N)	*	2	6502	*	*	2048
OLT	6555	Rip Currents: Forecasting Module	B	G	(N)	*	2	6502	*	*	2049
OLT	6556	Introduction to Ocean Currents Module	B	G	(N)	*	2	6502	*	*	2050
OLT	6557	Introduction to the Verification of Hydrologic Forecasts Module	B	G	(N)	*	2	6552, 6553	*	*	2051
OLT	6558	Unit Hydrograph Theory Module	B	G	(N)	*	2	6502	*	*	2052
OLT	6559	Weather Radar Fundamentals Module	B	G	(N)	*	3	6531	*	*	2054
OLT	6560	Basics of Visible and Infrared Remote Sensing Module	B	G	(N)	*	2	6500	*	*	2055
OLT	6561	Microwave Remote Sensing: Clouds, Precipitation, and Water Vapor Module	B	G	(N)	*	2	6502, 6560	*	*	2056
OLT	6562	Operational Use of Wave Watch III Module	B	G	(N)	*	1.5	6502	*	*	2060
OLT	6563	Introduction to Ocean Models Module	B	G	(N)	*	2	6502	*	*	2061
OLT	6564	Topics in Tropical Meteorology Module	B	G	(N)	*	0.25	6502	*	*	2070
OLT	6565	Introduction to Tropical Meteorology, 2nd Edition, Chapter 1: Introduction Module	B	G	(N)	*	2	6564	*	*	2071
OLT	6566	Introduction to Tropical Meteorology, 2nd Edition, Chapter 2: Tropical Remote Sensing Applications Module	B	G	(N)	*	1	6565	*	*	2072

6842 T&R SYLLABUS MATRIX											
STAGE	CODE	TITLE	POI	DEVICE	COND	REFLY	TIME	PREREQ	MIRROR	CHAIN	EVENT CONV
OLT	6567	Introduction to Tropical Meteorology, 2nd Edition, Chapter 3: Global Circulation Module	B	G	(N)	*	2	6566	*	*	2073
OLT	6568	Introduction to Tropical Meteorology, 2nd Edition, Chapter 4: Tropical Variability Module	B	G	(N)	*	3	6567	*	*	2074
OLT	6569	Introduction to Tropical Meteorology, 2nd Edition, Chapter 5: The Distribution of Moisture and Precipitation Module	B	G	(N)	*	2	6568	*	*	2075
OLT	6570	Conceptual Models of Tropical Waves Module	B	G	(N)	*	0.5	6502	*	*	2076
OLT	6571	Polar Satellite Products for the Operational Forecaster: Microwave Analysis of Tropical Cyclones Module	B	G	(N)	*	2	6502	*	*	2077
OLT	6572	Wave Types and Characteristics Module	B	G	(N)	*	1	6502	*	*	2078
OLT	6573	Rip Currents: Nearshore Fundamentals Module	B	G	(N)	*	1	6572	*	*	2079
OLT	6574	Shallow-Water Waves Module	B	G	(N)	*	1.5	6502	*	*	2080
OLT	6575	Remote Sensing of Ocean Wind Speed and Direction: An Introduction to Scatterometry Module	B	G	(N)	*	0.6	6502	*	*	2081
OLT	6576	Systems Approach to Training (SAT) course	B	G	(N)	*	7	*	*	*	2082
OLT	6577	Skew-T Mastery Module	B	G	(N)	*	3	6500	*	*	2001
OLT	6578	AFW Cloud Modeling 101 Module	B	G	(N)	*	3	*	*	*	*
OLT	6579	AFW Overview of MSI Module	B	G	(N)	*	3	*	*	*	*
OLT	6580	Observer Refresher Training: Additive Data and Summary of the Day Module	B	G	(N)	*	3	*	*	*	*

6842 T&R SYLLABUS MATRIX											
STAGE	CODE	TITLE	POI	DEVICE	COND	REFLY	TIME	PREREQ	MIRROR	CHAIN	EVENT CONV
OLT	6581	Observer Refresher Training: Sky Condition Module	B	G	(N)	*	3	*	*	*	*
OLT	6582	Observer Refresher Training: Special Criteria Module	B	G	(N)	*	3	*	*	*	*
OLT	6583	Observer Refresher Training: Visibility Module	B	G	(N)	*	3	*	*	*	*
OLT	6584	Pilot-to-Metro Service (PMSV) and Pilot Reports (PIREPS) Module	B	G	(N)	*	3	*	*	*	*
OLT	6585	AFW Forecasting Wet Microburst Module	B	G	(N)	*	3	*	*	*	*
OLT	6586	AFW Intro to Ensemble Verification Technique Module	B	G	(N)	*	3	*	*	*	*
TOTAL HOURS ONLINE TRAINING (OLT)							193.9				
ADVANCED TRAINING TRACKING CODES											
LITTORAL FORECASTING/ANALYSIS (LFA)											
LFA	6100	Conduct a surf observation	B	L	(N)	*	30	2900, 3100, 3351	*	*	*
LFA	6103	Analyze and assess oceanographic and littoral impacts to operational plans, operational orders, and concepts of employments	B,R,M	L/S	(N)	365	2	2902, 2903, 3100, 3352, 3353, 6100, 6500, 6501, 6502	*	*	*
LFA	6104	Analyze and assess key oceanographic and littoral features on satellite derived products	B,R,M	L/S	(N)	365	2	2902, 2903, 3100, 3352, 3353, 6100, 6500, 6501, 6502	*	*	*
TOTAL HOURS LITTORAL FORECASTING/ANALYSIS (LFA)							34				
METOC IMPACT ASSESSMENT (MIA)											

6842 T&R SYLLABUS MATRIX											
STAGE	CODE	TITLE	POI	DEVICE	COND	REFLY	TIME	PREREQ	MIRROR	CHAIN	EVENT CONV
MIA	6151	Assess METOC impacts on Chemical, Biological, Radiological and Nuclear Environment (CBRN) defensive operations	B	L	(N)	*	3	*	*	*	4152
TOTAL HOURS METOC IMPACT ASSESSMENT (MIA))							3				
EQUIPMENT (EQPT)											
EQPT	6152	Conduct management operations for the meteorological radar system	B,R,M	L	(N)	365	6	3219	*	*	*
TOTAL HOURS EQUIPMENT (EQPT)							6				
TOTAL HOURS 6000 PHASE							445.9				
MISSION ESSENTIAL TASK (MET) (7000 PHASE EVENTS)											
CONDITION (COND)											
COND	7800	Conduct Meteorology and Oceanography (METOC) Support (Intel)	B,R,M	L	(N)	545	80	(3) Intel CMMR METOC crews	*	*	*
COND	7801	Conduct METOC Support Team (MST) Services (Intel)	B,R,M	L	(N)	545	80	(2) CMMR METOC crew	*	*	*
COND	7802	Provide Meteorological Services (IS)	B,R,M	L	(N)	545	80	(4) CMMR METOC crews	*	*	*
COND	7803	Provide Meteorological/Oceanographic (METOC) Services(C2)	B,R,M	L	(N)	545	80	(2) CMMR METOC crews	*	*	*
COND	7804	Conduct METOC Support Team (MST) Services (C2)	B,R,M	L	(N)	545	80	(2) CMMR METOC crews	*	*	*
TOTAL HOURS CONDITION (COND)							400				
TOTAL HOURS MISSION ESSENTIAL TASK (7000 PHASE)							400				
AVIATION CAREER PROGRESSION MODEL (ACPM) (8000 PHASE EVENTS)											
AVIATION CAREER PROGRESSION (ACPM)											

6842 T&R SYLLABUS MATRIX											
STAGE	CODE	TITLE	POI	DEVICE	COND	REFLY	TIME	PREREQ	MIRROR	CHAIN	EVENT CONV
ACPM	8000	MACCS Module	B	G	(N)	*	1	*	DASC-8000 TACC-8000	*	8000
ACPM	8001	Marine Air Command and Control System	B	G	(N)	*	4	*	DASC-8001 TACC-8001	*	8001
ACPM	8002	Tactical Air Command Center (TACC)	B	G	(N)	*	4	*	DASC-8002 TACC-8002	*	8002
ACPM	8003	Direct Air Support Center (DASC)	B	G	(N)	*	4	*	DASC-8003 TACC-8003	*	8003
ACPM	8004	Tactical Air Operations Center (TAOC)	B	G	(N)	*	4	*	DASC-8004 TACC-8004	*	8004
ACPM	8005	Marine Air Traffic Control (MATC)	B	G	(N)	*	4	*	DASC-8005 TACC-8005	*	8005
ACPM	8006	Low Altitude Air Defense (LAAD)	B	G	(N)	*	4	*	DASC-8006 TACC-8006	*	8006
ACPM	8007	Marine Unmanned Aerial Vehicle Squadron (VMU)	B	G	(N)	*	4	*	DASC-8007 TACC-8007	*	8007
ACPM	8008	Marine Wing Communications Squadron (MWCS)	B	G	(N)	*	4	*	DASC-8008 TACC-8008	*	8008

6842 T&R SYLLABUS MATRIX											
STAGE	CODE	TITLE	POI	DEVICE	COND	REFLY	TIME	PREREQ	MIRROR	CHAIN	EVENT CONV
ACPM	8020	ACE	B	G	(N)	*	1	*	DASC-8020 TACC-8020	*	8020
ACPM	8021	Aviation Operations	B	G	(N)	*	4	*	DASC-8021 TACC-8021	*	8021
ACPM	8022	Control of Aircraft and Missiles	B	G	(N)	*	4	*	DASC-8022 TACC-8022	*	8022
ACPM	8023	Offensive Air Support (OAS)	B	G	(N)	*	4	*	DASC-8023 TACC-8023	*	8023
ACPM	8024	Assault Support (AS)	B	G	(N)	*	4	*	DASC-8024 TACC-8024	*	8024
ACPM	8025	Air Reconnaissance	B	G	(N)	*	4	*	DASC-8025 TACC-8025	*	8025
ACPM	8026	Electronic Warfare (EW)	B	G	(N)	*	1	*	DASC-8026 TACC-8026	*	8026
ACPM	8027	Anti-Air Warfare (AAW)	B	G	(N)	*	4	*	DASC-8027 TACC-8027	*	8027
ACPM	8028	Aviation Ground Support	B	G	(N)	*	4	*	DASC-8028 TACC-8028	*	8028

6842 T&R SYLLABUS MATRIX											
STAGE	CODE	TITLE	POI	DEVICE	COND	REFLY	TIME	PREREQ	MIRROR	CHAIN	EVENT CONV
ACPM	8040	Threat	B	G	(N)	*	1	*	DASC-8040 TACC-8040	*	8040
ACPM	8041	Surface to Air threat to the MAGTF	B	G	(N)	*	4	*	DASC-8041 TACC-8041	*	8041
ACPM	8042	Fixed Wing threat to the MAGTF	B	G	(N)	*	4	*	DASC-8042 TACC-8042	*	8042
ACPM	8043	Rotary Wing threat to the MAGTF	B	G	(N)	*	4	*	DASC-8043 TACC-8043	*	8043
ACPM	8044	Missile and UAS threat to the MAGTF	B	G	(N)	*	4	*	DASC-8044 TACC-8044	*	8044
ACPM	8060	MAGTF	B	G	(N)	*	1	*	DASC-8060 TACC-8060	*	8060
ACPM	8061	Ground Combat Operations	B	G	(N)	*	4	*	DASC-8061 TACC-8061	*	8061
ACPM	8062	Fire Support Coordination in the GCE	B	G	(N)	*	4	*	DASC-8062 TACC-8062	*	8062
ACPM	8063	MAGTF Command and Control	B	G	(N)	*	4	*	DASC-8063 TACC-8063	*	8063

6842 T&R SYLLABUS MATRIX											
STAGE	CODE	TITLE	POI	DEVICE	COND	REFLY	TIME	PREREQ	MIRROR	CHAIN	EVENT CONV
ACPM	8064	MAGTF Communications	B	G	(N)	*	4	*	DASC-8064 TACC-8064	*	8064
ACPM	8065	Phasing Control Ashore	B	G	(N)	*	4	*	DASC-8065 TACC-8065	*	8065
ACPM	8066	Information Management	B	G	(N)	*	4	*	DASC-8066 TACC-8066	*	8066
ACPM	8067	UAS support of the MAGTF	B	G	(N)	*	4	*	DASC-8067 TACC-8067	*	8067
ACPM	8080	Joint Air Operations	B	G	(N)	*	1	*	DASC-8080 TACC-8080	*	8080
ACPM	8081	Command and Control of Joint Air Operations	B	G	(N)	*	4	*	DASC-8081 TACC-8081	*	8081
ACPM	8082	Theater Air Ground System (TAGS)	B	G	(N)	*	4	*	DASC-8082 TACC-8082	*	8082
ACPM	8083	Joint Fire Support	B	G	(N)	*	4	*	DASC-8083 TACC-8083	*	8083
ACPM	8084	Close Air Support (CAS)	B	G	(N)	*	4	*	DASC-8084 TACC-8084	*	8084

6842 T&R SYLLABUS MATRIX											
STAGE	CODE	TITLE	POI	DEVICE	COND	REFLY	TIME	PREREQ	MIRROR	CHAIN	EVENT CONV
ACPM	8085	Joint Targeting	B	G	(N)	*	4	*	DASC-8085 TACC-8085	*	8085
ACPM	8086	North Atlantic Treaty Organization (NATO)	B	G	(N)	*	4	*	DASC-8086 TACC-8086	*	8086
ACPM	8087	Joint Airspace Control	B	G	(N)	*	4	*	DASC-8087 TACC-8087	*	8087
ACPM	8088	Countering Air and Missile Threats	B	G	(N)	*	4	*	DASC-8088 TACC-8088	*	8088
TOTAL HOURS (2)							142				
TOTAL ACPM (8000 PHASE)							142				

CHAPTER 3
METEOROLOGICAL AND OCEANOGRAPHIC (METOC) SERVICES OFFICER (6802) INDIVIDUAL TRAINING AND READINESS REQUIREMENTS

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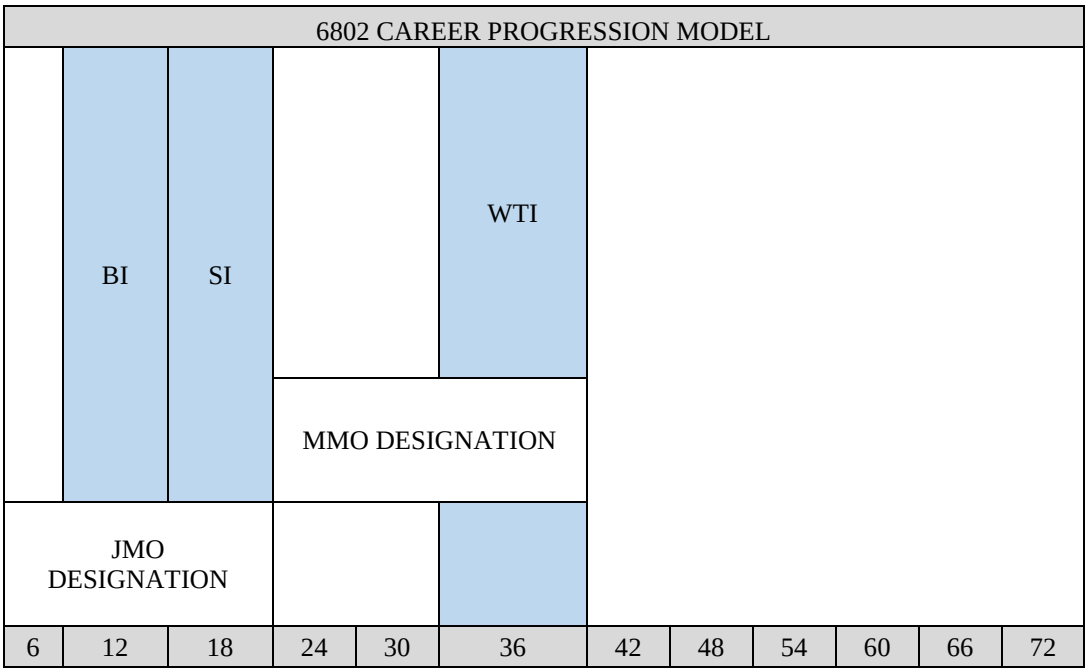
METOC SERVICES OFFICER
INDIVIDUAL TRAINING AND READINESS REQUIREMENTS

3.0 METOC OFFICER (MOS 6802) INDIVIDUAL TRAINING AND READINESS REQUIREMENTS. The METOC training progression model represents training progression. 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 warfighting capabilities.

3.1 MOS 6802 TRAINING PROGRESSION MODEL. This model represents the recommended training progression for the average 6802 METOC Officer. Units should use the model as a point of departure to generate individual training plans.



*Months indicated are training months, not calendar months

3.2 6802 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.

3.2.1 General. Represents the average POI time-to-train by Phase.

3.2.2 Basic POI

METOC OFFICER 6802 BASIC POI		
WEEKS	PHASE OF INSTRUCTION	UNIT RESPONSIBLE
1-64	CORE SKILL TRAINING	FMF UNIT
65-116	MISSION SKILL TRAINING	FMF UNIT

3.2.3 Refresher POI

METOC OFFICER 6802 REFRESHER POI		
WEEKS	PHASE OF INSTRUCTION	UNIT RESPONSIBLE
VARIES	CORE SKILL TRAINING	FMF UNIT
VARIES	MISSION SKILL TRAINING	FMF UNIT

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

3.3 PROFICIENCY AND CURRENCY.

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

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

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

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

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

Proficiency Status. Proficiency is a “Yes/No” status by skill assigned to an individual. When an individual attains and maintains Core Skill Proficiency (CSP), Mission Skill Proficiency (MSP), Core Plus Skill Proficiency (CPSP), or Mission Plus Skill Proficiency (MPSP), the individual may count towards CMMR or CMTS.

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

3.4 CERTIFICATION, QUALIFICATION AND DESIGNATION TABLES. The tables below delineate T&R events required to be completed to attain proficiency for select 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. See Chapter 6 of the Aviation T&R Program Manual on regaining lost qualifications.

3.4.1 Instructor Designations

INSTRUCTOR DESIGNATION	EVENTS
BASIC INSTRUCTOR (BI)	5000, 5010, 5020, 6320
SENIOR INSTRUCTOR (SI)	5000, 5010, 5020, 5100, 5110, 5120, 5130, 6320, 6321
WEAPONS AND TACTICS INSTRUCTOR (WTI)	6000, 6322
FORMAL LEARNING CENTER INSTRUCTOR (FLC)	6096, 6330

3.4.2 Certifications, Qualifications, and Designations

METOC ANALYST 6802	
CERTIFICATIONS, QUALIFICATIONS, AND DESIGNATIONS (CQD)	
DESIGNATIONS	EVENTS
Journeyman METOC Officer (JMO).	3450, 3451, 6321, 8000, 8001, 8002, 8003, 8004, 8005, 8006, 8007, 8008, 8020, 8021, 8022, 8023, 8024, 8025, 8026, 8027, 8028, 8040, 8041, 8042, 8043, 8044, 8060, 8061, 8062, 8063, 8064, 8065, 8066, 8067, 8080, 8081, 8082, 8083, 8084, 8085, 8086, 8087, 8088
Master METOC Officer (MMO).	6400, 6401, 6402, 6000, 6310

3.5 SYLLABUS NOTES.

3.5.1 Environmental Conditions Matrix.

Environmental Conditions	
Code	Meaning
(N)	May be conducted during darkness – If conducted during hours of darkness; may be flown aided or unaided

3.5.2 Device Matrix.

DEVICE	
Symbol	Meaning
L	Event shall be conducted live (conducted in the field/garrison, during an exercise, etc). Requires live (non-simulated) execution of the event.
L/S	Event performed live preferred/simulator optional.
S/L	Event performed in simulator preferred/live optional.
G	Ground/academic training. May include Distance Learning, CBT, lectures, and self-paced.

3.5.3 Program of Instruction Matrix.

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

3.5.4 Event Terms

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

3.6 CORE SKILL INTRODUCTION PHASE (1000 PHASE)

3.6.1 Purpose. The Meteorological and Oceanographic Officer (MOS 6802) does not attend a formal training course to receive the MOS. This MOS designation is given at the completion of The Warrant Officer Basic School at Quantico.

3.6.2 General.

Admin Notes. None.

Prerequisite. None.

Stages.

PAR NO.	STAGE NAME	PAGE NUMBER
3.6.3	METOC WARRANT OFFICER COURSE (MWOC)	3-6

MWOC-1000 0 * B (N) G

Goal. Direct METOC Operations.

Requirement. With a given scenario, direct METOC operations to support the Commander's decision-making process.

1. Conduct mission analysis.
2. Determine mission requirements.
3. Identify shortfalls.
4. Task organize METOC resources.
5. Integrate METOC assessments.
6. Develop mission planning.
7. Coordinate with internal and external agencies.

Performance Standard. With aid of reference, complete the task within a prescribed timeline.

Instructor. FLC Instructor

Prerequisite. None.

References.
1. JP 3-59 Joint Meteorological and Oceanographic Operations
2. MCDP 1-0 Marine Corps Operations
3. MCDP 2 Intelligence
4. MCDP 3 Expeditionary Operations
5. MCO 5311.1E Total Force Structure Process
6. MCO 5311.6 Marine Corps Advocacy Assignment and Responsibilities
7. MCRP 2-10B.6 MAGTF Meteorology and Oceanography Support

MWOC-1001 0 * B (N) G

Goal. Direct METOC programs.

Requirement. Identify the functions of fielded METOC equipment and correlate required capabilities to operational needs, in accordance with MCRP 2-10B.6 and JP 3-59.

1. Determine resource requirements.
2. Assess capabilities.
3. Coordinate resource requirements.

Performance Standard. With aid of reference, complete the task within a prescribed timeline.

Instructor. FLC Instructor

Prerequisite. None.

References.
1. JP 3-59 Joint Meteorological and Oceanographic Operations
2. MCDP 2 Intelligence
3. MCRP 2-10B.6 MAGTF Meteorology and Oceanography Support
4. DoDD 5000.71 Rapid Fulfillment of Combatant Commander Urgent Operational Needs
5. MCO 3900.17_ The Marine Corps Urgent Needs Process (UNP) and the Urgent Universal Need Statement (Urgent UNS)

MWOC-1002 0 * B (N) G

Goal. Develop a METOC Support Plan.

Requirement. Explain how the METOC Officer directs METOC support across the Range of Military Operations (ROMO) in support of the Marine Corps and Joint Force.

1. Review concepts of operations.
2. Identify METOC support requirements.
3. Identify organic capabilities.
4. Identify training and readiness requirements.
5. Coordinate with higher, adjacent, and supporting units.
6. Provide input to the IPB process.
7. Provide input to the Joint METOC Officer.

Performance Standard. With a given scenario and aid of reference, complete the task within a prescribed timeline.

Instructor. FLC Instructor

Prerequisite. None.

References.
1. JP 1 Doctrine for the Armed Forces of the United States
2. JP 3-59 Joint Meteorological and Oceanographic Operations
3. MCDP 1-0 Marine Corps Operations
4. MCO 1553.3_ Unit Training Management (UTM) Program
5. MCO 3120.2 Joint Operations Planning and execution System
6. MCO 3500.14_ Aviation Training and Readiness (T&R) Program
7. MCO 3502.6 _ Marine Corps Force Generation Process (FGP)
8. MCRP 2-10B.6 MAGTF Meteorology and Oceanography Support
9. NAVMC DIR 5040.6H Marine Corps Readiness Inspections And Assessments
10. OPNAVINST 3710.7_ NATOPS General Flight and Operating Instructions
11. MCDP 2 Intelligence
12. MCDP 3 Expeditionary Operations

MWOC-1003 0 * B (N) G

Goal. Direct METOC unit administrative readiness.

Requirement. Describe the administrative functions the METOC Officer will perform to ensure unit readiness.

1. Inspect a METOC section's unit readiness.
2. Maintain training compliance through accurate training records (M-SHARP, MCTIMS, and training jackets)
3. Implement a corrective action plan.
4. Utilize administrative processes.

Performance Standard. With aid of reference, complete the task within a prescribed timeline.

Instructor. FLC Instructor

Prerequisite. None.

References.
1. DoDD 7730.65 Department of Defense Readiness Reporting System (DRRS)
2. MCO 1000.8_ Fleet Assistance Program (FAP)
3. MCO 3500.1 Marine Corps Combat Evaluation System
4. MCO 3501.1_ Marine Corps Combat Readiness Evaluation (MCCRE)
5. MCO 3501.17 MARINE CORPS COMBAT READINESS EVALUATION SYSTEM (SHORT TITLE: MCCRES); VOLUME XIII, MARINE WING
6. MCO 3501.9_ Marine Corps Combat Readiness Evaluation System, Volume VIII, Marine Air Command and Control System
7. MCO 7300.21B Marine Corps Financial Management Standard Operating Procedure Manual
8. NAVMC 3500.14_ Aviation Training and Readiness (T&R) Program Manual
9. OPNAV 4790.2 Naval Aviation Maintenance Program
10. SECNAV M-5216.5 Department of the Navy Correspondence Manual

MWOC-1004 0 * B (N) G

Goal. Direct METOC equipment readiness.

Requirement. Explain METOC equipment readiness reporting programs and readiness reporting procedures.

1. Manage Consolidated Memorandum Receipt.
2. Perform requisition, as required.

Performance Standard. With aid of reference, complete the task within a prescribed timeline.

Instructor. FLC Instructor

Prerequisite. None.

References.
1. COMNAVAIRFORINST 4790.2A Introduction and Guide for Using the Naval Aviation Maintenance Program (NAMP)
2. OPNAV 4790.2 Naval Aviation Maintenance Program

3.7 CORE SKILL PHASE (2000 PHASE)

3.7.1 Purpose. To train METOC Officer in the skills necessary to master the core competency of a meteorological and oceanographic officer directing METOC operations. This phase of training also introduces follow-on skills to broaden individual skill beyond that of Marine Corps METOC operations. Core skills and supporting events are specific mission-related task areas that support METOC METs. Core skills are grouped into T&R events and are appropriately labeled as stages of training. The core model requires individual and unit proficiency in 2000 level core skills in order to perform all tasks in the unit METL and to execute the unit core capability. This phase is essential to wartime employment of the unit. Individuals should normally complete this phase of training within the first year and a half of assignment to a unit (approximately 18 months).

3.7.2 General.

Admin Notes. None.

Prerequisite. None.

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

PAR NO.	STAGE NAME	PAGE NUMBER
3.7.3	FAMILIARIZATION (FAM)	3-11

3.7.3 FAMILIARIZATION (FAM) STAGE

3.7.3.1 Purpose. To familiarize the Marine with aspects of the local area they have been assigned to.

3.7.3.2 General.

Admin Notes. None.

Prerequisite. None.

Crew Requirements. None.

FAM-2352 2.0 * B (N) G

Goal. Describe local area policies and procedures.

Requirement. Given the references, discuss (as applicable):

1. Fleet Assistance Program (FAP)
2. Memorandum of Understanding (MOU)
3. Memorandum of Agreement (MOA)

Performance Standard. With the aid of reference, discuss or explain the requirement. Minor errors self-corrected by the trainee are permitted. Instructor will discuss each item with the trainee.

Instructor. BI

Prerequisite. None.

Reference. Local SOP.

3.8 MISSION SKILL PHASE (3000)

3.8.1 Purpose. To provide standardized training for individuals performing higher level officer tasks.

3.8.2 General.

Admin Notes. This level contains advanced Mission Skill training. It increases proficiency in basic Core Skills and develops mission-specific knowledge, skills and leadership that leads to combat qualifications and leadership designations. Individuals proficient in this phase of training should be capable of planning/leading/directing METOC support requirements in a contingency operation or personnel within command and control or MEF support agencies.

Prerequisites. None.

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

3.8.3 MANAGEMENT (MGT) STAGE

3.8.3.1 Purpose. To acquire proficiency in the management of METOC operations within a MAGTF unit, Joint or Coalition Command.

3.8.3.2 General

Admin Notes. The following apply to this stage of training:
1. All personnel shall be assigned this stage of training upon completion of the Core Skill Introduction phase and prior to assignment to any other stage.

2. Upon completion of this stage of training, the METOC Officer shall be competent in managing a MAGTF, Joint, or Coalition METOC capability.

Prerequisite. None.

Crew Requirements. None.

MGT-3450 24.0 365 B, R, M (N) L

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

Requirement. Given a scenario or operational deployment and Commander's Guidance, employ the METOC 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 SECREP 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.
7. Coordinate with external agencies as required.

Performance Standard. With the aid of reference, complete the requirement.

Instructor. WTI

Prerequisite. 2352, 3500

References.
1. MCRP 2-10B.6
2. Local Directives and Standard Operating Procedures (SOP)
3. JP 3-59

4. CJCSM 3825.01 Joint METOC Manual

MGT-3451 12.0 365 B, R, M (N) L

Goal. Manage METOC Operations in support of unit exercise or mission.

Requirement. Given a scenario or operational deployment and Commander's Guidance, manage METOC operations:

1. Direct METOC operations in support of unit requirements.
2. Develop and/or revise SOPs.
3. Develop crew schedules.
4. Coordinate METOC support requirements/products with external agencies.
5. Develop, implement, and execute a training plan.
6. Ensure security procedures are being followed.

Performance Standard. With the aid of reference, complete the requirement.

Instructor. WTI

Prerequisite. None.

References.
1. MCRP 2-10B.6
2. JP 3-59
3. CJCSM 3825.01 Joint METOC Manual

3.8.4 METOC PLANNING COORDINATION (MPC) STAGE

3.8.4.1 Purpose. To acquire proficiency in the development of Annexes and Op Orders. This stage also develops an understanding of the METOC integration into Joint Operations and support of Intel Operations.

3.8.4.2 General

Admin Notes. None.

Prerequisite. None.

Crew Requirements. None.

MPC-3500 8.0 180 B, R, M (N) L/S

Goal. Submit input to annexes of operational orders.

Requirement. Submit METOC input to the annexes of operational orders and LOIs to the requesting command. Complete the requirement on each of the following:

1. Intelligence operations, Annex B.
2. Environmental operations, Annex H.
3. Collection plan, Annex J.
4. Communications and information systems, Annex K.

Performance Standard. Complete the requirement by practical application.

Instructor. WTI

Prerequisite. None.

Reference.
1. MCRP 2-10B.6

3.9 CORE PLUS SKILL PHASE (4000) N/A (THERE ARE NO TRAINING EVENTS IN THIS PHASE).

3.10 INSTRUCTOR TRAINING (5000) PHASE

3.10.1 Purpose. This phase contains instructor workup and evaluation certification syllabus events.

3.10.2 General.

Admin Notes.

1. Each event specifies the location of the training materials.

2. Upon completion of academic events, personnel should print completion certificates for entry into Basic Training Records (BTR). Copies of completion certificates shall be placed within and maintained in individual training jackets.

3. A general description of each type of training material is as follows:

a. Correspondence Course – A written publication that may or may not include testing materials.

b. Computer Based Training – Self-paced learning modules that may be accessed via a CD-ROM/DVD or website.

c. Instructor-Led Distance Learning – Formal courses of instruction that are accessed and facilitated via the internet (NIPRNET or SIPRNET)

d. Resident Courses – Formal courses of instruction in which the student physically attends, normally at another location.

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.

Prerequisites. None.

Stages. The following stage is included in the Instructor Phase of training.

PAR NO.	STAGE NAME	PAGE NUMBER

3.10 INSTRUCTOR UNDER TRAINING (IUT) STAGE.

3.10.1 General. The MAWTS-1 C3 Course catalog contains the training requirements for above listed instructors. The catalog is located at the MAWTS-1 website, https://mceits.usmc.mil/sites/mawts1/default.aspx
The table below lists all IUT events.

T&R CODE	EVENT DESCRIPTION	INSTRUCTOR
5000	Introduce principles of instruction	SI
5010	Describe individual T&R requirements	SI
5020	Conduct T&R instruction	SI
5100	Describe the Aviation Training and Readiness (T&R) Program	SI
5110	Conduct instructor evaluations	SI
5120	Perform T&R administration	SI
5130	Develop a training plan	SI

IUT-5000 2.0 * B (N) L

Goal. Introduce principals of instruction.

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

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

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

Instructor. SI

Prerequisite. None.

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

IUT-5010 2.0 * B (N) L

Goal. Describe individual T&R requirements.

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

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

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

Instructor. SI

Prerequisite. None.

References.
1. NAVMC 3500.14
2. NAVMC 1553.1

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

Goal. Conduct T&R instruction.

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

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

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

Instructor. SI

Prerequisite. 5000, 5010

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

IUT-5100 2.0 * B (N) L

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

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

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

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

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

Instructor. SI

Prerequisite. None.

References.
1. NAVMC 3500.14
2. MCO 3500.109

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

Goal. Conduct instructor evaluations.

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

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

Performance Standard. Complete the requirements IAW the reference.

Instructor. SI

Prerequisite. 5100

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

IUT-5120 2.0 * B (N) L

Goal. Perform T&R administration.

Requirement. Document training to include:

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

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

Instructor. SI

Prerequisite. 5100, 5110

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

IUT-5130 2.0 * B (N) L

Goal. Develop a training plan.

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

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

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

Instructor. SI

Prerequisite. 5100, 5110, 5120

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

3.11 CERTIFICATIONS, QUALIFICATIONS AND DESIGNATIONS (6000)

3.11.1 Purpose. This phase contains tracking codes for designations and training that provide community standardization for combat leadership and instructor designations. This syllabus does not include "one time" certification training.

3.11.2 General.

Admin Notes.

1. The squadron WTI shall review the Individual Performance Record (IPR) to ensure all required training, documentation and administrative actions have been completed prior to staffing qualification or designation recommendations for approval.

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

Prerequisite. None.

Stages. The following stage is included in the Certifications, Qualifications, and Designations Phase of training.

PAR NO.	STAGE NAME	PAGE NUMBER
3.11.3	QUALIFICATIONS (QUAL)	3-33
3.11.4	DESIGNATIONS (DESG)	3-33
3.11.5	SCHOOL CODES (SCHL)	3-35
3.11.6	ONLINE TRAINING (OLT)	
3.11.7	ADVANCED TRAINING TRACKING CODES	

3.11.3 QUALIFICATIONS (QUAL) STAGE

3.11.3.1 Purpose. RESERVED FOR FUTURE USE.

3.11.3.2 General

Admin Notes. None.

Prerequisite. None.

Crew Requirement. None.

3.11.4 DESIGNATIONS (DESG) STAGE

3.11.4.1 Purpose. To identify requirements for each of the combat leadership positions for METOC personnel.

3.11.4.2 General.

Admin Notes. None.

Prerequisite. None.

Crew Requirement. None.

DESG-6310 1.0 * B (N) G

Goal. Journeyman METOC Officer (JMO).

Requirement.
1. Complete the prerequisites under the supervision of a unit instructor.
2. Be recommended by a unit WTI.
3. The commanding officer will designate the JMO in writing.
4. Designation is not effective until appropriate entries are made in MSHARP, required administration is completed and the signed letter filed in IPR.

Performance Standard. N/A

Prerequisite. 3450, 3451, 6321, 8000, 8001, 8002, 8003, 8004, 8005, 8006, 8007, 8008, 8020, 8021, 8022, 8023, 8024, 8025, 8026, 8027, 8028, 8040, 8041, 8042, 8043, 8044, 8060, 8061, 8062, 8063, 8064, 8065, 8066, 8067, 8080, 8081, 8082, 8083, 8084, 8085, 8086, 8087, 8088

Reference. None.

DESG-6311 1.0 * B (N) G

Goal. Master METOC Officer (MMO).

Requirement.
1. Complete the prerequisites under the supervision of a unit instructor.
2. Be recommended by a unit WTI.
3. The commanding officer will designate the MMO in writing.
4. Designation is not effective until appropriate entries are made in MSHARP, required administration is completed and the signed letter filed in IPR.

Performance Standard. N/A

Prerequisite. 6400, 6401, 6402, 6000, 6310

Reference. None.

DESG-6320 1.0 * B (N) G

Goal. Basic Instructor (BI).

Requirement.
1. Complete the prerequisites under the supervision of a unit instructor.
2. Be recommended by a unit SI or WTI.
3. The BI will be designated in writing by appropriate authority.
4. Designation is not effective until appropriate entries are made in MSHARP, required administration is completed and the signed letter filed in the performance record.

Performance Standard. N/A

Prerequisite. 5020

Reference. None.

DESG-6321 1.0 * B (N) G

Goal. Senior Instructor (SI).

Requirement.
1. Be recommended for SI designation by a WTI.
2. MATC Marines attached to an air station may be designated as SI by another MATC SI due to the unique nature of the station ATC training curriculum.
3. The SI will be designated in writing by appropriate authority.
4. Designation is not effective until appropriate entries are made in MSHARP, required administration is completed and the signed letter filed in the performance record.

Performance Standard. N/A

Prerequisite. 5130, 6320

Reference. None.

DESG-6322 1.0 * B (N) G

Goal. Weapons and Tactics Instructor (WTI).

Requirement. Be certified by MAWTS-1 as a WTI, designated by the commanding officer in writing, appropriate entry made in M-SHARP and a letter filed in the performance record.

Performance Standard. N/A

Prerequisite. 6000

Reference. None.

DESG-6330 1.0 * B (N) G

Goal. Formal Learning Center Instructor.

Requirement. Complete applicable formal learning center instructor's course.

Performance Standard. N/A

Instructor. WTI

Prerequisite. 6096

Reference. None.

3.11.5 SCHOOL CODES (SCHL) STAGE

3.11.5.1 Purpose. To identify courses for METOC personnel to attend to meet training requirements.

3.11.5.2 General

Admin Notes. None.

Prerequisite. As dictated by individual school.

Crew Requirement. None.

SCHL-6000 1.0 * B (N) G

Goal. Weapons and Tactics Instructors (WTI) Course

Requirement. Graduate from WTI Course at MAWTS-1.

Performance Standard. N/A

Instructor. FLC Instructor

Prerequisite. None.

Reference. None.

SCHL-6096 0.5 * B (N) G

Goal. Attend respective instructor development course.

Requirement. Successfully complete course curriculum.

Performance Standard. N/A

Instructor. N/A

Prerequisite. None.

Reference. None.

ONLINE TRAINING

3.7.3.1 Purpose. The stage outlines all relevant computer based training modules, correspondence courses, and instructor-led distance learning courses.

3.7.3.2 General

Admin Notes. None.

Prerequisite. None.

Crew Requirements. None.

OLT-6400 3.5 * B (N) G

Goal. Complete 'CLR 101 Introduction to Joint Capabilities Integration and Development System (JCIDS)' course.

Requirement. Perform the course requirements of the 'Introduction to JCIDS' course. (Course Number: CLR 101)

Performance Standard. Obtain completion certificate.

Instructor. Web-based/Defense Acquisition University (DAU)

Prerequisite. None.

Reference.
1. https://www.dau.edu/training

OLT-6401 25.5 * B (N) G

Goal. Complete 'ACQ 101 Fundamentals of Systems Acquisition Management' course.

Requirement. Perform the requirements of the 'Fundamentals of Systems Acquisition Management' course. (Course Number: ACQ 101)

Performance Standard. Obtain completion certificate.

Instructor. Web-based/DAU

Prerequisite. None.

Reference.
1. https://www.dau.edu/training

OLT-6402 35.0 * B (N) G

Goal. Complete 'RQM 110 Core Concepts for Requirements Management' course.

Requirement. Perform the requirements of the 'Core Concepts for Requirements Management' course. (Course Number: RQM 110)

Performance Standard. Obtain completion certificate.

Instructor. Web Based/DAU

Prerequisite. None.

Reference.
1. https://www.dau.edu/training

OLT-6403 16.0 * B (N) G

Goal. Complete ‘Senior METOC Officer Afloat (SMOA) Course’ .

Requirement. Complete the course requirements in accordance with the established POI. (Course Code: C-5B-0011)

Performance Standard. Obtain completion certificate.

Instructor. FLC Instructor

Prerequisite. None.

Reference.
1. IWTG.

OLT-6404 36.0 * B (N) G

Goal. Complete ‘RQM 310, Advanced Concepts for Requirements Management’ course.

Requirement. Perform the requirements of the ‘Advanced Concepts for Requirements Management’ resident course. (Course Number: RQM 310)

Performance Standard. Obtain completion certificate.

Instructor. FLC Instructor

Prerequisite. 6400, 6402

Reference.
1. https://www.dau.edu/training

OLT-6405 36.0 * B (N) G

Goal. Complete ‘ACQ 201B Intermediate Systems Acquisition, Part B’ course.

Requirement. Perform the requirements of the ‘Intermediate Systems Acquisition, Part B’ course. (Course Number: ACQ 201B)

Performance Standard. Obtain completion certificate.

Instructor. FLC Instructor

Prerequisite. 6401, 6419

Reference.
1. https://www.dau.edu/training

OLT-6046 30.0 * B (N) G

Goal. Complete ‘PMT 251 Program Management Tools Course, Part I’.

Requirement. Perform the requirements of the ‘Program Management Tools Course, Part I’ course.

(Course Number: PMT 251)

Performance Standard. Obtain completion certificate.

Instructor. Web-based/DAU

Prerequisite. 6405

Reference.
1. https://www.dau.edu/training

OLT-6407 36.0 * B (N) G

Goal. Complete 'PMT 257 Program Management Tools Course, Part II' course.

Requirement. Perform the requirements of the 'Program Management Tools Course, Part II' course. (Course Number: PMT 257)

Performance Standard. Obtain completion certificate.

Instructor. Web-based/DAU

Prerequisite. 6406

Reference.
1. https://www.dau.edu/training

OLT-6408 12.0 * B (N) G

Goal. Complete 'CON 121 Contract Planning' course.

Requirement. Perform the requirements of the 'Contract Planning' course. (Course Number: CON 121)

Performance Standard. Obtain completion certificate.

Instructor. Web-based/DAU

Prerequisite. None.

Reference.
1. https://www.dau.edu/training

OLT-6409 13.0 * B (N) G

Goal. Complete 'CON 124 Contract Execution' course.

Requirement. Perform the requirements of the 'Contract Execution' course. (Course Number: CON 124)

Performance Standard. Obtain completion certificate.

Instructor. Web-based/DAU

Prerequisite. 6408

Reference.
1. https://www.dau.edu/training

OLT-6410 10.0 * B (N) G

Goal. Complete 'CON 127 Contract Management' course.

Requirement. Perform the requirements of the 'Contract Management' course. (Course Number: CON 127)

Performance Standard. Obtain completion certificate.

Instructor. Web-based/DAU

Prerequisite. 6409

Reference.
1. https://www.dau.edu/training

OLT-6411 18.0 * B (N) G

Goal. Complete 'EVM 101 Fundamentals of Earned Value Management' course.

Requirement. Perform the requirements of the 'EVM 101 Fundamentals of Earned Value Management' course. (Course Number: EVM 101)

Performance Standard. Obtain completion certificate.

Instructor. Web-based/DAU

Prerequisite. 6401

Reference.
1. https://www.dau.edu/training

OLT-6412 34.0 * B (N) G

Goal. Complete 'IRM 101 Basic Information Systems Acquisition' course.

Requirement. Perform the requirements of the 'Basic Information Systems Acquisition' course. (Course Number: IRM 101)

Performance Standard. Obtain completion certificate.

Instructor. Web-based/DAU

Prerequisite. 6401

Reference.
1. https://www.dau.edu/training

OLT-6413 18.0 * B (N) G

Goal. Complete BCF 102 'Fundamentals of Earned Value Management' course.

Requirement. Perform the requirements of the 'Fundamentals of Earned Value Management' course.

Performance Standard. Obtain completion certificate.

Instructor. Web-based/DAU

Prerequisite. 6401

Reference.
1. https://www.dau.edu/training

OLT-6414 2.0 * B (N) G

Goal. Complete 'Lean Six Sigma White Belt' course.

Requirement. Perform the requirements of the 'Lean Six Sigma White Belt' course. (Course Number: NETC-LSSWB-1.0)

Performance Standard. Obtain completion certificate.

Instructor. Web Based/NKO

Prerequisite. None.

Reference.
1. https://www.lms.prod.nel.training.navy.mil/Atlas2/faces/page/desktop/DesktopHome.seam?tabId=1&cid=tab_1#

OLT-6415 8.0 * B (N) G

Goal. Complete 'Lean Six Sigma Yellow Belt' course.

Requirement. Perform the requirements of the 'Lean Six Sigma Yellow Belt' course.

Performance Standard. Obtain completion certificate.

Instructor. SI

Prerequisite. 6414

References.
1. United Stated Marine Corps Continuous Process Improvement (CPI) Guidebook
2. COMNAVAIRFORINST 4790.2A (NAMP)
3. DoD Directive 5010.42
4. DoD Instruction 5010.43
5. DoD CPI Transformation Guidebook
6. SECNAVINST 5220.13

7. SECNAVINST 5220.14
8. SECNAV M-5214.1
9. MCO 3710.7 USMC Current Readiness Guidebook
10. MCO 4400.177F (ASDTP W/CPI)
11. MCO 5220.12 Marine Corps CPI
12. NAE AIRSpeed Green Belt Guidebook

OLT-6416 35.0 * B (N) G

Goal. Complete 'SYS 101 Fundamentals of Systems Planning, Research, Development, and Engineering' course.

Requirement. Perform the requirements of the 'Fundamentals of Systems Planning, Research, Development, and Engineering' course. (Course Number: SYS 101)

Performance Standard. Obtain completion certificate.

Instructor. Web-based/DAU

Prerequisite. 6401

Reference.
1. https://www.dau.edu/training

OLT-6417 4.0 * B (N) G

Goal. Complete 'CLB 007 Cost Analysis' course.

Requirement. Perform the requirements of the 'Cost Analysis' course. (Course Number: CLB 007)

Performance Standard. Obtain completion certificate.

Instructor. Web-based/DAU

Prerequisite. None.

Reference.
1. https://www.dau.edu/training

OLT-6418 1.0 * B (N) G

Goal. Complete CLV 016 Introduction to Earned Value Management course.

Requirement. Perform the requirements of the 'Introduction to Earned Value Management' course.

Performance Standard. Obtain completion certificate.

Instructor. Web-based/DAU

Prerequisite. None.

Reference.
1. https://www.dau.edu/training

OLT-6419 25.0 * B (N) G

Goal. Complete 'ACQ 201A Intermediate Systems Acquisition, Part A' course.

Requirement. Perform the requirements of the 'Intermediate Systems Acquisition, Part A' course. (Course Number: ACQ 201A)

Performance Standard. Obtain completion certificate.

Instructor. Web-based/DAU

Prerequisite. None.

Reference.
1. https://www.dau.edu/training

OLT-6420 32.0 * B (N) G

Goal. Complete 'Joint METOC Officer' resident course.

Requirement. Complete the course requirements in accordance with the established POI.

Performance Standard. Obtain completion certificate.

Instructor. FLC Instructor

Prerequisite. None.

Reference.
1. JP 3-59

OLT-6421 1.0 * B (N) G

Goal. Complete 'General Admin Naval Messages' course.

Requirement. Perform the requirements of the 'General Admin Naval Messages' course. (Course Number: CID 002GN01)

Performance Standard. Complete the course.

Instructor. Web Based/NKO

Prerequisite. None.

Reference.
1. https://www.lms.prod.nel.training.navy.mil/Atlas2/faces/page/desktop/DesktopHome.seam?tabId=1&cid=tab_1#

OLT-6422 5.0 * B (N) G

Goal. Complete 'Department of the Navy, Office of Budget: Fiscal Law Refresher Training' course.

Requirement. Perform the course requirements of the 'Department of the Navy, Office of Budget: Fiscal Law Refresher Training' course.

Performance Standard. Complete the course.

Instructor. Web-based/Department of the Navy, Office of Budget, Distance Learning

Prerequisite. None.

Reference.
1. https://fmbweb1.nmci.navy.mil/policy/fiscal_law/index.htm

ADVANCED TRAINING TRACKING CODES

3.9.1 Purpose. Advanced Training Tracking Codes are tracked here.

3.9.2 General.

Admin Notes. The following stage is included in this section:
1. METOC Doctrine (MDN).

Prerequisites. None.

Stages. None.

MDN-4200 1.0 * B (N) G

Goal. Describe the key concepts of interagency operations.

Requirement. Conduct a self-paced reading of the references, then without the aid of reference, perform the following:

1. Summarize joint operations in CONUS in support of homeland defense or civil support (HD/CS) missions.
2. Explain the differences in relationship between the JMO and Title 10, Title 32, and state National Guard forces in the joint operations area.
3. Explain how a JTF in CONUS acts in a supporting relationship to the primary federal agency and other federal agencies.

Performance Standard. Complete all the requirement items IAW the references. Instructor will discuss each item with the trainee. Minor errors are allowed as long as the trainee self corrects.

Instructor. SI

Prerequisite. None.

References.
1. CJCSI 3810.01_
2. JP 3-28
3. JP 3-59
4. National Security Strategy
5. National Strategy for Homeland Security

6. National Response Framework
7. National Incident Management System

3.12 MISSION ESSENTIAL TASK (MET) PHASE (7000)

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

3.12.2 General.

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

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

Stages. The following stage is included in the Mission Essential Task (MET) Phase of training.

PAR NO.	STAGE NAME	PAGE NUMBER
3.12.3	CONDITION (COND)	3-39

3.12.3 CONDITION (COND) STAGE

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

3.12.3.2 General.

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

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

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

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

COND-7800 80.0 545 B, R, M (N) L/S

Goal. Conduct Meteorology and Oceanography (METOC) Support (Intel).

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

1. Conduct Mission Analysis.
2. Review Operational Planning Documents.

3. Identify required support personnel.
4. Identify Administrative (ADCON) and Tactical Control (TACON).
5. Identify equipment requirements.
6. Conduct a site survey.
7. Identify, create, and finalize administrative documents supporting the operation.
8. Coordinate with external agencies.
9. Conduct embarkation, and retrograde of personnel and equipment.
10. Maintain accountability of personnel.
11. Conduct METOC support operations.
12. Conduct crew evaluations.
13. Compile After-Action items.

Performance Standard. Perform the requirement items listed and conduct METOC support operations during a real world operation or training exercise.

Instructor. WTI

Prerequisite. (3) Intel CMMR METOC Crews

Range. Range space capable of supporting METOC equipment.

External Syllabus Support. Representatives from the S-1, S-3, S-4, S-6. Live execution will require specific T/M/S aviation assets or a specific unit to be supported.

References.
1. JP 3-9
2. MCRP 2-10B.6, METOC Operations
3. Unit SOP
4. CJCSM 3825.01 Joint METOC Manual

COND-7801 80.0 545 B, R, M (N) L/S

Goal. Conduct METOC Support Team (MST) Services (Intel).

Requirement. Given the references, a Table of Equipment (T/E) and/or Equipment Density List (EDL), Commander's guidance, and an operation plan's initiating order, employ a MST during day or night conditions to include the following:

1. Conduct Problem Framing.
2. Review Operational Planning Documents.
3. Identify personnel and equipment requirements.
4. Conduct a site survey (as required).
5. Coordinate with external agencies.
6. Identify, create and finalize administrative documents supporting the operations.
7. Brief supported personnel (as required).
8. Inspect MST personnel and equipment to be deployed.
9. Coordinate arrival into the landing area appropriate to the plan.
10. Maintain accountability of personnel.
11. Upon arrival at a site, take a weather observation to establish LZ heading.
12. Within one hour of arrival at the site, setup appropriate weather sensing equipment, establishing winds temperature, dew point and pressure capability.
13. Within 1.5 hours of arrival at the site, establish appropriate enhanced weather sensing equipment (if applicable). Enhancements include visibility, present weather, ceilometer and lightening detector.
14. Provide timely coordination with refueling and/or arming personnel for warnings, watches and

advisories.
15. As appropriate to the plan, retrograde from the landing zone with the last available transportation.
16. Conduct crew evaluations.
17. Compile After-Action items.

Performance Standard. Perform the requirement items listed and conduct METOC support operations during a real world operation or training exercise.

Instructor. WTI

Prerequisite. (2) CMMR METOC crews

Range. Range space capable of supporting METOC equipment.

External Syllabus Support. Detachment Commander and representatives from the S-1, S-2, S-3, S-4, S-6. Live execution will require specific T/M/S aviation assets or a specific unit to be supported.

References.
1. JP 3-59
2. MCRP 2-10B.6
3. Squadron SOP
4. CJCSM 3825.01 Joint METOC Manual

COND-7802 80.0 545 B, R, M (N) L/S

Goal. Provide Meteorological Services (IS).

Requirement. Given the references, a Table of Equipment (T/E) and/or Equipment Density List (EDL), Commander's guidance, provide meteorological services to include the following:

1. Identify required support personnel.
2. Identify required equipment.
3. Identify, create, and finalize administrative documents supporting airfield operations.
4. Coordinate with external agencies.
5. Provide augmentation of the Automated Surface Observation System (ASOS).
6. Provide meteorological services.
7. Conduct watch turnover briefs to maintain environmental situational awareness.
8. Conduct crew evaluations.

Performance Standard. Perform the requirement items listed and provide meteorological services to airfield operations.

Instructor. WTI

Prerequisite. (4) CMMR METOC crews

Range. Range space capable of supporting METOC equipment.

External Syllabus Support. Airfield Operations Officer and representatives from the S-1, S-2, S-3, S-4, S-6. Live execution will require specific T/M/S aviation assets or a specific unit to be supported.

References.
1. JP 3-59
2. MCRP 2-10B.6
3. Unit SOP

4. CJCSM 3825.01 Joint METOC Manual

COND-7803 80.0 545 B, R, M (N) L/S

Goal. Provide Meteorological/Oceanographic (METOC) Services (C2).

Requirement. Given the references, a Table of Equipment (T/E) and/or Equipment Density List (EDL), Commander's guidance, and an operation plan's initiating order, provide meteorological services to include the following:

1. Conduct Mission Analysis.
2. Review Operational Planning Documents.
3. Identify required support personnel.
4. Identify Administrative (ADCON) and Tactical Control (TACON).
5. Identify equipment requirements.
6. Conduct a site survey
7. Identify, create, and finalize administrative documents supporting the operation to include input to the Annexes H, B, and K.
8. Coordinate with external agencies to include communications, heavy equipment, supply, utilities, and Key Management Infrastructure (KMI) personnel.
9. Conduct embarkation, and retrograde of personnel and equipment.
10. Maintain accountability of personnel.
11. Establish appropriate level II security measures.
12. Within 1 hour of arrival at the site, setup the AN/TMQ-56's Local Sensor Subsystem (LSS), the Meteorological Satellite Subsystem (MSS), and take surface observation.
13. Within 3 hours of arrival at the site, setup the AN/TMQ-56's Meteorological Radar Subsystem (MRS), Upper Air Subsystem (UAS), Processing Subsystem (PCS) and the Communication Subsystem (CMS). In addition to the above listed items.
14. Provide METOC services as outlined in the Annex H.
15. Conduct corrective and preventive maintenance as mandated.
16. Conduct crew evaluations.
17. Compile After-Action items.

Performance Standard. Perform the requirement items listed and conduct METOC support operations during a real world operation or training exercise.

Instructor. WTI

Prerequisite. (2) CMMR METOC crews

Range. Range space capable of supporting METOC equipment and weather balloon launch.

External Syllabus Support. Detachment Commander and representatives from the S-1, S-2, S-3, S-4, S-6. Live execution will require specific T/M/S aviation assets or a specific unit to be supported.

References.
1. JP 3-59
2. MCRP 2-10B.6
3. Unit SOP
4. CJCSM 3825.01 Joint METOC Manual

COND-7804 80.0 545 B, R, M (N) L/S

Goal. Conduct METOC Support Team (MST) Services (C2).

Requirement. Given the references, a Table of Equipment (T/E) and/or Equipment Density List (EDL), Commander's guidance, and an operation plan's initiating order, employ a MST during day or night conditions to include the following:

1. Conduct Problem Framing.
2. Review Operational Planning Documents.
3. Identify personnel and equipment requirements.
4. Conduct an RSOP (as required).
5. Coordinate with external agencies.
6. Identify, create and finalize administrative documents supporting the operations.
7. Brief supported personnel (as required).
8. Inspect MST personnel and equipment to be deployed.
9. Coordinate arrival into the landing area appropriate to the plan.
10. Maintain accountability of personnel.
11. Upon arrival at a site, take a weather observation to establish LZ heading.
12. Within one hour of arrival at the site, setup appropriate weather sensing equipment, establishing winds temperature, dewpoint and pressure capability.
13. Within 1.5 hours of arrival at the site, establish appropriate enhanced weather sensing equipment (if applicable). Enhancements include visibility, present weather, ceilometer and lightening detector.
14. Provide timely coordination with refueling and/or arming personnel for warnings, watches and advisories.
15. As appropriate to the plan, retrograde from the landing zone with the last available transportation.
16. Conduct crew evaluations.
17. Compile After-Action items.

Performance Standard. Perform the requirement items listed and conduct METOC support operations during a real world operation or training exercise.

Instructor. WTI

Prerequisite. (2) CMMR METOC crews

Range. Range space capable of supporting METOC equipment and weather balloon launch.

External Syllabus Support. Detachment Commander and representatives from the S-1, S-2, S-3, S-4, S-6. Live execution will require specific T/M/S aviation assets or a specific unit to be supported.

References.
1. JP 3-59
2. MCRP 2-10B.6
3. Squadron SOP
4. CJCSM 3825.01 Joint METOC Manual

3.13 AVIATION CAREER PROGRESSION MODEL (8000)

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

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

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

Refer to the MAWTS-1 ACPM link for the current ACPM program of instruction: https://vcepub.tecom.usmc.mil/sites/msc/magtftc/mawts1/Aviation%20Career%20Progression%20Model/Forms/All Items.aspx

Completed events shall be manually logged and tracked in M-SHARP.

ACPM academic events, along with their identifying prerequisite association with other training phases/stages/events, are listed below.

ACPM-8000 1.0 * B (N) G

Goal. Describe the MACCS stage.

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

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

Instructor. SI.

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

Reference. C3 Course Catalog.

ACPM-8001 4.0 * B (N) G

Goal. Describe the Marine Air Command and Control System (MACCS).

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

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

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

Instructor. BI.

Prerequisite. None.

References.
1. MAWTS-1 MACCS Agencies, Functions and the Control of Aircraft and Missiles Class
2. MCTP 3-20F Control of Aircraft and Missiles

ACPM-8002 4.0 * B (N) G

Goal. Describe the Tactical Air Command Center (TACC).

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

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

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

Instructor. BI.

Prerequisite. None.

References.
1. MAWTS-1 TACC Class
2. MCRP 3-20F.4 Marine TACC Handbook

ACPM-8003 4.0 * B (N) G

Goal. Describe the Direct Air Support Center (DASC).

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

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

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

Instructor. BI.

Prerequisite. None.

References.
1. MAWTS-1 DASC Class
2. MCRP 3-20F.5 DASC Handbook

ACPM-8004 4.0 * B (N) G

Goal. Describe the Tactical Air Operations Center (TAOC).

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

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

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

Instructor. BI.

Prerequisite. None.

References.
1. MAWTS-1 TAOC Class
2. MCRP 3-20F.6 TAOC Handbook

ACPM-8005 4.0 * B (N) G

Goal. Describe the Marine Air Traffic Control (MATC).

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

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

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

Instructor. BI.

Prerequisite. None.

References.
1. MAWTS-1 MATC Employment Class
2. MCTP 3-20F
3. MCRP 3-20F.7 Marine Air Traffic Control Detachment Handbook

ACPM-8006 4.0 * B (N) G

Goal. Describe the Low Altitude Air Defense (LAAD).

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

following learning objectives:

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

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

Instructor. BI.

Prerequisite. None.

References.
1. MAWTS-1 LAAD Employment Class
2. MCRP 3-20F.8 LAAD Battalion Handbook
3. MCRP 3-20F.9 LAAD Gunner's Handbook

ACPM-8008 4.0 * B (N) G

Goal. Describe the Marine Wing Communications Squadron (MWCS).

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

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

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

Instructor. BI

Prerequisite. None.

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

ACPM-8020 1.0 * B (N) G

Goal. Describe the ACE stage of the MACCS ACPM.

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

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

Instructor. BI.

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

Reference.
1. C3 Course Catalog.

ACPM-8021 4.0 * B (N) G

Goal. Describe the USMC aviation operations doctrine.

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

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

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

Instructor. BI.

Prerequisite. None.

Reference.
1. MCWP 3-2 Aviation Operations

ACPM-8022 4.0 * B (N) G

Goal. Describe the USMC doctrine for the control of aircraft and missiles.

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

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

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

Instructor. BI.

Prerequisite. None.

References.
1. MAWTS-1 Control of Aircraft and Missiles Class
2. MCTP 3-20F Control of Aircraft and Missiles

ACPM-8023 4.0 * B (N) G

Goal. Describe the USMC Offensive Air Support (OAS) doctrine.

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

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

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

Instructor. BI.

Prerequisite. None.

References.
1. MAWTS-1 OAS Class
2. MCTP 3-20D Offensive Air Support

ACPM-8024 4.0 * B (N) G

Goal. Describe the USMC Assault Support doctrine.

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

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

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

Instructor. BI.

Prerequisite. None.

References.
1. MAWTS-1 Assault Support Class
2. MCTP 3-20E Assault Support

ACPM-8025 4.0 * B (N) G

Goal. Describe the USMC Air Reconnaissance doctrine.

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

1. Identify the three categories of air reconnaissance.
2. Identify the four principals of air reconnaissance.
3. Identify the five prerequisites for effective air reconnaissance.

4. Identify the current USMC aircraft that have the mission of air reconnaissance.
5. Identify the form used to request air reconnaissance.
6. Identify the five supporting operations for effective air reconnaissance.
7. Identify the capabilities and limitations of air reconnaissance.

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

Instructor. BI.

Prerequisite. None.

Reference.
1. MCTP 3-20G Air Reconnaissance

ACPM-8026 4.0 * B (N) G

Goal. Describe the USMC Electronic Warfare (EW) doctrine.

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

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

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

Instructor. BI.

Prerequisite. None.

References.
1. MCRP 3-32D.1 Electronic Warfare

ACPM-8027 4.0 * B (N) G

Goal. Describe the USMC Antiair Warfare (AAW) doctrine.

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

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

Defense Commander (SADC).

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

Instructor. BI.

Prerequisite. None.

Reference.
1. MCTP 3-20C Anti-air Warfare

ACPM-8028 4.0 * B (N) G

Goal. Describe the USMC Ground Support (AGS) doctrine.

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

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

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

Instructor. BI.

Prerequisite. None.

References.
1. MAWTS-1 AGS Class
2. MCTP 3-20B Aviation Ground Support

ACPM-8040 1.0 * B (N) G

Goal. Describe the Threat stage of the MACCS ACPM

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

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

Instructor. SI.

Prerequisite. 8041, 8042, 8043, 8044.

Reference.
1. C3 Course Catalog.

ACPM-8041 4.0 * B (N) G

Goal. Describe the surface-to-antiair threat to the MAGTF.

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

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

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

Instructor. BI.

Prerequisite. None.

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

ACPM-8042 4.0 * B (N) G

Goal. Describe the fixed wing threat to the MAGTF.

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

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

11. Identify the role of the Tu-160 Blackjack.
12. Identify the role of the J-7 Fishbed.
13. Identify the role of the JH-7 Flounder.
14. Identify the role of the J-8 Finback.
15. Identify the role of the J-10 Firebird.
16. Identify the role of the H-6 Badger.

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

Instructor. BI.

Prerequisite. None.

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

ACPM-8043 4.0 * B (N) G

Goal. Describe the rotary wing threat to the MAGTF.

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

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

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

Instructor. BI.

Prerequisite. None.

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

ACPM-8044 4.0 * B (N) G

Goal. Describe the missile and Unmanned Aircraft System (UAS) threat to the MAGTF.

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

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

b. SCUD-B
c. SCUD-C
d. Nodong 1
e. C 801
f. C 802

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

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

Instructor. BI.

Prerequisite. None.

References.
1. MAWTS-1 Marine Aviation Intelligence Reference
https://vcepub.tecom.usmc.mil/sites/msc/magtftc/mawts1/departments1/newc3/default.aspx
2. Marine Corps Intelligence Activity Iran Country Handbook (appendix A)
3. Marine Corps Intelligence Activity North Korea Country Handbook (page 86)
4. Marine Corps Intelligence Activity China Country Handbook (appendix A)
https://www.intelink.gov/mcia/handbook.htm
5. MCIA UAV Recognition Guide https://www.intelink.gov/mcia/index.htm

ACPM-8060 1.0 * B (N) G

Goal. Describe the MAGTF stage of the MACCS ACPM.

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

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

Instructor. SI.

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

References. C3 Course Catalog.

ACPM-8061 4.0 * B (N) G

Goal. Describe the MAGTF ground combat operations.

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

1. Identify how the Ground Combat Element (GCE) is employed as part of the MAGTF and the capabilities the GCE provides to the MAGTF commander
2. Define the following items related to command and control of ground combat operations:
a. Echelons of the GCE headquarters
b. Battlespace Organization

c. Battlespace Framework
3. Define the five types of amphibious operations.
4. Identify the following items related to offensive operations:
   a. Types of offensive operations
   b. Types of attack
   c. Forms of maneuver
   d. Distribution of forces
5. Identify the following items related to defensive operations:
   a. Organization of the defense
   b. Distribution of forces
   c. Types of defensive operations
   d. Defensive methods

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

Instructor. BI.

Prerequisite. None.

Reference.
1. MCDP 1-0 Marine Corps Operations

ACPM-8062 4.0 * B (N) G

Goal. Describe the fire support coordination in the Ground Combat Element (GCE).

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

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

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

Instructor. BI.

Prerequisite. None.

References.
1. MAWTS-1 MAGTF Targeting and Fire Support Planning Class
2. MCTP 3-10F Fire Support Coordination in the GCE

ACPM-8063 4.0 * B (N) G

Goal. Describe the MAGTF command and control.

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

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

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

Instructor. BI.

Prerequisite. None.

Reference.
1. MCWP 3-30 MAGTF Command and Control

ACPM-8064 4.0 * B (N) G

Goal. Describe MAGTF communications.

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

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

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

Instructor. BI.

Prerequisite. None.

Reference.
1. MCRP 3-30B.2 MAGTF Communications System

ACPM-8065 4.0 * B (N) G

Goal. Describe phasing control ashore.

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

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

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

Instructor. BI.

Prerequisite. None.

References.
1. JP 3-02 Amphibious Operations
2. MCTP 3-20F Control of Aircraft and Missiles (Appendix C)

ACPM-8066 4.0 * B (N) G

Goal. Describe information management.

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

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

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

Instructor. BI.

Prerequisite. None.

Reference.
1. MCTP 3-30B Information Management

ACPM-8067 4.0 * B (N) G

Goal. Describe Unmanned Aircraft Systems in support of MAGTF operations.

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

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

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

Instructor. BI.

Prerequisite. None.

References.
1. MCRP 3-42.1A
2. NTTP 3-22.3-VMU

ACPM-8080 1.0 * B (N) G

Goal. Describe the MAGTF stage of the joint air operations stage of the MACCS ACPM.

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

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

Instructor. SI.

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

Reference.
1. C3 Course Catalog.

ACPM-8081 4.0 * B (N) G

Goal. Describe the command and control of joint air operations.

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

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

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

Instructor. BI.

Prerequisite. None.

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

ACPM-8082 4.0 * B (N) G

Goal. Describe theater air ground system (TAGS).

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

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

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

Instructor. BI.

Prerequisite. None.

Reference.
1. MCRP 3-20.1 Multi-Service Tactics, Techniques, and Procedures for the Theater Air-Ground System

ACPM-8083 4.0 * B (N) G

Goal. Describe joint fire support doctrine.

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

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

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

Instructor. BI.

Prerequisite. None.

Reference.
1. JP 3-09 Joint Fire Support

ACPM-8084 4.0 * B (N) G

Goal. Describe close air support (CAS) doctrine.

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

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

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

Instructor. BI.

Prerequisite. None.

References.
1. JP 3-09.3 Close Air Support

ACPM-8085 4.0 * B (N) G

Goal. Describe the joint targeting doctrine.

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

1. Identify types of targets.
2. Identify and describe the six phases of the joint targeting cycle.
3. Identify characteristics of a target.
4. Identify and describe steps in dynamic targeting.

5. Describe roles and responsibilities related to the joint targeting process.
6. Describe key products and processes of the joint targeting cycle.
7. Identify key terms related to the joint targeting process.

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

Instructor. BI.

Prerequisite. None.

References.
1. JP 3-60 Joint Targeting

ACPM-8086 4.0 * B (N) G

Goal. Describe the North Atlantic Treaty Organization (NATO).

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

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

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

Instructor. BI.

Prerequisite. None.

References.
1. MAWTS-1 NATO Class
2. North Atlantic Treaty Organization Handbook
3. "What is NATO" Brief (http://www.nato.int/welcome/intro_to_NATO_en.ppt)
4. AJP-01(D)

ACPM-8087 4.0 * B (N) G

Goal. Describe the joint airspace control doctrine.

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

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

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

Instructor. BI.

Prerequisite. None.

References.
1. JP 3-30 C2 of Joint Air Operations
2. JP 3-52 Joint Airspace Control

ACPM-8088 4.0 * B (N) G

Goal. Describe the joint doctrine for countering air and missile threats.

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

1. Identify the purposes of counter air missions (offensive and defensive).
2. Identify roles and responsibilities related to counter air missions.
3. Identify key considerations for the planning of offensive counter air operations.
4. Identify key considerations for the planning of defensive counter air operations.
5. Identify key principles and consideration related to the command and control of counter air operations

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

Instructor. BI.

Prerequisite. None.

Reference.
1. JP 3-01 Countering Air and Missile Threats

3.14 SYLLABUS MATRIX

6802 T&R SYLLABUS MATRIX											
STAGE	CODE	TITLE	POI	DEVICE	COND	REFLY	TIME	PREREQ	MIRROR	CHAIN	EVENT CONV
CORE SKILL TRAINING											
FAMILIARIZATION (FAM)											
FAM	2352	Describe local area policies and procedures	B	G	(N)	*	2	*	*	*	*
TOTAL HOURS FAMILIARIZATION (FAM)							2				
TOTAL HOURS CORE SKILL TRAINING							2				
MISSION SKILL TRAINING											
MANAGEMENT (MGT)											
MGT	3450	Deploy a METOC section in support of unit operations	B,R,M	L	(N)	365	24	2352, 3500	*	*	*
MGT	3451	Manage METOC Operations in support of unit exercise or deployment (change to mission)	B,R,M	L	(N)	365	12	*	*	*	*
TOTAL HOURS MANAGEMENT (MGT)							36				
METOC PLANNING AND COORDINATION (MPC)											
MPC	3500	Submit input to annexes of operational orders	B,R,M	L/S	(N)	180	8	*	*	*	*
TOTAL HOURS METOC PLANNING AND COORDINATION (MPC)							8				
TOTAL HOURS MISSION SKILL TRAINING							16				
INSTRUCTOR TRAINING											
INSTRUCTOR UNDER TRAINING (IUT)											
IUT	5000	Introduce principles of instruction	B	L	(N)	*	2	*	*	*	*
IUT	5010	Describe individual T&R requirements	B	L	(N)	*	2	*	*	*	*
IUT	5020	Conduct T&R instruction	B,R,M	L	(N)	90	12	5010	*	*	*

6802 T&R SYLLABUS MATRIX											
STAGE	CODE	TITLE	POI	DEVICE	COND	REFLY	TIME	PREREQ	MIRROR	CHAIN	EVENT CONV
IUT	5100	Describe the Aviation Training and Readiness (T&R) Program	B	L	(N)	*	2	6320	*	*	*
IUT	5110	Conduct instructor evaluations	B,R,M	L	(N)	365	4	5100	*	*	*
IUT	5120	Perform T&R administration	B	L	(N)	*	2	5110	*	*	*
IUT	5130	Develop a training plan	B	L	(N)	*	2	5120	*	*	*
TOTAL HOURS INSTRUCTOR UNDER TRAINING (IUT)							26				
TOTAL HOURS INSTRUCTOR TRAINING											
CERTIFICATIONS, QUALIFICATIONS, AND DESIGNATIONS (C,Q,D) (6000 PHASE)											
DESIGNATIONS (DESG)											
DESG	6310	Designation as a Journeyman METOC Officer (JMO)	B	G	(N)	*	1	3450, 3451, 6321, 8000, 8001, 8002, 8003, 8004, 8005, 8006, 8007, 8008, 8020, 8021, 8022, 8023, 8024, 8025, 8026, 8027, 8028, 8040, 8041, 8042, 8043, 8044, 8060, 8061, 8062, 8063, 8064, 8065, 8066, 8067, 8080, 8081, 8082, 8083, 8084, 8085, 8086, 8087, 8088	*	*	*
DESG	6311	Designation as a Master METOC Officer (MMO)	B	G	(N)	*	1	6400, 6401, 6402, 6000, 6310	*	*	*
DESG	6320	Designation as a Basic Instructor (BI)	B	G	(N)	*	1	5020	*	*	*
DESG	6321	Designation as a Senior Instructor (SI)	B	G	(N)	*	1	5130, 6320	*	*	*
DESG	6322	Designation as Weapons and Tactics Instructor (WTI)	B	G	(N)	*	1	6000	*	*	*
DESG	6330	Designation as Formal Learning Center (FLC) Instructor.	B	G	(N)	*	1	6096	*	*	*
TOTAL HOURS DESIGNATIONS (DESG)							6				
SCHOOL CODES (SCHL)											
SCHL	6000	Complete the Weapons and Tactics Instructors (WTI) Course	B	G	(N)	*	1	*	*	*	*
SCHL	6096	Respective instructor development course	B	G	(N)	*	1	*	*	*	*

6802 T&R SYLLABUS MATRIX											
STAGE	CODE	TITLE	POI	DEVICE	COND	REFLY	TIME	PREREQ	MIRROR	CHAIN	EVENT CONV
TOTAL HOURS SCHOOL CODES (SCHL)							1				
ONLINE TRAINING (OLT)											
OLT	6400	CLR 101 Introduction to Joint Capabilities Integration and Development System (JCIDS) course	B	G	(N)	*	3.5	*	*	*	2105
OLT	6401	ACQ 101 Fundamentals of Systems Acquisition Management course	B	G	(N)	*	25.5	*	*	*	2106
OLT	6402	RQM 110 Core Concepts for Requirements Management course	B	G	(N)	*	35	*	*	*	3029
OLT	6403	Senior METOC Officer Afloat (SMOA) Course	B	G	(N)	*	16	*	*	*	*
OLT	6404	RQM 310, Advanced Concepts for Requirements Management course	B	G	(N)	*	36	6400, 6402	*	*	*
OLT	6405	ACQ 201B Intermediate Systems Acquisition, Part B course	B	G	(N)	*	36	6401, 6419	*	*	*
OLT	6406	PMT 251 Program Management Tools Course, Part I	B	G	(N)	*	30	6405	*	*	*
OLT	6047	PMT 257 Program Management Tools Course, Part II	B	G	(N)	*	36	6406	*	*	*
OLT	6408	CON 121 Contract Planning course	B	G	(N)	*	12	*	*	*	*
OLT	6409	CON 124 Contract Execution course	B	G	(N)	*	13	6408	*	*	*
OLT	6410	CON 127 Contract Management course	B	G	(N)	*	10	6409	*	*	*
OLT	6410	EVM 101 Fundamentals of Earned Value Management course	B	G	(N)	*	18	6401	*	*	*
OLT	6412	IRM 101 Basic Information Systems Acquisition course	B	G	(N)	*	34	6401	*	*	*
OLT	6413	EVM 101 or BCF 102 Fundamentals of Earned Value Management course	B	G	(N)	*	18	6401	*	*	*
OLT	6414	Lean Six Sigma White Belt course	B	G	(N)	*	2	*	*	*	*

6802 T&R SYLLABUS MATRIX											
STAGE	CODE	TITLE	POI	DEVICE	COND	REFLY	TIME	PREREQ	MIRROR	CHAIN	EVENT CONV
OLT	6415	Lean Six Sigma Yellow Belt course	B	G	(N)	*	8	6414	*	*	*
OLT	6416	SYS 101 Fundamentals of Systems Planning, Research, Development, and Engineering course	B	G	(N)	*	35	6401	*	*	*
OLT	6417	CLB 007 Cost Analysis course	B	G	(N)	*	4	*	*	*	*
OLT	6418	CLV 016 or CLB 016 Introduction to Earned Value Management course	B	G	(N)	*	1	*	*	*	*
OLT	6419	ACQ 201A Intermediate Systems Acquisition, Part A course	B	G	(N)	*	25	*	*	*	*
OLT	6420	Joint METOC Officer resident course	B	G	(N)	*	32	*	*	*	*
OLT	6421	General Admin Naval Messages course	B	G	(N)	*	1	*	*	*	2108
OLT	6422	Department of the Navy, Office of Budget: Fiscal Law Refresher Training course	B	G	(N)	*	5	*	*	*	2109
TOTAL HOURS ONLINE TRAINING (OLT)							436				
METOC DOCTRINE (MDN)											
MDN	6450	Describe the key concepts of interagency operations	B	G	(N)	*	1	*	*	*	4200
TOTAL HOURS METOC DOCTRINE (MDN)							1				
TOTAL HOURS C, Q, D, (6000 PHASE)							437				
MISSION ESSENTIAL TASK (MET)											
CONDITION (COND)											
COND	7800	Conduct Meteorology and Oceanography (METOC) Support (Intel)	B,R,M	L/S	(N)	545	80	(3) Intel CMMR METOC crews	*	*	*
COND	7801	Conduct METOC Support Team (MST) Services (Intel)	B,R,M	L/S	(N)	545	80	(2) CMMR METOC crew	*	*	*
COND	7802	Provide Meteorological Services (IS)	B,R,M	L/S	(N)	545	80	(4) CMMR METOC crews	*	*	*

6802 T&R SYLLABUS MATRIX											
STAGE	CODE	TITLE	POI	DEVICE	COND	REFLY	TIME	PREREQ	MIRROR	CHAIN	EVENT CONV
COND	7803	Provide Meteorological/Oceanographic (METOC) Services(C2)	B,R,M	L/S	(N0	545	80	(2) CMMR METOC crews	*	*	*
COND	7804	Conduct METOC Support Team (MST) Services (C2)	B,R,M	L/S	(N)	545	80	(2) CMMR METOC crews	*	*	*
TOTAL HOURS CONDITION (COND)							400				
TOTAL HOURS MISSION ESSENTIAL TASK							400				
AVIATION CAREER PROGRESSION MODEL (ACPM)											
AVIATION CAREER PROGRESSION MODEL (ACPM)											
ACPM	8000	MACCS	*	G	(N)	*	1	*	*	*	8000
ACPM	8001	Marine Air Command and Control System	*	G	(N)	*	4	*	*	*	8001
ACPM	8002	Tactical Air Command Center (TACC)	*	G	(N)	*	4	*	*	*	8002
ACPM	8003	Direct Air Support Center (DASC)	*	G	(N)	*	4	*	*	*	8003
ACPM	8004	Tactical Air Operations Center (TAOC)	*	G	(N)	*	4	*	*	*	8004
ACPM	8005	Marine Air Traffic Control (MATC)	*	G	(N)	*	4	*	*	*	8005

6802 T&R SYLLABUS MATRIX											
STAGE	CODE	TITLE	POI	DEVICE	COND	REFLY	TIME	PREREQ	MIRROR	CHAIN	EVENT CONV
ACPM	8006	Low Altitude Air Defense (LAAD)	*	G	(N)	*	4	*	*	*	8006
ACPM	8008	Marine Wing Communications Squadron (MWCS)	*	G	(N)	*	4	*	*	*	8008
ACPM	8020	ACE	*	G	(N)	*	1	*	*	*	8020
ACPM	8021	Aviation Operations	*	G	(N)	*	4	*	*	*	8021
ACPM	8022	Control of Aircraft and Missiles	*	G	(N)	*	4	*	*	*	8022
ACPM	8023	Offensive Air Support (OAS)	*	G	(N)	*	4	*	*	*	8023
ACPM	8024	Assault Support (AS)	*	G	(N)	*	4	*	*	*	8024
ACPM	8025	Air Reconnaissance	*	G	(N)	*	4	*	*	*	8025
ACPM	8026	Electronic Warfare (EW)	*	G	(N)	*	1	*	*	*	8026

6802 T&R SYLLABUS MATRIX											
STAGE	CODE	TITLE	POI	DEVICE	COND	REFLY	TIME	PREREQ	MIRROR	CHAIN	EVENT CONV
ACPM	8027	Anti-Air Warfare (AAW)	*	G	(N)	*	4	*	*	*	8027
ACPM	8028	Aviation Ground Support	*	G	(N)	*	*	*	*	*	8028
ACPM	8040	Threat	*	G	(N)	*	1	8041, 8042, 8043, 8044	*	*	8040
ACPM	8041	Surface to Air threat to the MAGTF	*	G	(N)	*	4	*	*	*	8041
ACPM	8042	Fixed Wing threat to the MAGTF	*	G	(N)	*	4	*	*	*	8042
ACPM	8043	Rotary Wing threat to the MAGTF	*	G	(N)	*	4	*	*	*	8043
ACPM	8044	Missile and UAS threat to the MAGTF	*	G	(N)	*	4	*	*	*	8044
ACPM	8060	MAGTF	*	G	(N)	*	1	8061, 8062, 8063, 8064, 8065, 8066, 8067	*	*	8060
ACPM	8061	Ground Combat Operations	*	G	(N)	*	4	*	*	*	8061

6802 T&R SYLLABUS MATRIX											
STAGE	CODE	TITLE	POI	DEVICE	COND	REFLY	TIME	PREREQ	MIRROR	CHAIN	EVENT CONV
ACPM	8062	Fire Support Coordination in the GCE	*	G	(N)	*	4	*	*	*	8062
ACPM	8063	MAGTF Command and Control	*	G	(N)	*	4	*	*	*	8063
ACPM	8064	MAGTF Communications	*	G	(N)	*	4	*	*	*	8064
ACPM	8065	Phasing Control Ashore	*	G	(N)	*	4	*	*	*	8065
ACPM	8066	Information Management	*	G	(N)	*	4	*	*	*	8066
ACPM	8067	UAS support of the MAGTF	*	G	(N)	*	4	*	*	*	8067
ACPM	8080	Joint Air Operations	*	G	(N)	*	1	*	*	*	8080
ACPM	8081	Command and Control of Joint Air Operations	*	G	(N)	*	4	*	*	*	8081
ACPM	8082	Theater Air Ground System (TAGS)	*	G	(N)	*	4	*	*	*	8082

6802 T&R SYLLABUS MATRIX											
STAGE	CODE	TITLE	POI	DEVICE	COND	REFLY	TIME	PREREQ	MIRROR	CHAIN	EVENT CONV
ACPM	8083	Joint Fire Support	*	G	(N)	*	4	*	*	*	8083
ACPM	8084	Close Air Support (CAS)	*	G	(N)	*	4	*	*	*	8084
ACPM	8085	Joint Targeting	*	G	(N)	*	4	*	*	*	8085
ACPM	8086	North Atlantic Treaty Organization (NATO)	*	G	(N)	*	4	*	*	*	8086
ACPM	8087	Joint Airspace Control	*	G	(N)	*	4	*	*	*	8087
ACPM	8088	Countering Air and Missile Threats	*	G	(N)	*	4	*	*	*	8088
TOTAL HOURS AVIATION CAREER PROGRESSION (ACPM)							142				
TOTAL ACPM							142				