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From: Commandant of the Marine Corps
To: Distribution List

Subj: AH-1W TRAINING AND READINESS MANUAL

Ref: (a) NAVMC 3500.14D

Encl: (1) AH-1W T&R Manual

1. Purpose. In accordance with reference (a), enclosure (1) contains revised standards and regulations regarding training for AH-1W aircrew.

2. Cancellation. NAVMC 3500.49A.

3. Scope. Highlights of major training and readiness (T&R) planning considerations included in this AH-1W T&R Manual are as follows:

a. Updated all chapters to comply with reference (a).

b. Readiness metrics have been revised to align more closely with an update to the Marine Corps Readiness Reporting Order, Marine Corps Order 3000.13A.

c. Equipment standards for readiness have been changed from 70 percent full mission capable to 70 percent mission capable.

d. Emphasized the requirement for pilots to practice specific weapons delivery for rockets in all modes of delivery available.

e. Whenever possible, increased use of simulators and networked simulators has been exploited.

4. Information. Recommended changes to this Manual should be submitted via the syllabus sponsor and the appropriate chain of command to: Commanding General (CG), Training and Education

Command (TECOM), Marine Air-Ground Task Force Training and Education Standards Division (MTESD) (C 466), Aviation Standards Branch using standard Naval correspondence or the Automated Message Handling System plain language address: CG TECOM MTESD.

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

6. Certification. Reviewed and approved this date.

K. M. IIAMS
By direction

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CHAPTER 1

AH-1W

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CHAPTER 1

AH-1W

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 Tactical and Reserve Squadron. Support the MAGTF Commander by providing offensive air support, utility support, armed escort and airborne supporting arms coordination, day or night under all weather conditions during expeditionary, joint or combined operations.

1.1.2 Fleet Replacement Squadron. Conduct Core Introduction training for pilots in the AH-1W and provide technical training for aviation maintenance personnel.

1.2 TABLE OF ORGANIZATION (T/O). Refer to Table of Organization managed by Total Force Structure, MCCDC, for current authorized organizational structure and personnel strength for HMLA squadrons (AH-1W specific). As of this publication date, HMLA (AH-1W specific) squadrons are authorized:

1.2.1 Tactical and Reserve Squadrons

HMLA AH-1W				
TABLE OF ORGANIZATION T/O				
CATEGORY	**SQUADRON**	**SQUADRON(-)**	**DETACHMENT**	**DETACHMENT**
Aircraft	15	10	5	4
Pilots	36	24	12	9

1.2.2 HMLA AH-1W Tactical and Reserve Squadron Critical MOSs

AH-1W TACTICAL AND RESERVE SQUADRON CRITICAL MOSs			
MOS Description	PRIMARY MOS	Billet and/or MOS Description	SECONDARY MOS
Pilot	7565	Maintenance Control (Safe-for-flight)	6012
Aircraft Maintenance Chief	6019	Collateral Duty Inspector (CDI)	6016
Avionics Tech	6324	Collateral Duty QAR (CDQAR)	6017
Airframe Mechanic	6154	Quality Assurance Representative (QAR)	6018
Ordnance Technician	6531	WTI Pilot	7577
Helicopter Mechanic	6114	Forward Air Controller (Airborne) Instructor {FAC(A)I}	7544
Ordnance Chief	6591	Night Systems Instructor (NSI)	7547
*Critical MOS - Those specialties that directly affect the unit's ability to undertake its mission. Definition per MCO 3000.13A. MOS list provided by APP-81 (Readiness).			
MOS shortages shall be reported by the squadron (15 Aircraft) only via DRRS-MC (See MET Worksheets Appendix A).			
Note: Critical MOSs for Section Leader, Division Leader, Flight Leader, and Air Mission Commander are reported in DRRS-MC via the CMMR paragraph under Combat Leadership (Para 1.7).			

1.2.3 HMLAT-303 Fleet Replacement Squadron

HMLAT-303 AH-1W	
TABLE OF ORGANIZATION T/O	
CATEGORY	**SQUADRON**
Aircraft	18
Pilots	25

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.

HMLA AH-1W		
MISSION ESSENTIAL TASK LIST (METL)		
CORE		
MET	**SKILL ABBREVIATION**	**MCT DESCRIPTION**
MCT 1.3.3.3.2	**EXP**	Conduct Aviation Operations From Expeditionary Shore-Based Sites
MCT 3.2.3.1.1	**CAS**	Conduct Close Air Support
MCT 3.2.3.1.2.1	**AI**	Conduct Aerial Interdiction
MCT 3.2.3.1.2.2	**AR**	Conduct Armed Reconnaissance
MCT 3.2.3.1.2.3	**SCAR**	Conduct Strike Coordination and Reconnaissance
MCT 3.2.5.4	**FAC(A)**	Conduct Forward Air Control (Airborne)
MCT 6.2.1.1	**TRAP**	Conduct Aviation Support of Tactical Recovery of Aircraft and Personnel (TRAP)
MCT 6.1.1.11	**ESC**	Conduct Aerial Escort
CORE PLUS		
MET	**SKILL ABBREVIATION**	**MCT DESCRIPTION**
MCT 1.3.3.3.1	**CQ**	Conduct Aviation Operations From Expeditionary Sea-Based Sites
MCT 3.2.3.2	**OAAW**	Conduct Offensive Air to Air Warfare
MCT 6.1.1.8	**AAD**	Conduct Active Air Defense

1.4 MISSION ESSENTIAL TASK (MET) TO SIX FUNCTIONS OF MARINE AVIATION. As Aviation Ground units provide universal impact across all six functions of Marine Aviation, this table is optional for the Aviation Ground community.

HMLA AH-1W							
MISSION ESSENTIAL TASK (MET) TO SIX FUNCTIONS OF MARINE AVIATION							
CORE							
MET	**SKILL ABBREVIATION**	**SIX FUNCTIONS OF MARINE AVIATION**					
		OAS	**ASPT**	**AAW**	**EW**	**CoA&M**	**AerRec**
MCT 1.3.3.3.2	**EXP**	X		X			X
MCT 3.2.3.1.1	**CAS**	X					X
MCT 3.2.3.1.2.1	**AI**	X					
MCT 3.2.3.1.2.2	**AR**	X					X
MCT 3.2.3.1.2.3	**SCAR**	X					X
MCT 3.2.5.4	**FAC(A)**	X					X
MCT 6.2.1.1	**TRAP**	X					
MCT 6.1.1.11	**ESC**	X					
CORE PLUS							
MCT 1.3.3.3.1	**CQ**	X		X			X
MCT 3.2.3.2	**OAAW**			X			
MCT 6.1.1.8	**AAD**			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 shall be a one-to-one relationship between the MET and a corresponding Mission Skill.

HMLA AH-1W MET TO CORE/MISSION/CORE PLUS/MISSION PLUS SKILL MATRIX																								
MET	CORE SKILLS (2000 PHASE)							MISSION SKILLS (3000 PHASE)								CORE PLUS (4000 PHASE)								
																CORE PLUS SKILLS (4000-4499 PHASE)						MISSION PLUS SKILLS (4500-4999)		
	TERF	**TCT**	**REC**	**FCLP**	**SWD**	**ANSQ**	**FAM**	**EXP**	**CAS**	**AI**	**AR**	**SCAR**	**FAC(A)**	**TRAP**	**ESC**	**ESC**	**CAS**	**AR**	**AI**	**SCAR**	**CBRN**	**CQ**	**OAAW**	**AAD**
MCT 1.3.3.3.2 **EXP**						X	X	**X**													X			
MCT 3.2.3.1.1 **CAS**	X	X	X		X	X	X		**X**								X				X			
MCT 3.2.3.1.2.1 **AI**	X	X	X		X	X	X			**X**									X	X	X			
MCT 3.2.3.1.2.2 **AR**	X	X	X		X	X	X				**X**							X		X	X			
MCT 3.2.3.1.2.3 **SCAR**	X	X	X		X	X	X					**X**						X		X	X			
MCT 3.2.5.4 **FAC(A)**	X	X	X		X	X	X						**X**				X				X			
MCT 6.2.1.1 **TRAP**	X	X	X		X	X	X							**X**		X	X	X	X	X	X			
MCT 6.1.1.11 **ESC**	X	X	X		X	X	X								**X**	X					X			
CORE PLUS																								
MCT 1.3.3.3.1 **CQ**				X		X	X														X	**X**		
MCT 3.2.3.2 **OAAW**		X	X			X	X									X	X	X	X	X	X		**X**	
MCT 6.1.1.8 **AAD**	X	X	X		X	X	X														X			**X**

1.6 MISSION ESSENTIAL TASK (MET) OUTPUT STANDARDS. The following MET output standards are the required level of performance a HMLA (AH-1W) squadron/detachment must be capable of sustaining during contingency operations by MET to be considered MET-ready.

1.6.1 Output standards will be demonstrated through the incorporation of unit training Events.

1.6.2 A core capable HMLA (AH-1W) squadron/detachment is able to sustain the number of sorties listed below on a daily basis during contingency/combat operations. The sortie rates are based on 1.5 hour average sortie duration. It assumes >70% Mission Capable (MC) aircraft with the associated aircraft survivability equipment, mission systems and mission sets required to conduct the MET and >90% T/O aircrew on hand. If unit MC aircraft is <70% or T/O aircrew <90%, core capability will be degraded by a like percentage.

HMLA AH-1W									
MISSION ESSENTIAL TASK (MET) OUTPUT STANDARDS									
CORE									
MET	SKILL	OUTPUT STANDARDS BY TASK ORGANIZATION (NUMBER OF AIRCRAFT)							
		MAXIMUM MCT SORTIES PER MET				MAXIMUM DAILY SORTIES*			
		Squadron	Squadron(-)	Detachment	Detachment	Squadron	Squadron(-)	Detachment	Detachment
		15 A/C	10 A/C	5 A/C	4 A/C	15 A/C	10 A/C	5 A/C	4 A/C
MCT 1.3.3.3.2	EXP	20	14	6	4	20	14	6	4
MCT 3.2.3.1.1	CAS	20	14	6	4				
MCT 3.2.3.1.2.1	AI	20	14	6	4				
MCT 3.2.3.1.2.2	AR	20	14	6	4				
MCT 3.2.3.1.2.3	SCAR	20	14	6	4				
MCT 3.2.5.4	FAC(A)	10	7	3	2				
MCT 6.2.1.1	TRAP	20	14	6	4				
MCT 6.1.1.11	ESC	20	14	6	4				
MISSION PLUS									
MCT 1.3.3.3.1	CQ	20	14	6	4				
MCT 3.2.3.2	OAAW	10	6	4	4				
MCT 6.1.1.8	AAD	10	6	4	4				
* A 15/10/5/4 plane Mission Capable HMLA(AH-1W) Squadron/Squadron(-)/Detachment is able to execute 20/16/8/4 total overall sorties on a daily (24 hour period) basis during contingency/combat operations.									

1.7 CORE MODEL MINIMUM REQUIREMENT (CMMR) TRAINING STANDARDS FOR READINESS REPORTING (DRRS-MC). The paragraphs and tables below delineate the minimum crew proficiency, qualifications and designations required to execute the MET training standards and MET observed standards of para 1.6. MCO 3000.13 Readiness Reporting provides additional guidance and a detailed description of readiness reporting using DRRS-MC.

1.7.1 The CMMR Readiness Reporting Matrix depicts the minimum crew composition (defined as a combination of qualifications and designations) reflecting the number of crews required per MET and minimum Combat Leadership requirements for readiness reporting purposes. The number of crews formed using the below minimum standards per crew capture the readiness capability of a squadron to perform the MET sortie.

HMLA AH-1W							
CORE MODEL MINIMUM REQUIREMENT (CMMR) TRAINING STANDARDS FOR READINESS REPORTING (DRRS-MC)							
CORE MISSIONS							
MET	SKILL	PILOT AHC	COPILOT	Squadron	Squadron(-)	Detachment	Detachment
				15 A/C	10 A/C	5 A/C	4 A/C
MCT 1.3.3.3.2	EXP	MSP	ANSQ	10	7	3	2
MCT 3.2.3.1.1	CAS	MSP	ANSQ	10	7	3	2
MCT 3.2.3.1.2.1	AI	MSP	ANSQ	10	7	3	2
MCT 3.2.3.1.2.2	AR	MSP	ANSQ	10	7	3	2
MCT 3.2.3.1.2.3	SCAR	MSP	ANSQ	10	7	3	2
MCT 3.2.5.4	FAC(A)	MSP, FAC(A)	ANSQ	5	4	2	1
MCT 6.2.1.1	TRAP	MSP	ANSQ	10	7	3	2
MCT 6.1.1.11	ESC	MSP	ANSQ	10	7	3	2
MISSION PLUS							
MCT 1.3.3.3.1	CQ	MSP, CQ	ANSQ, CQ	10	7	3	2
MCT 3.2.3.2	OAAW	MSP, DACM	ANSQ, DACM	5	3	2	2
MCT 6.1.1.8	AAD	MSP, DACM	ANSQ, DACM	5	3	2	2

COMBAT LEADERSHIP				
DESIGNATION	Squadron	Squadron(-)	Detachment	Detachment
	15 A/C	10 A/C	5 A/C	4 A/C
Attack Helicopter Commander (AHC)	15	10	5	4
Section Leader (SL)	8	5	3	2
Division Leader (DL)*	4	3	1	1
Flight Leader (FL)*	4	3	1	1
Air Mission Commander (AMC)*	4	3	1	1
* Division Leader, Flight Leader, and Air Mission Commander Leadership requirements apply to HMLA squadron, not individual aircraft models (may be filled by UH or AH pilot). Note: Crew definitions for training are identified within each T&R event.				

1.8 CORE MODEL TRAINING STANDARD (CMTS). The CMTS is the optimum training standard reflecting the number of crews or aircrews trained to CSP/MSP, per crew position to execute each Stage of instruction or flight as detailed below. The CMTS Matrix depicts the training goal and optimum depth of training desired for each unit or squadron as they develop their unit or squadron training plan. It is not utilized for readiness reporting (DRRS-MC) purposes. At a minimum, the CMTS shall enable a unit or squadron to form CMMR crews for Mission Skills (and Mission Plus Skills when required).

1.8.1 HMLA (AH-1W) Tactical and Reserve Squadron

HMLA AH-1W				
CORE MODEL TRAINING STANDARD (CMTS)				
CORE SKILLS (2000 Phase)				
CORE SKILLS	**SQUADRON 15 A/C**	**SQUADRON(-) 10 A/C**	**DETACHMENT 5 A/C**	**DETACHMENT 4 A/C**
TERF	30	20	10	9
TCT	30	20	10	9
REC	30	20	10	9
FCLP	27	18	9	8
SWD	27	18	9	8
ANSQ	27	18	9	8
FAM	30	20	10	9
MISSION SKILLS (3000 Phase)				
MISSION SKILLS	**SQUADRON 15 A/C**	**SQUADRON(-) 10 A/C**	**DETACHMENT 5 A/C**	**DETACHMENT 4 A/C**
EXP	24	16	10	9
CAS	24	16	10	9
AI	24	16	10	9
AR	24	16	10	9
SCAR	24	16	10	9
FAC(A)	6	4	2	2
ESC	24	16	10	9
TRAP	24	16	10	9
CORE PLUS SKILLS (4000-4499 Phase)				
CORE PLUS SKILLS	**SQUADRON 15 A/C[1]**		**SQUADRON(-) 10 A/C[1]**		**DETACHMENT 5 A/C[1]**		**DETACHMENT 4 A/C[1]**	
ESC	**3**	12	**2**	9	**1**	5	**1**	4
CAS	**3**	12	**2**	9	**1**	5	**1**	4
AR	**3**	12	**2**	9	**1**	5	**1**	4
AI	**3**	12	**2**	9	**1**	5	**1**	4
SCAR	**3**	12	**2**	9	**1**	5	**1**	4
DACM	**4**	16	**2**	10	**2**	8	**2**	7
CBRN	**2**	36	**2**	24	**1**	12	**1**	9
MISSION PLUS SKILL (4500-4999 Phase)				
MISSION PLUS SKILLS	**SQUADRON 15 A/C[1]**		**SQUADRON(-) 10 A/C[1]**		**DETACHMENT 5 A/C[1]**		**DETACHMENT 4 A/C[1]**	
CQ	**4**	24	**2**	18	**2**	10	**2**	9
OAAW	**4**	14	**2**	8	**2**	6	**2**	5
AAD	**4**	14	**2**	8	**2**	6	**2**	5

Note[1]: For Core Plus Skills and Mission Plus Skills, the first number (in blue font and highlighted in gray) represents the number of individuals the unit or squadron is expected to train at all times in order to retain a cadre of capability within the squadron. The second number represents the number of MET capable individuals the squadron should train if that MET becomes an Assigned/Directed Mission Set. For the 4000 Phase the commanding officer determines the number of aircrew to train. The CMTS is based upon the community's collective recommendation.

1.9 INSTRUCTOR DESIGNATIONS

1.9.1 HMLA (AH-1W) Tactical and Reserve Squadron

HMLA AH-1W				
INSTRUCTOR TRAINING CMTS (5000 Phase)				
DESIGNATION	**SQUADRON 15 A/C**	**SQUADRON(-) 10 A/C**	**DETACHMENT 5 A/C**	**DETACHMENT 4 A/C**
BIP	9	6	3	2
TERFI	9	6	3	2
WTO	9	6	3	2
TSI	6	4	-	-
NSI	6	4	2	2
WTI	3	2	1	1
FAC(A)I	3	2	1	1
DACMI	3	2	1	1
FLSE*	3	2	1	1
*FLSEs are Designated by the Group CO.				

1.9.2 HMLAT-303 (AH-1W) Fleet Replacement Squadron

HMLAT-303 AH-1W (18 Aircraft)	
INSTRUCTOR TRAINING (5000 Phase)	
DESIGNATION	**PILOTS**
BIP	25
TERF I	25
WTO	25
IP/FRSI	25
NS/FRSI	13*
NI/ANI	13
NSFI	12*
NSI	1
WTI	-
FAC(A) I	-
DACM I	-
FLSE	-
* HMLAT-303 NS Instructor requirement may include NSIs as well as NSFIs	

1.10 REQUIREMENTS, CERTIFICATIONS, QUALIFICATIONS, AND DESIGNATIONS (RCQD)

1.10.1 HMLA (AH-1W) Tactical and Reserve Squadron

HMLA AH-1W				
RCQD (6000 Phase)				
DESIGNATION	**SQUADRON 15 A/C**	**SQUADRON(-) 10 A/C**	**DETACHMENT 5 A/C**	**DETACHMENT 4 A/C**
Functional Check Pilot (FCP)	5	3	2	2

1.10.2 HMLAT-303 Fleet Replacement Squadron

HMLAT-303 AH-1W (18 Aircraft)	
FLIGHT LEADERSHIP (6000 PHASE)	
DESIGNATIONS	**PILOTS**
Attack Helicopter Commander(AHC)	25
Section Leader (SL)	25
Division Leader (DL)	6
Flight Leader (FL)	3
Functional Check Pilot (FCP)	25

Appendix A

HMLA (AH-1W)

MISSION ESSENTIAL TASK LIST (METL)		
CORE		
MET	**SKILL ABBREVIATION**	**MCT DESCRIPTION**
MCT 1.3.3.3.2	**EXP**	Conduct Aviation Operations From Expeditionary Shore-Based Sites
MCT 3.2.3.1.1	**CAS**	Conduct Close Air Support
MCT 3.2.3.1.2.1	**AI**	Conduct Aerial Interdiction
MCT 3.2.3.1.2.2	**AR**	Conduct Armed Reconnaissance
MCT 3.2.3.1.2.3	**SCAR**	Conduct Strike Coordination and Reconnaissance
MCT 3.2.5.4	**FAC(A)**	Conduct Forward Air Control (Airborne)
MCT 6.2.1.1	**TRAP**	Conduct Aviation Support of Tactical Recovery of Aircraft and Personnel (TRAP)
MCT 6.1.1.11	**ESC**	Conduct Aerial Escort
CORE PLUS		
MET	**SKILL ABBREVIATION**	**MCT DESCRIPTION**
MCT 1.3.3.3.1	**CQ**	Conduct Aviation Operations From Expeditionary Sea-Based Sites
MCT 3.2.3.2	**OAAW**	Conduct Offensive Air to Air Warfare
MCT 6.1.1.8	**AAD**	Conduct Active Air Defense

MCT 1.3.3.3.2 Conduct Aviation Operations From Expeditionary Shore-Based Sites (EXP)

Conditions:

C 1.1.1.2 Terrain Elevation
Height of immediate terrain in reference to sea level.
Descriptors: Very high (> 10,000 ft); High (6,000 to 10,000 ft); Moderately high (3,000 to 6,000 ft); Moderately low (1,000 to 3,000 ft); Low (500 to 1,000 ft); Very low (< 500 ft).

C 1.3.2.1 Light
Light available to illuminate objects from natural or manmade sources.
Descriptors: Bright (sunny day); Day (overcast day); low (dusk, dawn, moonlit, streetlight lit); Negligible (overcast night)

C 1.3.1.3.1 Air Temperature
Atmospheric temperature at ground level (degrees Fahrenheit).
Descriptors: Hot (> 85 F); Temperate (40 to 85 F); Cold (10 to 39 F); Very cold (< 10 F).

C 2.7.2 Air Superiority
The extent to which operations in the air, over sea and/or, over land can be conducted with acceptable losses due to hostile air forces and air defense systems action. Descriptors: Full (Air Supremacy); General; Local.

Standards:
AH-1W Squadron (15)/Squadron(-)(10)/Detachment (5)/Detachment (4) {15/10/5/4} Aircraft

Personnel:
- 16/11/5/4 AH-1W aircrews formed
- 90% of squadron T/O personnel MOS qualified and deployable
- 90% critical MOS fill: 7565, 6019, 6324, 6154, 6531, 6114, 6591, 6012, 6016, 6017, 6018, 7577, 7544, 7547 and Level 2 (L2) Required Maintainer Competency (RMC) IAW ASL-1 basis for measurement.

Equipment:

- 70% Mission Capable aircraft with the associated aircraft survivability equipment, mission systems and mission sets required to conduct the MET. (10/7/3/3 AH-1W aircraft)
- Operational support equipment fully supports MCT

Training:
- 10/8/4/2 AH-1W aircrews MET-capable IAW T&R requirements

Output Standards:
20/16/8/4 AH-1W sorties daily sustained during contingency/combat

MCT 3.2.3.1.1 Conduct Close Air Support (CAS)

Conditions:

C.1.3.2.3 Aviation Meteorological Conditions
Current weather/flight conditions affecting flight rules next 24 hours.
Descriptors: VMC (Conditions that permit flight using external cues and a distinguishable horizon.)

C.1.3.1.3.11 Ceiling
Height of lowest cloud cover above sea level.
Descriptors: Low (100 to 3,000 feet); Medium (3,000 to 10,000 feet); High (>10,000 feet)

C 1.3.2 Visibility
Maximum distance to see an object given the moisture and particulate matter (dust, salt, ash) suspended in the atmosphere.
Descriptors: Moderate (1 to 3 NM); Good (3 to 10 NM); High (10 to 20 NM); Unlimited (>20 NM)

C 1.3.2.1 Light
Light available to illuminate objects from natural or manmade sources.
Descriptors: Bright (sunny day); Day (overcast day); low (dusk, dawn, moonlit, streetlight lit); Negligible (overcast night)

C 2.7.2 Air Superiority
The extent to which operations in the air, over sea and/or, over land can be conducted with acceptable losses due to hostile air forces and air defense systems action. Descriptors: Full (Air Supremacy); General; Local.

Standards:
AH-1W Squadron (15)/Squadron(-)(10)/Detachment (5)/Detachment (4) {15/10/5/4} Aircraft

Personnel:
- 16/11/5/4 AH-1W aircrews formed
- 90% of squadron T/O personnel MOS qualified and deployable
- 90% critical MOS fill: 7565, 6019, 6324, 6154, 6531, 6114, 6591, 6012, 6016, 6017, 6018, 7577, 7544, 7547 and Level 2 (L2) Required Maintainer Competency (RMC) IAW ASL-1 basis for measurement.

Equipment:
- 70% Mission Capable aircraft with the associated aircraft survivability equipment, mission systems and mission sets required to conduct the MET. (10/7/3/3 AH-1W aircraft)
- Operational support equipment fully supports MCT

Training:
- 10/8/4/2 AH-1W aircrews MET-capable IAW T&R requirements

Output Standards:
20/16/8/4 AH-1W sorties daily sustained during contingency/combat

MCT 3.2.3.1.2.1 Conduct Air Interdiction (AI)

Conditions:

C.1.3.2.3 Aviation Meteorological Conditions
Current weather/flight conditions affecting flight rules next 24 hours.
Descriptors: VMC (Conditions that permit flight using external cues and a distinguishable horizon.)

C.1.3.1.3.11 Ceiling
Height of lowest cloud cover above sea level.
Descriptors: Low (100 to 3,000 feet); Medium (3,000 to 10,000 feet); High (>10,000 feet)

C 1.3.2 Visibility
Maximum distance to see an object given the moisture and particulate matter (dust, salt, ash) suspended in the atmosphere.
Descriptors: Moderate (1 to 3 NM); Good (3 to 10 NM); High (10 to 20 NM); Unlimited (>20 NM)

C 1.3.2.1 Light
Light available to illuminate objects from natural or manmade sources.
Descriptors: Bright (sunny day); Day (overcast day); low (dusk, dawn, moonlit, streetlight lit); Negligible (overcast night)

C 2.7.2 Air Superiority
The extent to which operations in the air, over sea and/or, over land can be conducted with acceptable losses due to hostile air forces and air defense systems action. Descriptors: Full (Air Supremacy); General; Local.

Standards:
AH-1W Squadron (15)/Squadron(-)(10)/Detachment (5)/Detachment (4) {15/10/5/4} Aircraft

Personnel:
- 16/11/5/4 AH-1W aircrews formed
- 90% of squadron T/O personnel MOS qualified and deployable
- 90% critical MOS fill: 7565, 6019, 6324, 6154, 6531, 6114, 6591, 6012, 6016, 6017, 6018, 7577, 7544, 7547 and Level 2 (L2) Required Maintainer Competency (RMC) IAW ASL-1 basis for measurement.

Equipment:
- 70% Mission Capable aircraft with the associated aircraft survivability equipment, mission systems and mission sets required to conduct the MET. (10/7/3/3 AH-1W aircraft)
- Operational support equipment fully supports MCT

Training:
- 10/8/4/2 AH-1W aircrews MET-capable IAW T&R requirements

Output Standards:
20/16/8/4 AH-1W sorties daily sustained during contingency/combat

MCT 3.2.3.1.2.2 Conduct Armed Reconnaissance (AR)

Conditions:

C.1.3.2.3 Aviation Meteorological Conditions
Current weather/flight conditions affecting flight rules next 24 hours.
Descriptors: VMC (Conditions that permit flight using external cues and a distinguishable horizon.)

C.1.3.1.3.11 Ceiling
Height of lowest cloud cover above sea level.
Descriptors: Low (100 to 3,000 feet); Medium (3,000 to 10,000 feet); High (>10,000 feet)

C 1.3.2 Visibility
Maximum distance to see an object given the moisture and particulate matter (dust, salt, ash) suspended in the atmosphere.
Descriptors: Moderate (1 to 3 NM); Good (3 to 10 NM); High (10 to 20 NM); Unlimited (>20 NM)

C 1.3.2.1 Light
Light available to illuminate objects from natural or manmade sources.
Descriptors: Bright (sunny day); Day (overcast day); low (dusk, dawn, moonlit, streetlight lit); Negligible (overcast night)

C 2.7.2 Air Superiority
The extent to which operations in the air, over sea and/or, over land can be conducted with acceptable losses due to hostile air forces and air defense systems action. Descriptors: Full (Air Supremacy); General; Local.

Standards:
AH-1W Squadron (15)/Squadron(-)(10)/Detachment (5)/Detachment (4) {15/10/5/4} Aircraft

Personnel:
- 16/11/5/4 AH-1W aircrews formed
- 90% of squadron T/O personnel MOS qualified and deployable
- 90% critical MOS fill: 7565, 6019, 6324, 6154, 6531, 6114, 6591, 6012, 6016, 6017, 6018, 7577, 7544, 7547 and Level 2 (L2) Required Maintainer Competency (RMC) IAW ASL-1 basis for measurement.

Equipment:
- 70% Mission Capable aircraft with the associated aircraft survivability equipment, mission systems and mission sets required to conduct the MET. (10/7/3/3 AH-1W aircraft)
- Operational support equipment fully supports MCT

Training:
- 10/8/4/2 AH-1W aircrews MET-capable IAW T&R requirements

Output Standards:
20/16/8/4 AH-1W sorties daily sustained during contingency/combat

MCT 3.2.3.1.2.3 Conduct Strike Coordination and Reconnaissance (SCAR)
Conditions:

C.1.3.2.3 Aviation Meteorological Conditions
Current weather/flight conditions affecting flight rules next 24 hours.
Descriptors: VMC (Conditions that permit flight using external cues and a distinguishable horizon.)

C.1.3.1.3.11 Ceiling
Height of lowest cloud cover above sea level.
Descriptors: Low (100 to 3,000 feet); Medium (3,000 to 10,000 feet); High (>10,000 feet)

C 1.3.2 Visibility
Maximum distance to see an object given the moisture and particulate matter (dust, salt, ash) suspended in the atmosphere.
Descriptors: Moderate (1 to 3 NM); Good (3 to 10 NM); High (10 to 20 NM); Unlimited (>20 NM)

C 1.3.2.1 Light
Light available to illuminate objects from natural or manmade sources.
Descriptors: Bright (sunny day); Day (overcast day); low (dusk, dawn, moonlit, streetlight lit); Negligible (overcast night)

C 2.7.2 Air Superiority
The extent to which operations in the air, over sea and/or, over land can be conducted with acceptable losses due to hostile air forces and air defense systems action. Descriptors: Full (Air Supremacy); General; Local.

Standards:
AH-1W Squadron (15)/Squadron(-)(10)/Detachment (5)/Detachment (4) {15/10/5/4} Aircraft

Personnel:
- 16/11/5/4 AH-1W aircrews formed
- 90% of squadron T/O personnel MOS qualified and deployable
- 90% critical MOS fill: 7565, 6019, 6324, 6154, 6531, 6114, 6591, 6012, 6016, 6017, 6018, 7577, 7544, 7547 and Level 2 (L2) Required Maintainer Competency (RMC) IAW ASL-1 basis for measurement.

Equipment:
- 70% Mission Capable aircraft with the associated aircraft survivability equipment, mission systems and mission sets required to conduct the MET. (10/7/3/3 AH-1W aircraft)
- Operational support equipment fully supports MCT

Training:
- 10/8/4/2 AH-1W aircrews MET-capable IAW T&R requirements

Output Standards:
20/16/8/4 AH-1W sorties daily sustained during contingency/combat

MCT 3.2.5.4 Conduct Forward Air Control (Airborne) [FAC(A)]

Conditions:

C.1.3.2.3 Aviation Meteorological Conditions
Current weather/flight conditions affecting flight rules next 24 hours.
Descriptors: VMC (Conditions that permit flight using external cues and a distinguishable horizon.)

C.1.3.1.3.11 Ceiling
Height of lowest cloud cover above sea level.
Descriptors: Low (100 to 3,000 feet); Medium (3,000 to 10,000 feet); High (>10,000 feet)

C 1.3.2 Visibility
Maximum distance to see an object given the moisture and particulate matter (dust, salt, ash) suspended in the atmosphere.
Descriptors: Moderate (1 to 3 NM); Good (3 to 10 NM); High (10 to 20 NM); Unlimited (>20 NM)

C 1.3.2.1 Light
Light available to illuminate objects from natural or manmade sources.
Descriptors: Bright (sunny day); Day (overcast day); low (dusk, dawn, moonlit, streetlight lit); Negligible (overcast night)

C 2.7.2 Air Superiority
The extent to which operations in the air, over sea and/or, over land can be conducted with acceptable losses due to hostile air forces and air defense systems action. Descriptors: Full (Air Supremacy); General; Local.

Standards:
AH-1W Squadron (15)/Squadron(-)(10)/Detachment (5)/Detachment (4) {15/10/5/4} Aircraft

Personnel:
- 16/11/5/4 AH-1W aircrews formed
- 90% of squadron T/O personnel MOS qualified and deployable
- 90% critical MOS fill: 7565, 6019, 6324, 6154, 6531, 6114, 6591, 6012, 6016, 6017, 6018, 7577, 7544, 7547 and Level 2 (L2) Required Maintainer Competency (RMC) IAW ASL-1 basis for measurement.

Equipment:
- 70% Mission Capable aircraft with the associated aircraft survivability equipment, mission systems and mission sets required to conduct the MET. (10/7/3/3 AH-1W aircraft)
- Operational support equipment fully supports MCT

Training:
- 5/4/2/1 AH-1W aircrews MET-capable IAW T&R requirements

Output Standards:
10/8/4/2 AH-1W sorties daily sustained during contingency/combat

MCT 6.2.1.1 Conduct Aviation Support of Tactical Recovery of Aircraft and Personnel (TRAP)

Conditions:

C.1.3.2.3 Aviation Meteorological Conditions
Current weather/flight conditions affecting flight rules next 24 hours.
Descriptors: VMC (Conditions that permit flight using external cues and a distinguishable horizon.)

C.1.3.1.3.11 Ceiling
Height of lowest cloud cover above sea level.
Descriptors: Low (100 to 3,000 feet); Medium (3,000 to 10,000 feet); High (>10,000 feet)

C 1.3.2 Visibility
Maximum distance to see an object given the moisture and particulate matter (dust, salt, ash) suspended in the atmosphere.
Descriptors: Very low (< 1/8 NM); Low (1/8 to 1 NM); Moderate (1 to 3 NM); Good (3 to 10 NM); High (10 to 20 NM); Unlimited (>20 NM)

C 1.3.2.1 Light
Light available to illuminate objects from natural or manmade sources.
Descriptors: Bright (sunny day); Day (overcast day); low (dusk, dawn, moonlit, streetlight lit); Negligible (overcast night)

C 2.7.2 Air Superiority
The extent to which operations in the air, over sea and/or, over land can be conducted with acceptable losses due to hostile air forces and air defense systems action. Descriptors: Full (Air Supremacy); General; Local.

Standards:
AH-1W Squadron (15)/Squadron(-)(10)/Detachment (5)/Detachment (4) {15/10/5/4} Aircraft

Personnel:
- 16/11/5/4 AH-1W aircrews formed
- 90% of squadron T/O personnel MOS qualified and deployable
- 90% critical MOS fill: 7565, 6019, 6324, 6154, 6531, 6114, 6591, 6012, 6016, 6017, 6018, 7577, 7544, 7547 and Level 2 (L2) Required Maintainer Competency (RMC) IAW ASL-1 basis for measurement.

Equipment:
- 70% Mission Capable aircraft with the associated aircraft survivability equipment, mission systems and mission sets required to conduct the MET. (10/7/3/3 AH-1W aircraft)
- Operational support equipment fully supports MCT

Training:
- 10/8/4/2 AH-1W aircrews MET-capable IAW T&R requirements

Output Standards:
20/16/8/4 AH-1W sorties daily sustained during contingency/combat

MCT 6.1.1.11 Conduct Aerial Escort Operations (ESC)

Conditions:

C.1.3.2.3 Aviation Meteorological Conditions
Current weather/flight conditions affecting flight rules next 24 hours.
Descriptors: VMC (Conditions that permit flight using external cues and a distinguishable horizon.)

C.1.3.1.3.11 Ceiling
Height of lowest cloud cover above sea level.
Descriptors: Low (100 to 3,000 feet); Medium (3,000 to 10,000 feet); High (>10,000 feet)

C 1.3.2 Visibility
Maximum distance to see an object given the moisture and particulate matter (dust, salt, ash) suspended in the atmosphere.
Descriptors: Moderate (1 to 3 NM); Good (3 to 10 NM); High (10 to 20 NM); Unlimited (>20 NM)

C 1.3.2.1 Light
Light available to illuminate objects from natural or manmade sources.
Descriptors: Bright (sunny day); Day (overcast day); low (dusk, dawn, moonlit, streetlight lit); Negligible (overcast night)

C 2.7.2 Air Superiority
The extent to which operations in the air, over sea and/or, over land can be conducted with acceptable losses due to hostile air forces and air defense systems action. Descriptors: Full (Air Supremacy); General; Local.

Standards:
AH-1W Squadron (15)/Squadron(-)(10)/Detachment (5)/Detachment (4) {15/10/5/4} Aircraft

Personnel:
- 16/11/5/4 AH-1W aircrews formed
- 90% of squadron T/O personnel MOS qualified and deployable
- 90% critical MOS fill: 7565, 6019, 6324, 6154, 6531, 6114, 6591, 6012, 6016, 6017, 6018, 7577, 7544, 7547 and Level 2 (L2) Required Maintainer Competency (RMC) IAW ASL-1 basis for measurement.

Equipment:
- 70% Mission Capable aircraft with the associated aircraft survivability equipment, mission systems and mission sets required to conduct the MET. (10/7/3/3 AH-1W aircraft)
- Operational support equipment fully supports MCT

Training:
- 10/8/4/2 AH-1W aircrews MET-capable IAW T&R requirements

Output Standards:
20/16/8/4 AH-1W sorties daily sustained during contingency/combat

Core Plus

MCT 1.3.3.3.1 Conduct Aviation Operations From Expeditionary Sea-Based Sites (CQ)

Conditions:

C 1.3.2.1 Light
Light available to illuminate objects from natural or manmade sources.
Descriptors: Bright (sunny day); Day (overcast day); low (dusk, dawn, moonlit, streetlight lit); Negligible (overcast night)

C 1.3.1.3.1 Air Temperature
Atmospheric temperature at ground level (degrees Fahrenheit).
Descriptors: Hot (> 85 F); Temperate (40 to 85 F); Cold (10 to 39 F); Very cold (< 10 F).

C 2.1.4.5 Intratheater Distance
Mileage between two locations (e.g., airfield to the FEBA).
Descriptors: Very short (< 10 NM); Short (10 to 50 NM); Moderate (50 to 150 NM); Long (150 to 500 NM); Very long (> 500 NM).

Standards:
AH-1W Squadron (15)/Squadron(-)(10)/Detachment (5)/Detachment (4) {15/10/5/4} Aircraft

Personnel:
- 16/11/5/4 AH-1W aircrews formed
- 90% of squadron T/O personnel MOS qualified and deployable
- 90% critical MOS fill: 7565, 6019, 6324, 6154, 6531, 6114, 6591, 6012, 6016, 6017, 6018, 7577, 7544, 7547 and Level 2 (L2) Required Maintainer Competency (RMC) IAW ASL-1 basis for measurement.

Equipment:
- 70% Mission Capable aircraft with the associated aircraft survivability equipment, mission systems and mission sets required to conduct the MET. (10/7/3/3 AH-1W aircraft)
- Operational support equipment fully supports MCT

Training:
- 12/8/4/4 AH-1W aircrews MET-capable IAW T&R requirements

Output Standards:
20/16/8/4 AH-1W sorties daily sustained during contingency/combat

MCT 3.2.3.2 Conduct Offensive Anti-air Warfare (OAAW)

Conditions:

C.1.3.2.3 Aviation Meteorological Conditions
Current weather/flight conditions affecting flight rules next 24 hours.
Descriptors: VMC (Conditions that permit flight using external cues and a distinguishable horizon.)

C.1.3.1.3.11 Ceiling
Height of lowest cloud cover above sea level.
Descriptors: Low (100 to 3,000 feet); Medium (3,000 to 10,000 feet); High (>10,000 feet)

C 1.3.2 Visibility
Maximum distance to see an object given the moisture and particulate matter (dust, salt, ash) suspended in the atmosphere.
Descriptors: Moderate (1 to 3 NM); Good (3 to 10 NM); High (10 to 20 NM); Unlimited (>20 NM)

C 1.3.2.1 Light
Light available to illuminate objects from natural or manmade sources.
Descriptors: Bright (sunny day); Day (overcast day); low (dusk, dawn, moonlit, streetlight lit); Negligible (overcast night)

C 2.7.2 Air Superiority
The extent to which operations in the air, over sea and/or, over land can be conducted with acceptable losses due to hostile air forces and air defense systems action. Descriptors: Full (Air Supremacy); General; Local.

Standards:
AH-1W Squadron (15)/Squadron(-)(10)/Detachment (5)/Detachment (4) {15/10/5/4} Aircraft

Personnel:
- 16/11/5/4 AH-1W aircrews formed
- 90% of squadron T/O personnel MOS qualified and deployable
- 90% critical MOS fill: 7565, 6019, 6324, 6154, 6531, 6114, 6591, 6012, 6016, 6017, 6018, 7577, 7544, 7547 and Level 2 (L2) Required Maintainer Competency (RMC) IAW ASL-1 basis for measurement.

Equipment:
- 70% Mission Capable aircraft with the associated aircraft survivability equipment, mission systems and mission sets required to conduct the MET. (10/7/3/3 AH-1W aircraft)
- Operational support equipment fully supports MCT

Training:
- 5/3/2/2 AH-1W aircrews MET-capable IAW T&R requirements

Output Standards:
10/6/4/4 AH-1W sorties daily sustained during contingency/combat

MCT 6.1.1.8 Conduct Active Air Defense (AAD)

Conditions:

C.1.3.2.3 Aviation Meteorological Conditions
Current weather/flight conditions affecting flight rules next 24 hours.
Descriptors: VMC (Conditions that permit flight using external cues and a distinguishable horizon.)

C 1.3.2 Visibility
Maximum distance to see an object given the moisture and particulate matter (dust, salt, ash) suspended in the atmosphere.
Descriptors: Moderate (1 to 3 NM); Good (3 to 10 NM); High (10 to 20 NM); Unlimited (>20 NM)

C 1.3.2.1 Light
Light available to illuminate objects from natural or manmade sources.
Descriptors: Bright (sunny day); Day (overcast day); low (dusk, dawn, moonlit, streetlight lit)

C 2.7.2 Air Superiority
The extent to which operations in the air, over sea and/or, over land can be conducted with acceptable losses due to hostile air forces and air defense systems action. Descriptors: Full (Air Supremacy); General; Local.

Standards:
AH-1W Squadron (15)/Squadron(-)(10)/Detachment (5)/Detachment (4) {15/10/5/4} Aircraft

Personnel:
- 16/11/5/4 AH-1W aircrews formed
- 90% of squadron T/O personnel MOS qualified and deployable
- 90% critical MOS fill: 7565, 6019, 6324, 6154, 6531, 6114, 6591, 6012, 6016, 6017, 6018, 7577, 7544, 7547 and Level 2 (L2) Required Maintainer Competency (RMC) IAW ASL-1 basis for measurement.

Equipment:
- 70% Mission Capable aircraft with the associated aircraft survivability equipment, mission systems and mission sets required to conduct the MET. (10/7/3/3 AH-1W aircraft)
- Operational support equipment fully supports MCT

Training:
- 5/3/2/2 AH-1W aircrews MET-capable IAW T&R requirements

Output Standards:
10/6/4/4 AH-1W sorties daily sustained during contingency/combat

Appendix B

ABBREVIATIONS

Skill/Stage Abbreviations	
ESC	Aerial Escort
AAD	Active Air Defense
AHC	Attack Helicopter Commander
AI	Air Interdiction
AMC	Air Mission Commander
ANSQ	Advanced Night Systems Qualification
ASPT	Assault Support
BIP	Basic Instructor Pilot
CAS	Close Air Support
CQ	Carrier Qualification
CSI	Contract Simulator Instructor
CSIX	Core Skill Introduction Check
DACM	Defensive Air Combat Maneuvering
DACMI	Defensive Air Combat Maneuvering Instructor
DESG	Designation
DFAM	Division FAM
DL	Division Leader
EXP	Expeditionary Shore-Based Sites
FAC(A)	Forward Air Controller (Airborne)
FAC(A)I	Forward Air Controller (Airborne) Instructor
FAM	Familiarization
FCF	Functional Check Flight
FCLP	Field Carrier Landing Practice
FL	Flight Leader
FLSE	Flight Leadership Standardization Evaluator
FORM	Formation
FRSI	Fleet Replacement Squadron Instructor
FWDACM	Fixed Wing Defensive Air Combat Maneuvering
INST	Instruments
NI/ANI	NATOPS Instructor / Assistant NI
NATOPS	Naval Aviation Training and Operating Procedures Standardization
NAV	Navigation
CBRN	Chemical Biological Radiological Nuclear
NSFI	Night System Familiarization Instructor
NSI	Night Systems Instructor
NSQ(HLL)	Night Systems Qualification (High Light Level)
NSQ(LLL)	Night Systems Qualification (Low Light Level)
NFAM	NVD FAM
NFORM	NVD Form
NNAV	NVD NAV
NTERF	NVD TERF
OAAW	Offensive Anti-air Warfare
OAS	Offensive Air Support
PQM	Pilot Qualified in Model
PFLT	Preflight
QUAL	Qualification
RECCE	Reconnaissance
RQD	Requirements Qualifications Designation
RWDACM	Rotary Wing Defensive Air Combat Maneuvering
SIM	Simulator
SI/ASI	Standardization Instructor/Assistant SI
SCAR	Strike Coordination and Reconnaissance
SL	Section Leader
SOTC	Specific Operations Tracking Codes
SWD	Specific Weapons Delivery
TAC	Tactics
TCT	Threat Counter-Tactics
TEN	Tactical Environment Network
TEN+	Enhanced Tactical Environment Network
TERF	Terrain Flight
TERFI	Terrain Flight Instructor
TRAP	Tactical Recovery of Aircraft and Personnel
TSI	Tactical Simulator Instructor
WTI	Weapons and Tactics Instructor
WTO	Weapons Training Officer
WTTP	Weapons and Tactics Training Program

ORDNANCE REQUIREMENTS

General

Pilots shall annotate ordnance expended in M-SHARP. This information shall be tracked by Operations to ensure that all pilots meet ordnance proficiency requirements spelled out in the event descriptions to the maximum extent practical. There is a high likelihood that pilots may not expend the entire ordnance amount allotted on a particular sortie due to a variety of reasons (equipment malfunction, switchology, range constraints, training priorities, etc). This ordnance "deficit" adversely impacts pilot proficiency. Ordnance expenditure tracking will allow Operations to identify and correct pilot deficits by increasing ordnance loads on subsequent sorties, selective scheduling, or other methods.

Additional ordnance requirements such as initial HELLFIRE qualification, illumination, flechette, APKWS, expendables, and WP for FAC(A) target marking are specified for certain events.

Ground Ordnance. The table below defines external ordnance requirements for T&R execution.

BASIC/CONVERSION POI

ORDNANCE	1000	2000	3000	4000	6000	REFRESH[1]	IUT[2]	ANNUAL[3,4]
HE Artillery	0	0	10	10	0	0	6	10
WP Artillery	0	0	6	6	0	0	4	6
FW Bombs	0	0	8	4	0	8	8	8

NOTES:

(1) 1000-3000 phases only.
(2) Numbers include MAWTS-1 Course Catalog IUT syllabi.
(3) 2000-3000 phases only.
(4) Annual ordnance requirements to maintain aircrew proficiency derived from MAINTAIN table and refly interval.

Ordnance Tables

AH-1W ORDNANCE ROLL-UP TABLE BY PROGRAM OF INSTRUCTION (POI) AND DESIGNATION

BASIC POI

Ordnance Requirements By Phase (per pilot)

PHASE / ORDNANCE	1000	2000	3000	4000	5000	6000
20mm	600	2,600	5,300	1,300	1,800	2,400
2.75 " HE	14	54	84	35	28	56
2.75" RP	0	0	28	0	14	0
APKWS	0	0 [1]	4	0	0	0
Illum	0	0	4	0	0	0
Flechette	0	0	4	0	0	0
HF	0	1	0	0	0	0
Chaff	0	90	360	150	150	240
Flare	0	90	360	330	390	240

Note 1: SWD-2601 is a S/A event, if flown in aircraft requires 2 APKWS.

Ordnance Requirements By Syllabus (per pilot)

POI / ORDNANCE	ANSQ[2]	AHC[3]	FAC(A)	SL	DL	WTO	NSI
20mm	1,400	3,800	1,500	900	900	600	600
2.75 " HE	28	77	7	21	21	14	14
2.75" RP	0	0	28	0	0	0	0
APKWS	0	4	0	0	0	0	0
Illum	0	4	0	0	0	0	0
Flechette	0	4	0	0	0	0	0
HF	0	0	0	0	0	0	0
Chaff	90	330	30	90	90	30	60
Flare	90	330	30	90	90	30	60

Note 2: Includes required NSQ and ANSQ Core Skills events.
Note 3: Only includes Mission Skills events through TRAP-3308.

REFRESHER POI

Ordnance Requirements By Phase (per pilot)

PHASE / ORDNANCE	1000	2000	3000	4000	5000	6000
20mm	300	2,300	4,500	1,300	900	1,200
2.75 " HE	7	47	70	35	14	28
2.75" RP	0	0	28	0	7	0
APKWS	0	0	0	0	0	0
Illum	0	0	0	0	0	0
Flechette	0	0	0	0	0	0
HF	0	1	0	0	0	0
Chaff	0	60	300	150	75	120
Flare	0	60	300	240	195	120

Ordnance Requirements By Syllabus (per pilot)

POI / ORDNANCE	ANSQ	AHC	FAC(A)	SL	DL	WTO	NSI
20mm	1,100	3,000	1,500	300	300	300	300
2.75 " HE	21	63	7	7	7	7	7
2.75" RP	0	0	28	0	0	0	0
APKWS	0	0	0	0	0	0	0
Illum	0	0	0	0	0	0	0
Flechette	0	0	0	0	0	0	0
HF	0	0	0	0	0	0	0
Chaff	60	270	30	30	30	15	30
Flare	60	270	30	30	30	15	30

SERIES CONVERSION POI

Ordnance Requirement (per pilot)

POI / ORDNANCE	AHC	Full T&R
20mm	2,700	3,300
2.75 " HE	68	82
2.75" RP	0	0
APKWS	0	0
Illum	0	0
Flechette	0	0
HF	0	0
Chaff	180	225
Flare	180	285

AH-1W YEARLY CURRENCY ORDNANCE REQUIREMENT (PER PILOT)

DESIGNATION / ORDNANCE	AHC	FAC(A)	CPSP
20 mm	7,200	1,500	650
2.75 " HE	150	7	18
2.75" RP	0	28	0
APKWS	0	0	0
Illum	0	0	0
Flechette	0	0	0
HF	0.5	0	0
Chaff	450	30	75
Flare	450	30	143

HMLA (AH-1W) YEARLY ORDNANCE REQUIREMENT									
POI & DESIGNATION / ORDNANCE	BASIC POI (ATTAIN)[4]					REFRESHER POI	MAINTAIN		**Total**
	2000	AHC	FAC(A)	SL	DL		AHC	Full T&R	
20mm	23,400	34,200	3,000	3,600	1,800	25,900	57,600	56,100	**205,600**
2.75 " HE	486	693	14	84	42	490	1,200	1,050	**4,059**
2.75" RP	0	0	56	0	0	56	0	168	**280**
APKWS	0	36	0	0	0	0	0	0	**36**
Illum	0	36	0	0	0	0	0	0	**36**
Flechette	0	36	0	0	0	0	0	0	**36**
HF	9	0	0	0	0	0	4	3	**16**
Chaff	810	2,970	60	360	180	1,920	3,600	3,330	**13,230**
Flare	810	2,970	60	360	180	1,920	3,600	3,738	**13,638**

Note 4: Totals based on the following assumptions, a T/O squadron broken down as follows: 9 pilots in the basic POI for CSP, 9 pilots in basic POI for AHC, 8 pilots maintaining the AHC qual and 6 pilots maintaining all T&R events. Of the pilots maintaining AHC, 2 are in the basic POI for FAC(A), 4 are in the basic POI for SL and 2 are in the basic POI for DL. 3 pilots are in the AHC refresher syllabus and 2 pilots are in the full T&R refresher syllabus.

HMLAT-303 (AH-1W) YEARLY ORDNANCE REQUIREMENT				
POI & DESIGNATION / ORDNANCE	BASIC POI[5]		REFRESHER POI[5]	**SQUADRON TOTAL (PER YEAR)[6]**
	RAC	FRSI		
20mm	600	300	300	**15,900**
2.75 " HE	14	7	7	**371**
2.75" RP	0	0	0	**0**
APKWS	0	0	0	**0**
Illum	0	0	0	**0**
Flechette	0	0	0	**0**
HF	0	0	0	**0**
Chaff	0	0	0	**0**
Flare	0	0	0	**0**

Note 5: Ordnance totals per pilot.
Note 6: Based on producing 20 RACs, 5 refreshers and 8 new FRSIs per year.

HMLA TRAINING RANGE/RESOURCE REQUIREMENTS

General. The range requirements listed below are based on event requirements listed in the individual event descriptions. Units should make every effort to adhere to the requirements listed in the event descriptions. Commanding officers may waive requirements based on existing range capabilities and limitations.

Threat Counter-Tactics (TCT). Threat emitter and expendable usage.

Specific Weapons Delivery (SWD), Advanced Night Systems Qual stage (ANSQ)
(1) All rotary-wing air to ground ordnance permitted.
(2) Expendable usage.
(3) Lasers permitted (LDRS,LRF,IR POINTERS).
(4) Scored or raked range (SWD-2605

Offensive Air Support (OAS)
(1) All rotary-wing air to ground ordnance permitted.
(2) Expendable usage.
(3) Lasers permitted (LDRS,LRF,IR POINTERS).
(4) Supports all three types of Terminal control. Allows JTAC personnel to operate in range.

Forward Air Controller (Airborne) (FAC(A))
(1) All rotary-wing air to ground ordnance permitted.
(2) All fixed-wing air to ground ordnance permitted.
(3) Expendable usage.
(4) Lasers permitted (LDRS,LRF,IR POINTERS).
(5) Supports all three types of Terminal control. Allows JTAC personnel to operate in range.
(6) Ground indirect fire systems permitted (artillery/mortars).

Defensive Air Combat Maneuvering (DACM)
(1) Air Combat Maneuvering (ACM) permitted both fixed-wing and rotary-wing.
(2) Expendable usage.
(3) Tactical Air Combat Training System (TACTS) or comparable system compatible.
(4) Air to Air Missile firing capable, if applicable.

AH-1W PILOT

CHAPTER 2

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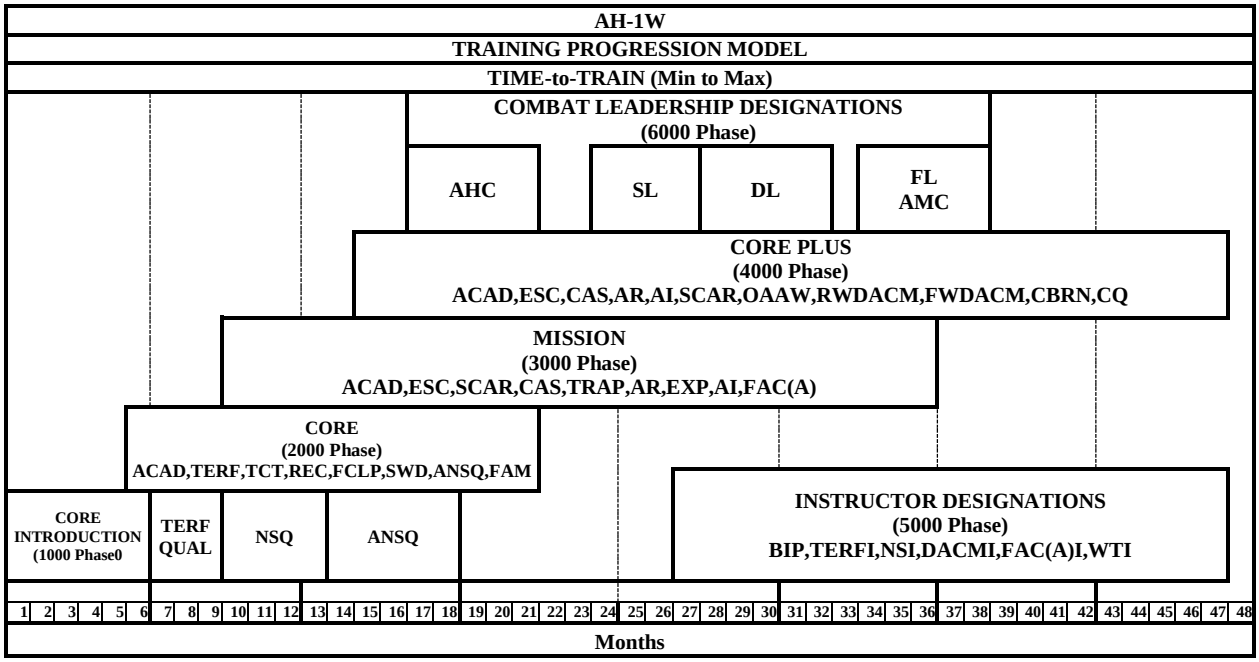
CHAPTER 2

AH-1W PILOT

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

2.1 TRAINING PROGRESSION MODEL. This model represents the recommended training progression for the minimum to maximum time per phase for the AH-1W pilot. Units should use the model as a guide to generate individual training plans.



2.2 PROGRAMS OF INSTRUCTION (POI). In accordance with POI updating rules, in order for all events in a stage to be updated once the R coded events for the stage have been flown, there has to be a previously flown date present, either proficient or delinquent, otherwise the event will be recognized as incomplete and must be flown. ***Therefore, all refresher and series conversion pilots shall ensure previously flown events are logged, based on the last date flown.*** If the flight was flown under a previous T&R (AH-1W or AH-1W), reference the AH-1W Pilot Syllabus Matrix at the end of the Chapter to ensure events are converted correctly (Paragraph 2.22). ***Pilot Training Officers shall ensure pilots are placed in the appropriate syllabus (B, R, SC, MR) in MSHARP, in order to ensure MSHARP functions properly.***

2.2.1 Basic/Transition (B/T) POI. The Transition POI mirrors the Basic POI. Basic and Transition pilots are required to fly the entire syllabus.

WEEKS	COURSE	PERFORMING ACTIVITY
1-2	Interactive Courseware	USMC AH-1W FRS
3-26	Core Introduction Training	USMC AH-1W FRS
27-165	Core/Mission Training	Tactical Squadron

2.2.2 Series Conversion (SC) POI. The Series Conversion syllabus is provided for personnel proficient in the AH-1Z converting directly to the AH-1W. After performing event conversion in accordance with the T&R syllabus matrix, a previously designated AH-1Z pilot in the series conversion syllabus shall fly all "SC" coded events if the pilot is proficient in the AH-1Z. The Series Conversion syllabus is predicated on the experience of the Series Conversion pilot and is primarily designed for the AH-1Z pilot who has not been out of the AH-1Z cockpit for longer than 485 days and is beginning the Series Conversion within days of the last AH-1Z flight. The commanding officer of the FRS may tailor the Series Conversion syllabus to fit the experience and proficiency of the Series

Conversion pilot per the T&R Program Manual. A pilot in the Series Conversion syllabus should fly all "SC" coded events in the 1000 level. Two additional events are recommended for pilots requiring additional flights due to time out of the cockpit (e.g. AH-1Z pilot out of cockpit >485 days and doing series conversion): FAM 1103, 1108.

In order to regain AHC, flight leadership designations and FAC(A) (as applicable), the SC events listed in the 2000 through 5000 level shall be completed in any order, and in no fewer than 18 flight hours in the aircraft. Event conversion is not allowed for these events. ANSQ-2701 and ANSQ-2705 shall be flown under LLL conditions. All other flights may be flown under any light level condition. TERF qualification may be granted after the completion of TERF-2101. NSQ may be granted after the completion of SWD-2607. ANSQ may be granted after the completion of NSQ, SANSQ-2700, ANSQ-2701 and ANSQ-2705.

In order to regain instructor designations (BIP, TERFI, WTO and NSI), a total of 30 **aircraft flight hours** must be flown, inclusive of the flight time from the above paragraph, but not including flight time from the 1000 level syllabus. Additionally, all "SC" coded events from the appropriate instructor syllabus shall be flown in order to regain instructor designations. Events that can count toward the 30 flight hour total are any 4000 level event and:

REC-2301	ESC-3100	FACA-3401
SWD-2605	ESC-3101	FACA-3402
SWD-2607	ESC-3103	FACA-3403
SWD-2610	CAS-3301	FACA-3404
ANSQ-2701	CAS-3302	AR-3305
ANSQ-2705	CAS-3303	AI-3306
		SCAR-3307

These events shall be flown under the light level conditions prescribed in the event description. For pilots regaining the NSI designation, at least 15 of the 30 total flight hours shall be flown at night. BIP-5104, WTO-5201 and NSI-5903 may also count toward the 30 flight hour requirement. All flight time gained while accomplishing a T&R event shall count towards the required flight time.

For conversion from the AH-1W to the AH-1Z see the AH-1Z T&R.

WEEKS	COURSE	PERFORMING ACTIVITY
1-2	Interactivre Courseware	USMC AH-1W FRS
3-8	Core Introduction Training	USMC AH-1W FRS
9-17	Core/Mission Training	Tactical Squadron

2.2.3 Refresher/ModifiedRefresher (R/MR) POI.

Refresher Syllabus. A Refresher syllabus is provided for personnel returning to an operational squadron who have previously completed the AH-1W Basic or Series Conversion POI. Experienced pilots (completed at least one fleet tour in an operational unit) returning to a squadron, shall be assigned to the Refresher or Modified Refresher POIs as follows:

Regardless of the type of billet returning from, pilots having not flown the AH-1W for < 485 days will conduct Refresher training at the tactical unit.

Pilots returning from a DIFOP billet, where a helicopter was flown, having not flown the AH-1W for > 485 days will conduct Modified Refresher training at the FRS.

Pilots returning from a DIFDEN billet, or a DIFOP billet where a helicopter was not flown, having not flown a AH-1W for > 485 days but ≤ 730 days shall conduct Modified Refresher training at the FRS.

Regardless of the type of billet returning from, pilots having not flown the AH-1W for > 730 days will conduct full Refresher training beginning at the FRS.

The Refresher syllabus is predicated on the experience of the Refresher pilot. A previously designated AH-1W pilot in the Refresher syllabus should fly all "R" coded events; however, a pilot need not fly every event within a stage of training to be re-qualified in that stage. The commanding officer may tailor the Refresher syllabus to fit the experience of the Refresher pilot per the T&R Program Manual. This assumes that the Refresher has had previous proficiency in that stage of training. If the pilot has no previous proficiency in a stage or particular event, then the pilot should fly the entire stage or all events not previously flown. The Refresher syllabus applies only up to the stage achieved during the prior tour. After completion of appropriate Refresher syllabus, the pilot will

complete the entire remaining syllabus. Prerequisites apply only to replacement aircrew and not to Refresher pilots.

Previously designated AH-1Z pilots will be assigned to the Refresher POI upon completion of FRS Series Conversion training. After performing event conversion in accordance with AH-1W Pilot Syllabus Matrix (paragraph 2.22), previously designated AH-1Z pilots shall complete all R coded events. Events the previously designated pilot did not complete or were added to this T&R manual since they left DIFOP status will not be logged in M-SHARP and must be flown to attain proficiency. ***M-SHARP will not automatically convert AH-1Z T&R syllabus codes for proficiency in the AH-1W. The Pilot Training Officer will have to manually enter these dates for each pilot before commencing Core Skill training in the Refresher POI at the tactical unit.*** At the discretion of the commanding officer pilots under the Refresher POI who were previously ANSQ qualified may conduct NS or (NS) Refresher syllabus events under HLL or LLL conditions.

WEEKS	COURSE	PERFORMING ACTIVITY
2	Interactive Courseware	USMC AH-1W FRS
7	Core Introduction Training	USMC AH-1W FRS
30	Core/Mission Training	Tactical Squadron

Modified Refresher Syllabus. A Modified Refresher syllabus, for pilots not requiring a full Refresher POI, is provided to expedite training at the FRS. It can be individually tailored as specified by the commanding officer of the FRS. However, in no case will this syllabus be less than the minimum Modified Refresher syllabus shown here. Following the FRS, the Refresher should follow the Refresher syllabus described above; however, the commanding officer may tailor the Refresher syllabus to fit the experience of the Refresher pilot per the T&R Program Manual.

WEEKS	COURSE	PERFORMING ACTIVITY
2	Interactive Courseware	USMC AH-1W FRS
5	Core Introduction Training	USMC AH-1W FRS

2.2.4 Fleet Replacement Squadron and NATOPS/Assistant NATOPS POI

WEEKS	COURSE	PERFORMING ACTIVITY
3	Fleet Replacement Squadron Instructor	USMC AH-1W FRS
1	NATOPS/Assistant NATOPS Instructor	Tactical Squadron

2.2.5 Basic Instructor Pilot and Stage Instructor POI

WEEKS	COURSE	PERFORMING ACTIVITY
2	Basic Instructor Pilot	Tactical Squadron
1	Terrain Flight Instructor	Tactical Squadron
2	Weapons Training Officer Instructor	Tactical Squadron
1	Tactical Simulator Instructor	Tactical Squadron

2.2.6 MAWTS-1 Level Instructor POI

WEEKS	COURSE	PERFORMING ACTIVITY
3	Night Systems Instructor	MAWTS-1
3	Defensive Aerial Combat Maneuvering Instructor	MAWTS-1
4	Forward Air Controller (Airborne) Instructor	MAWTS-1

2.2.7 Flight Leadership POI

WEEKS	COURSE	PERFORMING ACTIVITY
4	Section Leader	Tactical Squadron
4	Division Leader	Tactical Squadron
2	Flight Leader	Tactical Squadron
2	Air Mission Commander	Tactical Squadron
1	Flight Leadership Standardization Evaluator	Group Designated

2.3 PROFICIENCY & 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 Skill Currency. Currency is a control measure used to provide an additional margin of safety based on exposure frequency to a particular skill and applies to all MOS's that must comply with NATOPS and CNAF 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 REQUIREMENTS, QUALIFICATION AND DESIGNATION TABLES. The tables below delineate T&R events required to be completed to attain proficiency, and initial qualifications and designations. In addition to event requirements, all stage lectures, briefs, squadron training, prerequisites and other criteria shall be completed prior to completing final events. Qualification and designation letters signed by the commanding officer shall be placed in Aircrew Performance Records (APR) and NATOPS jackets. Loss of proficiency in all qualification events causes the associated qualification to be lost. Regaining a qualification requires completing all R-coded syllabus events associated with that qualification.

AH-1W PILOT REQUIREMENTS, CERTIFICATIONS, QUALIFICATIONS, AND DESIGNATIONS (RCQD)	
QUALIFICATION	**Initial Event Qualification Requirements**
INSTRUMENT	6100: IAW CNAF 3710.7 and an annual qualification letter signed by the commanding officer.
NATOPS	6101: IAW CNAF 3710.7 and an annual qualification letter signed by the commanding officer.
TERFQ	2100,2101
NSQ	2101,2301,2606,2607
ANSQ	NSQ,2700,2701,2702,2704,2705
FAC(A)	3400,3401,3402,3403,3404
DAY CQ	4600
NVD CQ	4601
Night CQ	4602
RW DACM	TERFQ,4300,4301,4302,4303
FW DACM	TERFQ,4304,4305
DESIGNATION	**Initial Event Designated Requirements**
FCP	DESG-6300,6200, 6201, 6202, 6203, 6204, 6205 and IAW AH-1W NATOPS.
PQM	6300: Successful completion of NATOPS and Instrument checks and CSIX 1901.
AHC	DESG-6300, 6398
SECTION LEAD	DESG-6398, 6400, 6401, 6498
DIVISION LEAD	SL-6498, 6500, 6501, 6598
FLIGHT LEAD	FL-6698
AMC	AMC-6798
BIP	5100,5101,5102,5103,5104
TERFI	5110,5111
ANI	6101 given by NATOPS instructor
NI	6101 given by Model Manager
IFBM	5104 and designation by squadron commanding officer to Instruemnt Flight Board.
WTO	5200,5201,5202,5203
TSI	5210, 5211
CSI	5300,5301,5302,5303
CRMI	IAW CNAFINST 1542.7
CRMF	IAW CNAFINST 1542.7
FRSI	5310,5311,5312,5313,5314,5315,5316,5317,5318,5319
FLSE*	5920 and IAW FLSE program guide and MAW T/M/S Program Coordinator requirements.
FAC(A)I*	5400,5401,5402
NSFI*	5600, 5601, 5602 and FRS commanding officer designation.
RW DACMI*	5800,5802
FW DACMI*	5801, 5803
NSI*	5900,5901,5902,5903,5904,5905
WTI*	5905

* IAW the MAWTS-1 Course Catalog. Certifications for FAC(A)I, DACMI, NSI, and WTI are signed by the MAWTS-1 Commanding Officer and forwarded to squadron commanding officers. Squadron commanding officers should designate pilots who satisfactorily complete the evaluation flight(s) and have a complete ATF from the MAWTS-1 IP who evaluates the pilot.

Tracking CodeS	
TRACKING CODES	**Event Requirements**
SOTC-6900	2.75 inch Illumination Rocket Delivery
SOTC-6901	2.75 inch Guided Rocket Delivery (APKWS)
SOTC-6902	2.75 inch Flechette Rocket Delivery
SOTC-6904	AGM-114 HELLFIRE Delivery
SOTC-6905	AIM-9 Sidewinder Delivery
SOTC-6906	FAC(A) Standardization Tracking Code
SOTC-6998	Day Autorotation Proficiency
SOTC-6999	NS Autorotation Proficiency

2.5 SYLLABUS NOTES

2.5.1 Academic Training

General. The Academic syllabus is designed to ensure pilots receive the proper academic training prior to starting a new phase and stage of training. Within each phase of training (1000-8000) there are corresponding stages, each stage has an academic syllabus. The required academic syllabus for each stage of training is further delineated in the beginning paragraphs of each phase. Each phase and stage contain specific academic requirements which must be completed either prior to phase and/or stage initiation or prior to phase and/or stage completion. Academic/ground training events can either be accomplished by an individual utilizing self-paced courseware or presented by a qualified instructor

Requirement

Academic training shall be conducted for each phase/stage of the syllabus.

Where indicated, standardized academic training materials exist and may be obtained from the sponsoring activity.

Academic training requirements are listed separately for each phase of flight training.

Training may be completed earlier in stage but should be completed by the appropriate sortie(s). Course descriptions are as follows:

Interactive Courseware (ICW). This is a Computer Based Training (CBT) syllabus for Core Introduction training. It consists of both self-paced lessons and instructor-presented phase lectures.

Academic Support Package (ASP). These are MAWTS-1 prepared classes available on CD-ROM or the MAWTS-1 websites. All material is contained on CDs or the websites, both classified and unclassified. These can be either self-paced lessons or instructor-presented lectures. The classes listed are only the Generics, Common or Specific AH-1 classes.

Computer Based Training. These are software and/or hardware computer training aids designed to augment training for specific systems. Examples include the Naval Air Warfare Center programs for avionics systems, as well as other programs developed by various sources such as the TISP, FTS, Mission Planning Software/JMPS/AWE, EOTDA, and ASE trainers/programs.

Squadron Developed Training. Squadron-developed curriculum is used to enhance the above programs. Recognition training should be continuous.

Websites. The MAWTS-1 websites have classes, publications and other pertinent material and are included below.

NIPR: https://mceits.usmc.mil/sites/mawts1/default.aspx Click on ASD, AH-1 for general unclassified information.

SIPR: https://intelshare.intelink.sgov.gov/sites/mawts1/default.aspx Click on ASD, AH-1 for general information, then select Courseware, ASP for WTI classified and unclassified courseware.

Graduate Level Courses. There are 4 graduate level courses (FAC(A)I, DACMI, NSI, WTI) that qualify instructors for specific portions of the T&R syllabus. The requirements for these instructor certifications are contained in the MAWTS-1 Course Catalog.

External academic courses of instruction available to complete the syllabus are listed below:

COURSE	ACTIVITY
Survival, Evasion, Resistance, and Escape (SERE) Course	NAS Brunswick ME, NAS North Island CA
NITE lab	Any Approved Course
Forward Air Controller (Airborne) Course	Local MATSS
Weapons and Tactics Instructor (WTI) Course	MAWTS-1
Aviation Career Progression Model	MAWTS-1

2.5.2 Event Requirements

General. The MAWTS-1 Course Catalog contains a summary matrix of all Ground, Academic, Simulator, and Flight requirements for each stage of the T&R. This matrix shall be placed in the Aircrew Performance Record (APR) of all aircrew to thoroughly track training progression. As each training event is completed, the PTO will input the date of completion.

All events, to include simulators, shall begin with a comprehensive brief with emphasis on administrative procedures, CRM, tactical procedures, mission performance standards and aircrew expectations.

All flights shall terminate with a comprehensive debrief with emphasis on aircrew performance utilizing all

evaluation techniques available (e.g. video, participating aircrews, external support personnel).

An ATF is required for any initial event completed by a Basic/Transition, Refresher or Series Conversion pilot, or as recommended by the squadron Standardization Board. If the commanding officer has waived/deferred a syllabus sortie, the squadron training officer shall place a waiver/deferral letter in section 3 of the APR. Standardized ATFs can be obtained by the T&R sponsor, MAWTS-1.

All pilots will have an APR. The squadron training officer shall ensure each ATF is entered in section 3 of the APR.

When operational commanders assign HMLA squadrons to prolonged commitments where specific T&R training is not available (e.g., MEU deployments, sustained combat deployments), it is expected that degradation in some mission areas will occur. Commanding officers are authorized to defer training in specific missions that are not relevant to their current deployment situation. Once the squadron or detachment has returned from the deployment, every effort should be made to achieve the deferred training for the affected pilots.

Compliance with the written flight description is mandatory for syllabus event completion. In the absence of a flight simulator, completion of a syllabus event is not required to complete that stage. Completion of those events should be accomplished as soon as practical upon simulator availability. Should the command desire, simulator events can be flown in the aircraft for T&R credit.

Training should be accomplished by flying events within a stage in sequence and stages in sequence when practical. As an example, prerequisites allow a PUI to fly events in other stages while waiting for the next HLL or LLL period.

Specific rules of conduct requirements for individual type missions (NVG training, CQs, DACM, etc.) can be found in chapter 3 of the Aviation T&R Program Manual.

2.5.3 Event Header

Sortie Duration. Times indicated for each event are recommendations. When scheduling sorties, training officers are allowed to schedule additional training codes based on anticipated mission sets if the performance standards are met for the sortie, and sufficient time is available during the flight to accomplish those sorties (e.g. 3 hour flight scheduled to conduct two sorties with flight time requirement of 1.5 hours each). If multiple syllabus events are to be accomplished during a single flight evolution, appropriate planning, briefing, and debriefing time shall be allotted to ensure that requisite training objectives can be met.

Proficiency Interval. The proficiency Interval , more commonly called “Refly Factor”, reflects the maximum tme between syllabus events. Refly factors are delineated in days. If not applicable, an asteric (*) will be used to indicate the event has no refly interval – it is a one-time training requirement (unless R-coded).

Programs of Instruction. Delineates event requirements for specific syllabi.

Event Conditions. Refer to the following table for required event conditions:

Code	Environmental Condition
D	Shall be flown or conducted during day
N	Shall be flown or conducted at night (using available night vision devices or flown unaided) at least 30 minutes after official sunset.
(N)	May be flown or conducted day or night; if at night, available night vision devices may be used or flown unaided
D/NS	Shall be flown both day and night conditions, unless flown in the aircraft, in which case the event may be flown during day or night conditions
NS	Shall be flown or conducted at night using available night vision devices at least 30 minutes after official sunset
(NS)	May be flown or conducted day or night; if at night, available night vision devices shall be used
N*	Event Shall be flown or conducted at night unaided
(N*)	Event may be flown or conducted at night; if at night, shall be flown unaided

Device Codes. Refer to the following table for device codes:

Symbol	Device
A	Event performed in aircraft
S	Event performed in simulator or a simulated practical application
A/S*	Initial event SHALL be performed in the aircraft. Subsequent flights may be flown in the simulator for proficiency.
S/A	Event performed in simulator preferred/aircraft optional

TEN	Tactical Environment Network
TEN +	Tactical Environment Network and at least one networked, man-in-the-loop simulator

Tactical Environment Network (TEN) simulator requirements are identified for each simulator event. TEN has been used to identify that the simulator must have the ability to link to the network. TEN+ has been used to identify that at least one networked, man-in-the-loop simulator is required for that event. Linked simulator events require an approved Tactical Environment Network simulation and at least one additional, networked, man-in-the-loop simulator to meet the training objectives. A moving model controlled from the operator station does not satisfy the man-in-the-loop requirement.

2.5.4 Event Body

Requirement. The requirement lists specific tasks for the event and indicates what the individual should accomplish.

Discuss. The IP shall discuss a procedure or maneuver during the brief, in flight, or debrief. The PUI is responsible for knowledge of the applicable procedures prior to the brief.

Demonstrate. The IP performs the maneuver with accompanying description. The PUI observes the maneuver and is responsible for the knowledge of the procedures prior to the sortie.

Introduce. The IP may perform the maneuver with an accompanying description, or the IP may coach the PUI through the maneuver without demonstration. The PUI shall perform the maneuver with coaching, as necessary, and is responsible for knowledge of the procedures prior to the sortie.

Review. The IP observes and grades the maneuver without coaching the PUI. An airborne critique of PUI performance is at the option of the instructor. The PUI is expected to perform the maneuver without coaching and devoid of procedural error at a level acceptable to warrant progress into the next stage of training.

Performance Standards. Performance standards are listed for each T&R event description. These are training standards for individual aircrew performance and shall be utilized by the evaluator as a guideline to determine the satisfactory completion of each event. If the aircrew did not successfully attain the performance standards, the training code shall not be logged as a completed flight. ***Logging multiple training codes on an initial single sortie shall be avoided.***

2.5.5 Grading Standards

Complete. The PUI has demonstrated sufficient grasp of the concepts and skills to proceed to the next training evolution or be designated appropriately.

Incomplete. Describes a training event that is not declared 'Complete' due to circumstances beyond the control of the aircrew. Examples may include, but are not limited to: WX, time constraints, aircraft or simulator maintenance, external support inadequate. 'Incomplete' shall not be used to obscure reporting of a substandard performance.

Requires Additional Training (RAT). A RAT is used when the PUI has not yet demonstrated sufficient grasp of the required skills and concepts to progress in the syllabus. A RAT is not derogatory in nature. Instructor remediation recommendations should specifically identify the deficient area(s) for addressing shortcomings in terms of reading assignments, courseware, additional flight, simulator, or other appropriate training. The instructor assigning a R.A.T. synopsis is responsible for ensuring the recommendation has been endorsed by Squadron leadership and adhered to by the student unless a higher authority intervenes with additional guidance. A RAT shall not be used for E coded events.

Unsatisfactory. Identifies a condition where the PUI has proven unable to meet performance standards due to a lack of preparation, lack of effort, consistent inability to demonstrate improvement or resistance to instruction. Significant safety of flight incidents that are of a direct result of the pilot under training actions should be considered unsatisfactory. The instructor assigning this event synopsis is responsible for ensuring recommendations for remediation, if applicable, are proposed through the DSS & Operations Department.

Prerequisites. Events (academic or flight/simulator) that must be completed prior to the initiation of the event. Events preceeding a "~" indicate prerequisites dependent on optional conditions (e.g. environmental and ordnance). For example ANSQ-2702~LLL, indicates that if the event is flown under LLL conditions, ANSQ is a required prerequisite.

Ordnance/Range/Target/External Syllabus Support. Items required to successfully complete the required

training.

Crew Requirements. The crew requirements listed at the end of each event are requirements for initial stage training flights. For operational flights the minimum crew requirements are defined by CNAF, NATOPS, and NAVMC 3500.14. When not clearly defined by higher directives, the squadron commanding officer, DSS, or local SOPs may dictate the minimum crew requirements.

2.6 CORE INTRODUCTION PHASE (1000)

Purpose. To develop a Core Introduction complete pilot with the airmanship, CRM, and systems and procedural knowledge to act as PIC of a single aircraft or as wingman, under IFR or VFR, and in familiar and unfamiliar airspace/airports. Additionally, to prepare the PUI for follow on Core Phase training. At the completion of this phase the PUI will be designated Pilot Qualified in Model (PQM), NATOPS qualified, and rate the 7565 MOS as specified in CSIX-1901.

General. Completion of this phase meets the requirements for the PUI to be designated a PQM. At the discretion of the commanding officer, a letter designating the PUI as PQM shall be placed in the NATOPS jacket. A tracking code of DESG-6300 shall be logged**. The AH-1W Model Manager shall be responsible for Core Introduction Phase standardization.** Instructors shall be responsible for mission briefs. Students may conduct a mission brief only after observing the instructor brief a mission in that specific stage.

CORE Introduction Stages.

CORE INTRODUCTION (1000 Phase)		
STAGE	**PARAGRAPH**	**PAGE NUMBER**
Academics (ACAD)	2.7.1	2-10
Familiarization (FAM)	2.7.2	2-11
Instrument (INST)	2.7.3	2-27
Formation (FORM)	2.7.4	2-30
Terrain Flight (TERF)	2.7.5	2-33
Navigation (NAV)	2.7.6	2-36
Specific Weapons Delivery (SWD)	2.7.7	2-38
Threat Counter-Tactics (TCT)	2.7.8	2-42
Core Introduction Check (CIX)	2.7.9	2-43

2.7 CORE INTRODUCTION STAGES

2.7.1 Academics (ACAD)

Purpose. To develop a Core Introduction complete copilot. These academics facilitate understanding of basic functions/operations in the AH-1W and ensure individuals possess the requisite knowledge to be designated Pilot Qualified in Model (PQM), NATOPS qualified and rates the 7513/7565 MOS as specified in CSIX-1901.

General

These academics are intended to be an integrated series of academic events contained within each phase of training. Accordingly, academic events serve as pre-requisites to selected flight events or stages.

Completion of these academics and flight phase meet the requirements for the PUI to be designated a PQM. Core Introduction academic events, along with their identifying pre-requisite association with other training phases/stages/events are listed below.

At the completion of each ACAD event, the appropriate training code shall be logged in M-SHARP by the individual pilot, contract instructor, or squadron operations personnel, as appropriate.

CORE INTRODUCTION FRS ACADEMIC PHASE	
TRAINING CODES	**COURSEWARE**
ACAD-1000	Light Attack University (LAU)
ACAD-1001	Computer Based Training/Interactive Courseware
ACAD-1002	Weight & Power Lecture
ACAD-1003	CDNU/EGI/ARC-210 Basics
ACAD-1004	T/M/S Specific Crew Resource Management*
ACAD-1005	Introduction to Mission Planning Software
ACAD-1006	Familiarization Stage Lecture
ACAD-1007	Instrument Stage Lecture
ACAD-1008	Formation Flight Stage Lecture
ACAD-1009	TERF Stage Lecture

ACAD-1010	Navigation Stage Lecture
ACAD-1011	NVD NITE Lab
ACAD-1012	TCT/ASE Lecture
ACAD-1013	Specific Weapons Delivery Stage Lecture

2.7.2 Familiarization (FAM)

Purpose. To develop familiarity with aircraft flight characteristics, limitations, and emergency procedures during day and night operations. To develop proficiency in all maneuvers and to instill basic CRM procedures throughout the familiarizartion stage.

General. PUI must demonstrate proficiency with all shore based FAM procedures to include normal/emergency procedures and basic aircraft maneuvers. Additionally, the PUI must display a thorough knowledge of limitations and flight characteristics. During all stages, the PUI shall complete a weight and power form before each sortie and present it to the IP for verification.

> Where seat position is optional, PUI should conduct half of the syllabus events from each seat to facilitate proficiency from both cockpit positions. IP should discuss CRM considerations for each cockpit position during each event.

Crew Requirements. As listed at the end of each event.

Ground/Academic Training. IAW HMLAT-303 curriculum requirements. Includes Interactive Courseware (ICW), preflight and postflight, flight procedures, maneuver descriptions, emergency procedures, course rules and open and closed-book NATOPS exams.

FAM Stage Overview

FAMILIARIZATION (FAM) STAGE							
EVENT	**TIME**	**REFLY**	**POI**	**COND**	**DEVICE**	**NUM**	**DESCRIPTION**
FAM-1100	0.0	*	B	D	A	1 (static)	Intro Pre & Post Flight
FAM-1101	0.0	*	B,R.SC,MR	D	A	1 (static)	Review Pre & Post Flight
SFAM-1102	1.5	*	B,SC	D	S	1	NATOPS Checklist
SFAM-1103	1.5	*	B,SC	D	S	1	Intro Fam Maneuvers,CDNU
FAM-1104	1.5	*	B,SC	D	A	1	Intro FAM Maneuvers
FAM-1105	2.0	*	B,SC	D	A	1	Intro NAV and INST
SFAM-1106	1.5	*	B	D	S	1	RS - FAM and INST
SFAM-1107	1.5	*	B,R,SC,MR	D	S	1	RS – Rev FAM and INST
FAM-1108	2.0	*	B,R,SC,MR	D	A	1	RS - Intro FAM
FAM-1109	2.0	*	B,SC	D	A	1	RS - Intro and Rev FAM
FAM-1110	2.0	*	B,R,SC,MR	D	A	1	FS – Intro FAM
SFAM-1111	1.5	*	B,R,SC,MR	D	S	1	FS - Rev EPs & CRM
FAM-1112	2.0	*	B	D	A	1	RS – Intro & Rev EPs & FAM
FAM-1113	2.0	*	B,R,SC,MR	D	A	1	RS – Intro & Rev EPs & FAM
FAM-1114	2.0	*	B,R,SC,MR	D	A	1	RS - EPs & CRM Eval
SFAM-1115	1.5	*	B	D	S	1	RS - FAM and EP Eval
SFAM-1116	1.5	*	B,R,SC,MR	D	S	1	RS - FAM and EP Eval
FAM-1117	2.0	*	B	D	A	1	FS – Rev FAM
FAM-1118	2.0	*	B,R,SC,MR	D	A	1	RS – Rev FAM
FAM-1119	2.0	*	B,R,SC,MR	D	A	1	RS - Eval
SFAM-1120	1.5	*	B	NS	S	1	FS – Intro NVD FAM
FAM-1121	1.5	*	B	NS	A	1	FS – Intro NVD FAM
FAM-1122	1.5	*	B,R,SC,MR	NS	A	1	RS – Intro NVD FAM

FAM-1100 0.0 * B D A 1 AH-1W (STATIC)

Goal. Introduce preflight and postflight familiarization and responsibilities.

Requirements

Discuss. All demonstrate and introduce maneuvers

Demonstrate

OOMA/M-SHARP functionality
ADB Review

Introduce

Weight and power computations

Blind cockpit checks (both seats)
All preflight inspections
Postflight inspections
Emergency egress procedures

Performance Standards

PUI shall complete an accurate weight and power computation for given conditions.
PUI shall demonstrate basic knowledge of ADB and maintenance functions.

PUI shall demonstrate a basic knowledge of preflight and postflight inspection checklist IAW AH-1W NATOPS.

Prerequisites. 1000 through 1003

Crew. FRSI/PUI

FAM-1101	0.0	*	B,R,SC,MR	D	A	1 AH-1W (STATIC)

Goal. Review preflight and postflight familiarization and responsibilities.

Requirements

Discuss

Use of performance charts
Height/Velocity diagram

Review

Weight and power computations
Blind cockpit checks (both seats)
All preflight inspections
Postflight inspections
Emergency egress procedures
OOMA/M-SHARP functionality

Performance Standards

PUI shall complete an accurate weight and power computation for given conditions.

PUI shall screen and understand the function of the ADB.

PUI shall conduct aircraft preflight and postflight inspections and identify key components IAW AH-1W NATOPS.

Prerequisite. 1100

Crew. FRSI/PUI

SFAM-1102	1.5	*	B,SC	D	S	WST/APT

Goal. FS/RS – Introduce NATOPS checklists and ground procedures for both cockpits.

Requirements

Discuss. NATOPS Ch 7 vs PCL checklists

Demonstrate . Basic simulator operation

Introduce

Start checklist
Cocking and quickstart
Rotor brake start
Subsequent start checklist
Pretakeoff checklist
Prelanding checklist
Shutdown checklist
Emergency shutdown
Engine hot start
Engine fire on start (external)

Performance Standards

PUI shall demonstrate functional knowledge of NATOPS checklists and procedures.

PUI shall conduct an aircraft start and shutdown.

PUI shall complete a weight and power for condtions of the given day.

Prerequisites. 1004-1006,1101

Crew. CSI or FRSI/PUI

SFAM-1103 1.5 * B,SC D S WST/APT

Goal. FS - Introduce familiarization maneuvers, NTS/TSU switchology and CDNU switchology.

Requirements

Discuss

All demonstrate and introduce maneuvers
Lost plane procedures
Ditching
Autorotational characteristics
Associated NATOPS emergencies, limitations, servicing, checklist and FCF procedures for briefed systems
Pulling MGRS and LAT/LONG from Joint Operations Graphic (JOGAIR)

Demonstrate

Full autorotations
High altitude emergencies

Introduce

Navigation with EGI
DVO and CCDTV Focus
SHC operation
Change magnification
Change sensors
NTS boresight
NTS BIT
NTS power up
Turn Squelch on and off
Change frequencies
Change Coordinate Format
Change DATUM
Mark a waypoint
Utilize progress page and toggle between auto and manual
Insert route and/or waypoints into flightplan
Manually create a route
Manually enter waypoints
Set the TACAN
EGI Alignment/Methods
EGI Power Up
Emergency shutdown
Waveoff procedures
Precision (steep) approach
Normal Approach
Reduced Visibility Landing (RVL) and approach profile

Performance Standards

PUI shall have a detailed understanding and functional knowledge of all procedures and maneuvers IAW the AH-1W NATOPS and MDG.

Prerequisites. 1102

Crew. CSI or FRSI/PUI

FAM-1104 1.5 * B,SC D A 1 AH-1W

Goal. FS – Introduce familiarization maneuvers.

Requirements

Discuss

Engine oil system emergencies
Engine limitations
Powerplant systems
Hot Refueling checklist
Pressure fueling checklist
Lost comm procedures
Autorotation RPM check (NFM ch. 10)

Demonstrate

GCA approaches
High altitude emergencies
Autorotational characteristics at altitude
180 degree autorotation
90 degree autorotation
Straight-in autorotation
No hover takeoff
No hover landings

Introduce

COMM/NAV/NTS basic operation
Waveoff procedures
Precision (steep) approach
Normal Approach
Normal takeoff
Low work
Course rules/area fam
Shutdown checklist and procedures
Start checklist and procedures

Performance Standards. PUI shall have a detailed understanding and functional knowledge of all procedures and maneuvers IAW the AH-1W NATOPS and MDG.

Prerequisites. 1004,1005,1103

Crew. FRSI/PUI

FAM-1105 2.0 * B,SC D A 1 AH-1W

Goal. FS – Introduce navigation and instrument procedures.

Requirements

Discuss

Update function for INS only mode
Radio relay
JOG and use of the Sectional/TAC for map/route preparation
Planning for operations at an unfamiliar airport
3MAW Pilot Controller Handbook (PCH)/SOP routes and 3MAW common frequency usage
Map legend information (Sectional, TAC, JOGAIR)
VFR FLIPS

Demonstrate

TACAN approaches
Mission brief (NATOPS, GTAC-E, route)

Introduce

Emergencies – ASA Possible
Emergencies – ASA Practical
Navigation with EGI
Navigation without EGI
Map preparation

Review

Normal Approach
Precision (steep) Approach
Normal Takeoff
Low Work
Waveoff procedures for power on approaches

Performance Standards

PUI shall have a detailed understanding and functional knowledge of all procedures and maneuvers IAW the AH-1W NATOPS and MDG.

PUI shall complete an accurate weight and power computation for given conditions.

Prerequisites. 1104

Crew. FRSI/PUI

SFAM-1106	1.5	*	B	D	S	WST/APT

Goal. RS - Introduce familiarization maneuvers and basic instruments.

Requirements

Discuss

Starter limitations
Engine system
Standard rate turns

Introduce

Recovery from unusual attitudes
Turn pattern
Vertical S-1 pattern
Standard rate turns
Instrument takeoff (ITO)
Instrument checklists
Engine hot start
Full autorotations
Waveoff procedures
180 degree autorotation
90 degree autorotation
Straight-in autorotation
Start checklist and procedures
Reduced Visibility Landings (RVL) and approach profile

Review

Precision (steep) approach
Normal Approach

Performance Standards

PUI shall have a detailed understanding and functional knowledge of all procedures and maneuvers IAW the AH-1W NATOPS and MDG.

PUI shall perform a minimum of five full autorotations.

Prerequisites. 1104

Crew. CSI OR FRSI/PUI

SFAM-1107	1.5	*	B,R,SC,MR	D	S	WST/APT

Goal. RS - Review familiarization maneuvers and basic instruments.

Requirements

Discuss

RPM warning system

Spatial disorientation
VMC to IMC and IMC to VMC transitions

Introduce

Recovery from unusual attitudes
Turn pattern
Vertical S-1 pattern
Standard rate turns
Engine hot start
Full autorotations
Waveoff procedures

Review

Instrument takeoff (ITO)
Instrument checklists
180 degree autorotation
90 degree autorotation
Straight-in autorotation
Precision (steep) approach
Normal Approach
Start checklist and procedures
Reduced Visibility Landings (RVL) and approach profile

Performance Standards

PUI shall have a detailed understanding and functional knowledge of all procedures and maneuvers IAW the AH-1W NATOPS and MDG.

PUI shall perform a minimum of five full autorotations.

Prerequisites. 1106

Crew. CSI OR FRSI/PUI

FAM-1108	2.0	*	B,R,SC,MR	D	A	1	AH-1W

Goal. RS - Introduce familiarization maneuvers.

Requirements

Discuss

Engine electrical system
Electrical system
Associated NATOPS emergencies, limitations, servicing, checklist, and FCF procedures for briefed systems
Autorotational characteristics
Height/Velocity diagram
Engine wash procedures
Fuselage fire

Demonstrate

20 to 30 degree dives
Sliding landings
Single Engine Failure (Rwy, spot, away from pattern)
Single engine flight characteristics at altitude
Maximum power takeoff
High Speed Approach and Landing

Introduce

Waveoff procedures
High altitude emergencies
180 degree autorotation
90 degree autorotation
Straight-in autorotation
Course rules/area fam

Shutdown checklist and procedures
Start checklist and procedures

Review

No hover takeoff
No hover landings
Precision (steep) approach
Normal Approach
Normal takeoff
Low work

Performance Standards

PUI shall have a detailed understanding and functional knowledge of all procedures and maneuvers IAW the AH-1W NATOPS and MDG.

PUI shall complete an accurate weight and power computation for given conditions.

Prerequisites. 1105,1107

Crew. FRSI/PUI

FAM-1109 2.0 * B,SC D A 1 AH-1W

Goal. RS – Introduce and review Familiarization maneuvers.

Requirements

Discuss

Hyd systems
SCAS system
Associated NATOPS emergencies, limitations, servicing, checklist, and FCF procedures for briefed systems
Mast bumping
Static/Dynamic rollover
Rotor brake pressurize in-flight

Demonstrate

Confined area landings
Confined area takeoff
Slope landing and takeoff
SCAS failure
#1 hydraulic failure

Introduce

20 to 30 degree dives
Sliding landings
Single Engine Failure (Rwy, spot, away from pattern)
Maximum power takeoff
High Speed Approah and Landing
No hover takeoff
No hover landings
Mission brief

Review

High altitude emergencies
180 degree autorotation
90 degree autorotation
Straight-in autorotation
Precision (steep) approach
Normal approach
Normal takeoff

Performance Standards

PUI shall perform a mission brief.

PUI shall have a detailed understanding and functional knowledge of all procedures and maneuvers IAW the AH-1W NATOPS and MDG.

PUI shall complete an accurate weight and power computation for given conditions.

Prerequisites. 1108

Crew. FRSI/PUI

FAM-1110 2.0 * B,R,SC,MR D A 1 AH-1W

Goal. FS – Introduce and review familiarization maneuvers.

Requirements

Discuss

Transmission System (main, CBOX, tail rotor)
Associated NATOPS emergencies, limitations, servicing, checklist, and FCF procedures for briefed systems

Introduce

Confined area landings
Confined area takeoff
Slope landing and takeoff
SCAS failure
#1 hydraulic failure
No hover takeoff
No hover landings
Course rules/area fam
Mission brief

Review

Sliding landings
Single Engine Failure (Rwy, spot, away from pattern
High altitude emergencies
Maximum power takeoff
High Speed Approach and Landing
180 degree autorotation
90 degree autorotation
Straight-in autorotation
Precision (steep) approach
Normal approach
Normal takeoff

Performance Standards

PUI shall perform a mission brief.

PUI shall have a detailed understanding and functional knowledge of all procedures and maneuvers IAW the AH-1W NATOPS and MDG.

PUI shall perform a minimum of five practice autorotations.

Prerequisites. 1109

Crew. FRSI/PUI

SFAM-1111 1.5 * B,R,SC,MR D S WST/APT

Goal. FS – Use a basic scenario to introduce fam stage CRM as PIC from the FS during normal operations and while handling emergencies of different landing criteria. Additionally, introduce the below listed emergencies.

Requirements

Discuss

20 min of discussion time is to be used for the NATOPS and GTAC-E brief.
Use remaining 10 min to cover the introduced emergencies.

Introduce

Single engine failure
Dual engine failure in flight
Dual engine failure during takeoff
Np underspeed
Np overspeed
Engine electrical system failures
Loss of tail rotor thrust/components in a hover
Single engine fire
Compressor stall
Complete electrical failure
Main drive shaft failure
Loss of tail rotor thrust/components in flight
Full autorotations
GTAC-E Brief

Review

Course rules/area fam
Mission brief (NATOPS, GTAC-E, route)

Performance Standards

First half of sortie is scenario based, covering previously introduced emergencies and maneuvers.

PUI shall receive scenario assignment with published flight schedule and conduct NATOPS and crew briefs to co-pilot. PUI shall act as PIC. A FAM-1108 complete copilot is mandatory.

Current scenarios in use shall be published in the FRS Course Catalog.

Second half of sortie is not scenario based and shall be used to introduce high risk EPs, as well as those EPs that can not be fully replicated in the aircraft.

PUI shall conduct all procedures and maneuvers IAW the AH- 1W NATOPS and MDG.

PUI shall perform a minimum of five full autorotations.

Prerequisites. 1110

Crew. CSI or ANI/PUI (co-pilot mandatory, shall be 1108 complete)

FAM-1112 2.0 * B D A 1 AH-1W

Goal. RS – Introduce and review familiarization maneuvers.

Requirements

Discuss

Flight control system
Rotor system
Associated NATOPS emergencies, limitations, servicing, checklist, and FCF procedures for briefed systems

Demonstrate

Fixed pitch tail rotor malfunctions
Collective control interference

Introduce. EECU lockout

Review

#1 hydraulic failure
SCAS Failure
Single Engine Failure (Rwy, spot, away from pattern)
180 degree autorotation
90 degree autorotation 20 to 30 degree dives
Straight-in autorotation
Sliding landings
High altitude emergencies

High Speed Approach and Landing
No hover landings
Precision (steep) approach
Normal Approach
Normal takeoff

Performance Standards

PUI shall perform a mission brief.

PUI shall have a detailed understanding and functional knowledge of all procedures and maneuvers IAW the AH-1W NATOPS and MDG.

Prerequisites. 1111

Crew. FRSI/PUI

FAM-1113 2.0 * B,R,SC,MR D A 1 AH-1W

Goal. RS – Introduce and review familiarization maneuvers.

Requirements

Discuss

Fuel system
Associated NATOPS emergencies, limitations, servicing, checklist, and FCF procedures for briefed systems

Demonstrate

High speed low level autorotation
Autorotation to a spot
Taxiing Autorotation
Hovering Autorotation

Introduce

Fixed pitch tail rotor malfunctions
Collective control interference

Review

Confined area landings
Confined area takeoff
Slope landing and takeoff
#1 hydraulic failure
20 to 30 degree dives
EECU lockout
Sliding landings
Single Engine Failure (Rwy, spot, away from pattern)
High altitude emergencies
180 degree autorotation
90 degree autorotation
Straight-in autorotation
Maximum power takeoff
High Speed Approach and Landing
No hover takeoff
No hover landings
Precision (steep) approach
Normal Approach
Normal takeoff
Mission brief (NATOPS, GTAC-E, route)

Performance Standards

PUI shall perform a mission brief.

PUI shall have a detailed understanding and functional knowledge of all procedures and maneuvers IAW

the AH-1W NATOPS and MDG.

Prerequisites. 1112

Crew. FRSI/PUI

FAM-1114 2.0 * B,R,SC,MR D A 1 AH-1W

Goal. RS – Introduce and evaluate familiarization maneuvers.

Requirements

Discuss. Any previously introduced NATOPS EP/limit/system, or MDG procedure

Inroduce

Taxiing Autorotations
Hovering Autorotations
High speed low level autorotation

Review

Fixed pitch tail rotor malfunctions
Collective control interference
#1 hydraulic failure
Waveoff procedures
Confined area landings
Confined area takeoff
Slope landing and takeoff
20 to 30 degree dives
EECU lockout
Sliding landings
Single Engine Failure (Rwy, spot, away from pattern)
High altitude emergencies
180 degree autorotation
90 degree autorotation
Straight-in autorotation
Maximum power takeoff
High Speed Approach and Landing
No hover takeoff
No hover landings
Precision (steep) approach
Normal Approach
Normal takeoff
Low work
Mission brief (NATOPS, GTAC-E, route)

Performance Standards. PUI shall have a detailed understanding and functional knowledge of all procedures and maneuvers IAW the AH-1W NATOPS and MDG.

Prerequisites. 1113

Crew. ANI/PUI

SFAM-1115 1.5 * B D S WST/APT

Goal. RS – Use a basic scenario to introduce fam stage CRM as PIC from the RS during normal operations and while handling emergencies of different landing criteria. Additionally, introduce the below listed emergencies.

Requirements

Discuss

20 min of discussion time is to be used for the NATOPS and GTAC-E brief.
Use remaining 10 min to cover the introduced emergencies.

Introduce

Engine hot start

Emergency Shutdown
Engine driven suction pump failure
Dual hydraulic failure
Single engine failure
Dual engine failure at high power and airspeed
Dual engine failure in flight
Rotor brake pressurizes in flight
Np underspeed
Np overspeed
Engine electrical system failures
Jammed tail rotor pitch control in a hover
Loss of tail rotor thrust/components in a hover
Dual engine fire
Main drive shaft failure
Loss of tail rotor thrust/components in flight
Full autorotations

Review

High altitude emergencies
Course rules/area fam
Mission brief (NATOPS, GTAC-E, route)

Performance Standards

First half of sortie is scenario based covering previously introduced emergencies and maneuvers. PUI shall receive scenario assignment with the published flight schedule, and conduct NATOPS and GTAC-E briefs to his copilot. PUI shall act as PIC, and an 1108 complete copilot is mandatory.

Current scenarios in use shall be published in the FRS Course Catalog.

Second half of sortie is not scenario based and shall be used to introduce high risk EPs, as well as those EPs that can not be fully replicated in the aircraft.

PUI shall have a detailed understanding and functional knowledge of all procedures and maneuvers IAW the AH-1W NATOPS and MDG.

Prerequisites. 1114

Crew. CSI or FRSI/PUI (co-pilot mandatory, shall be 1108 complete)

SFAM-1116	1.5	*	B,R,SC,MR	D	S	WST/APT TEN

Goal. RS – Use a basic scenario to evaluate fam stage CRM as PIC from the RS during normal operations and while handling emergencies of different landing criteria.

Requirements

Discuss

20 min of discussion time is to be used for the NATOPS and GTAC-E brief.
Use remaining 10 min to cover the reviewed emergencies.

Review

Engine hot start
Emergency Shutdown
Engine driven suction pump failure
Dual hydraulic failure
Single engine failure
Dual engine failure at high power and airspeed
Dual engine failure in flight
Rotor brake pressurizes in flight
Np underspeed
Np overspeed
Engine electrical system failures
Jammed tail rotor pitch control in a hover

Loss of tail rotor thrust/components in a hover
Dual engine fire
Main drive shaft failure
Loss of tail rotor thrust/components in flight
Full autorotations
High altitude emergencies
Course rules/area fam
Mission brief (NATOPS, GTAC-E, route)

Performance Standards

First half of sortie is scenario based covering previously introduced emergencies and maneuvers. PUI shall receive scenario assignment with the published flight schedule, and conduct NATOPS and GTAC-E briefs to his copilot. PUI shall act as PIC, and an 1108 complete copilot is mandatory.

Current scenarios in use shall be published in the FRS Course Catalog.

Second half of sortie is not scenario based and shall be used to introduce high risk EPs, as well as those EPs that can not be fully replicated in the aircraft.

PUI shall have a detailed understanding and functional knowledge of all procedures and maneuvers IAW the AH-1W NATOPS and MDG.

Prerequisites. 1114,1115

Crew. CSI or ANI/PUI (copilot mandatory, shall be 1108 complete)

FAM-1117 2.0 * B D A 1 AH-1W

Goal. FS – Introduce and review familiarization maneuvers.

Requirements

Discuss. Any previously introduced NATOPS EP/limit/system, or MDG procedure

Review

Fixed pitch tail rotor malfunctions
#1 hydraulic failure
Collective control interference
Waveoff procedures
Confined area landings
Confined area takeoff
Slope landing and takeoff
20 to 30 degree dives
EECU lockout
Sliding landings
Single Engine Failure (Rwy, spot, away from pattern)
High altitude emergencies
Autorotation to a spot
High speed low level autorotation
180 degree autorotation
90 degree autorotation
Straight-in autorotation
Maximum power takeoff
High Speed Approach and Landing
No hover takeoff
No hover landings
Precision (steep) approach
Normal Approach
Normal takeoff
Low work
Mission brief (NATOPS, GTAC-E, route)

Performance Standards

PUI shall have a detailed understanding and functional knowledge of all procedures and maneuvers IAW the AH-1W NATOPS and MDG.

PUI shall perform a minimum of five full autorotations.

Prerequisites. 1114

Crew. FRSI/PUI

FAM-1118	2.0	*	B,,R,SC,MR	D	A	1 AH-1W

Goal. RS – Review familiarization maneuvers.

Requirements

Discuss. Any previously introduced NATOPS EP/limit/system, or MDG procedure

Review

Fixed pitch tail rotor malfunctions
#1 hydraulic failure
Collective control interference
Waveoff procedures
Confined area landings
Confined area takeoff
Slope landing and takeoff
20 to 30 degree dives
EECU lockout
Sliding landings
Single Engine Failure (Rwy, spot, away from pattern)
High altitude emergencies
Autorotation to a spot
High speed low level autorotation
180 degree autorotation
90 degree autorotation
Straight-in autorotation
Maximum power takeoff
High Speed Approach and Landing
No hover takeoff
No hover landings
Precision (steep) approach
Normal approach
Normal takeoff
Low work
Mission brief (NATOPS, GTAC-E, route)

Performance Standards. PUI shall have a detailed understanding and functional knowledge of all procedures and maneuvers IAW the AH-1W NATOPS and MDG.

Prerequisites. 1116,1117

Crew. FRSI/PUI

FAM-1119	2.0	*	B,R,SC,MR	D	A	1 AH-1W

Goal. RS – Evaluate familiarizaton maneuvers.

Requirements

Discuss. Any previously introduced NATOPS EP/limit/system, or MDG procedure

Review

Fixed pitch tail rotor malfunctions
#1 hydraulic failure

Collective control interference
Waveoff procedures
Confined area landings
Confined area takeoff
Slope landing and takeoff
20 to 30 degree dives
EECU lockout
Sliding landings
Single Engine Failure (Rwy, spot, away from pattern)
High altitude emergencies
Autorotation to a spot
High speed low level autorotation
180 degree autorotation
90 degree autorotation
Straight-in autorotation
Maximum power takeoff
High Speed Approach and Landing
No hover takeoff
No hover landings
Precision (steep) approach
Normal approach
Normal takeoff
Low work
Mission brief (NATOPS, GTAC-E, route)

Performance Standards

PUI shall have a detailed understanding and functional knowledge of all procedures and maneuvers IAW the AH-1W NATOPS and MDG.

PUI shall act as PIC and demonstrate the CRM, systems and procedural knowledge, and stage specific flight skills to safely execute all FAM stage maneuvers and handle simulated emergencies IAW the AH-1W NATOPS and MDG. IP shall act as peer-level copilot. PUI shall plan, brief, and lead the flight based on an assigned mission profile and IP planning guidance.

As the local flying area allows, mission profile should include operations at the departure airfield, at local training facilities and OLFs, and incorporating local course rules.

Prerequisites. 1118

Crew. ANI/PUI

SFAM-1120	1.5	*	B	NS	S	WST/APT-TEN

Goal. FS – Introduce NVD environment and familiarization maneuvers.

Requirements

Discuss

Aircraft lighting and switchology
NVD emergencies
NVD scan pattern
Electrical failure at night
RADALT at night
Sources of Illumination at night
Crew day/crew rest requirements at night

Introduce

Fixed pitch tail rotor malfunctions
Collective control interference
Sliding landings
Single Engine Failure (Rwy, spot, away from pattern)
High speed low level autorotation

180 degree autorotation
90 degree autorotation
Straight-in autorotation
High Speed Approach and Landing
Precision (steep) approach
Normal Approach

Performance Standards . PUI shall have a detailed understanding and functional knowledge of all night aided procedures and maneuvers IAW the AH-1W NATOPS, MDG & the MAWTS-1 NVD manual.

Prerequisites. 1011,1119

Crew. CSI or NSFI/PUI

FAM-1121 1.5 * B NS A 1 AH-1W

Goal. FS – Introduce NVD environment and familiarization maneuvers.

Requirements

Discuss

NVG brief
SLAP
Light Levels
CRM at night
Use of searchlights at night
Required equipment and cockpit setup for night flights
NVD comfort level

Introduce

180 degree autorotation
90 degree autorotation
Straight-in autorotation
High Speed Approach and Landing
No hover takeoff
No hover landings
Precision (steep) approach
Normal Approach
Normal takeoff
Low work

Performance Standards. PUI shall have a detailed understanding and functional knowledge of all night aided procedures and maneuvers IAW the AH-1W NATOPS, MDG & the MAWTS-1 NVD manual.

Prerequisites. 1120

Crew. NSFI/PUI

FAM-1122 1.5 * B,R,SC,MR NS A 1 AH-1W

Goal. RS – Introduce NVD environment and familiarization maneuvers.

Requirements

Discuss

NVD components
NVD adjustments/boresight/brightness
Automatic Brightness Control
Bright Source Protection
IIMC in NVD environment

Introduce

Taxiing Autorotations
Hovering Autorotations
Fixed pitch tail rotor malfunctions

Collective control interference
Sliding landings
Single Engine Failure (Rwy, spot, away from pattern)
High speed low level autorotation

Review

180 degree autorotation
90 degree autorotation
Straight-in autorotation
High Speed Approach and Landing
No hover takeoff
No hover landings
Precision (steep) approach
Normal Approach
Normal takeoff
Low work

Performance Standards. PUI shall have a detailed understanding and functional knowledge of all night aided procedures and maneuvers IAW the AH-1W NATOPS, MDG & the MAWTS-1 NVD manual.

Prerequisites. 1121

Crew. NSFI/PUI

2.7.3 Instruments (INST)

Purpose. To develop proficiency in actual/simulated IMC. To develop the PUIs stage specific flight skills, systems and procedural knowledge, and CRM to safely act as PIC during enroute and terminal operations under IFR and in IMC.

General

Refresher pilots may complete their annual instrument check (INST-6100) in conjunction with SINST-1203. If this option is exercised, the PUI will have completed the semi-annual minimums and instrument ground school (IGS) prior to SINST-1203.

Basic pilots whose instrument check will expire within three months of leaving the FRS will also meet the above requirements.

Crew Requirements. As listed at the end of each event.

Ground/Academic Training. IAW HMLAT-303 Course Catalog, instrument stage lecture and CBT/ICW. Instrument Ground School (as applicable).

References. Maneuver Description Guide, NATOPS manual, Instrument Flight Manual, Instrument Flight Publications.

Instrument (INST) Overview

INSTRUMENT (INST) STAGE							
EVENT	**TIME**	**REFLY**	**POI**	**COND**	**DEVICE**	**NUM**	**DESCRIPTION**
SINST-1200	1.5	*	B,R,SC,MR	(N)	S	1	RS - Intro TACAN & GCA
INST-1201	1.5	*	B	(N)	A	1	RS – Intro TACAN & Inst App
INST-1202	1.5	*	B,R,SC,MR	(N)	A	1	RS – Intro GCAs
INST-1203	1.5	*	B,R,SC,MR	(N)	S	1	Inst Eval

SINST-1200 1.5 * B,R,SC,MR (N) S WST/APT-TEN

Goal. RS – Introduce TACAN approaches and GCAs.

Requirements

Discuss

Standard rate indications
CDI operation
Holding and entry procedures

MDA/DH/HAA/HAT
Voice reports
Lost communications procedures
Spatial disorientation

Introduce

Precision Approach Radar (PAR)
TACAN approaches
Instrument autorotation
Partial panel
Recovery from unusual attitudes
OSCAR pattern
Turn pattern
Vertical S-1 pattern
Standard rate turns
Level speed change
Instrument takeoff (ITO)
Instrument checklists

Performance Standards

PUI shall have a detailed understanding and functional knowledge of all procedures and maneuvers IAW the AH-1W NATOPS, MDG and CNAF 3710.

CSI or FRSI will simulate all ATC communications.

PUI shall conduct a minimum of 2 approaches.

Prerequisites. 1007, 1119

Crew. CSI OR FRSI/PUI

INST-1201 1.5 * B (N) A 1 AH-1W

Goal. RS – Introduce TACAN approaches and instrument navigation procedures.

Requirements

Discuss

DD-175 filing criteria and procedures
In flight filing procedures
Weather briefing requirements
Station passage
NAVAID failures
VMC to IMC & IMC to VMC transitions

Introduce

Airways navigation
Missed Approach
TACAN approaches
TACAN arcing
TACAN holding
TACAN point to point navigation
TACAN Intercepts
Standard Instrument Departures (SIDs)

Review. Instrument checklist

Performance Standards

PUI shall have a detailed understanding and functional knowledge of all procedures and maneuvers IAW the AH-1W NATOPS, MDG and CNAF 3710.

To the max extent possible, approaches will be conducted away from homefield and a DD-175 filed.

PUI shall conduct a minimum of 2 approaches.

PUI will plan and execute an instrument flight IAW CNAF 3710.

Prerequisites. 1200

Crew. FRSI/PUI

INST-1202 1.5 * B,R,SC,MR (N) A 1 AH-1W

Goal. RS – Introduce GCAs and instrument navigation procedures.

Requirements

Discuss

Airspace classification
Cloud clearance and visibility requirements
Annual and semi-annual instrument and approach minimums
Instrument flight publications

Introduce

Missed Approach
No-Gyro Approach
Airport Surveillance Radar (ASR)
Precision Approach Radar (PAR)
Mission brief (NATOPS, GTAC-E, route)

Review

Standard Instrument Departures (SIDs)
Instrument checklist

Performance Standards

PUI shall have a detailed understanding and functional knowledge of all procedures and maneuvers IAW the AH-1W NATOPS, MDG and CNAF 3710.

To the max extent possible, approaches will be conducted away from homefield and a DD-175 filed.

PUI shall conduct a minimum of 2 approaches.

PUI will plan and execute an instrument flight IAW CNAF 3710.

Prerequisites. 1201

Crew. FRSI/PUI

SINST-1203 1.5 * B,R,SC,MR (N) S WST/APT

Goal. RS – Use a scenario to evaluate inst stage CRM as PIC during normal operations and while handling emergencies of different landing criteria.

Requirements

Discuss

Use discussion time for NATOPS and GTAC-E brief, giving special consideration to operating under IFR in IMC
Any previously introduced NATOPS EP/limit/system, or MDG inst stage procedure

Review

Emergencies - ASAPossible
Emergencies - ASAPractical
Airways navigation
Missed Approach
No-Gyro Approach
Airport Surveillance Radar (ASR)
Precision Approach Radar (PAR)
TACAN approaches
Standard Instrument Departures (SIDs)
Instrument autorotation
Partial panel
Instrument takeoff (ITO)

Instrument checklists

Performance Standards

PUI shall have a detailed understanding and functional knowledge of all procedures and maneuvers IAW the AH-1W NATOPS, MDG and CNAF 3710.

Sortie is scenario based. PUI shall receive scenario assignment with the published flight schedule, and conduct NATOPS and GTAC-E briefs to his copilot. PUI shall act as PIC and demonstrate the CRM, systems and procedural knowledge, and stage specific flight skills to safely conduct a flight under IFR in IMC. 1114 complete copilot is mandatory.

CSI or ANI will simulate all ATC communications.

PUI shall conduct a minimum of 2 approaches.

PUI will plan and execute an instrument flight IAW CNAF 3710. This sortie can fulfill requirements for annual instrument check if required and minimums have been met.

Current scenarios in use shall be published in the FRS Course Catalog.

Prerequisites. 1202

Crew. CSI or ANI(IFBM as required)/PUI(co-pilot mandatory, shall be 1114 complete)

2.7.4 Formation (FORM)

Purpose. To introduce formation flight and develop proficiency in parade and tactical formation maneuvers. To develop the PUIs stage specific flight skills, systems and procedural knowledge, and CRM to safely act as PIC as the designated wingman during nontactical flights.

General. At the completion of this stage, the PUI will be proficient at formation takeoffs and landings, rendezvous, parade, cruise, combat cruise, combat spread, lead change, ASTACSOP formation procedures and all formation maneuvers listed in the AH-1W NATOPS and MDG.

Crew Requirements. As listed at the end of each event.

Ground/Academic Training. IAW HMLAT-303 Course Catalog, formation stage lecture and CBT/ICW.

References. Maneuver Description Guide, NATOPS manual, ASTACSOP, NVD manual & NTTP.

Formation (FORM) Overview

FORMATION (FORM) STAGE							
EVENT	**TIME**	**REFLY**	**POI**	**COND**	**DEVICE**	**NUM**	**DESCRIPTION**
FORM-1300	2.0	*	B	D	A	2	Intro FORM
FORM-1301	2.0	*	B,R,MR	D	A	2	Intro TAC FORM
FORM-1302	2.0	*	B	D	A	2+	Div FORM
FORM-1303	1.5	*	B,R	NS	A	1+	NVD FORM
FORM-1304	2.0	*	B	D	A	1+	FORM Eval

FORM-1300 2.0 * B D A 2 AH-1W

Goal. FS - Introduce formation flight.

Requirements

Discuss

CRM during form flight
ASTACSOP Scatterplan
ASTACSOP loss of visual contact
Radius of turn
Visual Signals
Break (homefield, FARP, ship)
ASTACSOP aircraft lighting

Introduce

ASTACSOP lost comm
ASTACSOP RIO
Lead change

Formation comms
Wingman awareness
Formation takeoff
Formation landing
Cruise turns
Breakup and rendezvous
Crossovers
Parade turns
Cruise flight
Parade flight

Performance Standards

PUI shall have a detailed understanding and functional knowledge of all procedures and maneuvers IAW the AH-1W NATOPS, MDG, ASTACSOP, and NTTP.

PUI shall perform all maneuvers as lead and wingman.

Prerequisites. 1008,1500

Crew. FRSI/PUI

FORM-1301 2.0 * B,R,MR D A 1 AH-1W & 1 H-1

Goal. RS - Introduce formation flight and tactical formation flight maneuvering.

Requirements

Discuss. HAVEQUICK, SINCGARS and KY-58 functionality and operation

Introduce. Tactical formation maneuvers

Review

Section Landings
ASTACSOP IIMC
ASTACSOP RIO
Lead change
Formation comms
Wingman awareness
Cruise turns
Breakup and rendezvous
Crossovers
Parade turns
Cruise flight
Parade flight

Performance Standards

PUI shall have a detailed understanding and functional knowledge of all procedures and maneuvers IAW the AH-1W NATOPS, MDG, ASTACSOP, and NTTP.

PUI shall perform all maneuvers as lead and wingman.

Prerequisites. 1300

Crew. FRSI/PUI

FORM-1302 2.0 * B D A/S 1 AH-1W & 2+ H-1

Goal. RS – Introduce division formation flight and tactical formation flight maneuvering.

Requirements

Discuss. Division positioning

Demonstrate

ASTACSOP IIMC
Tactical formation maneuvers

Introduce
ASTACSOP RIO
Formation takeoff
Review
Formation comms
Wingman awareness
Cruise turns
Parade turns
Cruise flight
Parade flight

Performance Standards

PUI shall have a detailed understanding and functional knowledge of all procedures and maneuvers IAW the AH-1W NATOPS, MDG, ASTACSOP and NTTP.

PUI shall perform all maneuvers in a position other than division lead.

Prerequisites. 1301

Crew. FRSI/PUI

FORM-1303 1.5 * B,R NS A 1 AH-1W & 1 H-1

Goal. OS – Introduce NVD formation flight and tactical formation flight maneuvering.

Requirements

Discuss
ASTACSOP goggle/degoggle procedures
ASTACSOP aircraft lighting
NVD formation flight techniques
ASTACSOP loss of visual contact
CRM during form flight
H-1 NVG formation realted mishaps
Demonstrate
Tactical formation maneuvers
Aircraft lighting configurations
Introduce
Section Landings
ASTACSOP lost comm
Lead change
Formation comms
Wingman awareness
Formation takeoff
Formation landing
Cruise turns
Breakup and rendezvous
Crossovers
Parade turns
Cruise flight
Parade flight

Performance Standards

PUI shall have a detailed understanding and functional knowledge of all procedures and maneuvers IAW the AH-1W NATOPS, MDG, ASTACSOP, NTTP and MAWTS-1 NVD Manual.

PUI shall perform all maneuvers as lead and wingman.

Prerequisite. 1121,1301

Crew. NSFI/PUI

FORM-1304	2.0	*	B	D	A	1 AH-1W & 1 H-1

Goal. RS – Evaluate formation flight.

Requirements

Discuss

Any previously introduced items in the FORM stage
Aircraft emergencies during formation flight

Review

ASTACSOP lost comm
ASTACSOP IIMC
ASTACSOP RIO
Lead change
Formation comms
Wingman awareness
Formation takeoff
Formation landing
Tactical formation maneuvers
Cruise turns
Breakup and rendezvous
Crossovers
Parade turns
Cruise flight
Parade flight

Performance Standards

PUI shall have a detailed understanding and functional knowledge of all procedures and maneuvers IAW the AH-1W NATOPS, MDG, ASTACSOP and NTTP.

PUI shall act as PIC of dash 2 aircraft, IP shall act as peer level co-pilot.

PUI shall receive section brief from flight lead, conduct GTAC-E brief and safely execute formation sequence as wingman and tac lead.

PUI shall execute an abbreviated parade and cruise sequence as dash 2 and be prepared to handle contingency items such as IIMC, loss of visual contact, lost comm and/or other emergencies.

Prerequisites. 1302,1303

Crew. ANI/PUI

2.7.5 Terrain Flight (TERF)

Purpose. To introduce low level, contour and NOE modes of TERF flight and develop proficiency in the application of TERF. To develop the PUI's stage specific flight skills, systems and procedural knowledge, and CRM and prepare the PUI for Core Skill Phase TERF training.

General. PUI will demonstrate an understanding of the TERF modes (low level, contour, and NOE) and proficiency in low level, contour, and NOE flight maneuvers and navigation. At least one TERF event will be flown as a section to introduce high bird responsibilities.

Crew Requirements. As listed at the end of each event.

Ground/Academic Training. TERF stage lecture and ICW.

References. Maneuver Description Guide, NATOPS manual, NVD manual, and NTTP.

Terrain Flight (TERF) Overview

TERRAIN FLIGHT (TERF) STAGE							
EVENT	**TIME**	**REFLY**	**POI**	**COND**	**DEVICE**	**NUM**	**DESCRIPTION**
TERF-1400	2.0	*	B	D	A	1	FS - Intro TERF
TERF-1401	2.0	*	B,R,SC,MR	D	A	1	RS – Rev TERF
TERF-1402	2.0	*	B	B	A	1	OS – TERF Nav
TERF-1403	2.0	*	B,R,MR	NS	A	1	FS – NVD TERF

TERF-1400 2.0 * B D A 1 AH-1W

Goal. FS - Introduce TERF maneuvers.

Requirements

Discuss
- TERF brief
- Engine failure HIGE/HOGE
- Loss of tail rotor authority
- Mast bumping
- Safety "bubble" awareness

Demonstrate. Loss of tail rotor effectiveness

Introduce
- Turns
- Roll
- Bunt
- Masking and unmasking
- NOE quickstop
- NOE approach
- NOE takeoff
- Power checks
- Nap of Earth (NOE)
- Contour flight
- Low level flight

Review
- Confined/Unimproved area landings & takeoffs
- pattern autorotations or HAE
- Collective control interference
- Additional FAM sustainment as required

Performance Standards. PUI shall have a detailed understanding and functional knowledge of all procedures and maneuvers IAW the AH-1W NATOPS, MDG, ASTACSOP and NTTP.

Prerequisites. 1009,1500,1300~Section

External Syllabus Support. Authorized TERF area

Crew. FRSI/PUI

TERF-1401 2.0 * B,R,SC,MR D A 1 AH-1W

Goal. RS - Review TERF maneuvers.

Requirements

Discuss. Visibility differences in the TERF environment from FS to RS

Review
- Turns
- Roll
- Bunt
- Masking and unmasking
- NOE quickstop

NOE approach
NOE takeoff
Power checks
Nap of Earth (NOE)
Contour flight
Low level flight
Confined/Unimproved area landings & takeoffs
pattern autorotations or HAE
Collective control interference
Additional FAM sustainment as required

Performance Standards. PUI shall have a detailed understanding and functional knowledge of all procedures and maneuvers IAW the AH-1W NATOPS, MDG, ASTACSOP and NTTP.

Prerequisite. 1400,1300~Section

External Syllabus Support. Authorized TERF area

Crew. FRSI/PUI

TERF-1402 2.0 * B D A 1 AH-1W

Goal. OS – Introduce TERF navigation.

Requirements

Discuss. Application of lost procedures

Introduce

Navigation with EGI
Navigation without EGI
Map Preparation
Mission planning
Use of mission planning software & tools
Nap of the Earth (NOE) Navigation
Contour Navigation
Low Level Navigation

Review

Power checks
Confined/Unimproved area landings & takeoffs
pattern autorotations or HAE
Fixed pitch tailrotor malfunctions
Additional FAM sustainment as required

Performance Standards. PUI shall have a detailed understanding and functional knowledge of all procedures and maneuvers IAW the AH-1W NATOPS, MDG, ASTACSOP and NTTP.

Prerequisite. 1400,1300~Section

External Syllabus Support. Authorized TERF area

Crew. FRSI/PUI

TERF-1403 2.0 * B,R,MR NS A 1 AH-1W

Goal. FS - Introduce NVD TERF maneuvers.

Requirements

Discuss

NVD considerations in TERF
Terrain reflectivity (albedo)
Night visual cues
NVD environmental consideration
Meteorological considerations

Introduce
- Turns
- Roll
- Bunt
- Masking and unmasking
- NOE quickstop
- NOE approach
- NOE takeoff
- Power checks
- Nap of Earth (NOE)
- Contour flight
- Low level flight

Review
- No hover landings
- Pattern autorotations
- Additional FAM sustainment as required

Performance Standards. PUI shall have a detailed understanding and functional knowledge of all procedures and maneuvers IAW the AH-1W NATOPS, MDG, ASTACSOP, NTTP and MAWTS-1 NVD Manual.

Prerequisite. 1121,1401,1303~Section

External Syllabus Support. Authorized TERF area

Crew. NSFI/PUI

2.7.6 Navigation (NAV)

Purpose. To develop the ability to conduct day/night navigation. NAV stage proficiency will be evaluated as part of CSIX-1901.

General. PUI must demonstrate the ability to navigate preplanned routes and identify positions using both charts/maps and mission planning software at altitude and in the TERF environment.

Crew Requirements. As listed at the end of each event.

Ground/Academic Training. NAV stage lecture, ICW.

References. Maneuver Description Guide, NATOPS manual, ASTACSOP, NVD manual, NTTP.

Navigation (NAV) Overview

NAVIGATION (NAV) STAGE							
EVENT	**TIME**	**REFLY**	**POI**	**COND**	**DEVICE**	**NUM**	**DESCRIPTION**
NAV-1500	2.0	*	B	D	A	1	FS – Intro NAV
NAV-1501	2.0	*	B,R,SC	NS	A	1	FS – Intro NVD NAV

NAV-1500 2.0 * B D A 1 AH-1W

Goal. FS - Introduce navigation.

Requirements

Discuss
- 3MAW PCH: SOP routes and 3MAW common frequency usage
- ASTACSOP: Items related to navigation/route planning
- JOGAIR and use of the Sectional/TAC for map/route preparation
- Planning for operations at an unfamiliar airport
- Map preparation
- Pull MGRS and LAT/LONG from JOGAIR
- Application of lost procedures

Introduce
- Emergencies - ASAPossible

Emergencies - ASAPractical
Ops at Airport with CTAF
Ops at Airport with control tower
Navigation with EGI
Navigation without EGI
Map Preparation
Mission planning
Use of mission planning software & tools
Mission brief (NATOPS, GTAC-E, route)

Review

Fixed pitch tailrotor malfunctions
pattern autorotations or HAE
Additional FAM sustainment as required

Performance Standards

PUI shall act as PIC, conduct mission planning per the IP's direction, and brief the mission to include the NATOPS, route brief and GTAC-E.

Give special consideration to CRM relating to navigation, airfield operations, and emergencies.

Expose PUI to the CRM associated with navigation while being the PAC & PNAC.

Complete a navigation route with a minimum of 10 checkpoints utilizing a 1:250,000 scale map and minimum route length of 50NM.

Remain oriented on entire route per 'Magellan" standards published in NTTP 3-22.5-ASTACSOP.

A minimum of 5 checkpoints should be found without the aid of the GPS while the remaining route should be completed using the EGI.

PUI will plan the route to include entry into the pattern of an airfield other than homefield with a control tower and one with a CTAF.

At a minimum, a low approach shall be conducted before departing. PUI shall give significant detail in the brief to entering, operating in, and departing from unfamiliar airports.

Emphasize crew coordination and standard verbal descriptions of terrain and hazards.

Prerequisites. 1010,1203

Crew. FRSI/PUI

NAV-1501	2.0	*	B,R,SC	NS	A	1	AH-1W

Goal. FS - Introduce NVD navigation.

Requirements

Discuss

Night navigation considerations
Electrical failures
NVG Map preparation

Introduce

Emergencies - ASAPossible
Emergencies - ASAPractical
Ops at Airport with CTAF
Ops at Airport with control tower
Navigation with EGI
Navigation without EGI
Map Preparation
Mission planning
Use of mission planning software & tools
Mission brief (NATOPS, GTAC-E, route)

Performance Standards

PUI shall act as PIC, conduct mission planning per the IP's direction, and brief the mission to include the

NATOPS, route brief and GTAC-E. Give special consideration to CRM relating to navigation, airfield operations, and emergencies. Expose PUI to the CRM associated with navigation while being the PAC & PNAC.

Complete a navigation route with a minimum of 10 checkpoints utilizing a 1:250,000 scale map and minimum route length of 50NM. Remain oriented on entire route per 'Magellan" standards published in NTTP 3-22.5-ASTACSOP. A minimum of 5 checkpoints should be found without the aid of the GPS while the remaining route should be completed using the EGI.

PUI will plan the route to include entry into the pattern of an airfield other than homefield with a control tower and one with a CTAF. At a minimum, a low approach shall be conducted before departing. PUI shall give significant detail in the brief to entering, operating in, and departing from unfamiliar airports.

Emphasize crew coordination and standard verbal descriptions of terrain and hazards.

Prerequisites. 1121,1500

Crew. NSFI/PUI

2.7.7 Specific Weapons Delivery (SWD)

Purpose. To develop the ability to deliver air-to-ground weapons employing all available sensors and weapons systems.

General

At the completion of this stage, PUI will demonstrate familiarity with all ordnance delivery methods.

The SWD stage shall focus on teaching the PUI proper weapons delivery switchology, techniques, and flight profiles.

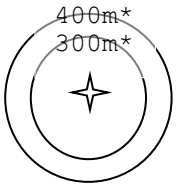
At the completion of the stage, the PUI should be able to perform prescribed weapons delivery demonstrating correct switchology and release profiles.

SWD should be conducted on rated/scored ranges whenever possible.

Focus should be on weapons delivery profiles and ordnance accuracy, not tactical scenarios.

DVR debrief should be used to the maximum extent possible.

IPs shall evaluate ordnance effectiveness based on the following accuracy metrics.

CORE INTRODUCTION	ROCKET STANDARD	GUN STANDARD	PURPOSE
 *Radius	-In correct profile per NTTP -No miss greater than 400 meters -CE90≤300 meters**	-On target within 5 seconds of trigger pull	-Based upon rocket Min Safe Distances (MSDs)*** -Qualifies PUI to deliver rockets during CAS training events

** CE90 example: SWD-1605 requires (7) 2.75" rockets. CE90≤300 meters requires that 90% of the delivered rockets impact within 300 meters of the target. In order to calculate, simply disregard the worst 10% of rockets released and the remaining farthest SINGLE MISS DISTANCE = CE90. Conservative rounding is applied.

Examples:

- 3-10 rockets released ~ disregard one rocket, SECOND FARTHEST MISS = CE90
- 11-20 rockets released ~ disregard two rockets, THIRD FARTHEST MISS = CE90
- In no case can a single rocket miss the intended target by more than 400m, including the omitted rounds for CE90 calculation.

*** Minimum Safe Distances (MSDs) are based upon ALSA assumptions, which consider (among

other factors) warhead fragmentation patterns and delivery accuracy. HE rocket delivery profiles outside of the NTTP Weapons Release Envelope will invalidate the MSDs listed in JFIRE, and will increase risk to ground personnel during CAS training events.

Crew Requirements. As listed at the end of each event.

Ground/Academic Training. SWD stage lecture, ICW complete.

References. Maneuver Description Guide, NATOPS manual, ASTACSOP, NTTP, NTRP.

Specific Weapons Delivery (SWD) Overview

SPECIFIC WEAPONS DELIVERY (SWD) STAGE							
EVENT	**TIME**	**REFLY**	**POI**	**COND**	**DEVICE**	**NUM**	**DESCRIPTION**
SSWD-1600	1.5	*	B,R,SC	D	S	1	FS – Intro Weapons Systems
SWD-1601	1.5	*	B,SC	D	A	1	FS – Intro FS Weapons Delivery
SSWD-1602	1.5	*	B,R,SC	D	S	1	RS – Intro RS Weapons Delivery
SWD-1603	1.5	*	B,R,SC,MR	D	A	1	RS – Intro SSWD
SWD-1604	1.5	*	B,R,SC,MR	D	A	1	RS – Eval Weapons Delivery

SSWD-1600 1.5 * B,R,SC D S WST/APT-TEN

Goal. FS - Introduce front seat weapons systems.

Requirements

Discuss

CRM during ordnance delivery
Arm/DeArm checklist
After arming checklist
Weapons delivery profiles
NTS and TSU operations
20mm system
HELLFIRE Missile System (HMS)
Hellfire LASER safety considerations

Introduce

20mm delivery
Hellfire employment with remote LASER
Autonomous Hellfire employment
Weapons emergencies
Ordnance comm procedures
NTS/TSU switchology and employment
Ordnance checklists

Performance Standards

PUI shall have a detailed understanding and functional knowledge of all procedures, and checklist IAW the AH-1W NATOPS, MDG, ASTACSOP and NTTP.

Successful employment of the 20mm weapon system at ranges from 300-1500 meters exhibiting proper impact detection and adjustment, working towards core introduction accuracy metric while adhering to all range regulations.

Prerequisites. 1013,1300,1400

Crew. CSI OR FRSI/PUI

SWD-1601 1.5 * B,SC D A 1 AH-1W

Goal. FS - Introduce front seat weapons delivery.

Requirements

Discuss

CRM during ordnance delivery
CALA and airfield ordnance operations

20mm types
20mm modes and procedures
Hellfire types
Hellfire delivery modes and procedures
Hellfire LASER safety considerations

Introduce

20mm delivery
Hellfire employment with remote LASER
Autonomous Hellfire employment
LASER interlocks
Ordnance comm procedures
Range operations
NTS/TSU switchology and employment
Ordnance checklists
Weapons preflight

Performance Standards

PUI shall have a detailed understanding and functional knowledge of all procedures, and checklist IAW the AH-1W NATOPS, MDG, ASTACSOP and NTTP.

Successful employment of the 20mm weapon system at ranges from 300-1500 meters exhibiting proper impact detection and adjustment, working towards core introduction accuracy metric while adhering to all range regulations.

Prerequisites. 1600

Ordnance. (400) rounds 20mm

Range Requirements. LASER safe live fire range

Crew. FRSI/PUI

SSWD-1602	1.5	*	B,R,SC	D	S	WST/APT-TEN

Goal. RS – Introduce rear seat weapons systems.

Requirements

Discuss

CRM during ordnance delivery
Arm/DeArm checklist
After arming checklist
NARCADS
Heads Up Display (HUD)
Helmet Sighting System (HSS)

Introduce

20mm delivery
Rocket delivery
Weapons emergencies
Ordnance comm procedures
Ordnance checklists

Performance Standards

PUI shall have a detailed understanding and functional knowledge of all procedures, and checklist IAW the AH-1W NATOPS, MDG, ASTACSOP and NTTP.

Successful employment of the 20mm weapon system at ranges from 300-1500 meters exhibiting proper impact detection and adjustment, working towards core introduction accuracy metric while adhering to all range regulations.

Prerequisites. 1600

Crew. FRSI/PUI

SWD-1603 1.5 * B,R,SC,MR D A 1 AH-1W

Goal. RS - Introduce specific weapons delivery.

Requirements

Discuss

CRM during ordnance delivery
Weapons delivery profiles
ASTACSOP arming procedures
Rocket pods
2.75" rocket motors, fuses, warheads
Rocket delivery modes and procedures

Introduce

20mm delivery
Rocket delivery
Ordnance comm procedures
Ordnance checklists
Weapons preflight

Review. Range operations

Performance Standards

PUI shall have a detailed understanding and functional knowledge of all procedures, and checklist IAW the AH-1W NATOPS, MDG, ASTACSOP and NTTP.

Successful employment of the 20mm weapon system at ranges from 300-1500 meters and 2.75 inch HE/inert rockets at ranges from 300-800 meters, exhibiting proper impact detection and adjustment, working towards Core Introduction accuracy metric while adhering to all range regulations.

Prerequisites. 1601,1602,1700

Ordnance. (7) 2.75 inch rockets, (4) 5.00 inch rockets, (300) rounds 20mm

Range Requirements. LASER safe live fire range

Crew. FRSI/PUI

SWD-1604 1.5 * B,R,SC,MR D A 1 AH-1W

Goal. RS – Evaluate specifics weapons delivery and weapons systems.

Requirement

Discuss

CRM during ordnance delivery
Visual/Contact/Tally comms
Weapons accuracy standards
Ordnance minimum safe distance
Weapons Emergencies
Jettison procedures

Review

20mm delivery
Rocket delivery
Weapons emergencies
Ordnance comm procedures
Range operations
Ordnance checklists
Weapons preflight

Performance Standards

PUI shall have a detailed understanding and functional knowledge of all procedures, and checklist IAW the AH-1W NATOPS, MDG, ASTACSOP and NTTP.

PUI shall demonstrate the CRM, systems and procedural knowledge, and stage specific flight skills to

occupy the rear seat as a copilot, position the aircraft as directed, fly specified ordnance delivery profiles, make required radio calls, release ordnance IAW applicable range regulations and the IP's GTAC-E brief, and deliver ordnance within published accuracy standards.

Successful employment of the 20mm weapon system at ranges from 300-1500 meters and 2.75 inch HE/Inert rockets at ranges from 300-800 meters, exhibiting proper impact detection and adjustment, **attaining core introduction accuracy metric** while adhering to all range regulations.

Prerequisites. 1603

Ordnance. (7) 2.75 inch rockets, (300) rounds 20mm

Range Requirement. LASER safe live fire range (raked /scored range if available)

Crew. FRSI/PUI

2.7.8 Threat Counter-Tactics(TCT)

Purpose. To introduce offensive/defensive electronic and infrared countermeasures, and Aircraft Survivability Equipment (ASE).

General. At the completion of this stage, the PUI will be proficient at setup and operation of all aircraft survivability equipment and be exposed to threat indications and ASTACSOP threat reactions.

Crew Requirements. As listed at the end of each event.

Ground/Academic Training. IAW HMLAT-303 Course Catalog. Includes ACAD-1012 and CBT/ICW.

Threat Counter-Tactics (TCT) Overview

THREAT COUNTER-TACTICS (TCT) STAGE							
EVENT	**TIME**	**REFLY**	**POI**	**COND**	**DEVICE**	**NUM**	**DESCRIPTION**
STCT-1700	1.5	*	B,R,SC,MR	D	S	1	Intro ASE Operations

STCT-1700 1.5 * B,R,SC,MR D S WST/APT-TEN

Goal. RS - Introduce ASE functionality and operations.

Requirements

Discuss

ASE suite operation (NATOPS checklists, visual displays and audio messages for power on and BIT).
Expendables
Nomenclature (training and tactical)
General purpose/applicable threat types
AAR-47 and APR-39
General purpose/applicable threat types
Displays, controls, detectors and other components
Visual and audio threat information
Automatic and manual threat reaction capabilities & operation
APR-39, AAR-47, and ALE-47 integration
AAR-47
operating environment & principles of operation
Software–version reporting & significance
ALE-47
General purpose
Controls, displays and other components
System modes of operation
BIT, maintenance BIT and failure messages
MAG ID setting, reporting and implications
Dispense switch function
ALQ-144
General purpose/applicable threat types

Controls and other components
System operation
Limitations and constraints
Employment considerations

Demonstrate

RADAR search, acquire, track and launch visual and audio indications
Successful IR missile, RADAR missile and RADAR ADA engagement and indications
Automatically and manually dispense chaff to disrupt RADAR threat engagement
Automatically and manually dispense flares to disrupt IR missile engagement
Time permitting, execute ASTACSOP threat reactions (communication, maneuvering, and expendables) to visually acquired non-RADAR ADA, RADAR ADA, RADAR SAMs and IR SAMs.

Introduce

ASE suite power on, BIT, settings and power off per NATOPS and TPG checklists
ASE suite cockpit control switchology and related display information
Inventory reset

Performance Standards

Successfully operate (energize and BIT) and troubleshoot APR-39, AAR-47 and ALE-47 systems.

Observe various threat system indications.

Prerequisites. 1012,1300,1400

Crew. CSI or FRSI/PUI

2.7.9 Core Introduction Check (CIX)

Purpose. To review all areas of instruction, demonstrate proficiency and knowledge of all maneuvers to certify the PUI as PQM and Core Introduction Phase complete.

General

The PUI will demonstrate proficiency through the Core Introduction phase.

Upon completion of the evaluation event, the PUI will be designated as PQM IAW AH-1W NATOPS Chapter 5.

CIX-1900/1901 meets the qualifications for the 7565 MOS and will serve as the initial NATOPS evaluation (NTPS-6101).

The PUI shall have conducted at least 1.5 hours of FAM sustainment prior to the CIX phase or the PUI shall be scheduled for a 1.5 hour FAM warmup prior to CIX-1901.

Crew Requirements. As listed at the end of each event.

Core Introduction Check (CIX) Overview

CORE INTRODUCTION CHECK (CIX) STAGE							
EVENT	**TIME**	**REFLY**	**POI**	**COND**	**DEVICE**	**NUM**	**DESCRIPTION**
SCIX-1900	1.5	*	B,R,SC,MR	D	S	1	EP & CRM Eval
CIX-1901	2.0	*	B,R,SC,MR	D	A	1	CORE Introduction Check

SCIX-1900 1.5 * B,R,SC,MR D S WST/APT-TEN

Goal. RS - Emergency procedures and CRM evaluation.

Requirement

Discuss. Any previously introduced NATOPS EP/limit/system, or MDG procedure

Performance Standards

First half of sortie is scenario based using a ferry/cross country flight profile.

PUI shall receive scenario assignment with the published flight schedule, and conduct NATOPS and GTAC-E briefs to copilot.

PUI shall act as PIC, and an 1500 complete copilot is mandatory.

Current scenarios in use shall be published in the FRS Course Catalog.

PUI shall have a detailed understanding and functional knowledge of all procedures and maneuvers IAW the AH-1W NATOPS and MDG.

Prerequisites. 1304,1403,1502,1604

Crew. CSI or ANI/PUI (co-pilot mandatory, shall be 1500 complete)

CIX-1901	2.0	*	B,R,SC,MR	D	A	1 AH-1W

Goal. RS – Core Introduction Check.

Requirement

Discuss. Any previously introduced NATOPS EP/limit/system, or MDG procedure.

Review

FAM maneuvers
IFR operations and procedures
VFR operations and procedures
Navigation
Simulated emergencies

Performance Standards

PUI shall act as PIC, conduct mission planning per the IP's direction, and brief the mission to include the NATOPS, route brief and GTAC-E.

Give special consideration to CRM relating to navigation, airfield operations, and emergencies.

Conduct a navigation route with a minimum of 10 checkpoints utilizing a 1:250,000 scale map and minimum route length of 50NM.

Remain oriented on entire route per 'Magellan" standards published in NTTP 3-22.5-ASTACSOP.

A minimum of 5 checkpoints should be found without the aid of the GPS while the remaining route should be completed using the EGI.

PUI will plan the route to include entry into the pattern of an airfield other than homefield with a control tower and one with a CTAF.

At a minimum, a low approach shall be conducted before departing.

PUI shall give significant detail in the brief to entering, operating in, and departing from unfamiliar airports.

Emphasize crew coordination and standard verbal descriptions of terrain and hazards.

Prerequisites. 1900

Crew. ANI/PUI

2.8 CORE PHASE (2000)

Purpose. To produce a Core Skill proficient co-pilot.

General

Pilots entering the Core Phase shall have completed the Core Introduction Phase.

Upon completion of this phase, the PUI will be TERF, TCT, REC, FCLP, SWD, NSQ, and ANSQ complete, and may conduct additional skills as specified by the squadron commander.

Consideration should be given to scheduling a co-pilot in addition to the instructor during completion of some simulator events. A junior co-pilot will provide a more realistic crew environment and facilitate better Crew Resource Management (CRM) techniques.

Completion of TERF-2101 meets the requirements for the PUI to be TERF qualified. At the discretion of the squadron commanding officer a letter assigning the PUI as TERFQ shall be placed in the NATOPS jacket and APR.

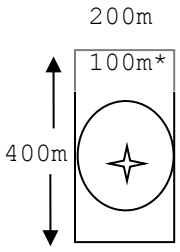
Completion of TERF-2101, REC-2301, SWD-2606 and SWD-2607 meets the requirements for the PUI to

be Night Systems Qualified (NSQ). At the discretion of the squadron commanding officer a letter assigning the PUI as NSQ shall be placed in the NATOPS jacket and APR.

Completion of SANSQ-2700, ANSQ-2701, ANSQ-2702, ANSQ-2704, and ANSQ-2705 meets the requirements for the PUI to be Advanced Night Systems Qualified (ANSQ). At the discretion of the squadron commanding officer a letter assigning the PUI as ANSQ shall be placed in the NATOPS jacket and APR.

Prior to completion of the Core/Mission Phase, Expeditionary Shore Based (FARP) Operations shall be conducted. Refer to Mission Skills Phase, paragraph 2.11.9 for sortie requirements. EXP-3600 through 3603 may be logged in conjunction with any Core or Mission Phase event.

2.8.1 Ordnance Delivery. For Core Phase events involving ordnance delivery, the PUI shall be evaluated on delivery accuracy. At the completion of the ANSQ syllabus, the PUI will have conducted three simulator and seven conventional ordnance delivery events. IPs shall evaluate ordnance accuracy based on the following accuracy metrics.

CORE SKILL	ROCKET STANDARD	GUN STANDARD	PURPOSE
 *Radius	-In correct profile per NTTP -No miss greater than 200 meters long/short, 100 meters laterally -CE90≤100 meters**	-On target within 3 seconds of trigger pull	-Based upon rocket Risk Estimate Distances (REDs)*** -Qualifies PUI to deliver rockets during combat OAS.

** CE90 example: SWD-2605 requires (7) 2.75" rockets. CE90≤100 meters requires that 90% of the delivered rockets impact within 100 meters of the target. In order to calculate, simply disregard the worst 10% of rockets released and the remaining farthest SINGLE MISS DISTANCE = CE90. Conservative rounding is applied.

Examples:

- 3-10 rockets released ~ disregard one rocket, SECOND FARTHEST MISS = CE90
- 11-20 rockets released ~ disregard two rockets, THIRD FARTHEST MISS = CE90
- In no case can a single rocket miss the intended target by more than 200m, including the omitted rounds for CE90 calculation. This constitutes failure to meet the performance standard.

*** Risk Estimate Distances (REDs) are based upon ALSA assumptions, which consider (among other factors) warhead fragmentation patterns and delivery accuracy. HE rocket delivery profiles outside of the ANTTP Weapons Release Envelope will invalidate the REDs listed in JFIRE, and will increase risk to ground personnel during CAS missions.

PGMs - Correct switchology, proper LASER placement, profile IAW AH-1 NTTP direct hit.

TOTs – Initial ordnance impacts delivered within ± 30 seconds of established TOT.

CORE Stages

CORE (2000 Phase)		
STAGE	**PARAGRAPH NUMBER**	**PAGE NUMBER**
Academics (ACAD)	2.9.1	2-47
Terrain Flight (TERF)	2.9.2	2-48
Threat Counter-Tactica (TCT)	2.9.3	2-49
Reconaissance (REC)	2.9.4	2-51
Field Carrier Landing Practice (FCLP)	2.9.5	2-52
Specific Weapons Delivery	2.9.6	2-54
Advanced Night Systems Qualification (ANSQ)	2.9.7	2-59
Familiarization (FAM)	2.9.8	2-62

2.9 CORE STAGES

2.9.1 Academics

Purpose. To develop a Core Skill complete co-pilot. These academics facilitate understanding of functions/operations in the AH-1W and ensure individuals possess the requisite knowledge to be a TERF, TCT, REC, FCLP, SWD, NSQ and ANSQ qualified co-pilot. The focus of this training is co-pilot combat proficiency.

General

These academics are intended to be an integrated series of academic lectures, readings and practical application contained within each phase of training.

The lectures, readings and chalk-talks are contained in the MAWTS-1 AH-1 Course Catalog.

The academic courseware is a requirement.

At the completion of each ACAD event, the appropriate training code shall be logged in M-SHARP by the individual pilot, contract instructor or squadron operations personnel, as appropriate.

The codes listed below associated with these classes may NOT be the most up to date as the current AH-1

Course Catalog is the master document for stage academic requirements.

Core academic events are listed below:

CORE ACADEMIC PHASE	
TRAINING CODES	**COURSEWARE**
GENERAL REQUIREMENTS	
ACAD-2000	AN/ARC-210 HAVEQUICK/SINCGARS
TERF	
ACAD-2001	Introduction to NVG Tactical Environment
ACAD-2002	Aeromedical Aspects of NVG Aided Flight
ACAD-2003	NVD Design Consideration
ACAD-2004	FLIR System and Image Optimazation
ACAD-2005	Operational Considerations and Sensor Integration
ACAD-2006	NVG RELATED MISHAP LESSONS LEARNED (T/M/S SPECIFIC)
ACAD-2012	H-1 Aerodynamics
ACAD-2013	The Night Operational Environment
ACAD-2014	NVG Systems and Image Characteristics
ACAD-2015	Human Factors
ACAD-2016	FLIR Introduction and Theory
ACAD-2017	NVG Components and Pre-flight Procedures
ACAD-2018	NVG Misperceptions and Illusions
ACAD-2019	Circadian Rhythm and Fatigue
ACAD-2020	Night Operations & Planning Aids
TCT	
ACAD-2021	(S) Evasive Maneuvers
ACAD-2023	(S) HMLA ASE*
REC	
ACAD-2011	Recognition of Combat Vehicles (ROC-V)**
SWD	
ACAD-2063	(S) AGM-114 Hellfire
ACAD-2064	(S) AIM-9
ACAD-2066	Rockets
ACAD-2067	20mm
ANSQ/FAM/FCLP - No Lectures	
CORE SKILL	
ACPM-8200	MACCS Agencies, Functions, and Control of Aircraft and Missiles
ACPM-8201	MWCS Brief
ACPM-8202	ACA and Airspace
ACPM-8210	Aviation Ground Support
ACPM-8230	ACE Battle Staff
ACPM-8231	Battle Command Display
ACPM-8240	Six Functions of Marine Aviation
ACPM-8241	ASR/JTAR Introduction and Practical Application
ACPM-8242	Site Command Primer
ACPM-8250	Theater Air Ground System (TAGS)
*Indicates classes that should be presented to all pilots annually.	
** ROC-V available at https://www.marinenet.usmc.mil or https://rocv.army.mil.	

2.9.2 Terrain Flight/Navigation (TERF)

Purpose. To enhance proficiency in terrain flight and navigation.

General

PUI will demonstrate proficiency in terrain flight and navigation.
Once complete in this stage the pilot may be TERF qualified at the discretion of the commanding officer.

Crew Requirements. As listed at the end of each event.

Ground/Academic Training. IAW the MAWTS-1 AH-1 Course Catalog.

Terrain Flight (TERF) Overview

TERRAIN FLIGHT (TERF) STAGE							
EVENT	**TIME**	**REFLY**	**POI**	**COND**	**DEVICE**	**NUM**	**DESCRIPTION**
TERF-2100	2.0	180	B,R	D	A	1	FS - Rev TERF
TERF-2101	2.0	180	B,R,SC,M	NS	A	1	RS - Intro NVD TERF (HLL)

TERF-2100 2.0 180 B,R D A 1 AH-1W

Goal. FS - Review TERF maneuvers and navigation.

Requirements

Discuss

Terrain appreciation,
Effective CRM/TRM during navigation
Navigation terminology
Load computations and HIGE/HOGE requirements
Assault Support Tactical SOP
Terrain flight tactical application
High gross weight handling characteristics
Obstacle avoidance

Review

TERF profiles
TERF maneuvers
Loading and operation of the navigation system
CRM during TERF

Performance Standards

PUI shall conduct the route brief.

PUI shall complete a navigation route with a minimum of 5 checkpoints utilizing a 1:50,000 scale map and minimum length of 20 NM.

Remain oriented on entire route within 500 meters, 15 degrees of heading and 1 minute of planned route time.

PUI shall conduct all TERF maneuvers IAW the AH-1W NATOPS, MDG and NTTP.

PUI shall conduct 5 landings to an unimproved landing site

Prerequisites. 2012

Range Requirement. Authorized TERF route, high bird if required

Crew. TERFI/PUI

TERF-2101 2.0 180 B,R,SC,M NS A 1 AH-1W

Goal. RS - Review TERF maneuvers and navigation using NVDs (HLL).

Requirements

Discuss

ASTACSOP lighting configurations
NVD focus procedures

NVG and A/C emergencies
TERF maneuvers at night
NVD scan pattern in TERF environment
Cultural lighting
Intercockpit and intraflight crew coordination during low altitude tactical flight utilizing NVGs.

Review

Proper NVD scan patterns
Light configurations
NVD TERF flight and maneuvers considerations
Effective CRM during navigation and obstacle avoidance.

Performance Standards

PUI shall conduct the route brief.

PUI shall complete a navigation route with a minimum of 5 checkpoints utilizing a 1:50,000 scale map and minimum length of 20 NM.

Remain oriented on entire route within 500 meters, 15 degrees of heading and 1 minute of planned route time.

PUI shall conduct all TERF maneuvers IAW the AH-1W NATOPS, MDG and NTTP.

PUI shall conduct 5 landings to an unimproved landing site.

Prerequisites. 2013 through 2020,2100

Range Requirements. Authorized TERF route, high bird if required.

Crew. NSI/PUI

2.9.3 Threat Counter Tactics (TCT)

Purpose. To introduce offensive/defensive electronic and infrared countermeasures, tactics, employment of Aircraft Survivability Equipment (ASE) and employment of precision guided munitions in a RADAR/IR environment.

General

At the completion of this stage, the PUI will be proficient at setup, operation, and employment of all aircraft survivability equipment.

Aircraft should be configured with an operable APR-39, ALE-47, AAR-47, captive PGM, HMSD, TSS and CLDR.

Crew Requirements. As listed at the end of each event.

Ground/Academic Training. IAW the MAWTS-1 AH-1 Course Catalog.

Threat Counter-Tactics (TCT) Overview

THREAT COUNTER-TACTICS (TCT) STAGE							
EVENT	**TIME**	**REFLY**	**POI**	**COND**	**DEVICE**	**NUM**	**DESCRIPTION**
STCT-2200	1.5	*	B	D	S	1	RS - Intro ASE Ops
STCT-2201	1.5	365	B,R,SC,M	(NS)	S	1	RS - Intro Tactial Employment

STCT-2200 1.5 * B D S/A WST/APT-TEN

Goal. RS – Introduce ASE operation in a low to medium IR and RADAR threat environment.

Requirements

Discuss

ASTACSOP evasive maneuvers/threat reactions
ALE-47 flare and chaff expendable characteristics
ALQ-144

Demonstrate/Introduce

Tactical employment of PGMs versus preplanned and reactive targets in an EW environment
An entire RADAR threat missile engagement sequence with emphasis on system indications and function

Threat RADAR systems and their associated APR-39 indications
Pre-emptive and reactive expendables use against an IR threat
A preplanned attack against a RADAR or IR threat
A reactive attack against a RADAR or IR threat
Brevity calls
ASTACSOP threat reaction calls
APR-39, AAR–47, and ALE-47 systems operations to include power up, Built In Test(BIT) procedures, training mode and basic mode/manual operations
APR-39, AAR–47, ALE-47 and ALQ-144 system trouble shooting

Performance Standards

Successfully operate (energize and BIT) APR-39, AAR-47,and ALE-47 systems.

Successfully select the ALE-47 training mode

Given a threat, select an appropriate ALE MAG ID and program setting

Correctly identify APR-39 threat system displays based on system visual/aural indications

Prerequisites. 2021,2023

Crew. WTO/PUI

STCT-2201 1.5 365 B,R,SC,M (NS) S/A WST/APT-TEN

Goal. RS – Introduce tactical employment of ASE versus RADAR and IR threat systems.

Requirements

Discuss

Capabilities/limitations/weapon envelopes of potential threat systems; (1) IR threat, (1) RADAR threat
Terrain profile analysis and related tactical considerations
Maneuvers/terrain masking necessary to avoid detection/acquisition from enemy infrared guided and optically tracked systems

Demonstrate/Introduce. How to plan a route in order to avoid a threat using mission planning software and WEZ analysis.

Review

APR-39, AAR-47, ALE-47 and ALQ-144 systems
Tactical employment of PGMs versus preplanned and reactive targets in an IR SAM threat environment
ALE-47 expendable characteristics

Performance Standards

Successfully operate (energize and BIT) APR-39, AAR-47, and ALE-47 systems.

Successfully BIT and report MAGIDs on the ALE-47.

Given a threat, select an appropriate ALE MAG ID and program setting.

Correctly identify APR-39 threat system displays based on system visual/aural indications.

Correctly perform appropriate evasive maneuvers and expendable release in response to surface to air threat.

Execute a preplanned attack against a RADAR or IR threat.

Execute a reactive attack against a RADAR or IR threat.

Prerequisites. 2200,2101~NS,(2100~AC)

Ordnance. If flown in aircraft: (1) captive PGM, (60) chaff/flares

Range Requirement. EW range, LASER safe range

External Syllabus Support. Live fire range, remote RADAR emitter and IR stimulator support

Crew. WTO(NSI)/PUI

2.9.4 Reconnaissance (REC)

Purpose. To develop proficiency in reconnaissance operations.

General

The PUI will demonstrate proficiency in aircraft system employment and sensor management for target detection, recognition and identification during reconnaissance operations.

Aircraft shall be configured with an operable TSS, HMSD and VTR.

Crew Requirements. As listed at the end of each event.

Ground/Academic Training. IAW the MAWTS-1 AH-1 Course Catalog.

Reconnaissance (REC) Overv iew

RECONNAISSANCE (REC) STAGE							
EVENT	**TIME**	**REFLY**	**POI**	**COND**	**DEVICE**	**NUM**	**DESCRIPTION**
SREC-2300	1.5	*	B	D	S/A	1	FS - Intro Day Visual Rec
REC-2301	1.5	120	B,R,SC,M	NS	A	2	FS - NVD HLL Rec

SREC-2300 1.5 * B D S/A WST/APT TEN

Goal. FS - Introduce day visual reconnaissance.

Requirements

Discuss

NTS/NTSU switchology, components and functions
Sensor Management
DVR functions and tactical use
Basic Visual Reconnaissance techniques
Commander's Critical Information Requirements (CCIRs)
Traveling, traveling overwatch & bounding overwatch

Demonstrate/Introduce

MISREP/IFREP procedures
Intelligence collection/dissemination procedures
S-2 debrief

Performance Standards

Successfully operate (energize and boresight) NTS/NTSU system.

Successfully operate FLIR to include gain/level, man/auto, polarity and focus.

Successfully record and play back DVR in FLIR and Color CCD TV modes.

Correctly describe laser functions.

Correctly perform auto track, offset, pre-point, source selection functions.

Prerequisites. 2011,(2100~AC)

Range Requirement. Authorized TERF area, LASER safe range

External Syllabus Support. Thermally augmented threat vehicles if available.

Crew. WTO/PUI (WTO/PUI~AC)

REC-2301 1.5 120 B,R,SC,M NS A 1 AH-1W & 1 H-1

Goal. FS - Introduce night visual reconnaissance procedures (HLL).

Requirements

Discuss

HDTS
TVDL
Section TERF maneuvering
Use of sensor performance prediction tools

Demonstrate/Introduce

Traveling, traveling overwatch & bounding overwatch
Use of sensor performance prediction tools

Review

LHG switchology/components/functions
Sensor management
Basic visual reconnaissance techniques
Commander's Critical Information Requirements (CCIRs)
MISREP/IFREP procedures
Intelligence collection and dissemination procedures

Performance Standards

Utilize the proper reconnaissance method to acquire, detect, identify and recognize targets.

PUI shall demonstrate proficiency with sensors and modes.

PUI shall conduct reconnaissance, while demonstrating functional knowledge of recce techniques and proper use of the sensor.

PUI shall use the data recorder(DVR)for debrief and mission analysis.

Prerequisites. 2101,2300

Range Requirement. Authorized TERF area, LASER safe range as applicable

External Syllabus Support. Thermally augmented threat vehicles if available

Crew. NSI/PUI

2.9.5 Field Carrier Landing Practice (FCLP)

Purpose. To introduce flight operations from a carrier deck or air capable ship during the day and at night using the simulator and by introducing day and night FCLPs.

General

The PUI will demonstrate/introduce proper communication procedures, patterns and aviation operations in the shipboard environment.

Consideration should be given to conducting FCLPs to both LSD/LPD and LHA/LHD deck configurations.

Refer to appropriate NATOPS and LHA/LHD/MCS NATOPS manuals for shipboard operations.

Crew Requirements. As listed at the end of each event.

Ground/Academic Training. IAW the MAWTS-1 AH-1 Course Catalog.

Field Carrier Landing Practice Overview

FIELD CARRIER LANDING PRACTICE (FCLP) STAGE							
EVENT	**TIME**	**REFLY**	**POI**	**COND**	**DEVICE**	**NUM**	**DESCRIPTION**
SFCLP-2500	1.5	*	B	D/NS/N*	S	1	OS - Intro FCLP
FCLP-2501	1.0	365	B,R	D	A	1	OS - Day FCLP
FCLP-2502	1.0	365	B,R,M	N*/NS	A	1	OS - Night & NS FCLP

SFCLP-2500 1.5 * B D/NS/N* S WST/APT-TEN

Goal. OS – Introduce day, night, and NVD shipboard operations.

Requirements

Discuss

Flight deck operations (e.g. lighting, air plan, starting procedures)
Wind envelopes and engage/disengage envelopes
Shipboard EPs
Alpha, Charlie, and Delta patterns
Shipboard instrument procedures (e.g. TACAN, Carrier Controlled Approaches (CCA), marshals)
Lost communication procedures

Shipboard lighting and NVG procedures
Shipboard communication procedures
Shipboard helicopter director visual signals

Demonstrate

Day, Night and NVD shipboard patterns and approaches
Helicopter director visual signals
Shipboard communications
Landings to an L-class amphibious ship

Performance Standards

IAW the AH-1W NATOPS and shipboard NATOPS manuals, conduct a minimum of 3 day, 3 NVD and 3 unaided night landings to an L-class amphibious ship.

PUI shall conduct 1 CCA and 1 TACAN instrument approach in simulated instrument conditions.

Crew. NSI/PUI

FCLP-2501 1.0 365 B,R D A 1 AH-1W

Goal. OS – Introduce day FCLP operations.

Requirements

Discuss

Types of air capable ships
Shipboard specific crew coordination
Deck crewman vest colors
Helicopter director visual signals
Emergency and ditching procedures
Wind limitation and engage/disengage charts
Shipboard terminology
Different case departures and arrivals
HERO conditions and ordnance operations
Shipboard airspace
Rotor brake start procedures

Demonstrate/Introduce

Day shipboard patterns
Sight picture and landings to an FCLP deck
Execute a rotor brake start

Review

Shipboard patterns
Shipboard EPs

Performance Standards. PUI shall conduct a minimum of 5 day FCLP landings per the AH-1W NATOPS and shipboard NATOPS manuals.

Prerequisites. 2500

External Syllabus Support. FCLP pad

Crew. BIP/PUI

FCLP-2502 1.0 365 B,R,M N*/NS A 1 AH-1W

Goal. OS – Introduce night and NVD FCLP operations.

Requirements

Discuss

Instrument scan considerations
Night shipboard specific crew coordination
Shipboard lighting considerations
NVD failures and emergency procedures

Spatial disorientation and vertigo
Shipboard instrument procedures

Demonstrate/Introduce

Night unaided/NVD pattern
Sight picture and HDTS usage
Landings to an FCLP deck.

Review

Shipboard communication procedures
Shipboard helicopter director visual signals

Performance Standards. PUI shall conduct a minimum of 5 unaided and 5 NVD landings per the AH-1W NATOPS and shipboard NATOPS manuals.

Prerequisites. FCLP-2501

External Syllabus Support. FCLP pad with overt and NVD deck lighting

Crew. NSI/PUI

2.9.6 Specific Weapons Delivery (SWD)

Purpose. To introduce and develop proficiency in SWD and weapon systems employment.

General.

At the completion of this stage, the PUI will have demonstrated proficiency in ordnance delivery and proper use of the TSS under all threat conditions with mixed ordnance loads.

SWD should be conducted on rated/scored ranges whenever possible.

Focus should be on weapons delivery profiles and ordnance accuracy, not tactical scenarios.

Video debrief should be used to the maximum extent possible.

Emphasis will be on CRM and Tactical Risk Management (TRM) while utilizing the ordnance systems.

Aircraft should be configured with an operable NTS/NTSU, PGM system, FMV, LDRS, DVR, APR-39, AAR-47, ALE-47 and IR Pointer (night events).

Crew Requirements. As listed at the end of each event.

Ground/Academic Training. IAW the MAWTS-1 AH-1 Course Catalog.

Specific Weapons Delivery (SWD) Overview

SPECIFIC WEAPONS DELIVERY (SWD) STAGE							
EVENT	**TIME**	**REFLY**	**POI**	**COND**	**DEVICE**	**NUM**	**DESCRIPTION**
SSWD-2600	1.5	*	B	D	S/A	1	FS - Intro Hellfire
SSWD-2601	1.5	180	B,R,M	D	S/A	1	RS - Intro Hellfire & APKWS
SWD-2602	1.5	730	B,R,M	(NS)	A	1	FS - Hellfire & 20mm
SSWD-2603	1.5	*	B,SC	D/NS	S	1	RS - Rev SWD
SWD-2604	1.5	*	B,R,SC	D	A	1	RS - Rev SWD
SWD-2605	1.5	180	B,R,SC,M	D	A	1	RS - Eval SWD
SWD-2606	1.5	*	B	NS	A	1	RS - NS Ord Delivery HLL
SWD-2607	1.5	180	B,R,SC,M	NS	A	2	RS - Rev NS HLL Ord Delivery
SWD-2610	1.5	365	B,R,M	(NS)	A/S	1	OS - Intro Moving Target Gunnery

SSWD-2600 1.5 * B D S/A WST/APT-TEN

Goal. FS - To develop proficiency using Hellfire missile system.

Requirements

Discuss

Hellfire missile characteristics
Pre/post-launch constraints symbology
Timing/designation/delay options
Cloud ceiling limitations

J-LASER terminology
Surface Danger Zones (SDZs)
Joint Munitions Effectiveness Manuals (JMEMs)/JMEMs Weaponeering System (JWS)
Weaponeering considerations
HUD Symbology

Introduce/Review

Hellfire operations in all modes and profiles (e.g. manual, LOBL, LOAL, hover, running, diving)
20mm delivery in TSU/GUNS
Remote/buddy lase operations

Performance Standards

Conduct the Arm/Dearm and the Penetration/After Firing checklist per AH-1W NATOPS & TPG.

Demonstrate proper switchology during PGM engagements.

Engage and destroy six point targets or armored threats utilizing Hellfire engagements IAW the AH-1W NATOPS and AH-1W NTTP.

Engage and destroy three point targets utilizing multiple modes of 20mm delivery.

Prerequisites. 2063,2064,2066,2067,2300, (2100~AC)

Ordnance. If flown in aircraft: (1) captive Hellfire

Range Requirement. LASER safe range

Crew. WTO/PUI

SSWD-2601	1.5	180	B,R,M	D	S/A	WST/APT-TEN

Goal. RS – Review Hellfire and introduce APKWS.

Requirements

Discuss

APKWS characteristics
APKWS employment procedures
LASER considerations
APKWS weaponeering considerations
APKWS aircrew coordination

Introduce/demonstrate. APKWS employment

Review. Hellfire employment

Performance Standards

Successful employment of APKWS at ranges from 1500 – 5000 meters utilizing all profiles.

Successful employment of multiple Hellfire against point targets utilizing a combination of delayed lase, shifting targets with missiles in flight and remote lasing.

During at least one engagement PUI shall adhere to a TOT +/- 30 seconds.

Prerequisites. 2600,(2100~AC)

Ordnance. If flown in aircraft: (1) captive Hellfire, (2) 2.75 inch APKWS rockets, (300) rounds 20mm

Range Requirement. Live fire range and LASER safe range

Crew. WTO/PUI

SWD-2602	1.5	730	B,R,M	(NS)	A	1 AH-1W

Goal. FS - To conduct a Hellfire shoot and develop 20mm proficiency.

Requirements

Discuss

Target acquisition in the night environment
Backscatter avoidance techniques

Designation employment considerations/techniques
Ordnance preflight procedures
Hellfire related emergency procedures
Missile firing reports/data required

Demonstrate/Introduce. Simulated missions to destroy point targets and armored threats.

Review

Hellfire missile characteristics
Hellfire missile switchology
Laser interlocks and considerations
Pre/post-launch constraints symbology
Timing/designation/delay options
J-LASER terminology
Surface Danger Zones (SDZs)
Joint Munitions Effectiveness Manuals (JMEMs)/JWS Weaponeering considerations
20mm delivery in TSU/GUNS and HDTS modes

Performance Standards

A successful live Hellfire missile engagement with proper missile selection, system bore sight, mode of delivery selection, LASER code entry and within weapons employment envelope.

Successful gun delivery with proper corrections working towards gun standard core skills accuracy metric.

Prerequisites. 2100,2601,2101~NS,2301~NS

Ordnance. (1) live Hellfire, (400) rounds 20mm, if Refresh substitute (1) CATM-114.

Range Requirement. Live fire and LASER safe range

Crew. WTO(NSI)/PUI

SSWD-2603	1.5	*	B,SC	D/NS	S	WST/APT-TEN

Goal. RS - To develop proficiency at specific weapons delivery (SWD).

Requirements

Discuss

Rocket and 20mm switchology
Rocket and fixed 20mm range settings
Rocket and 20mm trouble shooting considerations
Section and Division attack patterns
SOP ordnance procedures
Target fixation
CRM during ordnance evolutions
Flechette rockets
Illumination rockets
AIM-9

Demonstrate/Introduce

Flechette rocket delivery profiles
Illumination delivery profiles
AIM-9 switchology and delivery

Review

Rocket and 20mm ordnance emergencies
HUD symbology
20mm fixed forward and HDTS delivery using running, pop-up, and diving fire
Rocket delivery using pop-up, and diving fire per the NTTP utilizing both low altitude and medium altitude tactics.

Performance Standards. Successful employment of the 20mm weapon system at ranges from 300-1500 meters and 2.75 inch HE/Inert rockets at ranges from 300-800 meters, exhibiting proper impact detection and adjustment, working towards Core Skill accuracy metric while adhering to all range regulations.

Prerequisites. 2200,2301

Crew. WTO/PUI

SWD-2604 1.5 * B,R,SC D A 1 AH-1W

Goal. RS - To develop proficiency at specific weapons delivery (SWD).

Requirements

Discuss

Engagement envelopes of 2.75 inch rockets
Rocket and 20mm common switchology errors
Rocket and fixed 20mm range settings
Rocket and 20mm trouble shooting considerations
SWD Error analysis
CRM and intracockpit communication during ordnance evolutions

Review

Fixed forward 20mm delivery performing a minimum of 4 attacks utilizing diving fire.
Rocket delivery per NTTP profiles.

Performance Standards. Successful employment of the 20mm weapon system at ranges from 300-1500 meters and 2.75 inch rockets at ranges from 300-800 meters, exhibiting proper impact detection and adjustment, working towards Core Skill accuracy metric while adhering to all range regulations.

Prerequisites. 2100,2603

Ordnance. (7) 2.75 inch rockets, (300) rounds 20mm

Range Requirement. Live fire and LASER safe range

Crew. WTO/PUI

SWD-2605 1.5 180 B,R,SC,M D A 1 AH-1W

Goal. RS - To evaluate proficiency at specific weapons delivery (SWD).

Requirements

Discuss

Engagement envelopes of 2.75 inch rockets
Rocket and 20mm common switchology errors
Rocket and fixed 20mm range settings
Rocket and 20mm trouble shooting considerations
SWD Error analysis
CRM and intracockpit communication during ordnance evolutions

Review

Fixed forward 20mm delivery performing a minimum of 4 attacks utilizing diving fire.
Rocket delivery per NTTP profiles.

Performance Standards.

Successful employment of the 20mm weapon system at ranges from 300-1500 meters and 2.75 inch rockets at ranges from 300-800 meters, exhibiting proper impact detection and adjustment, **attaining core skill accuracy metric** while adhering to all range regulations.

After completion of the 2000 phase the accuracy metric for this event is dependent upon the pilot's current designation.(e.g. AHC requires refly of SWD-2605 meeting the Mission Skills accuracy metric)

Prerequisites. 2604

Ordnance. (19) 2.75 inch rockets, (300) rounds 20mm

Range Requirement. Raked or scored range and LASER safe range

Crew. WTO/PUI

SWD-2606 1.5 * B NS A 1 AH-1W

Goal. RS - To develop proficiency at ordnance delivery (HLL).

Requirements

Discuss

Night ordnance delivery effects
Rocket and 20mm common switchology errors
IR LASER pointer usage and switchology
CRM regarding target acquisition and hand-off (e.g. front-rear seat)
Target/reticle fixation

Demonstrate/Introduce

Fixed forward and HDTS 20mm delivery with IR Pointer
Rocket delivery per NTTP using pop-up and diving profiles

Review

All ordnance emergencies
SWD and error analysis

Performance Standards. Successful employment of the 20mm weapon system at ranges from 300-1500 meters and 2.75 inch rockets at ranges from 300-800 meters, exhibiting proper impact detection and adjustment, working towards core skill accuracy metric while adhering to all range regulations.

Prerequisites. 2101,2604

Ordnance. (7) 2.75 inch rockets, (300) rounds 20mm, (60) chaff/flares and IR Pointer

Range Requirement. Live fire range and LASER safe range with thermally significant targets if available

Crew. NSI/PUI

SWD-2607 1.5 180 B,R,SC,M NS A 2 AH-1W

Goal. RS - Refine ordnance delivery(HLL).

Requirements

Discuss

Night ordnance delivery effects
Rocket and 20mm common switchology errors
IR LASER pointer usage and switchology
CRM regarding target acquisition and hand-off (i.e. front-rear seat)

Demonstrate. A RW CAS mission to include coordination with the terminal controller and section tactics.

Review

20mm delivery with/without IR Pointer
Rocket delivery per NTTP using pop-up and diving profiles
All ordnance emergencies
SWD and error analysis

Performance Standards. Successful employment of the 20mm weapon system at ranges from 300-1500 meters and 2.75 inch rockets at ranges from 300-800 meters, exhibiting proper impact detection and adjustment, working towards core skill accuracy metric while adhering to all range regulations.

Prerequisites. 2606

Ordnance. (7) 2.75 inch rockets, (300) rounds 20mm, (60) chaff/flares and IR Pointer.

Range requirement. Live fire range and LASER safe range with thermally significant targets if available

Crew. NSI/PUI

SWD-2610 1.5 365 B,R,M (NS) A/S 1 AH-1W

Goal. OS – Introduce moving target gunnery.

Requirements

Discuss

Unguided ordnance ballistics
Attack profiles and geometry in regards to moving targets
Sensor track considerations
LASER guided weapons considerations

Introduce/demonstrate

Moving target gunnery.

Performance Standards

Validate, using DVR, an effective PGM engagement of a moving target.

Successful employment of the 20mm weapon system at ranges from 300-1500 meters and 2.75 inch rockets at ranges from 300-800 meters, exhibiting proper impact detection and adjustment, working towards core skill accuracy metric while adhering to all range regulations.

Prerequisites. 2603,2607~NS,2705~LLL

Ordnance. (7) 2.75 inch rockets, (500) rounds 20mm

Range Requirement. Live fire range and LASER safe range

External Syllabus Support. Moving target or 1 aircraft to provide a shadow

Crew. WTO(NSI)/PUI

2.9.7 Advanced Night System Qualification (ANSQ)

Purpose. To develop proficiency during LLL operations.

General

At the completion of this stage, the PUI shall demonstrate core skills proficiency under LLL conditions.

Once complete in this stage, and designated ANSQ by the squadron commanding officer, the PUI may complete the remaining combat qualification NVD training under any light level condition.

Aircraft should be configured with an operable NTS/NTSU, FMV, LDRS, DVR, APR-39, AAR-47, ALE-47 and IR Pointer (also PGM system for ordnance events).

Crew Requirements. As listed at the end of each event.

Ground/Academic Training. IAW the MAWTS-1 AH-1 Course Catalog

Advance Night Systems Qualification (ANSQ) Overview

ADVANCE NIGHT SYSTEM QUALIFICATION (ANSQ) STAGE							
EVENT	**TIME**	**REFLY**	**POI**	**COND**	**DEVICE**	**NUM**	**DESCRIPTION**
SANSQ-2700	1.5	*	B,SC	NS	S	1	RS - NVD LLL EPs
ANSQ-2701	2.0	180	B,R,SC,M	NS	A	1	FS - NVD LLL FAM
ANSQ-2702	1.5	180	B,R,M	NS	A	1+	RS - NVD LLL TAC FORM
SANSQ-2704	1.5	*	B	NS	S/A	1	RS - NS LLL Ordnance Delivery
ANSQ-2705	1.5	180	B,R,SC.M	NS	A	2	RS - Rev LLL Ordnance Delivery

SANSQ-2700 1.5 * B,SC NS S WST/APT-TEN

Goal. RS - Perform NVD and aircraft emergency procedures during LLL conditions.

Requirements

Discuss

Crew comfort during LLL NVG operations
Aircraft preparation for night operations
NVD effects encountered during LLL conditions
Use of the searchlight (covert/overt)
LLL Emergency procedures considerations
Inadvertent IMC (IIMC) procedures
LLL scheduling restrictions
Cockpit management during LLL operations

Introduce

Pattern work at lighted and unlighted landing sites
NVD and aircraft emergency procedures at lighted and unlighted landing sites
Inadvertent IMC (IIMC)

Performance Standards

PUI shall execute 5 landings at an unlighted site

PUI shall execute 5 landings at a lighted site

PUI shall execute 5 autorotations

Safely conduct NVD and aircraft emergencies IAW NATOPS

Demonstrate proper knowledge of IIMC procedures IAW ASTACSOP

Prerequisites. NSQ

Crew. NSI/PUI

ANSQ-2701 2.0 180 B,R,SC,M NS A 1 AH-1W

Goal. FS - Perform NVD low work, pattern work and navigation (LLL).

Requirements

Discuss

Map preparation
Checkpoint selection
Sensor integration during navigation
Cultural lighting
Aircraft external lighting configurations
MDL preparation

Introduce

Basic low work and pattern work at an unlighted field or remote landing site
NVD navigation techniques

Performance Standards

PUI shall conduct 5 landings at an unlighted field or remote landing site free from artificial illumination

PUI shall perform all FAM maneuvers IAW MDG and MAWTS-1 NVD manual.

PUI shall plan, brief and navigate a route utilizing a 1:250,000 scale map consisting of a minimum of 5 checkpoints and 50 nautical miles remaining oriented within 1 NM of flight planned route, and 15 degrees of heading and arrive at final checkpoint within 1 minute of assigned time.

Utilize NTS/NTSU to aid in identifying checkpoints enroute

PUI shall not use the GPS for a minimum of 2 legs of the route

Prerequisites. 2700

External Syllabus Support. Unlighted field or remote landing site free from artificial illumination

Crew. NSI/PUI

ANSQ-2702	1.5	180	B,R,M	NS	A	1 AH-1W & 1 H-1

Goal. RS - Develop proficiency in tactical formation flight and TERF navigation (LLL).

Requirements

Discuss

- Tactical formations on NVGs
- LLL formation flight considerations
- Navigation hazards
- Night systems integration
- Night rendezvous and join-up procedures per AH-1 NTTP
- Loss of visual contact procedures

Introduce

- Tactical formation flight
- Navigation utilizing NVDs in low level, contour and NOE flight profiles
- Rendezvous and join-up procedures
- Loss of visual contact procedures
- TERF maneuvers in LLL conditions

Review

- Proper NVD scan patterns
- External aircraft lighting

Performance Standards

PUI shall plan, brief and navigate a TERF route with a minimum of 5 checkpoints utilizing a 1:50,000 scale map and minimum length of 20 NM. Remain oriented on entire route within 500 meters, 15 degrees of heading and 1 minute of planned route time.

PUI shall conduct section formation flight in both the tactical lead and tactical wingman positions IAW NTTP, NATOPS and MDG

PUI shall conduct all TERF maneuvers IAW the AH-1W NATOPS, MDG and NTTP.

IP shall demonstrate loss of visual contact and the subsequent rendezvous and join-up

Prerequisites. 2701

Range Requirement. Authorized TERF area and route. Pure section preferred

Crew. NSI/PUI

SANSQ-2704	1.5	*	B	NS	S/A	WST/APT-TEN

Goal. RS – Introduce ordnance delivery (LLL).

Requirements

Discuss

- Penetration checklist procedures
- LLL target acquisition
- LLL ordnance delivery effects
- LLL ordnance delivery scan techniques
- Target/reticle fixation
- HUD symbology and declutter modes
- Target handoff techniques
- Arming/Dearming procedures

Introduce. LLL ordnance delivery

Review

- APKWS employment profiles and CRM
- Rocket and 20mm common switchology errors
- IR LASER pointer usage and switchology
- CRM regarding target acquisition and hand-off (e.g. front/rear seat)
- Fixed forward and HDTS 20mm delivery with IR Pointer

Rocket delivery per NTTP using pop-up and diving profiles
Ordnance emergencies
SWD and error analysis

Performance Standards

Conduct Arm/Dearm procedures and penetration checklists IAW ASTACSOP and local directives.

Successful employment of the 20mm weapon system at ranges from 300-1500 meters and 2.75 inch rockets at ranges from 300-800 meters, exhibiting proper impact detection and adjustment working towards core skill accuracy metric while adhering to all range regulations.

Conduct proper actions in response to inflight ordnance emergencies.

Prerequisites. NSQ, (2702~AC)

Range Requirements. Live fire and LASER safe range with thermally significant targets, if available

Crew. NSI/PUI .

ANSQ-2705	1.5	180	B,R,SC,M		NS	A	2 AH-1W

Goal. RS - Review ordnance delivery (LLL).

Requirements

Discuss

20mm ordnance nomenclature
Rocket warhead/fuse combinations

Review

Rocket delivery per ANTTP using pop-up and diving profiles
LLL target acquisition difficulties
LLL ordnance delivery effects
LLL scan techniques

Performance Standards

Conduct Arm/Dearm procedures and penetration checklists IAW ASTACSOP and local directives.

Successful employment of the 20mm weapon system at ranges from 300-1500 meters and 2.75 inch rockets at ranges from 300-800 meters, exhibiting proper impact detection and adjustment, working towards core skill accuracy metric while adhering to all range regulations.

Prerequisites. 2702,2704.

Ordnance. (14) 2.75 inch rockets, (500) rounds 20mm, (60) chaff/flares and IR Pointer.

Range Requirement. Live fire range and LASER safe range with thermally significant targets, if avaialble

Crew. NSI/PUI

2.9.8 Familiarization (FAM)

Purpose

To develop and maintain familiarity with aircraft flight characteristics, limitations, and emergency procedures.

To develop proficiency in all maneuvers and to instill basic CRM procedures.

General

PUI must demonstrate proficiency with all shore based FAM procedures to include normal/emergency procedures and basic aircraft maneuvers.

PUI must display a thorough knowledge of limitations and flight characteristics.

Crew Requirements. As listed at the end of each event.

Ground/Academic Training. IAW the MAWTS-1 AH-1 Course Catalog.

Familiarization (FAM) Overview

FAMILIARIZATION (FAM) STAGE							
EVENT	**TIME**	**REFLY**	**POI**	**COND**	**DEVICE**	**NUM**	**DESCRIPTION**
FAM-2800	1.5	90	B,R,SC,M	(NS)	A	1	OS - FAM/INST
SFAM-2801	1.5	90	B,R,SC,M	(NS)	S/A	1	EP Simulator

FAM-2800 1.5 90 B,R,SC,M (NS) A 1 AH-1W

Goal. OS – Familiarization/instrument proficiency.

Requirements

Discuss

Aircraft limitations
Emergency procedures
Aircraft systems
Complacency in the cockpit

Review

FAM stage maneuvers

Performance Standards

PUI shall perform all maneuvers IAW AH-1W MDG and NATOPs

PUI should complete 5 autorotations IAW the AH-1W NATOPS and MDG.

Prerequisites. 1901

Crew. BIP(NSI)/PUI.

SFAM-2801 1.5 90 B,R,SC,M (NS) S/A WST/APT-TEN

Goal. OS - Review aircraft emergency procedures and systems failures.

Requirements

Review

Emergency procedures
Full/power recovery autorotations

Performance Standards.

Demonstrate the ability to operate the aircraft under all emergency conditions per AH-1W NATOPS.

PUI shall conduct a minimum of (2) RVLs

Prerequisites. 1901

Crew. CSI (BIP(NSI)/PUI~AC)

2.10 MISSION PHASE (3000)

Purpose. To produce a mission skills proficient pilot. Upon completion of the Mission phase, pilots should be proficient in Mission Essential Tasks.

General

Upon completion of the Mission phase, pilots may be designated Attack Helicopter Commander (AHC) and Forward Air Controller (Airborne) [FAC(A)].

Completion of the Core Phase and the ESC, CAS, AR, AI, SCAR, TRAP and EXP stages through TRAP-3308 and EXP 3603 of the Mission Phase meet the requirements for the PUI to be eligible for the AHC designation.

Upon completion of the DESG-6398 event and refly of SWD-2605 meeting Mission Skills ordnance accuracy standards, and at the discretion of the squadron commanding officer a letter designating the PUI as an AHC shall be placed in the NATOPS jacket and APR.

Completion of the FAC(A) stage and compliance with the JFAC(A) MOA meets the requirements for the PUI to be FAC(A) qualified. At the discretion of the squadron commanding officer a letter assigning the PUI as FAC(A) qualified shall be placed in the NATOPS jacket and APR.

Prior to completion of the Core/Mission Skills Phase, Expeditionary Shore Based (FARP) Operations shall be conducted. Refer to Mission Phase for sortie requirements. EXP-3600 through EXP-3603 shall be logged in conjunction with any Core or Mission Phase event.

2.10.1 Ordnance Delivery

At the completion of this stage, the PUI will have demonstrated increased accuracy during ordnance delivery and proper use of the TSS under all threat conditions with mixed ordnance loads.

At the completion of the OAS syllabus, prior to AHC (DESG-6398), the PUI shall refly SWD-2605 and will be required to meet the Mission Phase ordnance accuracy metric.

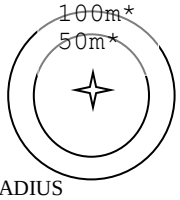
SWD should be conducted on rated/scored ranges whenever possible.

Focus should be on weapons delivery profiles and ordnance accuracy, not tactical scenarios.

VTR debrief should be used to the maximum extent possible.

Emphasis will be on CRM and Tactical Risk Management (TRM) while utilizing the ordnance systems.

IPs shall evaluate ordnance effectiveness based on the following accuracy metrics.

MISSION SKILLS	UNGUIDED ROCKET STANDARD	GUN STANDARD	PURPOSE
 *RADIUS	-In correct profile per NTTP -No miss greater than 100 meters -CE90≤50 meters** -(1) rocket must impact within 10 meters	-On target within 3 seconds of trigger pull	-Based upon M151 Effective Casualty Radius (ECR)*** -Demonstrates the ability to damage targets

** CE90 example: SWD-2605 requires (7) 2.75" rockets. CE90≤50 meters requires that 90% of the delivered rockets impact within 50 meters of the target. In order to calculate, simply disregard the worst 10% of rockets released and the remaining farthest SINGLE MISS DISTANCE = CE90. Conservative rounding is applied.

Examples:

- 3-10 rockets released ~ disregard one rocket, SECOND FARTHEST MISS = CE90
- 11-20 rockets released ~ disregard two rockets, THIRD FARTHEST MISS = CE90
- In no case can a single rocket miss the intended target by more than 100m, including the omitted rounds for CE90 calculation. This constitutes a failure to meet the performance standards

*** Effective Casualty Radii (ECRs) are generic distances intended to be applied versus the anticipated target set for a particular weapon, based primarily upon explosive yield and warhead/fuse characteristics. Variables to weapon effectiveness include target vulnerability and composition of underlying terrain. Weapons that impact the target vicinity at distances beyond the warhead's ECR are predicted to be ineffective for target damage.

PGMs - Correct switchology, proper LASER placement, profile IAW AH-1 NTTP direct hit.

TOTs – Initial ordnance impacts delivered within ± 30 seconds of established TOT.

During this phase, one of the night aircraft ordnance events shall employ (7) 2.75 inch Illumination rockets (i.e. M257/M278). Illumination employment shall be evaluated on effectiveness and account for wind, elevation, delivery and flight release parameters. SOTC-6900 shall be logged in conjunction with the appropriately flown sortie.

During this phase, one of the aircraft ordnance events shall employ (4) 2.75 inch Advanced Precision Kill Weapons System (APKWS) rockets. APKWS employment shall be evaluated on effectiveness, delivery and flight release parameters. SOTC-6901 shall be logged in conjunction with the appropriately flown sortie.

During this phase, one of the aircraft ordnance events shall employ (7) 2.75 inch flechette rockets. Flechette employment shall be evaluated on effectiveness, delivery and flight release parameters. SOTC-6902 shall be logged in conjunction with the appropriately flown sortie.

Mission Stages

MISSION (3000 Phase)		
STAGE	**PARAGRAPH NUMBER**	**PAGE NUMBER**
Academics (ACAD)	2-11-1	2-65
Escort (ESC)	2-11-2	2-66
Close Air Support (CAS)	2-11-3	2-69
Armed Reconaissance (AR)	2-11-4	2-73
Air Interdiction (AI)	2-11-5	2-74
Strike Coordination and Reconaissance (SCAR)	2-11-6	2-75
Tactical Recovery of Aircraft Equipment and Personnel (TRAP)	2-11-7	2-77
Forward Air Controller (Airborne) [FAC(A)]	2-11-8	2-78
Expeditionary Shore-based Site Operations (EXP)	2-11-9	2-83

2.11 MISSION STAGES

2.11.1 Academics (ACAD)

Purpose. To develop a Mission Skill proficient pilot. These academics facilitate understanding of operations in the AH-1W and MAGTF level functions to ensure individuals possess the requisite knowledge to be designated Attack Helicopter Commander (AHC) and Forward Air Controller (Airborne) [FAC(A)].

General

These academics are intended to be an integrated series of academic lectures, readings and practical application contained within each phase of training.

The lectures, readings and chalk-talks are contained in the MAWTS-1 AH-1 Course Catalog. The academic courseware is a requirement.

At the completion of each ACAD event, the appropriate training code shall be logged in M-SHARP by the individual pilot, contract instructor or squadron operations personnel, as appropriate.

The codes listed below associated with these classes may NOT be the most up to date as the current AH-1 Course Catalog is the master document for stage academic requirements.

MISSION ACADEMIC PHASE	
TRAINING CODES	**COURSEWARE**
GENERAL REQUIREMENTS	
ACAD-3000	Intelligence Preparation of the Battlespace
ACAD-3001	Problem Framing
ACAD-3002	ROE Planning
ACAD-3003	GCE Raid Planning
ACAD-3004	Execution Checklist
ACAD-3005	Objective Area Planning*
ACAD-3006	NEO Execution
ACAD-3007	Rapid Response Planning
ACAD-3008	(S) Radar Guided Surface to Air Missiles
ACAD-3009	(S) REC Threat to the MAGTF
ACAD-3010	(S) IR SAM Threat to RW Aircraft*
ACAD-3011	(S) ADA Threat to RW Aircraft*
ACAD-3012	(S) Laser Threat
ACAD-3013	(S) Electronic Warfare
ESC	
ACAD-3019	Assault Support Escort Tactics*
CAS/AR/AI/SCAR	
ACAD-3030	(S) RW OAS*
ACAD-3031	Urban CAS*
ACAD-3032	Close Air Support
ACAD-3033	CAS Standardization*
ACAD-3034	(S) Weaponeering
ACAD-3035	HMLA AR and SCAR TTPs
TRAP	
ACAD-3038	(S) Personnel Recovery
ACAD-3039	(S) TRAP
FAC(A)	
ACAD-3041	JFAC(A) Courseware lectures taught by Squadron FAC(A)I*
ACAD-3042	FAC(A) TTPS
EXP	
ACAD-3045	HMLA FARP Ops

MISSION SKILL	
ACPM-8300	Air Defense
ACPM-8310	Forward Arming Refueling Point (FARP) Operations
ACPM-8311	Marine Corps Tactical Fuel Systems
ACPM-8320	Joint Structure and Joint Air Operations
ACPM-8321	Joint Air Tasking Cycle, Phase 1: Strategy Development
ACPM-8322	Joint Air Tasking Cycle, Phase 2: Target Development
ACPM-8323	Joint Air Tasking Cycle, Phase 3: Weaponeering and Allocation
ACPM-8324	Joint Air Tasking Cycle, Phase 4: Joint ATO Production
ACPM-8325	Joint Air Tasking Cycle, Phase 5: Force Execution
ACPM-8326	Joint Air Tasking Cycle, Phase 6:Combat Assessment
ACPM-8340	Integrating Fires and Airspace within the MAGTF
ACPM-8350	Phasing Control Ashore
ACPM-8351	TACRON Organizations and Functions
*Indicates classes that should be presented to all pilots annually.	

2.11.2 Escort (ESC)

Purpose. To develop proficiency in prescribed airborne and surface escort formations and maneuvers.

General

The pilot will develop a detailed understanding and functional knowledge of escort formations, maneuvers and techniques associated with airborne and surface operations.

Ordnance is not required for each event in this stage, but is required for at least one event in the escort stage.

If ordnance is utilized, the PUI shall have completed the Core Skills SWD flight corresponding to the appropriate ordnance load and event condition.

One of the three required flights in the ESC stage shall be flown with 2 AH-1Ws.

Aircraft should be configured with an operable NTS/NTSU, PGM system, FMV, LDRS, DVR, APR-39, AAR-47, ALE-47 and IR Pointer (night events).

Crew Requirements. As listed at the end of each event.

Ground/Academic Training. IAW the MAWTS-1 AH-1 Course Catalog.

Escort (ESC) Overview

ESCORT (ESC) STAGE							
EVENT	**TIME**	**REFLY**	**POI**	**COND**	**DEVICE**	**NUM**	**DESCRIPTION**
ESC-3100	1.5	*	B	D	A	1	OS - Day Assault Support Escort
ESC-3101	1.5	365	B,R,SC	NS	A	1+	OS - NS Assault Support Escort
SESC-3102	1.5	365	B,R,SC,M	(NS)	S/A	1	OS - Med Threat Escort
ESC-3103	1.5	1095	B,R	(NS)	A/S	2	OS - Low to Med Threat ESC

ESC-3100 1.5 * B D A 1 AH-1W & 1 H-1

Goal. OS - Demonstrate and introduce day assault support escort procedures in a low to medium threat environment.

Requirements

Discuss

Purpose of escort
EFL responsibilities
Categories of assault support
Six missions of assault support escort
Assault support escort techniques
Advantages/disadvantages of escort techniques
Escort patterns
LZ clearance/coverage scan techniques
Fire support planning ISO LZ clearance and GCE Ground Tactical Plan (GTP)
LZ clearance procedures and commnications
Threat reaction and immediate action procedures
Escort/assault support terminology

Capabilities/employment of Hellfire during escort
AIM-9 switchology and employment techniques
Lighting and threat detection
Supporting arms coordination
Fragmentation patterns
Assault sectors of fire and escort/assault integration and deconfliction
Tilt-rotor considerations
TRAP considerations and procedures

Demonstrate/Introduce

Escort/assault support mission planning
Escort responsibilities
Attached/detached/combined escort
Objective area fires integration/deconfliction
Objective area flow and communications
LZ coverage patterns and ordnance delivery procedures
Tactical employment of ordnance in close proximity to assault support aircraft enroute and in the LZ (objective area)

Performance Standards

PUI shall exhibit a thorough understanding of escort responsibilities and assault support operations.

PUI shall properly plan and employ escort assets in objective area.

PUI shall properly employ escort techniques and patterns for the assigned mission.

PUI shall integrate fire support in objective area (if required).

PUI shall use correct terminology and techniques for LZ clearance and coverage.

Prerequisites. 3008,3009,2603,(2604~ORD)

Ordnance (Optional). (1) captive PGM, CATM-9 (if avail), (7) 2.75 inch rockets, (300) rounds 20mm, (60) Chaff/Flares

Range Requirements. Live fire and LASER safe range (if required)

External Syllabus Support. One or more assault support aircraft

Crew. WTO/PUI

ESC-3101	1.5	365	B,R,SC	NS	A	1	AH-1W & 1 H-1

Goal. OS - Demonstrate and introduce night assault support escort in a low to medium threat environment.

Requirements

Discuss

Night LZ clearance/coverage techniques and procedures
Night escort techniques/procedures
ASTACSOP assault support A/C lighting
Night formation, lighting and threat detection
AMC/AFL/EFL relationship
Supporting arms coordination
FLIR and IR Pointer usage
Assault support aircraft sectors of fire
Escort/assault integration and deconfliction
Fixed wing escort procedures
Waveoff criteria and actions

Demonstrate/Introduce

Tactical employment of ordnance in close proximity to assault support aircraft enroute and in the LZ (objective area)
LZ coverage and scan patterns
ITG with IR pointer

Review

Ordnance delivery procedures with NVDs
Escort responsibilities
Attached/detached/combined escort
Objective area fires integration
Objective area flow and communications

Performance Standards

PUI shall conduct the EFL brief.

PUI shall exhibit a thorough understanding of assault support escort responsibilities and assault support operations IAW the AH-1 NTTP and ASTACSOP.

PUI shall properly plan for and employ escort assets in objective area.

PUI shall conduct enroute attached escort of assault support aircraft.

PUI shall properly employ escort techniques and patterns for the assigned mission.

PUI shall integrate fire support in objective area (if required).

PUI shall utilize IR Pointer for initial terminal guidance to LZ or to alert crews to a simulated enemy position.

PUI shall use correct terminology and techniques for LZ clearance and coverage.

Prerequisites. 3010,3011,3100,NSQ~NS,ANSQ~LLL

Ordnance (Optional). (1) captive PGM, CATM-9 (if avail), (7) 2.75 inch rockets, (300) rounds 20mm, (60)chaff/flares

Range Requirements. Live fire and LASER safe range (if required)

External Syllabus Support. One or more assault support aircraft

Crew. NSI/PUI

SESC-3102	1.5	365	B,R,SC,M	(NS)	S/A	WST/APT-TEN+

Goal. OS - Review assault support escort procedures in a medium threat environment.

Requirements

Discuss

Six missions of assault support escort
Capabilities/employment of PGMs
Guided rockets during escort missions
Advantages/disadvantages of attached/detached escort
AIM-9 switchology and employment techniques
Escort patterns
Sensor employment
LZ clearance/coverage techniques and procedures
Threat reaction SOPs and immediate action procedures
Escort/assault support terminology

Demonstrate/Introduce

Escort responsibilities and current tactical doctrine during assault support operations
Attached/detached/combined escort
Escort/assault support mission planning and operations within the objective area.

Performance Standards.

PUI shall exhibit a thorough understanding of escort responsibilities and assault support operations.

PUI shall perform threat reactions IAW NTTP and ASTACSOP

PUI shall plan, brief and execute an assault support escort mission in a medium threat environment, with a specific focus on contingencies and threat reactions.

Prerequisites. 3003-3005,3019,3101

Ordnance (Optional). (1) captive PGM, CATM-9 (if avail), (7) 2.75 inch rockets, (300) rounds 20mm,

(60)chaff/flares

Range Requirements. Live fire and LASER safe range (if required)

External Syllabus Support. Device operator. If flown in aircraft one or more assault support aircraft.

Crew. WTO(NSI)/PUI

ESC-3103 1.5 1095 B,R (NS) A/S 1 H-1W & 1 H-1

Goal. OS - Introduce surface force escort operations in a low to medium threat environment.

Requirements

Discuss

Surface force unit's needs
Surface force escort procedures and techniques
Escort profiles
Terminal controller procedures and communications (enroute/objective)
Non JTAC qualified convoys
PID and ROE considerations
Tactical employment of ordnance in close proximity to surface vehicles
Hellfire in support of GCE scheme of maneuver
Ordnance fragmentation patterns
Fire support planning/integration with the supported unit
Fixed wing integration
Escort fire support coordination
Methods of escort, route and objective clearance/coverage techniques and procedures

Introduce

Route coverage patterns
Targets of opportunity
Actions in the objective area
Ordnance delivery techniques and procedures

Performance Standards

PUI shall exhibit a thorough understanding of surface force escort responsibilities in support of the GCE scheme of maneuver.

PUI shall properly plan and employ escort assets enroute and in objective area.

PUI shall properly employ escort techniques and patterns for the assigned mission.

PUI shall integrate fire support enroute and in the objective area(if required).

Prerequisites. 2603,NSQ~NS,ANSQ~LLL,(2604~ORD)

Ordnance (Optional). (1) captive PGM, (7) 2.75 inch rockets, (300) rounds 20mm, (60) chaff/flares

Range Requirements. Live fire and LASER safe range (if required)

External Syllabus Support. One ground/amphibious unit (minimum three vehicles)

Crew. WTO(NSI)/PUI

2.11.3 Close Air Support (CAS)

Purpose. To develop procedures and skills to tactically employ the aircraft while conducting CAS missions under varying threat conditions.

General

Upon completion of this stage the pilot will be proficient in the planning, briefing and execution aspects of CAS missions.

In addition, the pilot will be proficient in the operation and employment of all organic weapon systems.

Aircraft should be configured with an operable NTS/NTSU, PGM system, FMV, LDRS, DVR, APR-39, AAR-47, ALE-47 and IR Pointer (night events).

Actual fixed wing aircraft, TACP, and indirect fire support assets should be incorporated to the maximum extent practicable, but in the event that support is not available, the IP can simulate these assets during the conduct of a sortie.

Crew Requirements. As listed at the end of each event.

Ground/Academic Training. IAW the MAWTS-1 AH-1 Course Catalog.

Close Air Support (CAS) Overview

CLOSE AIR SUPPORT (CAS) STAGE							
EVENT	**TIME**	**REFLY**	**POI**	**COND**	**DEVICE**	**NUM**	**DESCRIPTION**
SCAS-3300	1.5	*	B,SC	D/NS	S	1	FS - RW CAS
CAS-3301	1.5	180	B,R,SC,M	D	A	2	FS - RW CAS Low Threat
CAS-3302	1.5	*	B	NS	A	2	FS - NS RW CAS Med Threat
CAS-3303	1.5	180	B,R,SC,M	NS	A	1+	OS - LLL CAS Med Threat
CAS-3304	1.5	365	B,R,M	(NS)	A/S	2	OS - Urban CAS

SCAS-3300 1.5 * B,SC D/NS S WST/APT-TEN+

Goal. FS - Introduce RW CAS missions in rural and urban environments during both day and night in a low to medium threat environment.

Requirements

Discuss

Execution Template IAW TACP TACSOP
CAS check-in brief
Nine line and five line attack briefs
Battle position selection
Plotting BPs/HAs
Holding area selection
Movement from HAs to BPs
Objective area timing
CRM and lookout doctrine in the tactical environment
Day and night CAS considerations

Demonstrate/Introduce

CAS check-in brief
9-line attack brief
5-line attack brief
IR CAS terminology and use
Tactical RW CAS missions during both day and night
Move from a low to medium threat environment during the sortie utilizing CAS mission briefs with and without target marks

Review. All ordnance delivery procedures and considerations

Performance Standards

PUI shall exhibit a thorough understanding of the CAS mission brief and standard fire support coordination measures used when providing RW CAS.

PUI shall conduct a minimum of six (6) RW CAS missions (3 day and 3 night) utilizing guns, rockets and PGMs.

PUI shall demonstrate a detailed understanding and functional knowledge of all weapons systems, common trouble shooting techniques and delivery techniques.

Prerequisites. 3030-3033,2600,2704

Crew. NSI/PUI

CAS-3301 1.5 180 B,R,SC,M D A 2 AH-1W

Goal. FS - Provide RW CAS to ground forces in a low threat environment.

Requirements

Discuss
- Objective area timing
- Attack and cover elements
- AH-1W weapons integration/synchronization with GCE assets and scheme of maneuver
- Friendly marking techniques/procedures
- Identification of friendly/enemy positions
- MACCS integration.

Demonstrate/Introduce
- Tactical RW CAS missions utilizing CAS mission briefs
- Integration of attack helicopters into the ground scheme of maneuver
- Conduct CAS with and without a visual mark
- Conduct CAS in a low to medium threat environment
- Integration of FW CAS and indirect fire assets into objective area mechanics

Review
- Fire Support Coordination Measures
- Types of terminal attack control
- BP location
- HA to BP movement
- Ordnance delivery per NTTP
- CRM principles during RW CAS

Performance Standards

PUI shall utilize mission planning software to conduct elevation analysis and line of sight communications considerations.

PUI shall brief the objective area portion of the OAS brief.

PUI shall conduct all missions utilizing CAS procedures and communications.

PUI shall conduct a minimum of four (4) RW CAS missions utilizing CAS mission briefs.

PUI shall achieve the desired effects as stipulated by the terminal controller.

PUI shall ensure all missions are within 30 seconds of TOT during engagements or fall within the assigned engagement window.

Prerequisites. 3300

Ordnance. (1) captive PGM, (7) 2.75 inch rockets, (500) rounds 20mm, (60) chaff/flares

Range Requirements. Live fire and LASER safe range

External Syllabus Support. TACP

Crew. WTO/PUI

CAS-3302	1.5	*	B	NS	A	2	AH-1W

Goal. FS - To provide RW CAS to ground forces at night in a medium threat environment.

Requirements

Discuss
- Night/IR marking methods
- IR CAS terminology and use
- Employment capabilities of the NTS/NTSU
- Sensor management
- Terminal attack control procedures at night
- CRM during night RW CAS missions

Demonstrate/Introduce
- Friendly position marking techniques and procedures
- Tactical RW CAS mission at night with NVDs utilizing CAS mission briefs
- Conduct CAS in a medium threat environment.

Review

J-LASER terminology
IR pointer usage
Integration of attack helicopters into the ground scheme of maneuver
Friendly marking techniques/procedures
Identification of friendly/enemy positions
Objective area timing

Performance Standards

PUI shall brief the objective area portion of the OAS brief.

PUI shall conduct a minimum of four (4) NVD RW CAS missions utilizing CAS mission briefs.

PUI shall conduct all missions utilizing CAS procedures and communications.

PUI shall achieve the desired effects as stipulated by the terminal attack controller.

PUI shall ensure all missions are within 30 seconds of TOT during engagements or fall within assigned engagement window.

PUI shall conduct 20mm TSU/Guns delivery in FLIR mode.

IP shall validate, using DVR, an effective PGM engagement of a point target.

Prerequisites. 3301,NSQ~NS,ANSQ~LLL

Ordnance. (1) captive PGM, (7) 2.75 inch rockets, (500) rounds 20mm, (60) chaff/flares

Range Requirements. Live fire and LASER safe range

External Syllabus Support. TACP

Crew. NSI/PUI

CAS-3303	1.5	180	B,R,SC,M	NS	A	1 AH-1W & 1 H-1

Goal. OS - Provide CAS to ground forces at night during LLL conditions in a medium threat environment.

Requirements

Discuss

MACCS agencies and integration
J-LASER terminology
Elevation analysis and line of sight communications consideration as part of mission planning

Demonstrate/Introduce

Night CAS in a medium threat environment
Integration of FW CAS and indirect fires assets into objective area mechanics
FAC(A) game plan in support of the OAS brief(developed and briefed by IP)

Performance Standards

PUI shall brief objective area portion of OAS brief.

PUI shall conduct a minimum of four (4) RW CAS missions utilizing CAS mission briefs.

PUI shall conduct all missions utilizing CAS procedures and communications.

PUI shall achieve the desired effects as stipulated by the terminal attack controller.

PUI shall ensure all missions are within 30 seconds of TOT during engagements or fall within the assigned engagement window

PUI will conduct two (2) call for fire missions in support of terminal attack controller's objectives.

PUI shall utilize mission planning software to conduct elevation analysis and line of sight communications considerations.

IP shall validate, using the DVR, an effective IDF engagement of a point target.

Prerequisites. 3302,ANSQ

Ordnance. (1) captive PGM, (7) 2.75 inch rockets, (500) rounds 20mm, (60) chaff/flares

Range Requirements. Live fire and LASER safe range with thermally significant targets, if availbale

External Syllabus Support TACP, FW and IDF

Crew. NSI+FAC(A)/PUI

CAS-3304	1.5	365	B,R,M	(NS)	A/S	2	AH-1W

Goal. OS – Review urban CAS in a low to medium threat environment.

Requirements

Discuss

Urban terrain considerations
Line of sight considerations for weapons and communications
Weapon selection
ROE/PID
Collateral Damage Estimation (CDE)
Gridded Reference Graphic (GRG)
Laser spot/LGW considerations
Urban threat considerations

Introduce/demonstrate. GRG usage

Performance Standards

PUI shall brief objective area portion of the OAS brief.

PUI shall remain oriented within 1 city block for navigation.

PUI shall recieve, coordinate and execute a minimum of 4 RW CAS missions utilizing 5-line or 9-line attack briefs.

PUI shall conduct urban targeting using a gridded reference graphic (GRG).

PUI shall integrate with GCE maneuver and fire support plan.

Prerequisites. 3301,3302~LLL,3303~LLL

Ordnance (Optional). (1) Captive PGM, (7) 2.75 inch rockets, (300) rounds 20mm, (60) chaff/flare

Range Requirement. Live fire and LASER safe range if required, suitable urban environment or MOUT facility

External Syllabus Support. TACP with appropriate marking devices (if available)

Crew. WTO(NSI)/PUI.

2.11.4 Armed Reconnaissance (AR)

Purpose. To develop procedures and skills to tactically employ the aircraft while conducting Armed Reconnaissance (AR) missions under varying threat conditions.

General

Upon completion of this stage the pilot will be proficient in the planning, briefing and execution aspects of AR missions.

In addition, the pilot will be proficient in the operation and employment of all organic weapon systems.

Aircraft should be configured with an operable NTS/NTSU, PGM system, FMV, LDRS, DVR, APR-39, AAR-47, ALE-47 and IR Pointer (night events).

Actual fixed wing aircraft, MACCS agencies and indirect fire support assets should be incorporated to the maximum extent practicable, but in the event that support is not available, the IP can simulate these assets during the conduct of a sortie.

Crew Requirements. As listed at the end of each event.

Ground/Academic Training. IAW the MAWTS-1 AH-1 Course Catalog.

Armed Reconnaissance (AR) Overview

ARMED RECONNAISSANCE (AR) STAGE							
EVENT	**TIME**	**REFLY**	**POI**	**COND**	**DEVICE**	**NUM**	**DESCRIPTION**
AR-3305	2.0	365	B,R,M	(NS)	A/S*	2	AR Low to Med Threat

AR-3305 2.0 365 B,R,M (NS) A/S* 2 AH-1W

Goal. OS - Conduct armed reconnaissance in a low to medium threat environment.

Requirements

Discuss

Primary purpose of AR
AR Planning considerations
Named area of interest (NAI)
Target area of interest (TAI)
Modified combined obstacle overlay (MCOO)
High, medium, and low threat levels
Threat radar planning considerations with the emphasis on mission planning systems
Radar terrain masking
Radar resolution cell (RRC)
Global Area Reference System (GARS)
Kill boxes

Review

IFREP/MISREP procedures
Traveling, traveling overwatch, bounding overwatch procedures
Intelligence collection and dissemination procedures

Performance Standards

PUI should give the entire OAS brief, but at a minimum shall brief the Weaponeering portion of the OAS brief.

PUI shall demonstrate a basic knowledge of AR planning, execution and mechanics.

PUI shall achieve successful destruction of targets of opportunity (TOO) utilizing correct weapons-to-target match and standard weapons delivery profiles.

IP shall validate, using the DVR, an effective PGM engagement of a point target.

PUI shall consolidate BDA and pass through appropriate MACCS channels.

Prerequisites. 3030,3035,ANSQ

Ordnance. (1) captive PGM, (7) 2.75 inch rockets, (500) rounds 20mm, (60) chaff/flares

Range Requirements. Live fire and LASER safe range with thermally significant targets, if available

Crew. WTO(NSI)/PUI

2.11.5 Air Interdiction (AI)

Purpose. To develop procedures and skills to tactically employ the aircraft while conducting Air Interdiction (AI) missions under varying threat conditions.

General

Upon completion of this stage the pilot will be proficient in the planning, briefing and execution aspects of AI missions.

In addition, the pilot will be proficient in the operation and employment of all organic weapon systems.

Aircraft should be configured with an operable NTS/NTSU, PGM system, FMV, LDRS, DVR, APR-39, AAR-47, ALE-47 and IR Pointer (night events).

Actual fixed wing aircraft, MACCS agencies and indirect fire support assets should be incorporated to the maximum extent practicable, but in the event that support is not available, the IP can simulate these assets during the conduct of a sortie.

AI-3306 is annotated as an (NS) sortie. If this event is an initial sortie for the PUI, it SHALL be flown at night. Subsequent flights of this event can be flown day or night.

Crew Requirements. As listed at the end of each event.

Ground/Academic Training. IAW the MAWTS-1 AH-1 Course Catalog.

Air Interdiction (AI) Overview

AIR INTERDICTION (AI) STAGE							
EVENT	**TIME**	**REFLY**	**POI**	**COND**	**DEVICE**	**NUM**	**DESCRIPTION**
AI-3306	2.0	365	B,R,SC,M	(NS)	A/S*	2	AI Med Threat

AI-3306 2.0 365 B,R,SC,M (NS) A/S* 2 AH-1W

Goal. OS - Conduct an air interdiction mission in a medium threat environment.

Requirements

Discuss

Primary purpose of AI
AI planning considerations
RADAR terrain mask analysis
ROE/PID considerations
JMEMs/JWS
Weapon to target match
High, medium, and low threat levels
FARP procedures

Review

IFREP/MISREP procedures
Traveling, traveling overwatch, bounding overwatch procedures
Intelligence collection and dissemination procedures

Performance Standards

PUI shall conduct the OAS brief. OAS brief shall include a FARP brief.

PUI shall demonstrate a basic knowledge of AI planning, execution and mechanics.

PUI shall properly employ all ASE IAW AH-1W NTTP/NTRP.

All attacks shall utilize planned routes, BPs, and FPs as applicable.

PUI shall achieve the successful destruction of selected known targets utilizing proper weapon to target engagements and weaponeering.

PUI shall achieve the desired effects (as stipulated by the mission objectives) with timely, accurate engagements with minimal exposure time

IP shall validate, using the DVR, an effective PGM engagement of a point target.

PUI shall consolidate BDA and pass through appropriate MACCS channels.

PUI shall conduct FARP operations utilizing MWSS or ADGR if available.

PUI shall ensure all missions are within 10 seconds of TOT.

Prerequisites. 3030,ANSQ

Ordnance. (1) captive PGM, (7) 2.75 inch rockets, (300) rounds 20mm, (60) chaff/flares

Range Requirements. Live fire and LASER safe range with thermally significant targets, if available

Crew. NSI/PUI

2.11.6 Strike Coordination and Reconnaissance (SCAR)

Purpose. To develop procedures and skills to tactically employ the aircraft while conducting SCAR missions under varying threat conditions.

General

Upon completion of this stage the pilot will be proficient in the planning, briefing and execution aspects of SCAR missions.

In addition, the pilot will be proficient in the operation and employment of all organic weapon systems.

Aircraft should be configured with an operable NTS/NTSU, PGM system, FMV, LDRS, DVR, APR-39, AAR-47, ALE-47 and IR Pointer (night events).

Actual fixed wing aircraft, MACCS agencies and indirect fire support assets should be incorporated to the maximum extent practicable, but in the event that support is not available, the IP can simulate these assets during the conduct of a sortie.

Crew Requirements. As listed at the end of each event.

Ground/Academic Training. IAW the MAWTS-1 AH-1 Course Catalog.

Strike Coordination and Reconnaissance (SCAR) Overview

STRIKE COORDINATION AND RECONNAISSANCE (SCAR) STAGE							
EVENT	**TIME**	**REFLY**	**POI**	**COND**	**DEVICE**	**NUM**	**DESCRIPTION**
SCAR-3307	1.5	365	B,R,M	(NS)	A/S	2	SCAR Med Threat

SCAR-3307 1.5 365 B,R,M (NS) A/S 2 AH-1W

Goal. OS - Conduct a SCAR mission in a medium threat environment.

Requirements

Discuss

SCAR planning considerations
Suppression of Enemy Air Defense (SEAD)
Destruction of Enemy Air Defense (DEAD)
Sensor capabilities
Target Priority List (TPL)
Joint Surveillance Target Attack RADAR System (JSTARS)
Targeting process
MACCS integration for deep battlespace operations
Organinc MAGTF EW capabilities/limitations
IPB process
Global Area Reference System (GARS)
Kill boxes

Review

FSCMs
MACCS
ROE/PID considerations
JMEMs/JWS
Weapon to target match
IFREP/MISREP procedures
Traveling, traveling overwatch, bounding overwatch procedures
Intelligence collection and dissemination procedures

Performance Standards

PUI shall conduct the OAS brief.

PUI shall demonstrate a basic knowledge of SCAR planning, execution and mechanics.

PUI shall properly employ all ASE IAW AH-1W NATOPS/NTRP.

PUI shall achieve the desired effects (as stipulated by the mission objectives) on at least two (2) known targets with timely, accurate engagements with minimal exposure time as the SCAR while using proper weapons to target match.

IP shall validate, using the DVR, an effective PGM engagement of a point target.

PUI shall consolidate BDA and pass through appropriate MACCS channels.

Prerequisites. 3030,3035,ANSQ

Ordnance. (1) captive PGM, (7) 2.75 inch rockets, (300) rounds 20mm, (60) chaff/flares

Range Requirements. Live fire and LASER safe range with thermally significant targets, if available

External Syllabus Support. RW or FW aircraft

Crew. WTO(NSI)/PUI

2.11.7 Tactical Recovery of Aircraft and Personnel (TRAP)

Purpose. To develop procedures and skills to tactically employ the aircraft while conducting TRAP missions under varying threat conditions.

General.

Upon completion of this stage the pilot will be proficient in the planning, briefing and execution aspects of TRAP missions.

In addition, the pilot will be proficient in the operation and employment of all organic weapon systems.

Aircraft should be configured with an operable NTS/NTSU, PGM system, FMV, LDRS, DVR, APR-39, AAR-47, ALE-47 and IR Pointer (night events).

Actual fixed wing aircraft, ground recovery forces, and indirect fire support asset should be incorporated to the maximum extent practicable, but in the event that support is not available, the IP can simulate these assets during the conduct of a sortie.

Crew Requirements. As listed at the end of each event.

Ground/Academic Training. IAW the MAWTS-1 AH-1 Course Catalog.

Tactical Recovery of Aircraft and Personnel (TRAP) Overview

TACTICAL RECOVERY OF AIRCRAFT AND PERSONNEL (TRAP) STAGE							
EVENT	**TIME**	**REFLY**	**POI**	**COND**	**DEVICE**	**NUM**	**DESCRIPTION**
TRAP-3308	1.5	365	B,R,M	(NS)	A	2	TRAP Low to Med Threat

TRAP-3308 1.5 365 B,R,M (NS) A 2 AH-1W

Goal. OS - Conduct a TRAP in a low to medium threat environment.

Requirements

Discuss

Survivor location and authentication
ISOPREP data and procedures for authentication
CSAR SPINS
SARDOT
SARNEG
TRAP zones
GCE TRAP force composition
Fire support coordination
ASTACSOP TRAP matrix

Introduce

Isolated person authentication
CSAR SPINS application

Review

Escort/assault support mission planning
Escort responsibilities
Attached/detached/combined escort
Objective area fires integration
Objective area flow and communications

Performance Standards

PUI shall give the EFL portion of the AMC brief

PUI shall properly plan for and employ escort assets in objective area.

PUI shall utilize CSAR SPINS and ISOPREP data to properly authenticate downed aircrew.

PUI shall properly employ escort techniques and patterns for the assigned mission.

PUI shall integrate fire support assets in objective area.

PUI shall use correct terminology and techniques for LZ clearance and coverage.

Prerequisites. 3038,3039,ANSQ,3100,3101~NS

Ordnance (Optional). (1) captive PGM, (7) 2.75 inch rockets, (300) rounds 20mm (60) chaff/flares

Range Requirements. Live fire and LASER safe range (if required)

External Syllabus Support. One or more external assault support aircraft or one ground/amphibious unit (minimum three vehicles)

Crew. WTO(NSI)/PUI

2.11.8 Forward Air Controller (Airborne) [FAC(A)]

Purpose. To qualify PUI as a FAC(A) in accordance with applicable directives.

General

PUI shall be designated PQM (DESG-6300) to conduct FACA-3400, and AHC (DESG-6398) for all subsequent events. Nonqualified aircrew shall fly FACA-3401 through FACA-3404 with a FAC(A)I.

At the completion of this stage, the PUI should have demonstrated a thorough knowledge of CAS and FAC(A) procedures used to control RW and FW aircraft and supporting arms under varied environmental and threat conditions.

FAC(A) training requirements are listed in the most recent JFAC(A) MOA and the T&R Program Manual, Chapter 3. The JFAC(A) MOA can be found on the MAWTS-1 Webpage at: https://mceits.usmc.mil/sites/mawts1/SitePages/JFAC(A).aspx.

Upon successful completion of this stage and compliance with JFAC(A) MOA certification requirements, the commanding officer may issue the PUI a T&R FAC(A) qualification as well as a JFAC(A) MOA FAC(A) certification.

The JFAC(A) MOA dictates that specific control tasks (i.e. day/night, use of LTD/IR PTR, type of control, etc) be completed for certification. This T&R manual does not dictate on which events every control task requirement must be completed. Squadron operations staff and FAC(A)Is are therefore responsible for ensuring that PUI complete the required number of each control task IAW the current Joint FAC(A) MOA.

For T&R events not integrated with a live TACP, the FAC(A)I may simulate the TACP.

Four of the controls during the initial POI shall be under non-permissive/contested conditions. A "non-permissive/contested" control is defined as a control where the target area threat level dictates that the FAC(A) and/or attacking aircraft must use threat counter-tactics, countermeasures, or maintain stand-off prior to the target attack run. The FAC(A) must use a tactical scenario which requires a full 9-line CAS attack brief (IP to target area).

In order to ensure compliance with the JFAC(A) MOA qualification standards, FAC(A)s shall complete a SOTC-6906 every 24 months and a standardized ATF shall be written by the supervising FAC(A)I. A SOTC-6906 should be logged at the completion of the initial FAC(A) POI. ***FAC(A)s shall lose their qualification if they fail the recurring evaluation or if their evaluation period lapses.***

In order to regain qualification, FAC(A)s shall meet the T&R and the JFAC(A) MOA requirements as well as complete a subsequent re-evaluation under the supervision of a FAC(A)I.

Aircrew who have lost the FAC(A) qualification due to failure to meet JFAC(A) MOA currency requirements shall regain the FAC(A) qualification by successfully completing events as delineated in the appropriate T&R syllabus under the supervision of a current and qualified FAC(A) or FAC(A)I. At a minimum, such aircrew must complete the number and category (appropriate night, control type, ordnance, etc.) of controls the individual failed to accomplish during the appropriate six-month currency period (reference the current JFAC(A) MOA).

Aircrew who have lost the FAC(A) qualification due to exceeding the refly interval in all associated qualification events, or who have been FAC(A) unqualified for 24 consecutive months per the JFAC(A) MOA, shall regain qualification by completing the refresher FAC(A) syllabus under the supervision of a FAC(A)I IAW the current JFAC(A) MOA.

Where a S-TEN+ is specified the IP may simulate the man in the loop.

An aircraft control for the purpose of defining requirements is a mission that ends with a ″cleared hot,″ ″continue dry,″ “cleared to engage” or ″abort″ issued from the terminal attack controller. If a FAC(A) sortie is flown with a FAC(A)I and PUI, and terminal attack control is conducted by PUI, credit for each control will go to both pilots. Also, if the crew consists of two FAC(A) proficient, qualified pilots, both shall receive control credit.

Aircraft should be configured with an operable NTS/NTSU, PGM system, FMV, LDRS, DVR, APR-39, AAR-47, ALE-47 and IR Pointer (night events).

Crew Requirements. As listed at the end of each event.

Ground/Academic Training. IAW the MAWTS-1 AH-1 Course Catalog.

Forward Air Controller (Airborne) FAC(A) Overview

FORWARD AIR CONTROLLER (AIRBORNE) FAC(A) STAGE							
EVENT	**TIME**	**REFLY**	**POI**	**COND**	**DEVICE**	**NUM**	**DESCRIPTION**
FACA-3400	1.5	365	B,R,M	(NS)	A/S*	1	Indirect Fire Arms Control
SFACA-3401	1.5	365	R,R,M	(NS)	S/A	1	RW Control
FACA-3402	1.5	365	B,R,M	D	A/S*	1	FW Control
FACA-3403	1.5	365	B,R,M	NS	A/S*	1	NS FW Control
FACA-3404	1.5	365	B,R,M	(NS)	A/S*	1	GCE SOM

FACA-3400 1.5 365 B,R,M (NS) A/S* 1 AH-1W

Goal. FS - Introduce indirect fire supporting arms control.

Requirements

Discuss

Integration of indirect fires with CAS assets in support of the GCE SOM
Fire Support Coordination Measures
Airspace Control Measures
Relationship of the Intelligence Cycle to the Targeting Process
Capabilities and limitations of indirect fire assets
Marine indirect fire asset organization
Naval Surface Fire Support (NSFS) capabilities, limitations and employment
CFF parts and elements
Suppression of Enemy Air Defenses (SEAD)
Ground Delivered Illumination
LASER call for fire procedures

Introduce. Call for fire procedures

Performance Standards

PUI shall demonstrate a basic knowledge of indirect fire support planning, preparation and execution.

PUI shall conduct a minimum of three (3) fire missions, one (1) of which shall be an adjust fire mission and two (2) shall be a SEAD missions.

PUI shall achieve desired effects (destroy, neutralize or suppress) on selected targets.

Prerequisites. 3041,3042,6300

Ordnance (Optional). (1) captive PGM, (7) 2.75 inch rockets, (300) rounds 20mm (60) chaff/flares

Range Requirements. Live fire and LASER safe range with thermally significant targets, if available

External Syllabus Support. One (1) indirect fire asset with eight (8) rounds

Crew. WTO(NSI)+FAC(A)/PUI ((NSI)+FAC(A)/PUI~NS)

SFACA-3401 1.5 365 B,R,M (NS) S/A TEN

Goal. FS – Introduce control of FW and RW aircraft.

Requirements

Discuss

FW/RW CAS and FAC(A) aircraft capabilities, limitations and employment
Use and submission of the Joint Tactical Airstrike Request (JTAR)
CAS specific Rules of Engagement, Proportional Response and Collateral Damage Considerations
Marine and Joint Command and Control Structure and impact on CAS/FAC(A) planning
Types of Terminal Attack Control, Bomb on Coordinate (BOC) and Bomb on Target (BOT) methods of attack and their application to RW CAS assets
RW/FW FAC(A) Crew coordination
Task shedding/sharing in the FAC(A) environment
FAC(A) section game-plan
JFAC(A) MOA certification and qualification requirements

Introduce

Integration of FW*/RW CAS assets into objective area mechanics
FW*/RW communication and control procedures.
LASER designation for laser guided weapons

Performance Standards

PUI shall demonstrate basic knowledge of planning, briefing and execution IAW USMC TACPSOP.

PUI shall conduct the minimum following controls:

(1) type 1 RW control**

(1) type 2 RW control

(1) type 3 RW control

(2) type 2 FW controls*

PUI shall deliver a minimum of two (2) RW 9-Line CAS attack briefs.

PUI shall deliver a minimum of one (1) FW 9-Line CAS attack brief.*

PUI shall deliver at least one (1) RW 5-Line CAS attack brief.

* If conducted in the simulator.

** If conducted in the aircraft

Prerequisites. 3041,3042,6398

Ordnance. (7) 2.75 inch RP rockets, (300) rounds 20mm

Range Reqirements. Live fire and LASER safe range with thermally significant targets, if available

External Syllabus Support. 1 RW CAS aircraft with ordnance and Ground Maneuver Unit with TACP (If conducted in aircraft).

Crew. FAC(A)I/PUI (FAC(A)I/PUI/Copilot~SIM)

FACA-3402	1.5	365	B,R,M	D	A/S*	1 AH-1W & 1 H-1

Goal. FS – Introduce control of FW aircraft.

Requirements

Discuss

FW CAS aircraft ordnance capabilities, limitations and employment
Marine and Joint UAS capabilities, limitations and employment
Effects of weather, terrain and threat on FW CAS assets and RW FAC(A)
Types of Terminal Attack Control, Bomb on Coordinate (BOC) and Bomb on Target (BOT) methods of attack and their application to FW CAS assets
Airspace Control Order (ACO), Air Tasking Order (ATO) and their impact on CAS/FAC(A) planning
Laser guided, sensor guided, coordinate dependant and non-precision weapons deliveries
Visual and sensor target marking
SEAD in support of FW CAS attacks
Target location procedures in support of CAS

FAC(A) coordination within the flight and intracockpit
Task shedding/sharing in the FAC(A) environment

Introduce

Integration of FW CAS assets
FW lase for Hellfire setup and execution
Objective area mechanics
Communication and control procedures
LASER designation for LST/LGB

Performance Standards

PUI shall brief a FAC(A) game plan.

PUI shall demonstrate a basic knowledge of FW CAS aircraft planning, preparation and execution.

PUI shall conduct a minimum of four (4) FW Type 1 controls, with emphasis on utilization of forward firing or unguided "free-fall" ordnance.

PUI shall utilize a minimum of two (2) 9-Line CAS attack briefs.

Prerequisites. 3041,3042,6398

Ordnance. (7) 2.75 inch RP rockets, (300) rounds 20mm

Range Requirements. Live fire and LASER safe range

External Syllabus Support. 2 FW CAS aircraft with ordnance, prefer forward firing or unguided free-fall, Ground Maneuver unit with TACP

Crew. FAC(A)I/PUI

FACA-3403	1.5	365	B,R,M	NS	A/S*	1	AH-1W & 1 H-1

Goal. FS – Introduce control of FW aircraft at night.

Requirements

Discuss

FW CAS aircraft sensor capabilities, limitations and employment
Effects of weather, terrain and threat at night to FW CAS assets and RW FAC(A)
Types of Terminal Attack Control, Bomb on Coordinate (BOC) and Bomb on Target (BOT) methods of attack and their application to FW CAS assets
Laser guided, sensor guided, coordinate dependant and non-precision weapons deliveries
Visual and sensor target marking
Ground and aviation delivered illumination in support of CAS
Urban CAS considerations
AC-130 integration and Call For Fire
SEAD in support of FW CAS attacks
Target location procedures in support of CAS
Night FAC(A) coordination within the flight and intracockpit

Introduce. RW lase for FW ordnance

Review

FW aircraft ordnance capabilities, limitations and employment
Marine and Joint UAS capabilities, limitations and employment
FAC(A) crew coordination
Task shedding/sharing in the FAC(A) environment
Integration of FW CAS assets
Objective area mechanics
Communication and control procedures

Performance Standards

PUI shall brief a FAC(A) gameplan.

PUI shall demonstrate a basic knowledge of FW CAS aircraft planning, preparation, execution and night considerations.

PUI shall conduct a minimum of four (4) FW controls, with emphasis on utilization of laser guided, sensor guided or coordinate dependant ordnance. Of those at least two (2) should be FW Type 1 and at least two (2) should be FW Type 2 controls, one (1) of which should be BOC.

PUI shall utilize a minimum of (2) 9-Line CAS attack briefs.

PUI shall utilize onboard systems to generate coordinates for a coordinate dependant weapon delivery, either live or simulated.

Prerequisites. 3041,3042, 6398

Ordnance. (7) 2.75 inch RP rockets, (300) rounds 20mm

Range Requirements. Live fire and LASER safe range with thermally significant targets,if available

External Syllabus Support. 2 FW CAS aircraft with laser guided, sensor guided or coordinate dependant ordnance, Ground Maneuver unit with TACP

Crew. FAC(A)I/PUI

FACA-3404	1.5	365	B,R,M	(NS)	A/S*	1 AH-1W & 1 H-1

Goal. FS – Review FAC(A) and the use of supporting arms and their integration in support of the GCE SOM.

Requirements

Discuss

Fire Support planning documents (Appendix 19, target list worksheet, scheduling worksheet)
Target acquisition via aided or unaided vision or remote observer
Integration of air and surface fires in support of the Ground Scheme of Maneuver
Weaponeering process for RW, FW and UAS ordnance and weapon to target match
Integration of digital systems (VMF, Link-16, etc…)
MISREP and BDA assessment

Review

Discussion items from previous FAC(A) flights
Integration of multiple fire support assets (FW, RW, UAS, IDF)
Objective area mechanics
Communication and control procedures

Performance Standards

PUI shall brief a FAC(A) game plan that supports the GCE SOM.

PUI shall demonstrate sound knowledge of FW and RW CAS aircraft planning, preparation, and execution.

PUI shall integrate and conduct FAC(A) with multiple assets in support of the GCE SOM during a dynamic scenario.

PUI shall conduct a minimum of four (4) FW controls of which at least two (2) are FW Type 1 controls and at least two (2) are FW Type 2 controls, one (1) of which should also be BOC.

If utilizing RW CAS, PUI shall conduct a minimum of four (4) RW controls, either Type 1 or 2, integrated with FW attacks.

If utilizing IDF, PUI shall conduct a minimum of two (2) calls for fire integrated with CAS attacks. At least one (1) shall be SEAD.

PUI shall utilize a minimum of two (2) 9-Line CAS attack briefs.

PUI shall coordinate SEAD in support of FW target engagement.

Prerequisites. 3400 through 3402,3403~NS

Ordnance. (7) 2.75 inch RP rockets, (300) rounds 20mm

Range Requirements. Live fire and LASER safe range with thermally significant targets, if available

External Syllabus Support. 2 FW CAS aircraft with ordnance, 1 indirect fire support asset or 1 section of RW aircraft with ordnance (separate from flight), Ground Maneuver unit with TACP

Crew. FAC(A)I/PUI

2.11.9 Expeditionary Shore-based Site Operations (EXP)

Purpose. To introduce day and night flight and ground operations from an expeditionary site.

General

IAW applicable directives, PUI will emphasize proper communication procedures, patterns, and aviation operations in a FARP environment.

Refer to appropriate NATOPS, NTTP, ASTACSOP and Aircraft Refueling NATOPS Manual for FARP operations.

An actual FARP, ADGR site is preferred but not required.

Squadrons may elect to simulate one of these environments at an outlying field, austere landing zone(s) or other appropriate landing sites.

Expeditionary Operations shall be flown in conjunction with any Core/Mission Phase event once prerequisites are complete.

EXP-3602 and 3603 are annotated A/S* sorties. If these events are initial sorties for the PUI, they SHALL be flown in the aircraft. Subsequent flights for these two events can be flown in the simulator to maintain proficiency.

Crew Requirements. As listed at the end of each event.

Ground/Academic Training. IAW the MAWTS-1 AH-1 Course Catalog.

Expeditionary Shore-based Site Operations (EXP) Overview

EXPEDITIONARY SHORE-BASED SITE OPERATIONS (EXP) STAGE							
EVENT	**TIME**	**REFLY**	**POI**	**COND**	**DEVICE**	**NUM**	**DESCRIPTION**
EXP-3600	0.0	*	B	D	A/S	1	Day FARP
EXP-3601	0.0	180	B,R,SC,M	NS	A/S	1	NS FARP
EXP-3602	0.0	*	B,R	D	A/S*	1	RVL
EXP-3603	0.0	120	B,R,SC,M	NS	A/S*	1	NS RVL

EXP-3600 0.0 * B D A/S-TEN1 AH-1W

Goal. OS - Conduct day Expeditionary Shore-based Site Operations (FARP).

Requirements

Discuss

FARP types
FARP equipment
FARP procedures and personnel
Landing point markings
Movement within the FARP
Ordnance procedures
FARP emergency procedures
MMT communications/nets
FARP OIC communications/nets
ADGR platforms, equipment and capabilities

Introduce

Day FARP operations
Inbound & outbound formations and approaches

Review. Landing procedures to an unprepared surface

Performance Standards

PUI shall conduct a FARP brief.

PUI shall conduct a minimum of one (1) landing and one (1) takeoff.

PUI should conduct refueling.

Prerequisites. 3045,8310,8311,2100

External Syllabus Support. Actual or simulated FARP

Crew. BIP/PUI

EXP-3601 0.0 180 B,R,SC,M NS A/S-TEN 1 AH-1W

Goal. OS - Conduct NVD Expeditionary Shore-based Site Operations(FARP).

Requirements

Discuss

Night landing point markings
Aircraft lighting
FARP types
FARP equipment
FARP procedures and personnel
Landing point markings
Movement within the FARP
Ordnance procedures
FARP emergency procedures
MMT communications/nets
FARP OIC communications/nets
ADGR platforms, equipment and capabilities

Demonstrate/Introduce. Night FARP operations

Review. Landing procedures to an unprepared surface

Performance Standards

PUI shall conduct a FARP brief.

PUI shall conduct a minimum of one (1) night landing and one (1) night takeoff.

PUI should conduct refuleing.

Prerequisites. 3045,8310,8311,2101,ANSQ~LLL,2701~LLL

External Syllabus Support. Actual or simulated FARP

Crew. NSI/PUI

EXP-3602 0.0 * B,R D A/S*-TEN1 AH-1W

Goal. OS - Conduct Reduced Visibility Landings (RVL)

Requirements

Discuss

Reduced visibility landing profile and CRM
Recommended waveoff paramaters
Landing zone selection criteria

Demonstrate/Introduce

Reduced visibility landings
Waveoffs

Review. Landings to an unimproved landing site.

Performance Standards

PUI shall conduct a minimum of one (1) RVL approach.

PUI shall conduct a minimum of one (1) reduced visibility takeoff.

PUI shall conduct a minimum of one (1) waveoff.

Prerequisites. 2100

Crew. BIP/PUI

EXP-3603 0.0 180 B,R,SC,M NS A/S*-TEN 1 AH-1W

Goal. OS - Conduct NVD Reduced Visibility Landings (RVL)

Requirements

Discuss

Reduced visibility landing profile and CRM
Recommended waveoff paramaters
Landing zone selection criteria
Aircraft lighting use
Use of searchlight

Demonstrate/Introduce

NVD Reduced visibility landings
Waveoffs

Review. Landings to an unimproved landing site.

Performance Standards

PUI shall conduct a minimum of one (1) RVL approach

PUI shall conduct a minimum of one (1) reduced visibility takeoff

PUI shall conduct a minimum of (1) waveoff

Prerequisites. TERF-2100 (ANSQ-2701~LLL)

Crew. NSI/PUI

2.12 CORE PLUS PHASE (4000)

Purpose. To certify the PUI in large scale integrated mission events, events having unique mission tasking, events having a low probability of execution in combat, are theater specific, and/or are relatively high-threat events.

General. Upon completion of each individual stage, the pilot will be considered Core Plus/Mission Plus proficient in that stage.

Completion of DACM-4300, DACM-4301,DACM-4302, and DACM-4303 meets the requirements for the PUI to be RWDACM qualified. At the discretion of the squadron commanding officer a letter assigning the PUI as RWDACM qualified shall be placed in the NATOPS jacket and APR.

Completion of DACM-4304 and DACM-4305 meets the requirements for the PUI to be FWDACM qualified. At the discretion of the squadron commanding officer a letter assigning the PUI as FWDACM qualified shall be placed in the NATOPS jacket and APR.

Completion of SCBRN-4400 meets the requirements for the PUI to be CBRN qualified. At the discretion of the squadron commanding officer a letter assigning the PUI as CBRN qualified shall be placed in the NATOPS jacket and APR.

Completion of the CQ stage meets the requirements for the PUI to be CQ qualified. At the discretion of the squadron commanding officer a letter assigning the PUI as CQ qualified shall be placed in the NATOPS jacket and APR.

Ordnance Delivery

At the completion of this phase, the PUI will have demonstrated increased accuracy during ordnance delivery and proper use of the NTS/NTSU under medium to high threat conditions with mixed ordnance loads.

For the Core Plus Skills Phase, the PUI shall meet the ordnance metrics outlined for the Mission Skill Phase. DVR debrief should be used to the maximum extent possible.

Emphasis will be on CRM and Tactical Risk Management (TRM) while utilizing the ordnance systems.

Phase Overview

CORE PLUS (4000 Phase)		
STAGE	**PARAGRAPH NUMBER**	**PAGE NUMBER**
Academics (ACAD)	2.13.1	2-86
Escort (ESC)	2.13.2	2-87
Close Air Support (CAS)	2.13.3	2-87
Armed Reconnaissance (AR)	2.13.4	2-89
Air Interdiction (AI)	2.13.5	2-90
Strike Coordiantion and Reconaisance (SCAR)	2.13.6	2-91
Offensive Anti-Air Warfare (OAAW)	2.13.7	2-92
Rotary Wing Defensive Air Combat Maneuvering (RWDACM)	2.13.8	2-93
Fixed Wing Defensive Air Combat Maneuvering (FWDACM)	2.13.9	2-95
Chemical, Biological, Radiological and Nuclear Warfare (CBRN)	2.13.10	2-97
Carrier Qualified (CQ)	2.13.11	2-98

2.13 CORE PLUS STAGES

2.13.1 Academics

Purpose. To develop a Core Plus Skill complete pilot. These academics facilitate understanding of higher threat operations in the AH-1Z and MAGTF/Joint level functions to ensure individuals possess the requisite knowledge to execute large scale integrated mission events, unique mission tasking, events having a low probability of execution in combat, are theater specific and/or are relatively high-threat events.

General. These academics are intended to be an integrated series of academic lectures, readings and practical application contained within each phase of training. The lectures, readings and chalk-talks are contained in the MAWTS-1 AH-1 Course Catalog. The academic courseware is a requirement. At the completion of each ACAD event, the appropriate training code shall be logged in M-SHARP by the individual pilot, contract instructor or squadron operations personnel, as appropriate. The codes listed below associated with these classes may NOT be the most up to date as the current AH-1 Course Catalog is the master document for stage academic requirements.

CORE PLUS ACADEMIC PHASE	
TRAINING CODES	**COURSEWARE**
GENERAL REQUIREMENTS	
ACAD-4001	(S) Airborne Early Warning
OAS	
ACAD-4021	Review Raid Planning
ACAD-4022	Review Problem Framing
ACAD-4023	Review (S) Urban CAS
ACAD-4024	Review Objective Area Planning
ACAD-4025	Review ROE Planning
ACAD-4026	Review (S) RW OAS*
AR/SCAR	
ACAD-4027	Review HMLA AR & SCAR TTPs
DACM	
ACAD-4030	DACM Planning Considerations
ACAD-4031	DACM Parts 1-4
ACAD-4032	DACM Example RW Flight Brief
ACAD-4033	(S) RW Threat to the MAGTF
ACAD-4034	(S) Attack Helo Threat to RW A/C
ACAD-4035	(S) FW Threat to the MAGTF
ACAD-4036	(S) FW Threat to RW A/C
CBRN/CQ/ESC	
No Lectures	
*Indicates classes that should be presented to all pilots annually.	

2.13.2 Escort (ESC)

Purpose. To refine proficiency in escort missions.

General

At the completion of this stage, the PUI will have demonstrated the ability to plan, brief, and integrate multiple assets and fires in the execution of escort missions under varied environmental and higher threat conditions.

Aircraft should be configured with an operable NTS/NTSU, PGM system, FMV, LDRS, DVR, APR-39, AAR-47, ALE-47 and IR Pointer (night events).

Crew Requirements. As listed at the end of each event.

Ground/Academic Training. IAW the MAWTS-1 AH-1 Course Catalog.

Escort (ESC) Overview

ESCORT (ESC) STAGE							
EVENT	**TIME**	**REFLY**	**POI**	**COND**	**DEVICE**	**NUM**	**DESCRIPTION**
ESC-4200	1.5	730	B,R,M	(NS)	A/S	2	ESC Med to HighThreat

ESC-4200 1.5 730 B,R,M (NS) A/S-TEN+ WST/APT 2 AH-1W

Goal. OS - Refine armed escort responsibilities during assault support operations in a medium to high threat environment.

Requirements

Discuss

LZ clearance procedures and communication
Threat reaction and immediate action procedures
Capabilities/employment of HELLFIRE during escort
AIM-9 switchology and employment techniques

Review

Escort/assault support mission planning
Escort responsibilities
Attached/detached/combined escort
Objective area fires integration
Objective area flow and communications

Performance Standards

PUI shall plan, brief and lead an armed escort flight in a medium to high threat environment.

PUI shall correctly react to one (1) or more simulated enroute threats to the assault flight IAW ASTACSOP.

PUI shall develop and execute a fire support plan during the initial assault wave.

PUI shall integrate fire support assets in objective area.

PUI shall use correct terminology and techniques for LZ clearance and coverage.

Prerequisites. 6498

Ordnance. (1) captive PGM, (7) 2.75 inch rockets, (300) rounds 20mm, (60) chaff/flares

Range Requirements. Live fire and LASER safe range with thermally significant targets, if available

External Syllabus Support. 2 or more assault support aircraft

Crew. WTI/PUI

2.13.3 Close Air Support (CAS)

Purpose. To refine proficiency in Close Air Support missions.

General

At the completion of this stage, the PUI will have demonstrated the ability to plan, brief and execute a CAS

mission and deliver accurate and timely fires under varied environmental and higher threat conditions.

Aircraft should be configured with an operable NTS/NTSU, PGM system, FMV, LDRS, DVR, APR-39, AAR-47, ALE-47 and IR Pointer (night events).

Actual fixed wing aircraft, TACP, and indirect fire assets should be incorporated to the maximum extent practicable, but in the event that support is not available, the IP can simulate these assets during the conduct of a sortie.

Crew Requirements. As listed at the end of each event.

Ground/Academic Training. IAW the MAWTS-1 AH-1 Course Catalog.

Close Air Support (CAS) Overview

CLOSE AIR SUPPORT (CAS) STAGE							
EVENT	**TIME**	**REFLY**	**POI**	**COND**	**DEVICE**	**NUM**	**DESCRIPTION**
CAS-4201	1.5	730	B,R,M	(NS)	A/S	2	CAS Med to HighThreat

CAS-4201 1.5 730 B,R,M (NS) A/S-TEN+ 2 AH-1W

Goal. OS – Conduct CAS in a medium to high threat environment.

Requirements

Discuss

Aircraft flight profiles
Weapon selection
Organic MAGTF EW capabilities and limitations
RADAR Terrain Mask Analysis
Assault support escort considerations
Preemptive expendables use
SEAD/DEAD employment
GCE SOM integration
Fires Synchronization Meeting/Combined Arms Rehearsal
FAC(A) gameplan in high threat environment

Review

J-LASER terminology
IR pointer usage
Friendly marking techniques/procedures
Identification of friendly/enemy positions
Objective area timing

Performance Standards

PUI shall plan, brief and lead a CAS mission in a medium to high threat environment.

PUI shall receive, coordinate and execute a minimum of four (4) RW CAS missions utilizing 5-line or 9-line attack briefs.

PUI shall execute a detailed fire support plan with ground force maneuver.

PUI shall conduct a minimum of two (2) non-permissive RW CAS missions utilizing CAS mission briefs.

PUI shall conduct all missions utilizing CAS procedures and communication.

PUI shall achieve the desired effects as stipulated by the terminal controller.

PUI shall ensure all missions are within 30 seconds of TOT during engagements or fall within the assigned engagement window

IP shall validate IDF accuracy and procedures using DVR

Prerequisites. 6498

Ordnance. (1) captive PGM, (7) 2.75 inch rockets, (200) rounds 20mm, (60) chaff/flares.

Range Requirements. Live fire and LASER safe range with thermally significant targets, if available

External Syllabus Support. JTAC with appropriate marking devices (if available)

Crew. WTI/PUI

2.13.4 Armed Reconnaissance (AR)

Purpose. To refine proficiency in Armed Reconnaissance missions.

General.

At the completion of this stage, the PUI will have demonstrated the ability to plan, brief, and locate/destroy TOO in the execution of AR missions under varied environmental and higher threat conditions.

Aircraft should be configured with an operable NTS/NTSU, PGM system, FMV, LDRS, DVR, APR-39, AAR-47, ALE-47 and IR Pointer (night events).

Crew Requirements. As listed at the end of each event.

Ground/Academic Training. IAW the MAWTS-1 AH-1 Course Catalog.

Armed Reconnaissance (AR) Overview

ARMED RECONNAISSANCE (AR) STAGE							
EVENT	**TIME**	**REFLY**	**POI**	**COND**	**DEVICE**	**NUM**	**DESCRIPTION**
AR-4205	1.5	730	B,R,M	(NS)	A	2	AR Med to HighThreat

AR-4205 1.5 730 B,R,M (NS) A 2 AH-1W

Goal. OS - Conduct an Armed Reconnaissance mission in a medium to high threat environment.

Requirements

Discuss

Threat RADAR planning considerations
RADAR terrain masking and RADAR Resolution Cell (RRC)
Global Area Reference System (GARS) & Kill boxes
Named Areas of Interest (NAI)
Target Areas of Interest (TAI)
Modified Combined Obstacle Overlay (MCOO)
High Value Target List (HVTL), High Payoff Target List (HPTL), Target Priority List (TPL), Reactive Attack Guidance Matrix (RAGM).
Joint Surveillance Attack Target RADAR System (JSTARS)
National imagery assets
UAS/ISR integration

Review

IFREP/MISREP procedures
Intelligence collection and dissemination procedures
Battle Damage Assessment(BDA)

Performance Standards

PUI shall plan, brief and lead an armed reconnaissance mission in a medium to high threat environment.

PUI shall achieve successful destruction of targets of opportunity (TOO) utilizing correct weapon to target match and standard weapons delivery profiles.

IP shall validate, using the DVR, an effective PGM engagement of a point target.

PUI shall consolidate BDA and pass through appropriate MACCS channels.

Prerequisites. 6498

Ordnance. (1) captive PGM, (7) 2.75 inch rockets, (300) rounds 20mm, (60) chaff/flares

Range Requirements. Live fire and LASER safe range with thermally significant targets, if available

Crew. WTI/PUI

2.13.5 Air Interdiction (AI)

Purpose. To refine proficiency in AI missions.

General

At the completion of this stage, the PUI will have demonstrated the ability to plan, brief, and destroy known targets in the execution of AI missions under varied environmental and higher threat conditions.

Aircraft should be configured with an operable NTS/NTSU, PGM system, FMV, LDRS, DVR, APR-39, AAR-47, ALE-47 and IR Pointer (night events).

Crew Requirements. As listed at the end of each event.

Ground/Academic Training. IAW the MAWTS-1 AH-1 Course Catalog.

Air Interdiction (AI) Overview

AIR INTERDICTION (AI) STAGE							
EVENT	**TIME**	**REFLY**	**POI**	**COND**	**DEVICE**	**NUM**	**DESCRIPTION**
AI-4206	1.5	730	B,R,M	(NS)	A	2	AI Med to HighThreat

AI-4206 1.5 730 B,R,M (NS) A 2 AH-1W

Goal. OS - Conduct an Air Interdiction mission in a medium to high threat environment.

Requirements

Discuss

Organic MAGTF EW Capabilities and Limitations
Suppression of Enemy Air Defense (SEAD)
Destruction of Enemy Air Defense (DEAD)
Collateral Damage Estimate (CDE)
Positive Identification (PID)
Theater Air Control System (TACS)
Target Location Error (TLE)

Review

Primary purpose of AI
AI Planning considerations
RADAR Terrain Mask analysis
ROE/PID considerations in flight
JMEMs/JWS
Weapon to target match
High, medium, and low threat levels

Performance Standards

PUI shall plan, brief and lead an AI mission in a medium to high threat environment.

All attacks shall utilize planned routes, BPs, and FPs as applicable.

PUI shall properly employ all ASE IAW AH-1 NATOPS/NTRP.

PUI shall achieve successful destruction of selected known targets utilizing proper weapon to target engagements and weaponeering.

PUI shall achieve the desired effects (as stipulated by the mission objectives) with timely, accurate engagements with minimal exposure time.

IP shall validate, using the DVR, an effective PGM engagement of a point target.

PUI shall consolidate BDA and pass through appropriate MACCS channels.

Prerequisites. 6498

Ordnance. (1) captive PGM, (7) 2.75 inch rockets, (300) rounds 20mm, (60) chaff/flares

Range Requirements. Live fire and LASER safe range with thermally significant targets, if available

Crew. WTI/PUI

2.13.6 Strike Coordination and Reconnaissance (SCAR)

Purpose. To refine proficiency in Strike Cooridination and Reconnaissance missions.

General

At the completion of this stage, the PUI will have demonstrated the ability to plan, brief, and integrate multiple assets and fires in the execution of AR missions under varied environmental and higher threat conditions.

Aircraft should be configured with an operable NTS/NTSU, PGM system, FMV, LDRS, DVR, APR-39, AAR-47, ALE-47 and IR Pointer (night events).

Crew Requirements. As listed at the end of each event.

Ground/Academic Training. IAW the MAWTS-1 AH-1 Course Catalog.

Strike Coordination and Reconnaissance (SCAR) Overview

STRIKE COORDINATION AND RECONNAISSANCE (SCAR) STAGE							
EVENT	**TIME**	**REFLY**	**POI**	**COND**	**DEVICE**	**NUM**	**DESCRIPTION**
SCAR-4207	1.5	730	B,R,M	(NS)	A/S	2	SCAR Med to HighThreat

SCAR-4207 1.5 730 B,R,M (NS) A/S-TEN+ 2 AH-1W

Goal. OS - Conduct a Strike Coordination and Reconnaissance (SCAR) mission in a medium to high threat environment.

Requirements

Discuss

Organic MAGTF EW capabilities and limitations
Suppression of Enemy Air Defense (SEAD)
Destruction of Enemy Air Defense (DEAD)
Collateral Damage Estimation (CDE)
Positive Identification (PID)
Theater Air Control System (TACS)
Target Location Error (TLE)

Review

Targeting process
Joint Surveillance Target Attack RADAR System (JSTARS)
ROE/PID considerations
JMEMs/JWS
Weapon to target match
IFREP/MISREP procedures

Performance Standards

PUI shall plan, brief and lead a SCAR mission in a medium to high threat environment.

PUI shall properly employ all ASE IAW AH-1W NATOPS/NTRP

PUI shall achieve the desired effects (as stipulated by the mission objectives) on at least two (2) known targets with timely, accurate engagements with minimal exposure time as the SCAR while using proper weapon to target match.

IP shall validate, using the DVR, an effective PGM engagement of a point target.

Consolidate BDA and pass through appropriate MACCS channels.

Prerequisites. 6498

Ordnance. (1) captive PGM, (7) 2.75 inch rockets, (200) rounds 20mm, (60) chaff/flares

Range Requirements. Live fire and LASER safe range with thermally significant targets, if available

External Syllabus Support. 2 OAS aircraft

Crew. WTI/PUI

2.13.7 Offensive Anti-Air Warfare (OAAW)

Purpose. To refine proficiency in OAAW missions.

General

At the completion of this stage, the PUI will have demonstrated the ability to plan, brief and integrate multiple assets and fires in the execution of OAAW missions under varied environmental and higher threat conditions.

Aircraft should be configured with an operable NTS/NTSU, PGM system, FMV, LDRS, DVR, APR-39, AAR-47, ALE-47 and IR Pointer (night events).

Crew Requirements. As listed at the end of each event.

Ground/Academic Training. ACAD-4020, IAW the MAWTS-1 Course Catalog.

Offensive Anti-Air Warfare (OAAW) Overview

OFFENSIVE ANTI-AIR WARFARE (OAAW) STAGE							
EVENT	**TIME**	**REFLY**	**POI**	**COND**	**DEVICE**	**NUM**	**DESCRIPTION**
OAAW-4209	2.0	730	B,R,M	(NS)	A/S	2	OAAW Med to High Threat

OAAW-4209 2.0 730 B,R,M (NS) A/S-TEN+ 2 AH-1W

Goal. OS – Conduct an Offensive Anti-Air Warfare mission in medium to high threat environment.

Requirements

Discuss

Definition of OAAW
OAAW characteristics
OAAW tasks & principles
Types of OAAW missions
Intelligence Preparation of the Battlefield (IPB)

Review

Organic MAGTF EW Capabilities and Limitations
Suppression of Enemy Air Defense (SEAD)
Destruction of Enemy Air Defense (DEAD)
JMEMs/JWS
Weapon to target match
High Value Target (HVT) list, High Payoff Target List (HPTL), Target Priority List (TPL) & Reactive Attack Guidance Matrix (RAGM).
Time critical targets (TCT)

Demonstrate/Introduce

Preemptive and reactive OAAW targeting
Time critical target attacks
Reactive and preplanned SEAD

Performance Standards

PUI shall plan, brief and lead as Rotary Wing OAAW mission commander in a medium to high threat environment.

Properly employ all ASE IAW AH-1W NATOPS/NTRP.

Successful destruction of selected known targets utilizing proper weapon to target engagements and weaponeering.

Achieve the desired effects (as stipulated by the mission objectives) with timely, accurate engagements with minimal exposure time.

Validate, using DVR, an effective PGM engagement of a point target.

Consolidate BDA and pass through appropriate MACCS channels.

Prerequisites. 8300,4206,4207

Ordnance. (1) captive PGM

Range Requirements. Live fire and LASER safe range.

Crew. WTI/PUI.

2.13.8 Rotary Wing DACM (RWDACM)

Purpose. To demonstrate and introduce RWDACM and to qualify the PUI as RWDACM complete.

General

At the completion of this stage, the pilot will be proficient in the conduct of the principles of RWDACM and have a thorough knowledge of weapons employment, aircraft control and threat tactics of RW adversaries.

Aircraft should be configured with an operable NTS/NTSU, PGM system, FMV, LDRS, DVR, APR-39, AAR-47, ALE-47.

Crew Requirements. As listed at the end of each event. All participants must be TERF qualified.

Ground/Academic Training. IAW the MAWTS-1 AH-1 Course Catalog.

Rotary Wing DACM (RWDACM) Overview

ROTARY WING DACM (RWDACM) STAGE							
EVENT	**TIME**	**REFLY**	**POI**	**COND**	**DEVICE**	**NUM**	**DESCRIPTION**
DACM-4300	1.5	485	B,R,M	D	A/S	2	Air to Air Tactics
DACM-4301	1.0	*	B,SC	D	A	1+	1v1 RW DACM
DACM-4302	1.0	*	B	D	A	1+	2v1 RW DACM
DACM-4303	2.0	485	B,R,M	D	A	1+	Rev 1v1 & 2v1 RW DACM

DACM-4300 1.5 485 B,R,M D A/S-TEN 2 AH-1W

Goal. OS – Introduce outside weapons parameters air-to-air tactics as a building block for RWDACM events.

Requirement

Discuss

Crew coordination considerations
Aircraft control characteristics
DACM flight leadership considerations
Section tactics and gameplan
V-Pole
Inside weapons parameters vs. outside weapons parameters
AIM-9

Demonstrate/Introduce. Outside weapons parameters air combat maneuvering and tail chase.

Performance Standards

PUI shall conduct conduct one engagement sequence from both friendly and bandit roles.

PUI shall demonstrate appropriate tactics to engage adversary aircraft outside weapons parameters.

Prerequisites. 2603

Ordnance. (1) CATM-9, (30) flares

External Syllabus Support. Designated TERF area. High bird required for engagements greater than 1 v 1.

Crew. WTO+RWDACM/PUI

DACM-4301 1.0 * B,SC D A 1 AH-1W & 1 H-1

Goal. RS - Introduce 1 v 1 RWDACM.

Requirements

Discuss

Energy Maneuverability (EM)
Specific excess power (P_s)
EM & P_s tactical considerations
High and low yo-yo

Yo-Yo counter-tactics
Weapons employment rules of thumb
Range estimation techniques
Line number setups
V-Pole
DACM training rules
Control zone maneuvering
Crew coordination considerations
Aircraft control characteristics
DACM flight leadership considerations

Introduce

A/C capabilities/limitations
Adversary capabilities/limitations
Weapons envelopes of adversary RW aircraft

Performance Standards

PUI shall conduct one complete line number sequence (from both friendly and adversary roles).

PUI shall maintain aircraft control within NATOPS limitations.

PUI shall execute proper threat reactions to RW attacks.

Prerequisites. TERF,2201,2300,2603

Ordnance. (1) CATM-9, (30) flares and TCTS pod (as required).

External Syllabus Support. One adversary helicopter and appropriate air-to-air training area

Crew. RW DACMI/PUI

DACM-4302 1.0 * B D A 1 AH-1W & 1 H-1

Goal. RS - Introduce 2 v 1 RWDACM

Requirements

Discuss

Weapons employment rules of thumb
Range estimation techniques
Line number setups and communication
DACM training rules
Crew coordination considerations
Aircraft control characteristics
DACM flight leadership considerations
Section tactics and gameplan
Roles and responsibilities of free and engaged A/C
Control zone maneuvering and the weave

Review

Adversary capabilities/limitations
Weapons envelopes of adversary RW aircraft
Energy maneuverability (EM)
Specific excess power (P_s)
EM & Ps tactical considerations

Performance Standards.

PUI shall conduct one complete line number sequence from both tactical lead and tactical wingman positions.

PUI shall maintain aircraft control within NATOPS limitations.

PUI shall execute proper threat reactions to RW attacks.

Prerequisites. 4301

Ordnance. (1) CATM-9, (30) flares and TCTS pod (as required).

External Syllabus Support. One adversary helicopter and appropriate air-to-air training area

Crew. RW DACMI/PUI

DACM-4303	2.0	485	B,R,M	D	A	1	AH-1W & 1 H-1

Goal. OS - Review 1 v 1 and 2 v 1 RWDACM.

Requirements

Discuss

Crew coordination considerations
Aircraft control characteristics
DACM flight leadership considerations
Section tactics and gameplan
Roles and responsibilities of free and engaged A/C
Control zone maneuvering and the weave

Review

Energy maneuverability (EM)
Specific excess power (Ps)
EM & Ps tactical considerations
High and low yo-yo
Yo-Yo counter-tactics
Weapons employment rules of thumb
Range estimation techniques
Line number setups
V-Pole
DACM training rules

Performance Standards

PUI shall conduct one (1) complete line number sequence (from both tactical lead and tactical wingman positions).

PUI shall maintain aircraft control within NATOPS limitations.

PUI shall execute proper reactions to RW threat attacks.

Prerequisites. 3013, 4030 through 4034,4302

Ordnance. (1) CATM-9, (60) flares and TCTS pod (as required)

External Syllabus Support. One adversary helicopter and appropriate air-to-air training area

Crew. RW DACMI/PUI

2.13.9 Fixed-Wing Defensive Air Combat Maneuvering (FWDACM)

Purpose. To demonstrate and introduce FWDACM and to qualify the PUI as FWDACM complete.

General

At the completion of this stage, the PUI will be proficient in the conduct of FWDACM and have a thorough knowledge of weapons employment, aircraft control and threat tactics of FW adversaries.

Aircraft should be configured with an operable NTS/NTSU, PGM system, FMV, LDRS, DVR, APR-39, AAR-47, ALE-47.

Crew Requirements. As listed at the end of each event. All participants must be TERF qualified.

Ground/Academic Training. IAW the MAWTS-1 AH-1 Course Catalog.

Fixed Wing DACM (RWDACM) Overview

FIXED WING DACM (RWDACM) STAGE							
EVENT	**TIME**	**REFLY**	**POI**	**COND**	**DEVICE**	**NUM**	**DESCRIPTION**
DACM-4304	1.0	*	B,SC	D	A	1	1v1 FW DACM
DACM-4305	1.0	485	B,R,M	D	A	2	2v2 FW DACM

DACM-4304 1.0 * B,SC D A 1 AH-1W

Goal. RS - Perform 1 v 1 DACM against a FW adversary.

Requirements

Discuss

FW capabilities/limitations
Weapon envelopes and tactics of adversary FW aircraft
Tactical advantages derived from Ps/EM charts
FW threat counter-tactics
FW air-to-air weapons considerations
Range estimation
Lead requirements
RADAR/fire control capabilities
Intercept terminology
Visual combat air patrol (VISCAP) considerations
DACM training rules
FW DACM line number set-up and execution

Introduce

FW capabilities/limitations
Weapons envelopes of adversary FW aircraft
1 v 1 maneuvers against FW aircraft

Review AIM-9 switchology and delivery

Performance Standards

PUI shall conduct a minimum of one (1) line number sequence.

PUI shall execute proper switchology for AIM-9 employment by simulating a missile launch after achieving appropriate missile employment constraints.

PUI shall execute proper reactions to FW threat attacks.

Prerequisites. TERF,2201,2300,2603

Ordnance. (1) CATM-9, (60) flares and TCTS pod (as required)

External Syllabus Support. One FW adversary and appropriate air-to-air training area

Crew. FW DACMI/PUI

DACM-4305 1.0 485 B,R,MR D A 2 AH-1W

Goal. RS - Introduce 2 v 2 DACM against FW adversaries.

Requirements

Discuss

FW capabilities/limitations
FW threat counter-tactics
P_s/EM of threat/friendly aircraft
FW DACM training rules
2 v 2 FW DACM line number set-up

Demonstrate/Introduce

RW section game plan
RW v FW weapons employment
Aircraft/section control

Section awareness and communication
DACM flight leadership

Performance Standards

PUI shall complete a minimum of one (1) line number sequence as lead and as wingman.

PUI shall execute proper switchology for AIM-9 employment by simulating a missile launch after achieving appropriate missile employment constraints.

PUI shall execute proper reactions to FW threat attacks.

Prerequisites. 4030 through 4032,4035,4036,4304

Ordnance. (1) CATM-9, (60) flares and TCTS pod (as required).

External Syllabus Support 2 FW adversary and appropriate air-to-air training area

Crew. FW DACMI/PUI

2.13.10 Chemical, Biological, Radiological and Nuclear warfare (CBRN)

Purpose. To introduce the pilot to operations while wearing the aviator's CBR protective mask.

General. This event is designed to expand the capabilities of the aircrew in CBR operations.

Crew requirements. As listed at the end of the event.

Ground/academic training

Review appropriate section of AH-1Z NTRP on the CBRN protective mask prior to flight.

The pilot will complete the protective mask familiarization lecture and aircraft egress with mask.

Discuss capabilities and disadvantages of the mask to include emergency procedures.

Review all MOPP conditions.

Chemical, Biological, Radiological and Nuclear warfare (CBRN) Overview

CHEMICAL, BIOLOGICAL, RADIOLOGICAL AND NUCLEAR WARFARE (CBRN) STAGE							
EVENT	**TIME**	**REFLY**	**POI**	**COND**	**DEVICE**	**NUM**	**DESCRIPTION**
SCBRN-4400	1.0	*	B,R,M	D/NS	S/A	1	Intro CBRN

SCBRN-4400 1.0 * B,R,M D/NS S/A WST/APT

Goal. OS - CBR Protective mask introduction.

Requirements

Discuss

Advantages & disadvantages CBR protective mask
CBR Protective Mask components and operation
Psychological effects
Operating in a CBRN environment
Emergency procedures while using the CBR protective mask
Emergency egress
MOPP considerations
NVD considerations
Battery failure

Demonstrate/Introduce. Wear of the CBR protective mask while conducting FAM maneuvers.

Performance standards

PUI shall perform all maneuvers IAW AH-1W MDG and NATOPs.

PUI shall complete 5 autorotations IAW the AH-1W MDG and NATOPS.

Prerequisites. (2101~AC)

Crew. NSI/PUI

2.13.11 Carrier Qualification (CQ)

Purpose. To introduce day and night flight operations from a carrier deck or air capable ship.

General

IAW applicable directives, PUI will emphasize proper communication procedures, patterns, and aviation operations in the shipboard environment.

Refer to appropriate NATOPS and appropriate shipboard NATOPS Manuals for carrier operations.

PUI shall complete the FCLP stage prior to commencing this stage.

Initial Night Systems Carrier Qualification training shall be accomplished under High Light Level conditions.

Requalification and proficiency training may be accomplished under any light level condition.

PUI shall conduct at least one (1) precision and one (1) non-precision approach to an air capable ship before stage completion.

Once complete with each stage the pilot may be qualified Day CQ, Night CQ, or NVD CQ (as appropriate) in writing at the discretion of the commanding officer.

Crew Requirements. As listed at the end of each event.

Ground/Academic Training. IAW the MAWTS-1 AH-1 Course Catalog.

Carrier Qualification (CQ) Overview

CARRIER QUALIFICATION (CQ)STAGE							
EVENT	**TIME**	**REFLY**	**POI**	**COND**	**DEVICE**	**NUM**	**DESCRIPTION**
CQ-4600	1.0	365	B,R,SC	D	A	1	Day CQ
CQ-4601	1.0	365	B,R,SC,M	NS	A	1	NVD CQ
CQ-4602	1.0	365	B,R,SC	N*	A	1	Unaided Night CQ

CQ-4600 1.0 365 B,R,SC D A 1 AH-1W

Goal. OS - Conduct day shipboard landing qualification.

Requirements

Discuss

Day shipboard patterns
Sight picture and landings to a ship’s deck

Demonstrate/Introduce

Day shipboard operations
Lost communication procedure in a shipboard environment

Review

Types of air capable ships
Shipboard specific crew coordination
Deck crewman vest colors
Helicopter director visual signals
Emergency and ditching procedures
Wind limitation and engage/disengage charts
Shipboard terminology
Different case departures and arrivals
Rotor brake start procedures
HERO conditions and ordnance operations
Shipboard airspace

Performance Standards

PUI should execute a rotor brake start, if able

PUI shall conduct a minimum of five (5) day shipboard landings per the AH-1W NATOPS and shipboard NATOPS manuals.

PUI should conduct one (1) precision and one (1) non-precision approach, if avaialable.

PUI should conduct shipboard refueling, if available.

Prerequisites. 2501

External Syllabus Support. Landing platform afloat

Crew. BIP/PUI

CQ-4601	1.0	365	B,R,SC,M	NS	A	1 AH-1W

Goal. OS – Conduct NVD shipboard landing qualification.

Requirements

Discuss

Night NVD pattern
Sight picture and night landings to a ship's deck.

Demonstrate/Introduce. NVD shipboard operations

Review

Instrument scan considerations
Night shipboard specific crew coordination
Shipboard lighting considerations
NVD failures and emergency procedures
Spatial disorientation and vertigo
Shipboard instrument procedures
Shipboard communication procedures
Shipboard helicopter director visual signals

Performance Standards

PUI shall conduct a minimum of five (5) NVD shipboard landings per the AH-1W NATOPS and shipboard NATOPS manuals.

PUI should conduct one (1) lost comm marshalling procedure, if available.

PUI should conduct one (1) precision and one (1) non-precision approach, if available.

PUI should conduct shipboard refueling, if available.

Prerequisites. NSQ,2502,4600.

External Syllabus Support. Landing platform afloat

Crew. NSI/PUI

CQ-4602	1.0	365	B,R,SC	N*	A	1 AH-1W

Goal. OS - Conduct night unaided shipboard landing qualification.

Requirements

Discuss

Shipboard lighting
Wind limitations

Demonstrate/Introduce. Night unaided shipboard operations

Review

Shipboard lighting considerations
Shipboard instrument procedures
Delta, Alpha and Charlie patterns
Shipboard helicopter director visual signals

Performance Standards

PUI shall conduct a minimum of five (5) unaided shipboard landings per the AH-1W NATOPS and shipboard NATOPS manuals.

PUI should conduct one (1) precision and one (1) non-precision approach, if available.

Prerequisites. 2502,4600

External Syllabus Support. Landing platform afloat

Crew. BIP/PUI

2.14 INSTRUCTOR TRAINING PHASE (5000)

Purpose. To develop standardized Instructor Pilots (IPs) with the ability to teach flight skills requisite to qualification as a Core Plus/Mission Skills qualified pilot.

General

Upon completion of this phase of training the IUT may be designated a BIP, TERFI, WTO, TSI, CSI, FRSI, FAC(A)I, DACMI, NSFI, NSI and FLSE.

Completion of the BIP stage and DESG-6498 meets the requirements for the PUI to be designated a BIP. At the discretion of the squadron commanding officer a letter designating the IUT as a BIP shall be placed in the NATOPS jacket and APR. Section Leader designation is required prior to BIP designation.

Completion of the TERFI stage meets the requirements for the PUI to be designated a TERFI. At the discretion of the squadron commanding officer a letter designating the IUT as a TERFI shall be placed in the NATOPS jacket and APR.

Completion of the WTO stage and refly of the SWD-2605 meeting the instructor under training accuracy metric completes the requirements for the IUT to be designated a WTO. At the discretion of the squadron commanding officer a letter designating the IUT as a WTO shall be placed in the NATOPS jacket and APR.

Completion of the TSI stage meets the requirements for the IUT to be designated a TSI. At the discretion of the squadron commanding officer a letter designating the IUT as a TSI shall be placed in the NATOPS jacket and APR.

Completion of the CSI stage meets the requirements for the IUT to be designated a CSI. At the discretion of the group commanding officer a letter designating the IUT as a CSI shall be distributed to squadrons DoSS and operations departments. A copy shall be maintained by the MATSS representative to track CSI currency and refly requirements.

Completion of the FRSI stage meets the requirements for the IUT to be designated a FRSI. At the discretion of the squadron commanding officer a letter designating the IUT as a FRSI shall be placed in the NATOPS jacket and APR.

Refer to the MAWTS-1 AH-1 Course Catalog for FAC(A)I, DACMI, NSI and FLSE requirements.

Prior to the completion of each stage of training, the IUT will be required to present a class from an applicable MAWTS-1 ASP lecture or HMLAT-303 courseware. Emphasis will be placed on error analysis, error correction, instructional technique and briefing and debriefing procedures.

Ordnance Delivery. For ordnance accuracy metrics, refer to paragraph 2.10.1

Phase Overview

INSTRUCTOR TRAINING (5000 Phase)		
STAGE	**PARAGRAPH NUMBER**	**PAGE NUMBER**
Academics (ACAD)	2.15.1	2-101
Basic Instructor Pilot (BIP)	2.15.2	2-101
Terrain Flight Instructor (TERFI)	2.15.3	2-104
Weapons Training Officer (WTO)	2.15.4	2-105
Tactical Simulator Instructor	2.15.5	2-109
Contract Simulator Instructor (CSI)	2.15.6	2-110
Fleet Replacement Squadron Standardization Instructor (FRSSI)	2.15.8	2-120
Forward Air Controller (Airborne) Instructor [FAC(A)I]	2.15.9	2-121
Night Systems Familiarization Instructor (NSFI)	2.15.10	2-122
Defensive Air Combat Maneuvering Instructor (DACMI)	2.15.11	2-122
Night Systems Instructor (NSI)	2.15.12	2-123
Flight Lead Standardization Evaulator (FLSE)	2.15.13	2-124

2.15 INSTRUCTOR TRAINING STAGES

2.15.1 Academics (ACAD)

Purpose

To develop standardized Instructor Pilots (IPs).

These academics review and emphasize procedural based knowledge, standardized instruction, systems knowledge/nomenclature, and training management to ensure individuals possess the requisite knowledge and ability to teach flight skills.

General

These academics are intended to be an integrated series of academic lectures, readings and practical application contained within each phase of training. The lectures, readings and chalk-talks are contained in the MAWTS-1 AH-1 Course Catalog. The academic courseware is a requirement.

At the completion of each ACAD event, the appropriate training code shall be logged in M-SHARP by the individual pilot, contract instructor or squadron operations personnel, as appropriate. The codes listed below associated with these classes may NOT be the most up to date as the current AH-1 Course Catalog is the master document for stage academic requirements.

Instructor Under Training academic events are listed below.

INSTRUCTOR UNDER TRAINING ACADEMIC PHASE	
TRAINING CODES	**COURSEWARE**
BIP	
ACAD-5001	Training Management
ACAD-5002	Instructor Philosophy
ACAD-5003	Coach or Umpire
ACAD-5004	Student Trends
ACAD-5005	Briefing/Debriefing
TERFI	
ACAD-5011	Review H-1 Aerodynamics
ACAD-5012	How to Write an ATF
ACAD-5013	Instructional Standardization
WTO	
ACAD-5020	Review Lectures from TCT, REC, SWD, ESC and CAS stages
ACAD-5021	IUT will present a chalk talk or lecture
ACAD-5022	How to Give a Quality X
ACAD-5023	How to Build a Scenario
TSI	
ACAD-5026	AH-1W IOS
ACAD-5027	Tactical Simulator Instruction Introduction
ACAD-5028	Tactical Simulator Scenarios
FRSI	
ACAD-5060	Fleet Replacement Squadron Instructor Course (FRSIC)
ACAD-5061	Familiarization Stage Standardization Lecture
ACAD-5062	Instrument Stage Standardization Lecture
ACAD-5063	Formation Flight Stage Standardization Lecture
ACAD-5064	TERF Stage Standardization Lecture
ACAD-5065	Navigation Stage Standardization Lecture
ACAD-5066	Specific Weapons Delivery Stage Standardization Lecture

2.15.2 Basic Instructor Pilot (BIP)

Purpose. To qualify the IUT to instruct basic FAM, INST, FORM, FCLP, and CQ.

General. To instruct CQ, IUT must meet currency requirements outlined in CNAF M 3710.7.

Crew Requirements. As listed at the end of each event.

Ground/Academic Training. IAW MAWTS-1 AH-1 Course Catalog.

Basic Instructor Pilot (BIP) Overview

BASIC INSTRUCTOR PILOT (BIP) STAGE							
EVENT	**TIME**	**REFLY**	**POI**	**COND**	**DEVICE**	**NUM**	**DESCRIPTION**
SBIP-5100	1.5	*	B,R,SC	D	S	1	OS - EP Stan
SBIP-5101	1.5	*	B	D	S/A	1	FS - FAM & CQ
SBIP-5102	1.5	*	B	(N*)	S/A	1	FS - Instruments
BIP-5103	1.5	*	B	D	A	2	FS - Formation
BIP-5104	1.5	*	B,R,SC	D	A	1	OS - Error Detection

SBIP-5100 1.5 * B,R,SC D S WST/APT

Goal. OS – Emergency procedures standardization.

Requirements

Discuss

Cockpit indications of all emergencies
Instructor techniques
CRM skills and behaviors
ORM management as an instructor
Human factor errors

Demonstrate/Introduce. Procedures for running simulator

Review

Systems failures
Emergency procedures
Full/power recovery autorotations
Aircrew responsibilities

Performance Standards

IUT shall demonstrate the ability to operate the aircraft under all emergency conditions per AH-1W NATOPS.

IUT shall demonstrate a thorough knowledge of aircraft systems, emergency procedures and MDG procedures.

Utilizing a co-pilot, IUT shall demonstrate the ability to analyze and instruct proper responses & CRM during aircraft emergency procedures.

Prerequisites. 6398

External Syllabus Support. Device operator

Crew. WTO/IUT/co-pilot

SBIP-5101 1.5 * B D S/A WST/APT-TEN

Goal. FS – Instruct all FAM stage maneuvers and CQ procedures with emphasis on standardization IAW the AH-1W NATOPS, MDG and LHA/LHD NATOPS.

Requirements

Discuss

Instructional techniques
Common PUI mistakes
FAM stage maneuvers IAW with the AH-1W NATOPS & MDG
FCLP and CQ procedures

Review

Local course rules
All FAM stage manuevers
Shipboard operations

Performance Standards

IUT shall complete five (5) autorotations IAW the AH-1W NATOPS and MDG.

IUT shall conduct a minimum of two (2) day CQ landings per the AH-1W NATOPS and shipboard NATOPS manuals.

Utilizing a co-pilot, IUT shall demonstrate the ability to analyze and instruct proper CRM and FAM maneuvers emphasizing error analysis.

Prerequisites. 5100

External Syllabus Support. Device operator. If flown in the aircraft: FCLP pad

Crew. WTO/IUT/co-pilot (WTO/IUT~AC)

SBIP-5102 1.5 * B (N*) S/A WST/APT-TEN

Goal. FS – IUT will demonstrate the ability to instruct in the instrument flight regime.

Requirements

Discuss

Applicable instrument publications
Instrument flight checklist
Instrument flight procedures
Instructional techniques
Common PUI mistakes and CRM during instrument flight
Vertigo

Review. IFR flight planning and enroute procedures

Performance Standards

IP will act as PUI. IP will provide the IUT with an actual or notional instrument flight plan with intentional errors. IUT will correctly identify all errors in a flight plan provided by the IP.

IUT will satisfactorily demonstrate the ability to execute, analyze and correct all standard instrument maneuvers under actual or simulated IFR conditions.

IUT shall ensure that the PUI maintains established BAW parameters.

IUT shall conduct a minimum of three (3) instrument approaches (1 precision, 2 non-precision).

Prerequisites. 5100

External Syllabus Support. Device operator

Crew. WTO + IFBM/IUT

BIP-5103 1.5 * B D A 1 AH-1W & 1 H-1

Goal. FS – IUT will demonstrate the ability to instruct formation flight.

Requirements

Discuss

Instructor briefing and debriefing techniques
Parade and Tactical formations
Formation take-off and landings
TacForm manuevers

Review

Visual signals
Lead change
Inadvertent IMC
Section takeoff
Parade and cruise formations
Breakup, rendezvous & join-up
Crossovers
Climbs and descents
Section landings
Parade & cruise turns

Performance Standards

The IUT shall brief and lead the flight.

The IP will act as the PUI for a portion of the parade and tactical sequences.

The IUT shall demonstrate all formation stage maneuvers with emphasis on instructional technique, accurate maneuver description, formation signals and parade/tactical formation maneuvering.

IUT shall properly perform all briefed maneuvers from both lead and wingman position IAW the AH-1W NATOPS, NTTP and MDG.

IUT shall be able to identify and correct abnormal parameters performed by the IP/PUI.

IUT shall demonstrate loss of visual contact and the subsequent rendezvous and join-up.

Prerequisites. 5100

Crew. WTO/IUT

BIP-5104 1.5 * B,R,SC D A 1 AH-1W

Goal. OS - IUT will demonstrate the ability to accurately identify and correct PUI BAW errors, tendencies and procedural errors during FAM maneuvers.

Requirements

Discuss

Error detection and correction techniques
CNAF M 3710.7 chapters 3-8, and 13
Aviation Training Jacket (ATJ) requirements and organization
NATOPs Jacket requirements and organization

Demonstrate/Introduce. Error detection, correction of airwork and procedural deficiencies

Performance Standards

IP will act as the PUI.

IUT shall satisfactorily demonstrate the ability to recognize, analyze and correct all errors through demonstration or verbal commands.

Prerequisites. 5101-5103

Crew. WTO/IUT

2.15.3 Terrain Flight Instructor (TERFI)

Purpose. To qualify the IUT as a TERF instructor.

General

IUT shall be BIP stage complete prior to beginning TERFI training.

IUT will demonstrate the ability to utilize mission planning software and appropriate tactical navigation systems.

Crew Requirements. As listed at the end of each event.

Ground/Academic Training. IAW MAWTS-1 AH-1 Course Catalog.

Terrain Flight Instructor (TERFI) Overview

TERRAIN FLIGHT INSTRUCTOR (TERFI)STAGE							
EVENT	**TIME**	**REFLY**	**POI**	**COND**	**DEVICE**	**NUM**	**DESCRIPTION**
STERFI-5110	1.5	*	B	D	S	1	OS - TERF Maneuvers
TERF-5111	1.5	*	B,R	D	A	2	OS - TERF Nav

STERF-5110 1.5 * B D S WST/APT-TEN

Goal. OS – Review all TERF maneuvers and profiles.

Requirements

Discuss

Crew coordination
Comfort level
Common PUI mistakes
Map preparation
Low altitude emergencies
Single engine operation

Review

All TERF maneuvers
Tactical decisions to fly TERF
Threat considerations that influence TERF profiles

Performance Standards. Utilizing a co-pilot, IUT shall satisfactorily demonstrate the ability to recognize, analyze and correct all errors through demonstration or verbal commands.

Prerequisites. 5011 through 5013,5104

External Syllabus Support. Authorized TERF maneuvering area

Crew. WTO/IUT/co-pilot

TERF-5111	1.5	*	B,R	D	A	1 AH-1W & 1 H-1

Goal. OS – Instruct TERF navigation, maneuvers, profiles and procedures.

Requirements

Discuss

TERF navigation techniques and procedures
CRM in the TERF environment
Comfort level
Terrain flight illusions and hazards

Review

Boundary features
Intermediate checkpoints
EGI navigation functions

Performance Standards

IUT shall plan, brief and lead the flight.

IUT shall navigate in low level, contour and NOE profile, a route consisting of five (5) checkpoints utilizing a 1:50,000 scale map remaining oriented within 200 meters, 15 degrees of heading and arriving at the final checkpoint within +/- 30 seconds of the planned time.

IUT shall not use onboard navigation systems for a minimum of 2 legs of the route.

IUT shall fly from the seat opposite of that flown during STERF-5110.

Emphasis will be on tactical use of terrain to navigate to a specific objective area, masking and unmasking profiles.

IUT shall conduct all TERF maneuvers IAW the AH-1W NATOPS, MDG and NTTP.

Prerequisites. 5110

External Syllabus Support. Authorized TERF route

Crew. WTO/IUT

2.15.4 Weapons Training Officer (WTO)

Purpose. To qualify the IUT as a WTO.

General

IUT shall be TERFI stage complete prior to beginning WTO training.

The WTO is qualified to instruct all phases of flight except those requiring FAC(A)I, NSFI, NSI, DACMI, or WTI qualifications.

The WTO shall demonstrate sound knowledge of all aircraft weapons systems, threat systems, and current tactics, techniques and procedures.

At the completion of this stage, the PUI will have demonstrated increased accuracy and the ability to instruct during ordnance delivery and proper use of the NTS/NTSU under all threat conditions with mixed ordnance loads.

At the completion of the WTO syllabus, prior to WTO designation, the PUI shall refly SWD-2605 and will be required to meet the instructor under training accuracy metric.

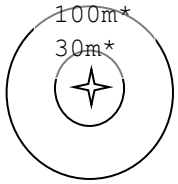
SWD should be conducted on rated/scored ranges whenever possible.

Focus should be on weapons delivery profiles and ordnance accuracy, not tactical scenarios.

DVR debrief should be used to the maximum extent possible.

Emphasis will be on CRM and Tactical Risk Management (TRM) while utilizing the ordnance systems.

IPs shall evaluate ordnance effectiveness based on the following accuracy metrics.

CORE PLUS SKILLS	UNGUIDED ROCKET STANDARD	GUN STANDARD	PURPOSE
 *Radius	-In correct profile per NTTP -No miss greater than 100 meters -CE90≤30 meters** -(1) rocket per pass must impact within 10 meters	-On target within 3 seconds of trigger pull	-Based upon M151 Effective Casualty Radius(ECR)*** -Demonstrates the capacity to instruct Specific Weapons Delivery

** CE90 example: SWD-2605 requires (7) 2.75" rockets. CE90≤30 meters requires that 90% of the delivered rockets impact within 30 meters of the target. In order to calculate, simply disregard the worst 10% of rockets released and the remaining farthest SINGLE MISS DISTANCE = CE90. Conservative rounding is applied.

Examples:

- 3-10 rockets released ~ disregard one rocket, SECOND FARTHEST MISS = CE90
- 11-20 rockets released ~ disregard two rockets, THIRD FARTHEST MISS = CE90
- In no case can a single rocket miss the intended target by more than 100m, including the omitted rounds for CE90 calculation. This constitutes failure to meet performance standards.

*** Effective Casualty Radii (ECRs) are generic distances intended to be applied versus the anticipated target set for a particular weapon, based primarily upon explosive yield and warhead/fuse characteristics. Variables to weapon effectiveness include target vulnerability and composition of underlying terrain. Weapons that impact the target vicinity at distances beyond the warhead's ECR are predicted to be ineffective for target damage.

- PGMs - Correct switchology, proper laser placement, profile IAW AH-1 NTTP direct hit.
- TOTs – Initial ordnance impacts delivered within ± 30 seconds of established TOT.
- Aircraft should be configured with an operable NTS/NTSU, PGM system, FMV, LDRS, DVR, APR-39, AAR-47, ALE-47 and IR Pointer (night events).

Crew Requirements. As listed at the end of each event.

Ground/Academic Training. IAW MAWTS-1 AH-1 Course Catalog.

Weapons Training Officer (WTO) Overview

WEAPONS TRAINING OFFICER (WTO)STAGE							
EVENT	**TIME**	**REFLY**	**POI**	**COND**	**DEVICE**	**NUM**	**DESCRIPTION**
SWTO-5200	1.5	*	B,R,SC	D	S	1	FS - Rev AH-1Z Weapons, ASE, Sensors
SWTO-5201	1.5	*	B	D	S	1	RS - Rev AH-1Z Weapons, ASE, Sensors
WTO-5202	1.5	*	B	D	A	1+	FS - Rev 5200 in A/C
WTO-5203	1.5	*	R,R,SC	D	A	2	RS - WTO Eval

SWTO-5200 1.5 * B,R,SC D S WST/APT-TEN

Goal. FS – Review all AH-1W systems (weapons, ASE, navigation, sensors).

Requirements

Discuss

NTS/NTSU components, operation,and malfunctions
AH-1W navigation system, with emphasis placed on setup and operation for target engagement
TRM/CRM and instructor techniques during ordnance delivery
Weapons systems malfunctions
Common Switchology Errors
Weapons delivery and error analysis
How to build a scenario
How to give a quality X
Instructing vs. evaluating

Review

All weapons systems components, operation and employment (e.g. APKWS, flechette, PGMs)
Ordnance delivery from low and medium altitude profiles

Performance Standards

Utilizing a co-pilot, demonstrate instructional techniques to correct weapons delivery errors working towards instructor under training accuracy metric.

IUT will identify and correct ordnance systems malfunctions and switchology problems.

Emphasize CRM during weapons delivery and weapons troubleshooting.

Prerequisites. 5111

External Syllabus Support. Device operator

Crew. NSI/IUT/co-pilot

SWTO-5201 1.5 * B D S WST/APT-TEN

Goal. RS - Review all AH-1W systems (weapons, ASE, navigation, sensors).

Requirements

Discuss

All weapons systems components, operation and employment
All ASE components, operation, and malfunctions
TRM/CRM and instructor techniques during ordnance delivery
Weapons systems malfunctions
Common Switchology Errors
Weapons delivery and error analysis

Review. All weapons systems components, operation and employment, with emphasis placed on systems malfunctions, switchology errors, common PUI errors, and weapons delivery error analysis.

Performance Standards

Utilizing a co-pilot, demonstrate instructional techniques to correct weapons delivery errors working towards instructor under training accuracy metric.

IUT will identify and correct ordnance systems malfunctions and switchology problems.

Emphasize CRM during weapons delivery and weapons troubleshooting.

Prerequisites. 5200

External Syllabus Support. Device operator

Crew. NSI/IUT/co-pilot

WTO-5202 1.5 * B D A 1 AH-1W & 1 H-1

Goal. FS - Review SWTO-5200 in the aircraft with emphasis on instructional techniques.

Requirements

Discuss

Standardized attack terminology and communication
CRM and instructor techniques during ordnance delivery
Range procedures for local ranges

Demonstrate

Instructional techniques in the employment of all weapon systems during a SWD flight
Common attack patterns errors and misconceptions
Common PUI cockpit mistakes and switchology errors

Review

All weapons systems components, operation and employment(e.g. APKWS, flechette, PGMs) Ordnance delivery from low and medium altitude profiles

Performance Standards

IP will act as the PUI.

IUT will have a thorough understanding of all weapon systems, switchology, system malfunctions and failures.

IUT will ensure that all ordnance is delivered IAW published range regulations and squadron SOPs.

IUT shall employ instructional techniques to correct weapons delivery errors working towards instructor under training accuracy metric.

IUT shall identify and correct ordnance systems malfunctions and switchology problems.

Prerequisites. 5201

Ordnance. (1) captive PGM, (7) 2.75 inch rockets, (300) rounds 20mm, (30) chaff/flares

Crew. NSI/IUT

WTO-5203 1.5 * B,R,SC D A 2 AH-1W

Goal. RS - Demonstrate the ability to instruct a tactical event with emphasis on instructional techniques and tactics standardization.

Requirements

Discuss

Terrain flight ordnance delivery techniques
CRM and instructor techniques during tactical missions

Review

All weapons systems components, operation and employment
Instructional techniques in the employment of all weapon systems during a tactical flight
Common attack patterns errors and misconceptions
Common PUI cockpit mistakes and switchology errors

Performance Standards

IUT will plan, brief and lead the flight under a tactical scenario.

The IP will act as the PUI.

IUT will ensure that all ordnance is delivered IAW published range regulations and squadron SOPs.

IUT will properly identify and correct weapons switchology errors initiated by the IP and meet the instructor under training accuracy metrics listed above.

Demonstrate knowledge and instructional techniques in all weapons training areas including the MACCS, FSCMs, escort, electronic warfare, intercept procedures, PGM delivery, weaponeering and crew coordination.

Prerequisites. 5202

Ordnance. (1) captive PGM, (7) 2.75 inch rockets, (300) rounds 20mm, (30) chaff/flares

Range Requirement. Live fire and LASER safe range

Crew. NSI/IUT

2.15.5 Tactical Simulator Instructor (TSI)

Purpose. To qualify the IUT as a TSI capable of providing tactical simulation training in the AH-1W WST/APT.

General. IUT shall be in the BIP syllabus prior to beginning TSI training and shall be designated a WTO prior to designation as a TSI. Designated BIPs who are STSI-5210 complete may instruct the SFCLP-2500 event in the simulator.

The TSI is qualified to instruct all phases of flight simulation except those requiring FAC(A)I, NSFI, NSI, DACMI, or WTI qualifications. The TSI shall demonstrate sound knowledge of all aircraft weapons systems, threat systems, and current tactics, techniques and procedures.

The IUT will assist in developing, controlling and instructing tactical simulator events designed to meet the performance requirements of the Core Phase, Mission Phase and Core Plus/Mission Plus Phase simulator events.

Crew Requirements. As listed at the end of each event.

Ground/Academic Training. IAW MAWTS-1 AH-1 Course Catalog & MATSS provided training requirements.

Tactical Simulator Instructor (TSI)Overview

TACTICAL SIMULATOR INSTRUCTOR (TSI) STAGE							
EVENT	**TIME**	**REFLY**	**POI**	**COND**	**DEVICE**	**NUM**	**DESCRIPTION**
STSI-5210	1.5	*	B,R	D	S	1	Rev Sim Operations
STSI-5211	1.5	*	B	D	S	1	Sim Eval

STSI-5210 1.5 * B,R D WST/APT S-TEN

Goal. Simulator control position – Introduce simulator control functions and capabilities.

Requirements

Discuss
- Learning objectives
- Performance standards
- M-SHARP simulator logging
- Basic simulator functions (motion, communication, etc.)
- Simulator MAF submission

Demonstrate/Introduce
- Environment/weather conditions
- Weapons/ASE configuration
- Systems/Weapons malfunctions
- Threat systems incorporation and capabilities
- Friendly system incorporation and capabilities
- Instrument/approach functions
- Shipboard configuration and functions

Performance Standards

IUT shall demonstrate the ability to operate the simulator basic flight and adjust environmental conditions.
IUT shall demonstrate the ability to operate the simulator basic weapons configurations and adjust threat conditions.
IUT shall demonstrate the ability to operate the simulator basic shipboard configurations and adjust environmental conditions.

Prerequisites. ACAD-5026, in BIP syllabus

Crew. CSI or TSI/IUT

STSI-5211	1.5	*	B	D	WST/APT S-TEN

Goal. Simulator control position – Review simulator control functions, capabilities and scenario development.

Requirements

Discuss

Advanced simulation scenario development(METT-TSL)
Instructor techniques
Simulator set-up
Instructor briefing and debriefing techniques

Demostrate/Introduce

TEN+ employment

Review

Environment/weather conditions
Weapons/ASE configuration
Systems/Weapons malfunctions
Threat systems incorporation and capabilities
Friendly system incorporation and capabilities
Instrument/approach functions
Shipboard configuration and functions

Performance Standards

IUT shall develop, brief and execute a low to medium threat tactical scenario from the control position. The IP will act as the PUI and will fly in support of the IUT's training.
IUT shall select and control enemy threat systems.
IUT shall select and control friendly systems.

Prerequisites. STSI-5210

Crew. MATSS-TSI/IUT/co-pilot

2.15.6 Contract Simulator Instructor (CSI)

Purpose. To develop qualified Contract Simulator Instructors (CSIs) using a standardized instructor program. This syllabus is designed to prepare CSIs to instruct Core Introduction Phase, and select Core Phase, events in the simulator.

General

CSIs will complete all events in the simulator.

The events may be conducted from the simulator command position (CP) or the designated AH-1W crew position at the discretion of the IP.

CSIs shall conduct CSI-5300 and 5301 with a designated NATOPS Instructor or Assistant NATOPS Instructor.

CSIs shall conduct CSI-5302, 5303 with a designated WTI.

Crew Requirements. As listed at the end of each event.

Ground/Academic Training. IAW MAWTS-1 AH-1 Course Catalog and MATSS provided training requirements.

Contract Simulator Instructor (CSI) Overview

CONTRACT SIMULATOR INSTRUCTOR (CSI) STAGE

EVENT	TIME	REFLY	POI	COND	DEVICE	NUM	DESCRIPTION
SCSI-5300	1.5	365	B,R,M	D	S	1	OS - EP & FAM
SCSI-5301	1.5	365	B,R,M	(N*)	S	1	RS - Instruments
SCSI-5302	1.5	365	B,R,M	D	S	1	RS - ASE
SCSI-5303	1.5	365	B,R,M	D	S	1	RS - SWD

SCSI-5300 1.5 365 B,R,M D S WST/APT-TEN

Goal. OS – Emergency procedures & FAM stage standardization.

Requirements

Discuss

Cockpit indications of all emergencies
Aircraft limitations
Aircraft systems
MDG FAM maneuvers and systems failures
Day/Night shipboard patterns

Review

Systems failures
Emergency procedures
Full/power recovery autorotations
Aircrew responsibilities
All FAM stage maneuvers
Shipboard specific crew coordination
Shipboard airspace

Performance Standards

IUT shall demonstrate the ability to operate the aircraft under all emergency conditions per AH-1W NATOPS.

IUT shall demonstrate a thorough knowledge of aircraft systems, emergency procedures and MDG procedures.

IUT shall emphasize CRM during emergency procedures execution.

IUT shall perform all maneuvers IAW AH-1W MDG and NATOPs.

IUT shall conduct a minimum of 2 day and 2 night shipboard landings per the AH-1W NATOPS and shipboard NATOPS manuals.

Prerequisites. Candidate CSI

Crew. NI or ANI/IUT

SCSI-5301 1.5 365 B,R,M (N*) S WST/APT-TEN

Goal. RS – Instrument Standardization.

Requirements

Discuss

Applicable instrument publications
Instrument flight checklist
Instrument flight procedures
Instructional techniques
Squadron flight operations SOP

Review. IFR flight planning and enroute procedures

Performance Standards

IUT shall satisfactorily demonstrate the ability to execute, analyze and correct all standard instrument maneuvers under simulated IMC conditions IAW AH-1W NATOPS and MDG.

IUT shall maintain established BAW parameters.

IUT shall conduct a minimum of 3 instrument approaches (1 precision, 2 non-precision).

Prerequisites. Candidate CSI

Crew. NI or ANI/IUT

SCSI-5302	1.5	365	B,R,M	D	S	WST/APT-TEN

Goal. RS – Introduce ASE functionality and operation.

Requirements

Discuss

ASE suite operation (NATOPS checklists, visual displays and audio messages for power on and BIT).
Expendables
Nomenclature (training and tactical)
General purpose/applicable threat types
AAR-47 and APR-39
General purpose/applicable threat types
Displays, controls, detectors and other components
Visual and audio threat information
Automatic and manual threat reaction capabilities & operation
APR-39, AAR-47, and ALE-47 integration
AAR-47 operating environment & principles of operation
Software – version reporting & significance
ALE-47
General purpose
Controls, displays and other components
System modes of operation
BIT, maintenance BIT and failure messages
MAG ID setting, reporting and implications
Dispense switch function

Demonstrate

RADAR search, acquire, track and launch visual and audio indications
Successful IR missile, RADAR missile and RADAR ADA engagement and indications
Automatically and manually dispense chaff to disrupt RADAR threat engagement
Automatically and manually dispense flares to disrupt IR missile engagement
Time permitting, execute ASTACSOP threat reactions (communication, maneuvering, and expendables) to visually acquired non-RADAR ADA, RADAR ADA, RADAR SAMs and IR SAMs.

Introduce

ASE suite power on, BIT, settings and power off per NATOPS and TPG checklists
ASE suite cockpit control switchology and related display information
Inventory reset

Performance Standards. IUT shall successfully operate (energize and BIT) and troubleshoot APR-39, AAR-47 and ALE-47 systems. Observe various threat system indications.

Prerequisites. 1012, Candidate CSI

Crew. WTI/IUT

SCSI-5303	1.5	365	B,R,M	D	S	WST/APT-TEN

Goal. RS - Review specific weapons delivery.

Requirements

Discuss

Rocket and fixed 20mm range settings
Rocket and 20mm trouble shooting considerations
SOP ordnance procedures
Target/reticle fixation

CRM during ordnance evolutions
Flechette rocket delivery profiles
Illumination delivery profiles
Hellfire switchology and delivery
AIM-9 switchology and delivery

Review

Rocket and 20mm ordnance emergencies
HUD symbology
20mm fixed forward using running, pop-up, and diving fire
Rocket delivery using pop-up, and diving fire per the NTTP.

Performance Standards. IUT shall successfully employ the 20mm weapon system at ranges from 300-1500 meters and 2.75 inch HE rockets at ranges from 300-800 meters, exhibiting proper impact detection and adjustment, working towards core skill accuracy metric while adhering to all range regulations.

Prerequisites. Candidate CSI

Crew. WTI/IUT

2.15.7 Fleet Replacement Squadron Instructor (FRSI)

Purpose. To certify the IUT as a Fleet Replacment Squadron Instructor capable of instructing Core Introduction Phase events. Emphasis will be placed on instructor proficiency, training standardization, and aircraft recovery from various regimes.

General. IUT must have been designated WTO prior to beginning FRSI training. If an IUT needs a refresher syllabus, IUT must be designated PQM prior to beginning FRSI training. The IUT may be designated to instruct within the Core Skills Introduction Phase once complete with all related FRSI events for that stage.

Crew Requirements. As listed at the end of each event.

Ground/Academic Training. IAW HMLAT-303 FRS Course Catalog.

Fleet Replacement Squadron Instructor (FRSI)

FLEET REPLACEMENT SQUADRON INSTRUCTOR (FRSI) STAGE							
EVENT	**TIME**	**REFLY**	**POI**	**COND**	**DEVICE**	**NUM**	**DESCRIPTION**
SFRSI-5310	1.5	*	B	D	S	1	RS - EP Review
FRSI-5311	2.0	*	B	D	A	1	RS- - Rev FAM Maneuvers
FRSI-5312	2.0	*	B	D	A	1	FS - -Rev FAM Maneuvers
FRSI-5313	2.0	*	B	D	A	1	FS - FAM Eval
FRSI-5314	2.0	*	B,R	(N)	A	1	RS - Instrument Eval
FRSI-5315	2.0	*	B,R	D	A	1+	FS - Rev FORM
FRSI-5316	2.0	*	B,R	D	A	1	RS - -TERF
SFRSI-5317	1.5	*	B	D	S	1	FS & RS - Weapons & Inst
FRSI-5318	1.5	*	B,R	D	A	1+	FS - Waepons Eval
FRSI-5319	2.0	*	B,R	NS	A	1	RS - Rev NVD FAM

SFRSI-5310 1.5 * B D S WST/APT-TEN

Goal. RS – Emergency procedures review.

Requirements

Discuss. RAC tendencies on CRM/EP sims

Review

Engine driven suction pump failure
Dual hydraulic failure
Single engine failure
Dual engine failure at high power and airspeed
Dual engine failure in flight
Rotor brake pressurizes in flight
Dual engine failure during takeoff

Engine hot start
Emergency shutdown
Np underspeed
Np overspeed
Engine electrical system failures
Jammed tail rotor pitch control in a hover
Loss of tail rotor thrust/components in a hover
Single engine fire
Dual engine fire
Compressor stall
Complete electrical failure
Main drive shaft failure
Loss of tail rotor thrust/components in flight
Full autorotations
Course rules/area fam
GTAC-E Brief
Mission brief (NATOPS, OAS, route …)

Performance Standards. IUT shall have a detailed understanding and functional knowledge of all procedures and maneuvers IAW the AH-1W NATOPS and MDG.

Prerequisites. 5203

Crew. CSI/IUT

FRSI-5311 2.0 * B D A 1 AH-1W

Goal. RS – Review familiarization maneuvers

Requirements

Discuss. FAM stage RAC tendencies

Review

Taxiing Autorotations
Hovering Autorotations
Fixed pitch tail rotor malfunctions
Collective control interference
High speed low level autorotation
#1 hydraulic failure
Waveoff procedures
Confined area landings
Confined area takeoff
Slope landing and takeoff
20 to 30 degree dives
EECU lockout
Sliding landings
Single Engine Failure (Rwy, spot, away from pattern)
High altitude emergencies
180 degree autorotation
90 degree autorotation
Straight-in autorotation
Maximum power takeoff
High Speed Approach and Landing
No hover takeoff
No hover landings
Precision (steep) approach
Normal approach
Normal takeoff
Low work

Course rules/area fam
GTAC-E Brief
Mission brief (NATOPS, OAS, route …)

Performance Standards.

IUT shall have a detailed understanding and functional knowledge of all procedures and maneuvers IAW the AH-1W NATOPS and MDG.

IUT shall demonstrate a high level of proficiency in all maneuvers before proceeding to FRSI-5312.

Prerequisites. 5310

Crew FRSI/IUT

FRSI-5312 2.0 * B D A 1 AH-1W

Goal. FS – Review familiarization maneuvers

Requirements

Discuss. FAM stage RAC tendencies

Review

Fixed pitch tail rotor malfunctions
#1 hydraulic failure
Collective control interference
Waveoff procedures
Confined area landings
Confined area takeoff
Slope landing and takeoff
20 to 30 degree dives
EECU lockout
Sliding landings
Single Engine Failure (Rwy, spot, away from pattern)
High altitude emergencies
Autorotation to a spot
High speed low level autorotation
180 degree autorotation
90 degree autorotation
Straight-in autorotation
Maximum power takeoff
High Speed Approach and Landing
No hover takeoff
No hover landings
Precision (steep) approach
Normal approach
Normal takeoff
Low work
Course rules/area fam
GTAC-E Brief
Mission brief (NATOPS, OAS, route …)

Performance Standards.

IUT shall have a detailed understanding and functional knowledge of all procedures and maneuvers IAW the AH-1W NATOPS and MDG.

IUT shall demonstrate a high level of proficiency in all maneuvers before proceeding to FRSI-5313.

Prerequisites. 5311

Crew FRSI/IUT

FRSI-5313 2.0 * B D A 1 AH-1W

Goal. FS – Familiarization evaluation

Requirements

Discuss

Standarization regarding FAM stage demonstrate items
Risk mitigation during high risk maneuvers
FAM event time management
Any NATOPS EP, system, limit, or MDG FAM stage procedure

Review

Fixed pitch tail rotor malfunctions
#1 hydraulic failure
Collective control interference
Waveoff procedures
Confined area landings
Confined area takeoff
Slope landing and takeoff
20 to 30 degree dives
EECU lockout
Sliding landings
Single Engine Failure (Rwy, spot, away from pattern)
High altitude emergencies
Autorotation to a spot
High speed low level autorotation
180 degree autorotation
90 degree autorotation
Straight-in autorotation
Maximum power takeoff
High Speed Approach an Landing
No hover takeoff
No hover landings
Precision (steep) approach
Normal approach
Normal takeoff
Low work
Course rules/area fam
GTAC-E Brief
Mission brief (NATOPS, OAS, route …)

Performance Standards.

IUT shall have a detailed understanding and functional knowledge of all procedures and maneuvers IAW the AH-1W NATOPS and MDG.

IUT shall give mission and crew brief. IP to act as RAC.

Prerequisites. 5312

Crew ANI/IUT

FRSI-5314	2.0	*	B,R	(N)	A	1	AH-1W

Goal. FS – Evaluate instrument flight procedures

Requirements

Discuss

Any INST stage discussion item, maneuver or procedure
Conduct and performance standards of SINST-1203
IP/RAC CRM expectations during INST stage
INST stage RAC tendencies
Intracockpit brief emergencies considerations for flights in IMC

Review

Emergencies - ASAPossible
Emergencies - ASAPractical
Airway navigation
Missed Approach
No-Gyro Approach
Airport Surveillance Radar (ASR)
Precision Approach Radar (PAR)
TACAN approaches and procedures
Standard Instrument Departures (SIDs)
Instrument autorotation
Partial panel
Instrument takeoff (ITO)
Instrument checklists

Performance Standards

IUT shall have a detailed understanding and functional knowledge of all procedures and maneuvers IAW the AH-1W NATOPS, MDG and CNAF 3710.

To the max extent possible, IUT will conduct approaches away from homefield and file a DD-175.

IUT shall conduct a minimum of 2 instrument approaches.

IUT shall plan and execute an instrument flight IAW CNAF 3710.

Prerequisites. 5310

Crew. ANI/IUT

FRSI-5315 2.0 * B,R D A 1 AH-1W & 1 H-1

Goal. RS – Review formation flight and tactical formation flight maneuvering.

Requirements

Discuss

Any FORM stage discussion item, maneuver or procedure
Conduct and performance standards of FORM-1304
IP/RAC CRM expectations during FORM stage
FORM stage RAC tendencies

Review

ASTACSOP loss of visual contact
ASTACSOP IIMC
ASTACSOP RIO
Lead change
Formation communication
Wingman awareness
Formation takeoff
Formation landing
Section landings
Tactical formation maneuvers
Cruise turns
Breakup and rendezvous
Crossovers
Parade turns
Cruise flight
Parade flight

Performance Standards

IUT shall have a detailed understanding and functional knowledge of all procedures and maneuvers IAW the AH-1W NATOPS, MDG, ASTACSOP and NTTP.

IUT shall perform all maneuvers as lead and wingman.

Prerequisites. 5310

Crew. ANI/IUT

FRSI-5316 2.0 * B,R D A 1 AH-1W

Goal. RS - Review TERF maneuvers.

Requirements

Discuss

Any TERF stage discussion item, maneuver or procedure
IP/RAC CRM expectations during TERF stage
TERF stage RAC tendencies

Introduce

Turns
Roll
Bunt
Masking and unmasking
NOE quickstop
NOE approach
NOE takeoff
Power checks
Nap of Earth (NOE)
Contour flight
Low level flight

Performance Standards. IUT shall have a detailed understanding and functional knowledge of all procedures and maneuvers IAW the AH-1W NATOPS, MDG, and NTTP.

Prerequisites. 5310

External Syllabus Support. Authorized TERF maneuvering area

Crew. FRSI/IUT

SFRSI-5317 1.5 * B D S WST/APT-TEN

Goal. FS & RS – Review weapons systems operation as required. Review FS IMC flight.

Requirements

Discuss

CRM during ordnance delivery
Arm/DeArm checklist
After arming checklist
NARCADS setup
Heads Up Display (HUD)

Review

20mm delivery
Rocket delivery
Weapons emergencies
Ordnance communication procedures
Ordnance checklists
Instrument procedures

Performance Standards

IUT shall have a detailed understanding and functional knowledge of all SWD stage procedures, and checklists IAW the AH-1W NATOPS, MDG, ASTACSOP, and NTTP.

Conduct of the flight based on IUT's currency and proficiency in weapons system operation and IFR flight in IMC conditions. Ordnance delivery portion of the flight will focus on switchology and error analysis from both cockpits.

Intent for instrument portion of the flight is to build IUT confidence and proficiency in IMC. IUT shall fly instrumnents from the FS.

Prerequisites. 5310

Crew. CSI or FRSI/PUI

FRSI-5318	1.5	*	B,R	D	A	1+ AH-1W

Goal. FS – Weapon systems evaluation.

Requirements

Discuss

Any SWD stage discussion item, maneuver or procedure
Conduct and performance standards of SWD-1604
CRM expectations during SWD stage
SWD stage RAC tendencies

Introduce

20mm delivery
Rocket delivery
Weapons emergencies
Ordnance comm procedures
Range operations
Ordnance checklists
Weapons preflight

Performance Standards

IUT shall have a detailed understanding and functional knowledge of all SWD stage procedures, and checklists IAW the AH-1W NATOPS, MDG, ASTACSOP, and NTTP.

IUT shall brief and lead the flight and conduct crew brief. Crew brief shall give special attention to switchology and weapons release authority.

IP will act as RAC.

Prerequisites. 5317

Ordnance. (7) 2.75 inch rockets, (300) rounds 20mm

Range Requirements. Live fire and LASER safe

Crew. FRSI/IUT

FRSI-5319	2.0	*	B,R	NS	A	1 AH-1W

Goal. RS – Review NVD familiarization maneuvers.

Requirements

Discuss

Any Core Skills Intrduction Phase NVD event discussion item, maneuver or procedure
RAC NVD tendencies
Standarization with regards to Core Skills Introduction Phase NVD events

Introduce

Taxiing Autorotations
Hovering Autorotations
Fixed pitch tail rotor malfunctions
Collective control interference
Sliding landings
Single Engine Failure (Rwy, spot, away from pattern)
High speed low level autorotation
180 degree autorotation
90 degree autorotation
Straight-in autorotation

High Speed Approach and Landings
No hover takeoff
No hover landings
Precision (steep) approach
Normal approach
Normal takeoff
Low work

Performance Standards.

IUT shall have a detailed understanding and functional knowledge of all procedures and maneuvers IAW the AH-1W NATOPS, MDG, and MAWTS-1 NVD Manual

IUT shall demonstrate a high level of proficiency in all maneuvers before completing this event

Prerequisites. 5313,5315,5316

Crew ANI/IUT

2.15.9 Forward Air Controller (Airborne) Instructor (FAC(A)I)

Purpose

To certify the IUT as a FAC(A)I capable of conducting ground and airborne instruction of FAC(A) missions.

Emphasis will be placed on the ability to coordinate simultaneous FW and RW CAS, surface fires (direct and indirect), while working with a TACP and operating within the MACCS.

General

IUT shall be FAC(A) qualified IAW NAVMC P3500.48 and current/proficient per the JFAC(A) MOA.

IUT will be designated an NSI prior to beginning the syllabus.

IUT SHALL have logged a year's worth of FAC(A) controls after being designated a FAC(A) prior to beginning the FAC(A)I syllabus.

Aircraft should be configured with an operable NTS/NTSU, PGM system, FMV, LDRS, DVR, APR-39, AAR-47, ALE-47 and IR Pointer (night events).

Crew Requirements. IAW MAWTS-1 AH-1 Course Catalog.

Ground/Academic Training. IAW MAWTS-1 AH-1 Course Catalog.

Forward Air Controller (Airborne) Instructor (FAC(A)I) Overview

FORWARD AIR CONTROLLER (AIRBORNE) INSTRUCTOR [FAC(A)I] STAGE							
EVENT	**TIME**	**REFLY**	**POI**	**COND**	**DEVICE**	**NUM**	**DESCRIPTION**
FACAI-5400	1.5	*	B	(NS)	A	1+	See Course Catalog
FACAI-5401	1.5	*	B,R	(NS)	A	1+	See Course Catalog

FACAI-5400 1.5 * B (NS) A 1 AH-1W & 1 H-1

Requirement. Reference the MAWTS-1 AH-1 Course Catalog for the FAC(A)I POI.

Ordnance. (1) captive PGM, (7) 2.75 inch RP rockets, (300) rounds 20mm, (60) chaff/flares

FACAI-5401 1.5 * B,R (NS) A 1 AH-1W & 1 H-1

Requirement. Reference the MAWTS-1 AH-1 Course Catalog for the FAC(A)I POI.

Ordnance. (1) captive PGM, (7) 2.75 inch RP rockets, (300) rounds 20mm, (60) chaff/flares

Prerequisite. 5400

2.15.10 Night Systems Familiarization Instructor (NSFI)

Purpose. To certify the IUT as an NSFI capable of safely conducting ground and airborne instruction of night vision

device (NVD) flight during the Core Introduction Phase.

General. IUT will be Night Systems Qualified(NSQ) and TERFI prior to beginning training.

Crew Requirements. IAW MAWTS-1 AH-1 Course Catalog.

Ground/Academic Training. IAW MAWTS-1 AH-1 Course Catalog.

Night Systems Familiarization Instructor (NSFI) Overview

NIGHT SYSTEMS FAMILIARIZATION INSTRUCTOR (NSFI)S TAGE							
EVENT	**TIME**	**REFLY**	**POI**	**COND**	**DEVICE**	**NUM**	**DESCRIPTION**
NSFI-5600	1.5	*	B	NS	A	1	See HMLAT-303 publication
NSFI-5601	1.5	*	B	NS	A	2	See HMLAT-303 publication
NSFI-5602	1.5	*	B,R	NS	A	1	See HMLAT-303 publication

NSFI-5600 1.5 * B NS A 1 AH-1W

Requirement. IAW MAWTS-1 AH-1 Course Catalog.

NSFI-5601 1.5 * B NS A 2 AH-1W

Requirement. IAW MAWTS-1 AH-1 Course Catalog.

NSFI-5602 1.5 * B,R NS A 1 AH-1W

Requirement. IAW MAWTS-1 AH-1 Course Catalog .

2.15.11 Defensive Air Combat Maneuvering Instructor (DACMI)

Purpose. To certify the IUT as a Rotary Wing Defensive Air Combat Maneuvering Instructor (RW DACMI) and Fixed Wing Defensive Air Combat Maneuvering Instructor (FW DACMI) capable of safely conducting ground and airborne instruction of the AH-1W air-to-air flight syllabus.

General

IUT will be RWDACM qualified and designated WTO prior to beginning RWDACMI training.

IUT will be FWDACM qualified and designated WTO prior to beginning FWDACMI training.

Upon completion of DACMI-5800 and DACMI-5802, the IUT may be designated a RW DACMI, capable of instructing RW DACM T&R events and the RW DACMI IUT syllabus (DACMI-5800).

Upon completion of DACMI-5801 and DACMI-5803, the IUT may be designated a FW DACMI, capable of instructing FW DACM T&R events and the FW DACMI IUT syllabus (DACMI-5801).

Aircraft should be configured with an operable NTS/NTSU, captive AIM-9, DVR, APR-39 and ALE-47.

Crew Requirements. IAW MAWTS-1 AH-1 Course Catalog.

Ground/Academic Training. IAW MAWTS-1 AH-1 Course Catalog.

Defensive Air Combat Maneuvering Instructor (DACMI) Overview

DEFENSIVE AIR COMBAT MANEUVERING INSTRUCTOR (DACMI) STAGE							
EVENT	**TIME**	**REFLY**	**POI**	**COND**	**DEVICE**	**NUM**	**DESCRIPTION**
DACMI-5800	1.5	*	B	D	A	2	See Course Catalog
DACMI-5801	1.5	*	B	D	A	2	See Course Catalog
DACMI-5802	1.5	*	B,R	D	A	2	See Course Catalog
DACMI-5803	1.5	*	B,R	D	A	2	See Course Catalog

DACMI-5800 1.5 * B D A 2 AH-1W

Requirement. Reference the MAWTS-1 AH-1 Course Catalog for the DACMI POI.

Ordnance (Optional). (1) captive AIM-9, (60) flares and TCTS pod

DACMI-5801 1.5 * B D A 2 AH-1W

Requirement. Reference the MAWTS-1 AH-1 Course Catalog for the DACMI POI.

Ordnance (Optional). (1) captive AIM-9, (60) flares and TCTS pod

DACMI-5802 1.5 * B,R D A 2 AH-1W

Requirement. Reference the MAWTS-1 AH-1 Course Catalog for the DACMI POI.

Ordnance (Optional). (1) captive AIM-9, (60) flares and TCTS pod

DACMI-5803 1.5 * B,R D A 2 AH-1W

Requirement. Reference the MAWTS-1 AH-1 Course Catalog for the DACMI POI.

Ordnance (Optional). (1) captive AIM-9, (60) flares and TCTS pod

2.15.12 Night Systems Instructor (NSI)

Purpose. To certify the IUT as an NSI capable of safely conducting ground and airborne instruction of the AH-1W night vision device (NVD) flight syllabus.

General

IUT will be Advanced Night Systems Qualified (ANSQ) and designated WTO prior to beginning training.

Aircraft should be configured with an operable NTS/NTSU, PGM system, FMV, LDRS, DVR, APR-39, AAR-47, ALE-47 and IR Pointer.

Crew Requirements. IAW MAWTS-1 AH-1 Course Catalog.

Ground/Academic Training. IAW MAWTS-1 AH-1 Course Catalog.

Night Systems Instructor (NSI) Overview

NIGHT SYSTEMS INSTRUCTOR (NSI) STAGE							
EVENT	**TIME**	**REFLY**	**POI**	**COND**	**DEVICE**	**NUM**	**DESCRIPTION**
NSI-5900	1.0	*	B,SC	NS	A/S	1	See Course Catalog
NSI-5901	1.0	*	B	NS	A	1	See Course Catalog
NSI-5902	1.5	*	B	NS	A	1+	See Course Catalog
NSI-5903	1.5	*	B,SC	NS	A	1+	See Course Catalog
NSI-5904	1.5	*	B,R	NS	S	1	See Course Catalog
NSI-5905	2.0	*	B,R	NS	A	1+	See Course Catalog

NSI-5900 1.0 * B,SC NS A/S 1 AH-1Z

Requirement. Reference the MAWTS-1 AH-1 Course Catalog for the NSI POI.

NSI-5901 1.0 * B NS A 1 AH-1Z

Requirement. Reference the MAWTS-1 AH-1 Course Catalog for the NSI POI.

NSI-5902 1.5 * B NS A 1 AH-1Z & 1 H-1

Requirement. Reference the MAWTS-1 AH-1 Course Catalog for the NSI POI.

Ordnance. (1) captive PGM, (7) 2.75 inch rockets, (300) rounds 20mm, (60) chaff/flares

NSI-5903 1.5 * B,SC NS A 1 AH-1Z & 1 H-1

Requirement. Reference the MAWTS-1 Course AH-1 Catalog for the NSI POI.

Ordnance. (1) captive PGM, (7) 2.75 inch rockets, (300) rounds 20mm, (60) chaff/flares

SNSI-5904 1.5 * B,R NS S FFS/FTD

Requirement. Reference the MAWTS-1 AH-1 Course Catalog for the NSI POI.

Ordnance. (1) captive PGM, (7) 2.75 inch rockets, (300) rounds 20mm, (60) chaff/flares

NSI-5905 2.0 * B,R NS A 1 AH-1Z & 1 H-1

Requirement. Reference the MAWTS-1 AH-1 Course Catalog for the NSI POI.

Ordnance. (1) captive PGM, (7) 2.75 inch rockets, (300) rounds 20mm, (60) chaff/flares

2.15.13 Flight Lead Standardization Evaluator (FLSE)

Purpose. To certify and designate the pilot as a FLSE.

General

FLSEs ensure flight leadership standardization across all squadrons.

The FLSE shall conduct a standardized evaluation of a prospective flight leader's ability to safely and effectively perform the duties as a flight lead.

Prospective FLSEs shall complete the POI listed below.

Upon completion of the POI, the squadron commanding officer will nominate the prospective FLSE to the MAG commanding officer for approval and designation.

FLSE-5920 is not required for Weapons and Tactics Instructor Course (WTI) graduates that do not require referesher training.

Designated FLSEs are required to complete quarterly standardization training with the Program Coordinator.

Refer to NAVMC 3500.14 and the MAWTS-1 AH-1 Course Catalog.

Re-designation

FLSE re-designation criteria for aircrew that do not require Core Introduction Refresher training is at the discretion of the MAG CO.

For aircrew who require Core Introduction Refresher training, the minimum re-designation requirement for FLSE positions is successful completion of the R-coded T&R FLSE POI.

Crew requirements. Shall be determined by the Wing FLSE Program Coordinator or the FLSE Model Manager.

Academic/Ground Training. IAW MAWTS-1 AH-1 Course Catalog.

Flight Lead Standardization Evaluator (FLSE) Overview

FLIGHT LEAD STANDARDIZATION EVALUATOR (FLSE) STAGE							
EVENT	**TIME**	**REFLY**	**POI**	**COND**	**DEVICE**	**NUM**	**DESCRIPTION**
FLSE-5920	2.0	*	B,R	(NS)	A	1+	FLSE Eval
FLSE-5921	0.0	90	B,R,M	(N)	G		Quarterly FLSE Training

FLSE-5920 2.0 * B,R (NS) A 1 AH-1W & 1 H-1

Goal. To certify the IUT to be designated a FLSE.

Requirement. IAW MAWTS-1 AH-1 Course Catalog

Performance Standard. IAW MAWTS-1 AH-1 Course Catalog

Prerequisite. DL-6598 (Designated DL and NSI)

External Syllabus Support. Program Coordinator

FLSE-5921 0.0 90 B,R,M (N) G Annual FLSE Training

Goal. Complete quarterly FLSE training with the Program Coordinator.

Requirement. Quarterly training with the FLSE Program Coordinator

Performance Standard. Successful completion of the quarterly FLSE training

Prerequisite. FLSE-5920

External Syllabus Support. Program Coordinator

2.16 REQUIREMENTS, CERTIFICATIONS, QUALIFICATIONS, AND DESIGNATIONS (RCQD) PHASE (6000)

Purpose. To outline the requirements for qualifications, designations, and flight leadership.

General.

Once the flight to attain the qualification/designation is complete, a letter from the squadron commanding officer awarding the qualification/designation shall be placed in the NATOPS and APR before that qualification/designation can be utilized.

Completion of the INST-6100 sortie meets the requirements for the PUI to be instrument qualified. At the discretion of the squadron commanding officer a letter designating the PUI as Instrument qualified shall be placed in the NATOPS jacket and APR.

Completion of the NTPS-6101 sortie meets the requirements for the PUI to be NATOPS qualified. At the discretion of the squadron commanding officer a letter assigning the PUI as NATOPS qualified shall be placed in the NATOPS jacket and APR.

Completion of FCF stage meets the requirements for the PUI to be eligible for the FCP designation. At the discretion of the squadron commanding officer a letter designating the PUI as an FCP shall be placed in the NATOPS jacket and APR.

Completion of the Core Phase and the Mission Phase meet the requirements for the PUI to be eligible for the AHC designation. Upon completion of the DESG-6398 event and refly of SWD-2605 meeting Mission Skills ordnance accuracy standards, and at the discretion of the squadron commanding officer a letter designating the PUI as an AHC shall be placed in the NATOPS jacket and APR.

Completion of the Section Lead stage SL-6498 meets the requirements for the PUI to be eligible for the Section Lead designation. At the discretion of the squadron commanding officer a letter designating the PUI as Section Lead shall be placed in the NATOPS jacket and APR.

Completion of the Division Lead stage DL-6598 stage meets the requirements for the PUI to be eligible for the Division Lead designation. At the discretion of the squadron commanding officer a letter designating the PUI as Division Lead shall be placed in the NATOPS jacket and APR.

Completion of the FL-6698 sortie meets the requirements for the PUI to be eligible for the Flight Lead designation. At the discretion of the squadron commanding officer a letter designating the PUI as Flight Lead shall be placed in the NATOPS jacket and APR.

Completion of the DESG-6598 sortie meets the requirements for the PUI to be eligible for the AMC designation. At the discretion of the squadron commanding officer a letter designating the PUI as AMC shall be placed in the NATOPS jacket and APR.

Ordnance Delivery. At At the completion of applicable stages, the PUI will have demonstrated increased accuracy during ordnance delivery and proper use of the TSS under varied threat conditions with mixed ordnance loads. For the AHC, SL, DL and FL stages, the PUI shall meet the ordnance metrics outlined for the Mission Phase (See Paragraph 2.10.1). VTR debrief should be used to the maximum extent possible. Emphasis will be on CRM and Tactical Risk Management (TRM) while utilizing the ordnance systems.

RCQD Stages

RCQD (6000 Phase)		
STAGE	**PARAGRAPH NUMBER**	**PAGE NUMBER**
Academics (ACAD)	2.17.1	2-124
Instrument Rating(INST)	2.17.2	2-125
NATOPS Qualification (NATOPS)	2.17.3	2-126
Crew Resource Management Training (CRM)	2.17.4	2-127
Functional Check Pilot (FCP)	2.17.5	2-127
Pilot Qualified in Model (PQM)	2.17.6	2-131
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2.17 RCQD STAGES

2.17.1 Academics (ACAD)

Purpose. To develop standardized flight leadership skills and knowledge. These academics review and emphasize procedural based knowledge, systems knowledge/nomenclature, and advanced Joint/MAGTF topics to ensure individuals possess the requisite knowledge and ability to command their aircraft and lead flights.

General

These academics are intended to be an integrated series of academic lectures, readings and practical application contained within each phase of training. The lectures, readings and chalk-talks are contained in the MAWTS-1 AH-1 Course Catalog. The academic courseware is a requirement.

At the completion of each ACAD event, the appropriate training code shall be logged in M-SHARP by the individual pilot, contract instructor or squadron operations personnel, as appropriate.

The codes listed below associated with these classes may not be the most up to date as the current AH-1 Course Catalog is the master document for stage academic requirements.

Flight leadership academic events are listed below.

RCQD ACADEMIC PHASE	
TRAINING CODES	**COURSEWARE**
INST/NATOPS/FCP/PQM/AHC	
No Lectures	
SECTION LEADER	
ACAD-6040	Review Intel Prep of the Battlespace
ACAD-6041	(S) MAGTF Targeting and Fire Support Planning*
ACAD-6042	JTAC-Aircrew Integration
DIVISION LEADER	
ACAD-6050	Review ROE Planning
ACAD-6051	Review Objective Area Planning*
ACAD-6052	Review (S) Weaponeering
FLIGHT LEADER	
ACAD-6060	Review TRAP TTPs
ACAD-6061	Review Execution Checklist
FLIGHT LEADERSHIP	
ACPM-8630	Tactical Air Command Center (TACC)
ACPM-8660	Joint Ops Intro
ACPM-8640	Joint Data Network
ACPM-8641	MAGTF Theater and National ISR Employment
ACPM-8620	ESG/CSG Integration
ACAD-6070	Review Rapid Response Planning
ACAD-6071	Air Mission Commander
ACAD-6072	Review NEO Execution
*Indicates classes that should be presented to all pilots annually.	

2.17.2 Instrument Rating (INST)

Purpose. To certify the PUI as instrument rated in the AH-1W.

General

The instrument rating is an annual requirement.

PUI shall log annual instrument minimum requirements prior to event IAW CNAF 3710.

A designated instructor who is a member of the IFB shall evaluate the INST-6100.

Aircraft shall be configured with an operable NAVAID/TACAN.

Crew Requirements. As listed at the end of each event.

Ground/Academic Training. IAW CNAF M 3710.7.

Instrument Overview

INSTRUMENT (INST)S TAGE							
EVENT	**TIME**	**REFLY**	**POI**	**COND**	**DEVICE**	**NUM**	**DESCRIPTION**
INST-6000	8.0	365	B,R,SC,M	(N)	G		Instrument Ground School
INST-6001	1.0	365	B,R,SC,M	(N)	G		Instrument Ground School Exam
INST-6100	1.5	365	B,R,SC,,M	(N)	S/A	1	OS - Instrument Evaluation

INST-6000 8.0 365 B,R,SC,M (N) G Instrument Ground School

Goal. Attend an TYCOM approved instrument ground school per CNAF M 3710.7.

Performance Standards. Achieve a grade of qualified IAW CNAF M 3710.7.

INST-6001 1.0 365 B,R,SC,M (N) G Instrument Ground School Exam

Goal. To evaluate the airman's knowledge of instrument flight and procedures.

Performance Standards. Achieve a grade of qualified IAW CNAF M 3710.7.

INST-6100 1.5 365 B,R,SC,M (N) S/A FFS/FTD

Goal. OS - Conduct an annual instrument check.

Requirement. Successfully conduct the check IAW the NATOPS, MDG, CNAF M 3710.7 and Instrument Flight Manual (IFM).

Performance Standards. IAW the NATOPS, MDG, CNAF M 3710.7 and Instrument Flight Manual (IFM).

Prerequisites. 6000,6001 and IAW CNAF M 3710.7

Crew. BIP+IFBM (NSI required if flown using NVDs)/PUI

2.17.3 NATOPS (NTPS)

Purpose. To certify the PUI as NATOPS qualified in the AH-1W.

General

The NATOPS qualification is an annual requirement.

A designated NATOPS Instrustor/Assistant NATOPS Instructor shall evaluate NTPS-6101.

To the greatest extent possible and EP review FAM-2801 may be conducted verbally by a qualified instructor pilot with the pilot under instruction in the aircraft cockpit.

The annual CRM evaluation (CRM-6102) should be completed in conjunction with the annual NATOPS check when possible.

Crew Requirements. As listed at the end of each event.

Ground/Academic Training. IAW NATOPS.

NATOPS (NTPS) Overview

NATOPS (NTPS) S TAGE							
EVENT	**TIME**	**REFLY**	**POI**	**COND**	**DEVICE**	**NUM**	**DESCRIPTION**
NTPS-6002	1.5	365	B,R,SC,M	(N)	G		NATOPS Open Book Exam
NTPS-6003	1.0	365	B,R,SC,M	(N)	G		NATOPS Closed Book Exam
NTPS-6004	1.0	365	B,R,SC,M	(N)	G		NATOPS Oral Exam
NTPS-6101	1.5	365	B,R,SC,M	(N)	A/S	1	OS - NATOPS Evaluation

NTPS-6002 1.5 365 B,R,SC,M (N) G Open Book NATOPS Evaluation

Goal. To evaluate airman's knowledge of normal/emergency procedures, systems and aircraft limitations.

Performance Standards. Achieve a grade of qualified IAW NATOPS.

NTPS-6003 1.0 365 B,R,SC,M (N) G Closed Book NATOPS Evaluation

Goal. To evaluate airman's knowledge of normal/emergency procedures, systems and aircraft limitations.

Performance Standards. Achieve a grade of qualified IAW NATOPS.

NTPS-6004 1.0 365 B,R,SC,M (N) G Oral NATOPS Evaluation

Goal

To evaluate airman's knowledge of normal/emergency procedures, systems and aircraft limitations.

The oral examination may be conducted prior to or as part of the flight evaluation.

Performance Standards. Achieve a grade of qualified IAW NATOPS.

NTPS-6101 1.5 365 B,R,SC,M (N) A/S 1 AH-1W

Goal. OS - Conduct an annual NATOPS check.

Requirement. Successfully conduct the evaluation IAW CNAF M 3710.7 and NATOPS.

Performance Standards. IAW CNAF M 3710.7 and NATOPS.

Prerequisites. Grade of qualified on NTPS-6002 & 6003,6004

Crew. BIP+NI/ANI (NSI required if flown using NVDs)/PUI

2.17.4 Annual Crew Resource Management (CRM) Evaluation

Purpose. Conduct annual CRM ground training and flight evaluation.

General

Completion of this stage meets the requirements for the annual CRM flight evaluation and ground training.

The CRM-6102 event may be logged in conjunction with any operational or training flight. However, it should be completed in conjunction with the annual NATOPS check when possible.

CRM training and flight evaluations shall be logged in the individual NATOPS Flight Personnel Training/Qualification Jacket in section II, part C on enclosure (4).

In addition to Section II part C entries, CRM flight evaluation shall be commented on in the remarks section of the NATOPS evaluation form when the flight is flown in conjunction with NTPS-6101.

Additionally annual CRM flight evaluations shall be documented in the individual aircrew logbooks.

Crew Requirements. CRMF (CRMF Designated NSI)

Ground/Academic Training. IAW OPNAVINST 1542.7 series.

Crew Resource Management (CRM) Overview

CREW RESOURCE MANAGEMENT (CRM) STAGE							
EVENT	**TIME**	**REFLY**	**POI**	**COND**	**DEVICE**	**NUM**	**DESCRIPTION**
CRM-6005	1.0	365	B,R,SC,M	(N)	G		CRM Ground Training
CRM-6102	0.0	365	B,R,SC,M	(N)	S/A	1	CRM Evaluation

CRM-6005 1.0 365 B,R,SC,M (N) G Annual CRM Ground Training

Goal. Receive annual CRM training.

Requirement. IAW OPNAVINST 1542.7 series receive instruction in CRM history, Seven Critical Skills, OPNAVINST 1542.7 series and a T/M specific case study or scenario.

CRM-6102 0.0 365 B,R,SC,M (N) S/A 1 AH-1W CRM EVAL

Goal. OS - Conduct an annual Crew Resource Management evaluation.

Requirement

Successfully conduct the evaluation IAW CNAF M 3710.7 and NATOPS.

The evaluation should be conducted in conjunction with the annual NATOPS evaluation flight when possible.

Performance Standards. IAW CNAF M 3710.7 and NATOPS.

2.17.5 Functional Check Pilot (FCP)

Purpose. To introduce, develop proficiency in, and evaluate FCF procedures.

General

PUI shall demonstrate an understanding of, and proficiency in, the maintenance procedures involved in FCFs.

PUI shall also demonstrate a detailed knowledge of aircraft systems and administrative maintenance procedures. Upon completion of the FCP-6205 and with the AMO's recommendation and at the discretion of the commanding officer a letter designating the PUI as a FCP shall be placed in the NATOPS jacket and APR.

Aircraft may be FMC or PMC.

PUI shall be be a PQM prior to FCP-6205

Crew Requirements. As listed at the end of each event.

Ground/Academic Training

Selected reading material from OPNAVINST 4790, AH-1W NATOPS, SOPs, and MIMs as designated by each squadron commanding officer.

PUI must also complete a locally generated FCF open and closed-book exams.

Functional Check Pilot (FCP) Overview

FUNCTIONAL CHECK PILOT (FCP) STAGE							
EVENT	**TIME**	**REFLY**	**POI**	**COND**	**DEVICE**	**NUM**	**DESCRIPTION**
FCF-6006	1.0	*	B	(N)	G		FCP Open Book Exam
FCF-6007	1.0	*	B	(N)	G		FCP Closed Book Exam
SFCP-6200	1.5	*	B,R,SC	D	S/A		RS - Demo FCF Procedures
FCP-6201	1.5	*	B	D	A	1	RS - FCF Procedures
FCP-6202	1.5	*	B	D	A	1	RS – Intro FCF
FCP-6203	1.5	*	B	D	A	1	RS – Rev FCF
FCP-6204	1.5	*	B,SC	D	A	1	OS – Track & Balance
FCP-6205	1.5	*	B,R,SC	D	A	1	RS - -FCP Evaluation

FCP-6006 1.0 * B (N) G FCP Open Book Exam

Goal. Successful completion of the FCP open-book exam.

FCP-6007 1.0 * B (N) G FCP Closed Book Exam

Goal. Successful completion of the FCP closed-book exam.

SFCP-6200 1.5 * B,R,SC D S/A WST/APT-TEN

Goal. RS (if conducted in simulator) or FS (if conducted in aircraft) – Demonstrate/introduce FCF procedures.

Requirements

Discuss

ODO brief procedures
FCF paperwork process
ADB contents
Crew requirements/authorized crewmembers
Weather requirements
Testing airspace
QA briefs
Completion of paperwork following FCFs

Proper preflight
QA debrief

Demonstrate/Introduce

All items in the FCF checklist (ground, hover, and in-flight checks (main rotor and tail rotor track and balance/vibration analysis(vibanal) is not required).
Shipboard FCF procedures
Emergency procedures during FCFs

Performance Standards

PUI shall demonstrate familiarity with systems, FCF checklists, procedures, and maneuvers while conducting an "A" profile.

Demonstrate the ability to operate the aircraft under all emergency conditions per AH-1W NATOPS.

Prerequisite. 6300

External Syllabus Support. Device operator

Crew. BIP+FCP/PUI

FCP-6201 1.5 * B D A 1 AH-1W

Goal. RS – Demonstrate/introduce ground and in-flight FCF procedures.

Requirements

Discuss

Preflight preparation for ground work
Purpose of ground power assurance
Engine rigging and trim adjustments
Start system
EECU
HMU/ODV operation
Structural vs. access panels
Overspeed protection
FGT requirements
Safe for flight items

Demonstrate/Introduce

All items in the ground, hover, and in-flight FCF checklist. Main rotor and tail rotor track and balance/vibration analysis (vibanal) not required.

Performance Standards

IAW NATOPS, OPNAVINST 4790, and local SOPs.

PUI shall demonstrate familiarity with systems, FCF checklists, procedures, and maneuvers while conducting an "A" profile.

Prerequisite. 6200

Crew. BIP+FCP/PUI

FCP-6202 1.5 * B D A 1 AH-1W

Goal. RS - Introduce rear-seat ground and in-flight FCF procedures.

Requirements

Discuss

Power assurance
Droop compensation system
SCAS system and operation

Autorotation RPM

Review

Preflight preparation for ground work
Purpose of ground power assurance
Engine rigging and trim adjustments
Start system
EECU
HMU/ODV operation
Structural vs. access panels
Overspeed protection
FGT requirements
Safe for flight items

Performance Standards

IAW NATOPS, OPNAVINST 4790, and local SOPs.

PUI shall demonstrate familiarity with systems, FCF checklists, procedures, and maneuvers while conducting an "A" profile.

Prerequisite. 6201

Crew. BIP+FCP/PUI

FCP-6203 1.5 * B D A 1 AH-1W

Goal. RS - Review rear-seat FCF procedures.

Requirements

Discuss

Hydraulic samples
FCF vs. functional ground turn procedures and requirements
Daily and turnaround inspections

Performance Standards

IAW NATOPS, OPNAVINST 4790, and local SOPs.

PUI shall demonstrate knowledge of systems, FCF checklists, procedures, and maneuvers while conducting an "A" profile.

Prerequisite. 6202

Crew. BIP+FCP/PUI

FCP-6204 1.5 * B,SC D A 1 AH-1W

Goal. N/A - Introduce main rotor and tail rotor track and balance/vibanal procedures.

Requirements

Discuss

Main rotor track and balance and vibanal (difference & requirement) relationship between track and balance
Types of adjustments to rotor head (PCLs, weight, sweep and trim tab)
Blade scope and its effect on track and balance
Proper positioning of gear on aircraft
Methods of determining adjustments to rotor head
Factors used when calculating autorotation RPM (gross weight and DA)
Relationship between flat pitch torque and autorotation RPM
Safe for flight items
Chord-wise and span-wise adjustments
Methods of determining adjustments to tail rotor main rotor and tail rotor track and balance/vibanal flight profiles

Performance Standards

PUI shall demonstrate familiarity of main rotor track and balance/vibanal procedures

PUI shall observe track and balance/vibanal equipment installation and preflight, post-flight results, and subsequent adjustments. Length of instruction will be at the IP's discretion once learning objectives are met

Prerequisite. SFCP-6200

Crew. BIP+FCP/PUI

FCP-6205 1.5 * B,R,SC D A 1 AH-1W

Goal. RS – Conduct FCP Evaluation.

Requirements

Discuss. All previous syllabus discuss items and FCF procedures

Performance Standards

PUI shall conduct an "A" profile FCF (track and balance and vibanal not required).

IAW NATOPS, OPNAVINST 4790, and local SOPs.

PUI shall demonstrate familiarity with systems, FCF checklists, procedures, and maneuvers while conducting an "A" profile.

Prerequisites. FCP-6006, 6007, 6200-6204

Crew. BIP+FCP/PUI

2.17.6 Pilot Qualified in Model (PQM)

Purpose. Tracking code for PQM.

General

Completion of the Core Introduction Phase meets the requirements for the PUI to be PQM.

Upon completion of the CSIX-1901 and at the discretion of the squadron commanding officer, a letter assigning the PUI as PQM shall be placed in the NATOPS jacket, APR and a proficiency code of DESG-6300 shall be logged.

Crew Requirements. As listed at the end of the event.

Ground/Academic Training. As outlined in Core Introduction Phase.

Pilot Qualified in Model (PQM) Overview

PILOT QUALIFIED IN MODEL (PQM) STAGE							
EVENT	**TIME**	**REFLY**	**POI**	**COND**	**DEVICE**	**NUM**	**DESCRIPTION**
DESG-6300	0.0	*	B,SC	D	A	1	PQM

DESG-6300 0.0 * B,SC D A 1 AH-1W

Goal. RS - Qualify PUI as PQM.

Requirement. Completion of the Core Introduction Phase

Prerequisites. 1901

2.17.7 Attack Helicopter Commander (AHC)

Purpose. To qualify the PUI as an Attack Helicopter Commander (AHC).

General

Completion of the Core Phase and the ESC, CAS, AR, AI, SCAR, TRAP and EXP stages through TRAP-3308 and EXP 3603 of the Mission Phase meet the requirements for the PUI to be eligible for the AHC designation.

Upon completion of the DESG-6398 event and refly of SWD-2605 meeting Mission Phase ordnance accuracy standards, and at the discretion of the squadron commanding officer a letter designating the PUI as an AHC shall be placed in the NATOPS jacket and APR.

The AHC evaluation shall be conducted as a separate flight as a wingman.

The DESG-6398 shall be logged in conjunction with a previously flown Mission Phase sortie for the evaluation flight.

Aircraft should be configured with an operable NTS/NTSU, PGM system, FMV, LDRS, DVR, APR-39, AAR-47, ALE-47 and IR Pointer (night events).

Crew Requirements. As listed at the end of the event.

Ground/Academic Training. IAW with the MAWTS-1 AH-1 Course Catalog.

Attack Helicopter Commander (AHC) Overview

ATTACK HELICOPTER COMMANDER (AHC) STAGE							
EVENT	**TIME**	**REFLY**	**POI**	**COND**	**DEVICE**	**NUM**	**DESCRIPTION**
DESG-6398	1.5	*	B,R,SC	(NS)	A	1	AHC

DESG-6398 1.5 * B,R,SC (NS) A 1 AH-1W & 1 H-1

Goal. RS – To qualify the PUI as an Attack Helicopter Commander (AHC).

Requirements

Discuss. All aircraft ordnance and ASE systems

Review

Ordnance pre-flight checks
Ordnance emergencies
SWD and ordnance delivery profiles
Knowlwdge of local range regulations
SOPs for ordnance delivery

Performance Standards.

PUI shall conduct cockpit brief with focus on weapons considerations.

PUI shall demonstrate knowledge of local range regulations and SOPs for ordnance delivery.

PUI shall demonstrate successful employment of the 20mm weapon system at ranges from 300-1500 meters and 2.75 inch rockets at ranges from 300-800 meters, exhibiting proper impact detection and adjustment, while attaining Mission Phase accuracy standards.

PUI shall exhibit a thorough understanding of all weapons systems and safely employ ordnance systems IAW AH-1W NTTP/NTRP/NATOPS.

PUI shall conduct cockpit debrief, assessing weapons switchology and accuracy using videotape review.

For Series Conversion this event may be flown in conjunction with the last 3000 SC event as the completion of the 2000 and 3000 series conversion. Upon completion of this event during the series conversion syllabus, all flight leadership and FAC(A) qualifications will convert.

Prerequisites. 8300,8310,8321 through 8326,8340,8350,8351,6300, Core Phase and Mission Phase complete, refly of 2605 IAW Mission Skills Phase ordnance accuracy standards (may be flown in conjunction with the 6398).

Ordnance. (1) captive PGM, (7) 2.75 inch rockets, (300) rounds 20mm, (60) chaff/flares

Range Requirement. Live fire and LASER safe range.

Crew. WTO(NSI)/PUI

1.17.8 Section Leader

Purpose. To prepare and evaluate a prospective section lead's ability to plan, brief, lead and debrief a section.

General

PUI shall conduct the following day and night workup sorties in order to develop the prospective section lead's flight leadership.

At the discretion of the Commanding Officer cross-cockpit instruction is authorized. SL-6498 shall be evaluated by a MAG Flight Lead Stan Evaluator (FLSE) from a different command within the MAG.

The IP will use the sortie requirement criteria to determine whether the PUI completed the sortie.

The PUI will use the performance standards to debrief the flight.

Completion of the Section Leader syllabus meets the requirements for designation as a Section Leader. At the discretion of the squadron commanding officer, a letter designating the pilot as a Section Leader shall be placed in the NATOPS jacket and APR.

In order to complete the Section Leader stage two of the three flights shall be conducted with ordnance. One of the ordnance flights shall be conducted during the day and one shall be conducted at night. Consideration should be given to making the Section lead check (SL-6498) an ordnance event.

At least one of the events shall be conducted with 2 AH-1Ws and at least one of the events should be a mixed section.

PUI shall have a minimum of 50 hours as designated AHC and three flights in wingman position as a designated AHC prior to flying SL-6498.

Additionally, during the 50 hour prerequisite period the PUI shall brief and lead a minimum of 2 sections,one of which should be from the rear seat, prior to beginning the section lead syllabus.

PUI shall be evaluated on ordnance delivery accuracy utilizing Core Plus/Mission Plus Phase ordnance accuracy standards.Aircraft should be configured with an operable NTS/NTSU, PGM system, FMV, LDRS, DVR, APR-39, AAR-47, ALE-47 and IR Pointer (night events).

Crew Requirements. As listed at the end of each event.

Ground/Academic Training. IAW the MAWTS-1 AH-1 Course Catalog.

Section Leader (SL) Overview

SECTION LEADER (SL) STAGE							
EVENT	**TIME**	**REFLY**	**POI**	**COND**	**DEVICE**	**NUM**	**DESCRIPTION**
SL-6400	1.5	*	B	D	A	1+	OS - Section Low/Med Threat
SL-6401	1.5	*	B	NS	A	1+	OS - NS OAS or Escort
Sl-6498	1.5	*	B,R	(NS)	A	1+	OS - SL Evaluation

SL-6400 1.5 * B D A 1 AH-1W & 1 H-1

Goal. OS – Tactically employ a section in a low to medium threat environment during the conduct of a day OAS or escort mission. Emphasis shall be placed on safety, route planning, CRM/TRM critical skills, flight member responsibilities, threat counter-tactics, ASTACSOP, fuel management and communications.

Requirements

Plan, brief, lead and debrief a day OAS or escort mission
Develop a plan that supports the ground SOM and commander's intent of the supported unit
Plan and brief section mechanics, attacks and objective area manuever
Plan and brief section threat reactions
Plan and brief rendezvous & join-up per ASTACSOP and NTTP
Brief penetration/de-penetration/offensive checklist procedures
Use all available planning tools to plan & brief route considerations, sensor acquisition, and target engagement
Conduct a minimum of one section take-off and one section landing
Maneuver section using appropriate formations and signals
Conduct a rendezvous & join-up
Demonstrate applicable threat counter-tactics
Locate, plot and effectively engage target(s) within the section
Direct attacks against target(s)
Control section during enroute and objective area operations
Delegate tasks within flight and cockpit

Conduct the debrief, covering pertinent section specifics and learning points

Performance Standards

PUI shall brief IAW ASTACSOP/NTTP.

PUI shall maintain situational awareness of wingman and mutual support during enroute portion of flight and in the objective area.

PUI shall effectively control the section throughout the flight.

PUI shall locate target(s) in a timely manner.

PUI shall engage target(s) using TTPs appropriate for the scenario.

PUI shall minimize threat exposure and use appropriate threat counter-tactics.

PUI shall use TRANSEC/COMSEC for all communications.

PUI shall adhere to local course rules and comply with applicable range regulations.

PUI shall debrief lessons learned and accurately analyze effectiveness of TTPs.

Prerequisite. 6398,at least three flights in wingman position as a designated AHC, and brief and lead a minimum of 2 sections.

Ordnance (Optional). (1) captive PGM, (7) 2.75 inch rockets, (300) rounds 20mm, (60) chaff/flares

Range Requirement. Live fire and LASER safe range

External Syllabus Support. One or more assault support aircraft(if escort mission)

Crew. NSI/PUI

SL-6401 1.5 * B NS A 1 AH-1W & 1 H-1

Goal. OS – Tactically employ a section in a medium to high threat environment during the conduct of a night OAS or escort mission. Emphasis shall be placed on safety, range regulations, night formation considerations, sensor acquisition and hand-off, night rendezvous & join-up procedures, aircraft lighting, section IIMC procedures and wingman awareness.

Requirements

Plan, brief, lead and debrief a night OAS or escort mission
Develop a plan that supports the ground SOM and commander's intent of the supported unit
Plan and brief section mechanics, attacks and objective area manuever
Plan and brief fire support plan
Plan and brief section threat reactions
Use all available planning tools to plan & brief night considerations including illumination, shadowing, sensor effectiveness, and target acquisition/engagement
Brief appropriate FAA and tactical lighting configurations
Conduct a minimum of one night section take-off and one night section landing
Maneuver section using formations and tactics appropriate for ambient illumination
Demonstrate applicable threat counter-tactics
Locate, plot, and effectively engage target(s) within the section
Control section during enroute and objective area operations
Delegate tasks within flight and cockpit
Conduct the debrief, covering pertinent section specifics and learning points

Performance Standards

PUI shall brief IAW ASTACSOP/NTTP.

PUI shall maintain situational awareness of wingman and mutual support during enroute portion of flight and in the objective area.

PUI shall effectively control the section throughout the flight.

PUI shall locate target(s) in a timely manner.

PUI shall engage target(s) using TTPs appropriate for the scenario.

PUI shall minimize threat exposure and use appropriate threat counter-tactics.

PUI shall use TRANSEC/COMSEC for all communications.

PUI shall adhere to local course rules and comply with applicable range regulations.

PUI shall debrief lessons learned and accurately analyze effectiveness of TTPs.

Prerequisite. 6398, at least three flights in wingman position as a designated AHC, and brief and lead a minimum of 2 sections.

Ordnance (Optional). (1) captive PGM, (7) 2.75 inch rockets, (300) rounds 20mm, (60) chaff/flares

Range Requirement. Live fire and LASER safe range with thermally significant targets, if available

External Syllabus Support. One or more assault support aircraft(if escort mission)

Crew. NSI/PUI

SL-6498	1.5	*	B,R	(NS)	A	1 AH-1W & 1 H-1

Goal. OS – Section Leader Evaluation. Tactically employ a section in a low to medium threat environment during the conduct of a day or night OAS or escort mission. Emphasis shall be placed on safety, range regulations, mission planning, weapons effects/SDZs, PGM employment, identification of targets & friendly personnel, FARP operations, ASTACSOP and wingman awareness.

Requirements

Plan, brief, lead and debrief a day OAS or escort mission
Develop a plan that supports the ground SOM and commander's intent of the supported unit
Plan and brief section mechanics, attacks and objective area manuever
Plan and brief section threat reactions
Plan and brief rendezvous & join-up per ASTACSOP and NTTP
Brief penetration/de-penetration/offensive checklist procedures
Use all available planning tools to plan & brief route considerations, sensor acquisition, and target engagement
Conduct a minimum of one section take-off and one section landing
Maneuver section using appropriate formations and signals
Conduct a rendezvous & join-up
Demonstrate applicable threat counter-tactics
Locate, plot and effectively engage target(s) within the section
Direct attacks against target(s)
Control section during enroute and objective area operations
Delegate tasks within flight and cockpit
Conduct the debrief, covering pertinent section specifics and learning points

Performance Standards

PUI shall brief IAW ASTACSOP/NTTP.

PUI shall maintain situational awareness of wingman and mutual support during enroute portion of flight and in the objective area.

PUI shall effectively control the section throughout the flight.

PUI shall locate target(s) in a timely manner.

PUI shall engage target(s) using TTPs appropriate for the scenario.

PUI shall minimize threat exposure and use appropriate threat counter-tactics.

PUI shall use TRANSEC/COMSEC for all communications.

PUI shall adhere to local course rules and comply with applicable range regulations.

PUI shall debrief lessons learned and accurately analyze effectiveness of TTPs.

Prerequisite. ACPM-8630, 8660, SL-6400, 6401, 50 hrs flight time since being designated AHC (this 50 hrs can include the Section Leader Under Training flights.)

Ordnance (Optional). (1) captive PGM, (7) 2.75 inch rockets, (300) rounds 20mm, (60)chaff/flares

Range Requirement. Live fire and LASER safe range with thermally significant targets, if available

External Syllabus Support. One or more assault support aircraft(if escort mission)

Crew. FLSE/PUI

2.17.9 Division Leader

Purpose. To prepare and evaluate a prospective division lead's ability to plan, brief, lead and debrief a division.

General

PUI shall conduct the following day and night workup sorties in order to develop the prospective division lead's flight leadership.

At the discretion of the commanding officer cross-cockpit instruction is authorized.

DL-6598 shall be evaluated by a MAG Flight Lead Stan Evaluator (FLSE) from a different command within the MAG.

The IP will use the sortie requirement criteria to determine whether the PUI completed the sortie.

The PUI will use the performance standards to debrief the flight.

Completion of the Division Leader syllabus meets the requirements for designation as a Division Leader. At the discretion of the squadron commanding officer, a letter designating the pilot as a Division Leader shall be placed in the NATOPS jacket and APR.

In order to complete the Division Leader stage two of the three flights shall be conducted with ordnance. One of the ordnance flights shall be conducted during the day and one shall be conducted at night. Consideration should be given to making the Division Lead check (DL-6598) an ordnance event.

One of the three Division Leader stage flights should be conducted with 3+ AH-1Ws.

During the conduct of all OAS/ESC missions at least one attack shall be conducted as a division.

PUI shall have lead three flights as a designated Section Leader (SL).

PUI shall also have a minimum of: 600 total hours, 200 Rotary wing hours, and 50 hours in model.

PUI shall be evaluated on ordnance delivery accuracy utilizing Core Plus/Mission Plus ordnance accuracy standards.Aircraft should be configured with an operable NTS/NTSU, PGM system, FMV, LDRS, DVR, APR-39, AAR-47, ALE-47 and IR Pointer (night events).

Crew Requirements. As listed at the end of each event.

Ground/Academic Training. IAW the MAWTS-1 AH-1 Course Catalog.

Division Leader (DL) Overview

DIVISION LEADER (DL) STAGE							
EVENT	**TIME**	**REFLY**	**POI**	**COND**	**DEVICE**	**NUM**	**DESCRIPTION**
DL-6500	1.5	*	B	D	A	2+	OS - Division Low/Med Threat
DL-6501	1.5	*	B	NS	A	2+	OS - NS OAS or Escort
DL-6598	1.5	*	B,R	(NS)	A	2+	OS - DL Evaluation

DL-6500 1.5 * B D A 1 AH-1W & 2+ H-1s

Goal. OS - Tactically employ a division in a low to medium threat environment during the conduct of a day OAS or escort mission. Emphasis should be placed on route planning, flight member responsibilities, division formations and maneuvering, threat counter-tactics, ASTACSOP, division attacks and communication.

Requirements

Plan, brief, lead and debrief a day OAS or escort mission
Develop a plan that supports the ground SOM and commander's intent of the supported unit
Plan and brief division mechanics, attacks and objective area manuever
Plan and brief division threat reactions
Plan and brief rendezvous & join-up per ASTACSOP and NTTP
Brief penetration/de-penetration/offensive checklist procedures
Use all available planning tools to plan & brief route considerations, sensor acquisition, and target engagement
Conduct division take-off/landing, scatter plan/rendezvous, and lost communication procedures.

Maneuver division using appropriate formations and signals
Conduct a rendezvous & join-up
Demonstrate applicable threat counter-tactics
Locate, plot and effectively engage target(s) within the division
Direct attacks against target(s)
Control division during enroute and objective area operations
Delegate tasks within flight and cockpit
Conduct the debrief, covering pertinent division specifics and learning points

Performance Standards

PUI shall brief IAW ASTACSOP/NTTP.

PUI shall maintain situational awareness of wingmen and mutual support during enroute portion of flight and in the objective area.

PUI shall effectively control the division throughout the flight.

PUI shall locate target(s) in a timely manner.

PUI shall engage target(s) using TTPs appropriate for the scenario.

PUI shall minimize threat exposure and use appropriate threat counter-tactics.

PUI shall use TRANSEC/COMSEC for all communications.

PUI shall adhere to local course rules and comply with applicable range regulations.

PUI shall debrief lessons learned and accurately analyze effectiveness of TTPs.

Prerequisites. SL-6498, Lead a minimum of three flights as a designated Section Lead. Minimum of: 600 total hours, 200 Rotary wing hours, and 50 hours in model.

Ordnance (Optional). (1) captive PGM, (7) 2.75 inch rockets, (300) rounds 20mm, (60)chaff/flares

Range Requirement. Live fire and LASER safe range with thermally significant targets, if available

External Syllabus Support. One or more assault support aircraft(if escort mission)

Crew. NSI+DL/PUI

DL-6501	1.5	*	B	NS	A	1	AH-1W & 2+ H-1s

Goal. OS - Tactically employ a division in a medium to high threat environment during the conduct of a night OAS or escort mission. Emphasis should be placed on night formation considerations, sensor acquisition, flight member responsibilities, division lighting, ASTACSOP, division attacks, PGM employment and communication.

Requirements

Plan, brief, lead and debrief a night OAS or escort mission
Develop a plan that supports the ground SOM and commander's intent of the supported unit
Plan and brief division mechanics, attacks and objective area manuever
Plan and brief fire support plan
Plan and brief section threat reactions
Use all available planning tools to plan & brief night considerations including illumination, shadowing, sensor effectiveness, and target acquisition/engagement
Brief appropriate FAA and tactical lighting configurations
Conduct a minimum of one night division take-off and one night division landing
Maneuver division using formations and tactics appropriate for ambient illumination
Demonstrate applicable threat counter-tactics
Locate, plot, and effectively engage target(s) within the division
Control section during enroute and objective area operations
Delegate tasks within flight and cockpit
Conduct the debrief, covering pertinent division specifics and learning points

Performance Standards

PUI shall brief IAW ASTACSOP/NTTP.

PUI shall maintain situational awareness of wingmen and mutual support during enroute portion of flight and in the objective area.

PUI shall effectively control the division throughout the flight.

PUI shall locate target(s) in a timely manner.

PUI shall engage target(s) using TTPs appropriate for the scenario.

PUI shall minimize threat exposure and use appropriate threat counter-tactics.

PUI shall use TRANSEC/COMSEC for all communications.

PUI shall adhere to local course rules and comply with applicable range regulations.

PUI shall debrief lessons learned and accurately analyze effectiveness of TTPs.

Prerequisites. SL-6498, Lead a minimum of three flights as a designated Section Lead. Minimum of: 600 total hours, 200 Rotary wing hours, and 50 hours in model.

Ordnance (Optional). (1) captive PGM, (7) 2.75 inch rockets, (300) rounds 20mm, (60)chaff/flares

Range Requirement. Live fire and LASER safe range with thermally significant targets, if available

External Syllabus Support. One or more assault support aircraft(if escort mission)

Crew. NSI+DL/PUI

DL-6598 1.5 * B,R (NS) A 1 AH-1W & 2+ H-1s

Goal. OS - Division Leader Evaluation - Tactically employ a division in a low to medium threat environment during the conduct of a day or night OAS or escort mission. Emphasis should be placed on range regulations/procedures, control of fires, power available/maneuvering considerations, objective area mechanics, flight member responsibilities, arm/penetration/de-arm procedures, division attacks and communication.

Requirements

Plan, brief, lead and debrief an OAS or escort mission
Develop a plan that supports the ground SOM and commander's intent of the supported unit
Plan and brief division mechanics, attacks and objective area manuever
Plan and brief division threat reactions
Plan and brief rendezvous & join-up per ASTACSOP and NTTP
Brief penetration/de-penetration/offensive checklist procedures
Use all available planning tools to plan & brief route considerations, sensor acquisition, and target engagement
Conduct division take-off/landing, scatter plan/rendezvous, and lost communication procedures
Maneuver division using appropriate formations and signals
Conduct a rendezvous & join-up
Demonstrate applicable threat counter-tactics
Locate, plot and effectively engage target(s) within the division
Direct attacks against target(s)
Control division during enroute and objective area operations
Delegate tasks within flight and cockpit
Conduct the debrief, covering pertinent division specifics and learning points

Performance Standards

PUI shall brief IAW ASTACSOP/NTTP.

PUI shall maintain situational awareness of wingmen and mutual support during enroute portion of flight and in the objective area.

PUI shall effectively control the division throughout the flight.

PUI shall locate target(s) in a timely manner.

PUI shall engage target(s) using TTPs appropriate for the scenario.

PUI shall minimize threat exposure and use appropriate threat counter-tactics.

PUI shall use TRANSEC/COMSEC for all communications.

PUI shall adhere to local course rules and comply with applicable range regulations.

PUI shall debrief lessons learned and accurately analyze effectiveness of TTPs.

Prerequisites. ACPM 8640, 8641, DL-6500, 6501

Ordnance (Optional). (1) captive PGM, (7) 2.75 inch rockets, (300) rounds 20mm, (60)chaff/flares

Range Requirement. Live fire and LASER safe range with thermally significant targets, if available

External Syllabus Support. One or more assault support aircraft(if escort mission)

Crew. FLSE/PUI

2.17.10 Flight Leader

Purpose. To prepare and evaluate a prospective flight lead's ability to plan, brief, lead and debrief a flight.

General

PUI shall conduct the following sortie in order to develop and evaluate the prospective flight lead's flight leadership. At the discretion of the commanding officer cross-cockpit instruction is authorized.

The IP will use the sortie requirement criteria to determine whether the PUI completed the sortie.

The PUI will use the performance standards to debrief the flight.

Completion of the Flight Leader syllabus meets the requirements for designation as a Flight Leader. At the discretion of the squadron commanding officer, a letter designating the pilot as a Flight Leader shall be placed in the NATOPS jacket and APR.

PUI shall have lead three flights as a designated Division Leader. PUI shall also have a minimum of 750 total flight hours.

PUI shall be evaluated on ordnance delivery accuracy utilizing Core Plus/Mission Plus ordnance accuracy standards.

Aircraft should be configured with an operable NTS/NTSU, PGM system, FMV, LDRS, DVR, APR-39, AAR-47, ALE-47 and IR Pointer (night events).

Crew Requirements. As listed at the end of each event.

Ground/Academic Training. IAW the MAWTS-1 AH-1 Course Catalog.

Flight Leader (FL) Overview

FLIGHT LEADER (FL) STAGE							
EVENT	**TIME**	**REFLY**	**POI**	**COND**	**DEVICE**	**NUM**	**DESCRIPTION**
FL-6698	1.5	*	B,R	(NS)	A	4+	Flight Leader Evaluation

FL-6698 1.5 * B,R (NS) A 1 AH-1W & 4+ H-1s

Goal. OS - Flight Lead Evaluation - Tactically employ a flight in a low to medium threat environment during the conduct of a day or night OAS or escort mission. Emphasis should be placed on ASTACSOP, flight/element integration, routing, objective area mechanics, flight member responsibilities, attack patterns and communication.

Requirements

Plan, brief, lead and debrief an OAS or escort mission
Develop a plan that supports the ground SOM and commander's intent of the supported unit
Plan and brief flight mechanics, attacks and objective area manuever
Plan and brief flight threat reactions
Plan and brief rendezvous & join-up per ASTACSOP and NTTP
Brief penetration/de-penetration/offensive checklist procedures
Use all available planning tools to plan & brief route considerations, sensor acquisition, and target engagement
Conduct flight take-off/landing, scatter plan/rendezvous, and lost communication procedures
Maneuver flight using appropriate formations and signals
Conduct a rendezvous & join-up

Demonstrate applicable threat counter-tactics
Locate, plot and effectively engage target(s) within the flight
Direct attacks against target(s)
Control flight during enroute and objective area operations
Delegate tasks within flight and cockpit
Conduct the debrief, covering pertinent flight specifics and learning points

Performance Standards

PUI shall brief IAW ASTACSOP/NTTP.

PUI shall maintain situational awareness of wingmen and mutual support during enroute portion of flight and in the objective area.

PUI shall effectively control the flight throughout the mission.

PUI shall locate target(s) in a timely manner.

PUI shall engage target(s) using TTPs appropriate for the scenario.

PUI shall minimize threat exposure and use appropriate threat counter-tactics.

PUI shall use TRANSEC/COMSEC for all communications.

PUI shall adhere to local course rules and comply with applicable range regulations.

PUI shall debrief lessons learned and accurately analyze effectiveness of TTPs.

Prerequisites. DL-6598, PUI shall have lead three flights as a designated Division Leader. PUI shall also have a minimum of 750 total flight hours.

Ordnance (Optional). (1) captive PGM, (7) 2.75 inch rockets, (300) rounds 20mm, (60)chaff/flares

Range Requirement. Live fire and LASER safe range with thermally significant targets, if available

External Syllabus Support. One or more assault support aircraft(if escort mission)

Crew. FLSE/PUI

2.17.11 Air Mission Commander (AMC)

Purpose. To prepare and evaluate a prospective air mission commander's ability to plan, brief and command an air component of an assault support or OAS mission.

General

AMC is designated in recognition of experience, demonstrated flight leadership ability and judgment.

Work-up for this phase shall consist of completion of the division leader syllabus.

Completion of the AMC-6798 meets the requirements for the PUI to be designated an AMC. At the discretion of the squadron commanding officer, a letter designating the PUI as an AMC shall be placed in the NATOPS jacket, APR and AMC-6798 shall be logged.

Crew Requirements. The AMC-6798 evaluation must be evaluated by an AMC. There is no requirement for the PUI to conduct aircrew duties during the evaluation.

Ground/Academic Training. The PUI shall demonstrate familiarity with OAS, assault support operations, MACCS and MAGTF integration.

Air Mission Commander (AMC) Overview

AIR MISSION COMMANDER (AMC) STAGE							
EVENT	**TIME**	**REFLY**	**POI**	**COND**	**DEVICE**	**NUM**	**DESCRIPTION**
FL-6798	1.5	*	B,R	(NS)	A	4+	Air Mission Commander Evaluation

AMC-6798 1.5 * B,R (NS) ANY AMC PLATFORM OR COC

Goal. OS - Conduct a day or night Air Mission Commander (AMC) check utilizing a MCTL-based mission and a tactical scenario.

Requirements

Plan, brief, lead, and debrief a multi-element, multi-T/M/S tactical mission in any threat environment

utilizing at a minimum, one assault element and one RW or FW escort element.

The AMCUI shall be evaluated on his/her ability to integrate the 6 functions of Marine Aviation and shall lead the mission from a airborne platform or COC (as appropriate).

Discuss

Prolem Framing and METT-TSL
Marine Corps Planning Process (MCPP)/Rapid Response Planning Process (R2P2)
COA development and task delegation
Six functions of Marine Aviation
Aviation Ground Support (AGS) capabilities
MACCS agencies, functions, and employment
Threat planning considerations for multiple T/M/S aircraft
GCE support considerations
Objective area planning considerations
Fire Support Coordination Measures (FSCMs)
Fire support/supporting arms considerations and integration (e.g. indirect fires, CAS)
RW and FW escort considerations and escort tactics
Assault support considerations and tactics
Contingency planning
Immediate tasking
Go vs. No-Go criteria
Event vs. time driven mission execution
Chain of responsibility and delegation of authority
C&C platform considerations and Mission Coordination Area (MCA) selection
Secure vs. active communications
EMCON and radio procedures
Information flow requirements
Execution checklist utilization

Review

Tactical mission planning and briefing
Command and control during a tactical mission

Performance Standards

The AMCUI shall conduct problem framing IAW MCWP 5-1

The AMCUI shall delegate mission tasks to the most advantageous asset/flight, ensure coordination and supervision of key personnel during planning.

The AMCUI shall develop a plan that integrates the six functions of Marine Aviation and AGS.

The AMCUI shall develop a plan that fully supports the GCE ground scheme of maneuver and Essential Fire Support Tasks (EFSTs)

The AMCUI shall conduct an AMC brief IAW NTTP series publications

The AMCUI shall maintain SA on mission progress/execution

The AMCUI shall maximize C&C platform capabilities

The AMCUI shall demonstrate proper decision making and task delegation in response to immediate missions and/or contingencies

The AMCUI shall demonstrate proper understanding and utilization of C4I to facilitate information flow and execution, RW and/or FW escort, secure and active communications, FSCM utilization and supporting arms, and contingency planning and execution.

The AMCUI shall possess the tactical and operational knowledge required of an AMC.

Prerequisites. 6070,6071,6598

Ordnance (Optional). (1) captive PGM, (7) 2.75 inch rockets, (300) rounds 20mm, (60) chaff/flares

Range Requirement. Live fire and LASER safe range(as required)

External Syllabus Support. GCE, MACCS agencies, AGS assets, multiple T/M/S RW and/or FW assets as required,

and any other support required based on the tactical scenario (HST, threat emitter/simulator)

Crew. AMC+FLSE/PUI

2.17.12 Specific Operations Tracking Codes (SOTC)

Purpose. To provide a vehicle for Tracking Codes associated with specific operations. All codes will be logged in conjunction with the appropriately flown sortie.

General. Each pilot assigned to a squadron should complete at least one (1) of each applicable SOTC code during their first fleet tour.

Crew Requirements. As listed at the end of each event.

Specific Operations Tracking Codes (SOTC) Overview

SPECIAL OPERATIONS TRACKING CODES (SOTC) S TAGE							
EVENT	**TIME**	**REFLY**	**POI**	**COND**	**DEVICE**	**NUM**	**DESCRIPTION**
SOTC-6900	0.0	*	B,R	NS	A	1	2.75" Illum
SOTC-6901	0.0	*	B,R	(NS)	A	1	APKWS
SOTC-6902	0.0	*	B,R	(NS)	A	1	2.75" Flechette
SOTC-6904	0.0	*	B,R	(NS)	A	1	Hellfire
SOTC-6905	0.0	*	B,R,	(NS)	A	1	AIM-9
SOTC-6906	0.0	730	B,R,M	(NS)	A/S	1	FAC(A)
SOTC-6907	0.0	*	B,R	(NS)	A	1	APKWS
SOTC-6998	0.0	*	B,R,SC	D	A	1	Day Auto
SOTC-6999	0.0	*	B,R,SC	NS	A	1	NS Auto

SOTC-6900 0.0 * B,R NS A 1 AH-1W

Goal. OS – Track proficiency in shooting the 2.75 inch Illumination rocket (M-257/M-278).

Requirement. Shoot one (1) 2.75 inch illumination rocket

Ordnance. (1) 2.75 inch illumination rocket

Crew. NSI/PUI

SOTC-6901 0.0 * B,R (NS) A 1 AH-1W

Goal. OS – Track proficiency in shooting the 2.75 inch guided rocket (APKWS).

Requirement. Shoot one (1) 2.75 inch guided rocket

Ordnance. (1) 2.75 inch guided rocket

Crew. WTO(NSI)/PUI

SOTC-6902 0.0 * B,R (NS) A 1 AH-1W

Goal. OS – Track proficiency in shooting the 2.75 inch flechette rocket.

Requirement. Shoot one (1) 2.75 inch flechette rocket

Ordnance. (1) 2.75 inch guided rocket

Crew. WTO(NSI)/PUI

SOTC-6904 0.0 * B,R (NS) A 1 AH-1W

Goal. OS – Track proficiency in shooting a Hellfire missile.

Requirement. Shoot one (1) Hellfire Missile

Ordnance. (1) live Hellfire Missile

Crew. WTO(NSI)/PUI

SOTC-6905 0.0 * B,R (NS) A 1 AH-1W

Goal. OS – Track proficiency in shooting an AIM-9 missile.

Requirement. Shoot one (1) AIM-9 missile

Ordnance. (1) live AIM-9 missile

Crew. WTO(NSI)/PUI

SOTC-6906 0.0 730 B,R,M (NS) A/S 1 AH-1W & 1 H-1

Goal. OS – Track standardization in the conduct of FAC(A).

Requirement. Conduct one standardization FAC(A) sortie

Ordnance. AS required

Crew. FAC(A)I/PUI

SOTC-6907 0.0 * B,R (NS) A 1 AH-1W

Goal. OS – Track proficiency in shooting APKWS.

Requirement. Shoot one (1) APKWS

Ordnance. (1) APKWS

Crew. WTO(NSI)/PUI

SOTC-6998 0.0 * B,R,SC D A 1 AH-1W

Goal. OS – Day autorotation tracking code.

Requirement. Conduct one daytime autorotation.

Crew. BIP/PUI or PQM/PQM

SOTC-6999 0.0 * B,R,SC NS A 1 AH-1W

Goal. OS – NS autorotation tracking code.

Requirement. Conduct one NS autorotation.

Crew. NSI/PUI or PQM/PQM

2.18 MISSION ESSENTIAL TASK (MET) PHASE (7000)

2.18.1 Purpose

To assess CMMR representative crews during the execution of the unit's specified METs in order to ensure standardization and combat readiness.

To fulfill the requirements of a Marine Corps Combat Readiness Evaluation (MCCRE) as specified in MCO 3502.1, Marine Corps Combat Readiness Evaluation.

Prerequisite. Aircrew assessed during this phase shall meet the requirements of a Force Generation Order. The crews should be comprised of deploying personnel to the maximum extent practical.

Admin Notes. The proficiency period for conducting elements of the 7000 phase are:

No less than once every 2 years for active components
No less than once every 5 years for reserve components

Units not scheduled to be assessed at a service level training venue (i.e. ITX, MTNEX, TALONEX) shall conduct elements of the 7000 level phase as a minimum requirement for a unit to deploy.

The MAW Flight Leadership Standardization and Evaluation (FLSE) cadre is the resource used to assess Type/ Model/ Series units for MET capability in accordance with the MCCRE Order. The units assessor will be designated at the Wing level of the unit to be assessed.

Events in this Phase normally require a Force Generation Order prior to commencing the 7000 Stage. Once a unit deploys, is removed from the Force Generation Order, or completes the required 7000-Stage, 7000 Phase currency no longer needs to be maintained. Multiple Events may be accomplished during the same sortie. Results of the MCCRE assessment shall be formatted per Appendix D, 3500.14D and submitted to CG, MCCDC (via AMHS message attachment to CG TECOM MTESD) no later than 45 days after MCCRE completion.

Due to an HMLA's unique composition and multiple T/M/S within a squadron, common METs may be marked as T&R complete regardless of the composition of the element that is evaluated. For example, if a section of AH-1s are evaluated conducting CAS, the MET-7002 code may be logged for both the AH-1 and UH-1 in MSHARP and reported as complete for the squadron.

2.18.2 Stages. The following stages are included in the Mission Essential Task (MET) Phase of training. **Only METs required per the Force Generation Order shall be evaluated.**

MISSION ESSENTIAL TASKS PHASE		
CORE STAGE	**PARAGRAPH**	**PAGE NUMBER**
EXPEDITIONARY SHORE-BASED OPERATIONS (EXP)	2.11.9	2-82
CLOSE AIR SUPPORT (CAS)	2.14.3	2-138
AERIAL INTERDICTION (AI)	2.14.3	2-138
ARMED RECONNAISSANCE (AR)	2.14.3	2-138
STRIKE COORDINATION AND RECONNAISSANCE (SCAR)	2.14.3	2-139
FORWARD AIR CONTROL (AIRBORNE) (FACA)	2.14.3	2-139
TACTICAL RECOVERY OF AIRCRAFT AND PERSONNEL (TRAP)	2.14.3	2-140
AERIAL ESCORT (ESC)	2.14.3	2-140
CORE PLUS STAGE	**PARAGRAPH**	**PAGE NUMBER**
EXPEDITIONARY SEA-BASED OPERATIONS (CQ)	2.14.3	2-140
OFFENSIVE ANTI-AIR WARFARE (OAAW)	2.14.3	2-140
ACTIVE AIR DEFENSE (DACM)	2.14.3	2-140

2.18.3 MISSION ESSENTIAL TASK (MET) STAGE

Purpose. To assess squadrons or detachments executing community specific MET(s) or MET preparatory Events.

General

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. The participants required for the 7000 Phase are the evaluated unit and the assessor. The crew requirement is based on the specific event. The assessment shall be conducted from a crew position of the assessor's T/M/S. At the discretion of the assessor, observation of mission planning, briefing/debriefing, and execution from an OP may satisfy a portion of the assessment.

Respectively, the primary, alternate, and tertiary assessors shall be a MATSS representative, WTI (FLSE) from within the parent command designated by the owning Wing, or MAWTS-1 representative. The number of crews evaluated will be based on a percentage required to deploy per the Force Generation Order.

MET Overview.

MISSION ESSENTIAL TASK STAGE							
EVENT	**TIME**	**REFLY**	**POI**	**COND**	**DEVICE**	**NUM**	**DESCRIPTION**
MET-7000	1.5	730	B,R,M	(NS)	A	2+	EXP SHORE BASED TAC
MET-7002	1.5	730	B,R,M	(NS)	A	2+	CLOSE AIR SUPPORT
MET-7003	1.5	730	B,R,M	(NS)	A	2+	AERIAL INTERDICTION
MET-7004	1.5	730	B,R,M	(NS)	A	2+	ARMED RECONNAISSANCE
MET-7005	1.5	730	B,R,M	(NS)	A	2+	STRIKE COORD AND RECONNAISSANCE
MET-7006	1.5	730	B,R,M	(NS)	A	2+	FAC/A
MET-7009	1.5	730	B,R,M	(NS)	A	2+	TRAP
MET-7010	1.5	730	B,R,M	(NS)	A	2+	AERIAL ESCORT
MET-7012	1.5	730	B,R,M	(NS)	A	2+	EXP SEA BASED TAC

MISSION ESSENTIAL TASK STAGE							
EVENT	**TIME**	**REFLY**	**POI**	**COND**	**DEVICE**	**NUM**	**DESCRIPTION**
MET-7013	1.5	730	B,R,M	(NS)	A	2+	OFFENSIVE ANTI-AIR WARFARE
MET-7016	1.5	730	B,R,M	(NS)	A	2+	ACTIVE AIR DEFENSE

MET-7000 1.5 730 B,R,M (NS) A 2+ H-1

Goal. Demonstrate the capability to operate from a shore-based site under a low to medium threat environment.

Performance Standard. Plan, brief and execute a tactical mission to or from expeditionary shore-based (Airbase, EAF, FOB, COB, FARP, LAAGER) sites per MCT 1.3.3.3.2 and the T/M/S specific T&R.

Instructor: MATSS representative, WTI (FLSE) designated by Wing, or MAWTS-1 representative

Prerequisites. IAW Phase

Ordnance. IAW Phase

Range Requirement. Live fire and expendable range as required

External Syllabus Support. ATC, DASC, ASLT and/or MMT for airspace control is preferred. AGS for expeditionary shore-based site setup preferred.

MET-7002 1.5 730 B,R,M (NS) A 2+ H-1

Goal. Demonstrate the ability to conduct close air support in a low to medium threat environment.

Performance Standard. Plan, brief and execute a close air support mission per MCT 3.2.3.1.1 and the T/M/S specific T&R.

Instructor: MATSS representative, WTI (FLSE) designated by Wing, or MAWTS-1 representative

Prerequisites. IAW Phase

Ordnance. IAW Phase

Range Requirement. Live fire range as applicable.

External Syllabus Support. JTAC/TACP is preferred, but may be simulated if necessary.

MET-7003 1.5 730 B,R,M (NS) A 2+ AH/H-1

Goal. Demonstrate the ability to conduct aerial interdiction in a low to medium threat environment.

Performance Standard. Plan, brief and execute a tactical aerial interdiction evolution per MCT 3.2.3.1.2.1 and the T/M/S specific T&R.

Instructor: MATSS representative, WTI (FLSE) designated by Wing, or MAWTS-1 representative

Prerequisites. IAW Phase

Ordnance. IAW Phase

Range Requirement. Live fire range as required.

External Syllabus Support. IAW Phase

MET-7004 1.5 730 B,R,M (NS) A 2+ H-1

Goal. Demonstrate the ability to conduct armed reconnaissance in a low to medium threat environment.

Performance Standard. Plan, brief and execute a tactical armed reconnaissance evolution per MCT 3.2.3.1.2.2 and the T/M/S specific T&R.

Instructor: MATSS representative, WTI (FLSE) designated by Wing, or MAWTS-1 representative

Prerequisites. IAW Phase

Ordnance. IAW Phase

Range Requirement. Live fire range as required.

External Syllabus Support. Additional AR or SCAR platforms optional.

MET-7005 1.5 730 B,R,M (NS) A 2+ H-1

Goal. Demonstrate the capability to conduct strike coordination and reconnaissance in a low to medium threat environment.

Performance Standard. Plan, brief and execute a tactical strike coordination and reconnaissance evolution per MCT 3.2.3.1.2.3 and the T/M/S specific T&R.

Instructor: MATSS representative, WTI (FLSE) designated by Wing, or MAWTS-1 representative

Prerequisites. IAW Phase

Ordnance. IAW Phase

Range Requirement. Live fire range as required.

External Syllabus Support. External AR platforms preferred but may be simulated if required.

MET-7006 1.5 730 B,R,M (NS) A 2+ H-1

Goal. Demonstrate the capability to operate as a forward air controller (airborne) in a low to medium threat environment.

Performance Standard. Plan, brief and execute a tactical FAC/A evolution per MCT 3.2.5.4 and the T/M/S specific T&R.

Instructor: MATSS representative, WTI (FLSE) designated by Wing, or MAWTS-1 representative

Prerequisites. IAW Phase

Ordnance. IAW Phase

Range Requirement. Live fire range as required.

External Syllabus Support. Requirements per FACA-3404.

MET-7009 1.5 730 B,R,M (NS) A 2+ H-1

Goal. Demonstrate the ability to conduct Tactical Recovery of Aircraft and Personnel (TRAP) in a low to medium threat environment.

Performance Standard. Plan, brief and execute a TRAP mission per MCT 6.2.1.1 and the T/M/S specific T&R. Properly employ TRAP template. Effectively communicate with Isolated Personnel, Rescort, RMC and other supporting aircraft.

Instructor: MATSS representative, WTI (FLSE) designated by Wing, or MAWTS-1 representative

Prerequisites. IAW Phase

Ordnance. IAW Phase

Range Requirement. Live fire and expendable range as required

External Syllabus Support. Assault and/or Command and Control aircraft are preferred if available. Isolated personnel in the objective area is preferred. Use of survival radios is preferred. Ground combat element is preferred if available.

MET-7010 1.5 730 B,R,M (NS) A 2+ H-1

Goal. Demonstrate the capability to conduct aerial escort in a low to medium threat environment.

Performance Standard. Plan, brief and execute an aerial escort evolution per MCT 6.1.1.11 and the T/M/S specific T&R.

Instructor: MATSS representative, WTI (FLSE) designated by Wing, or MAWTS-1 representative

Prerequisites. IAW Phase

Ordnance. IAW Phase

Range Requirement. Live fire range as required.

External Syllabus Support. Actual assault transport element consisting of at least one aircraft.

MET-7012 1.5 730 B,R,M (NS) A 2+ H-1

Goal. Demonstrate the capability to conduct operations from expeditionary sea-based sites in a low to medium threat environment.

Performance Standard. Plan, brief and execute any evolution from an expeditionary sea-based site per MCT 1.3.3.3.1 and the T/M/S specific T&R.

Instructor: MATSS representative, WTI (FLSE) designated by Wing, or MAWTS-1 representative

Prerequisites. IAW Phase

Ordnance. IAW Phase

Range Requirement. Live fire range as required.

External Syllabus Support. Naval shipping platform capable of conducting helicopter operations.

MET-7013 1.5 730 B,R,M (NS) A 2 AH/H-1

Goal. Demonstrate the capability to offensive anti-air warfare in a low to medium threat environment.

Performance Standard. Plan, brief and execute an OAAW mission per MCT 3.2.3.2 and the T/M/S specific T&R.

Instructor: MATSS representative, WTI (FLSE) designated by Wing, or MAWTS-1 representative

Prerequisites. IAW Phase

Ordnance. IAW Phase

Range Requirement. Live fire range as required.

External Syllabus Support. IAW Phase.

MET-7016 1.5 730 B,R,M (NS) A 2+ H-1

Goal. Demonstrate the capability to conduct active air defense (DACM) in a low to medium threat environment.

Performance Standard. Plan, brief and execute a DACM evolution per MCT 6.1.1.8 and the T/M/S specific T&R.

Instructor: MATSS representative, WTI (FLSE) designated by Wing, or MAWTS-1 representative

Prerequisites. IAW Phase

Ordnance. IAW Phase

Range Requirement. Live fire range as required.

External Syllabus Support. Adversary aircraft as required per DACM guidelines.

2.19 AVIATION CAREER PROGRESSION MODEL (8000)

Purpose

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

ACPM academic training requirements will be tracked and managed in M-SHARP.

Commanding officers shall ensure the requisite ACPM training requirements have been met prior to designating flight leaders.

General

ACPM courseware is integrated into each Phase of instruction from 2000-6000.

All ACPM courseware shall be completed prior to getting the culminating qualification for each phase.

8200 academics must be complete prior to PQM.

8300 academics must be complete prior to AHC.

8600 academics must be complete prior to each corresponding flight leadership stage.

The ACPM courseware can be found on the web sites listed below:

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

SIPR: http://www.mawts1.usmc.smil.mil/ Click on Departments, AH-1 for general information.

Click on Departments, Academics, Generics, Common or Specific for WTI classified and unclassified courseware.

Click on ASP for Academic Support Package courseware and ACPM classes.

ACPM academic events, along with their identifying pre-requisite association with other training phases/stages/events are listed below.

AVIATION CAREER PROGRESSION MODEL	
TRAINING CODES	**COURSEWARE**
CORE SKILL	
ACPM-8200	MACCS Agencies, Functions, and Control of Aircraft and Missiles
ACPM-8201	MWCS Brief
ACPM-8202	ACA and Airspace
ACPM-8210	Aviation Ground Support
ACPM-8230	ACE Battle Staff
ACPM-8231	Battle Command Display
ACPM-8240	Six Functions of Marine Aviation
ACPM-8241	ASR/JTAR Introduction and Practical Application
ACPM-8242	Site Command Primer
ACPM-8250	Theater Air Ground System (TAGS)
MISSION SKILL	
ACPM-8300	Air Defense
ACPM-8310	Forward Arming Refueling Point (FARP) Operations
ACPM-8311	Marine Corps Tactical Fuel Systems
ACPM-8320	Joint Sructure and Joint Air Operations
ACPM-8321	Joint Air Tasking Cycle, Phase 1: Strategy Development
ACPM-8322	Joint Air Tasking Cycle, Phase 2: Target Development
ACPM-8323	Joint Air Tasking Cycle, Phase 3: Weaponeering and Allocation
ACPM-8324	Joint Air Tasking Cycle, Phase 4: Joint ATO Production
ACPM-8325	Joint Air Tasking Cycle, Phase 5: Force Execution
ACPM-8326	Joint Air Tasking Cycle, Phase 6: Combat Assessment
ACPM-8340	Integrating Fires and Airspace within the MAGTF
ACPM-8350	Phasing Control Ashore
ACPM-8351	TACRON Organizations and Functions
SECTION LEADER	
ACPM-8630	Tactical Air Command Center (TACC)
ACPM-8660	Joint Ops Intro
DIVISION LEADER	
ACPM-8640	Joint Data Network
ACPM-8641	MAGTF Theater and National ISR Employment
FLIGHT LEADER	
ACPM-8620	ESG/CSG Integration

At the completion of each ACPM event, the appropriate training code shall be logged in M-SHARP by the individual pilot, or squadron operations personnel, as appropriate.

ACPM events do not have re-fly intervals.

2.19.1 ACPM Core Training Phase

Purpose. To provide and introduce basic integration of the ACE within the MAGTF and ACE Battle Staff planning.

General. The PUI must be complete the ACPM-8200 series prior to PQM designation.

ACPM-8200	0.5	*	B	G	MACCS Agencies, Functions, and Control of Aircraft and Missiles

Learning Objectives

Understand the organization of the MACG and the agencies provided by the MACG that form the MACCS.

Understand the mission and tasks of the Tactical Air Command Center (TACC).

Understand the mission and tasks of the Tactical Air Operations Center (TAOC).

Understand the mission and tasks of marine Air Traffic Control (MATC) and the marine Air Traffic Control Mobile Team (MMT).

Understand the mission and tasks of the Direct Air Support Center (DASC).

Understand the mission and tasks of the Low Altitude Air Defense (LAAD) Battalion.

Understand the mission and tasks of the Marine Unmanned Aerial Vehicle (VMU) squadron.

Understand the mission and tasks of the Marine Wing Communication Squadron (MWCS).

ACPM-8201	0.5	*	B	G	MWCS Brief

Learning Objectives

From a list be able to identify the core competencies of the MWCS.

Without the aid of reference, describe the organization of the MWCS.

Without the aid of reference, identify key equipment used by the MWCS to support the MACCS.

ACPM-8202	0.8	*	B	G	ACA and Airspace

Learning Objectives

List the three fundamental principles of airspace command and control.

List and explain the three tenets of the integrated combat airspace command and control system.

Describe the responsibilities of the ACA.

Describe the responsibilities of the AMCT.

Understand the definitions of Air Direction and Air Control as well as the subsets of those two major categories.

List a variety of items encompassed within the ACP.

ACPM-8210	0.7	*	B	G	Aviation Ground Support

Learning Objectives

Identify the organization responsible for providing Aviation Ground Support (AGS) to the MAW.

Identify the four concepts for MAGTF Forward Operating Bases (FOBs).

Identify the five activities the Marine Wing Support Squadron (MWSS) performs for the ACE when deployed.

Identify the four classifications of FOBs and state the distinguishing characteristics of each.

Identify the fourteen functions of AGS.

ACPM-8230	1.0	*	B	G	ACE Battle Staff

Learning Objectives

To introduce and explain the intel capabilities/products available to the ACE/MAGTF.

To introduce ALSA comm brevity terms.

Introduce functions and responsibilities of ACE Battle Staff.

2.19.2 ACPM Mission Training Events

Purpose. To provide and introduce basic integration of the ACE within the MAGTF and Joint environment.

General. The PUI must be complete the ACPM-8300 series prior to AHC designation.

ACPM-8300 0.8 * B G Air Defense

Learning Objectives

Outline the principles of Air Defense.

Understand the composition of an Integrated Air Defense System (IADS).

Define Active and Passive Air Defense.

Identify the (4) primary pillars of Passive Air Defense operations.

ACPM-8310 0.8 * B G Forward Arming Refueling Point (FARP) Operations

Learning Objectives

State the mission and objective of a FARP.

Explain the planning considerations of a FARP.

Explain the techniques of employment.

Describe the procedures necessary for movement of aircraft through a FARP and various layouts.

ACPM-8311 0.8 * B G Marine Corps Tactical Fuel Systems

Learning Objectives

State the basic history of the Bulk Fuel community.

Identify the four major fuel systems and their capabilities.

State the job description of the Bulk Fuel Specialist.

ACPM-8320 1.0 * B G Joint Structure & Joint Air Operations

Learning Objectives

Understand the criteria used by the Joint Force Commander (JFC) when selecting the Joint Forces Air Component Commander (JFACC).

Understand the duties and responsibilities of the five divisions of Joint Air and Space Operations Center (JAOC).

Know the types of sorties the MAGTF Commander must make available to the JFACC for tasking.

Understand the primary responsibilities of the Area Air Defense Commander (AADC).

Understand the purpose of the Airspace Control Order (ACO).

Become familiar with the six phases of the Joint Air Tasking Cycle.

ACPM-8321 0.3 * B G Joint Air Tasking Cycle Phase 1: Strategy Development

Learning Objectives

Understand how the JFC normally provides air apportionment guidance to the Joint Forces Air Component Commander (JFACC).

Understand the air apportionment process.

Understand who drafts the AOD and what the AOD provides the JAOC.

Understand how objectives and tasks are prioritized.

Prerequisite. 8320

ACPM-8322 0.3 * B G Joint Air Tasking Cycle Phase 2: Target Development

Learning Objectives

Understand the purpose of the Joint Integrated Prioritized Target List (JIPTL).

Understand the purpose for the joint targeting coordination board and its participants.

Understand the target development process.

Know the product of phase 2 of the joint air tasking cycle.

Understand what provides the foundation for phase 2 of the joint air tasking cycle.

Prerequisite. 8321

ACPM-8323 0.3 * B G Joint Air Tasking Cycle Phase 3: Weaponeering and Allocation

Learning Objectives

Understand weaponeering and how it is conducted within the joint air tasking cycle.

Understand the Allocation Request Message (ALLOREQ) and how it is used in producing the MAAP.

Understand the air allocation process.

Understand the purpose of the MAAP team and what is contained in the MAAP.

Understand the purpose of the Sortie Allocation (SORTIEALLOT) message.

Prerequisite. 8322

ACPM-8324 0.3 * B G Joint Air Tasking Cycle Phase 4: Joint ATO Production

Learning Objectives

Understand the role of joint ATO production within the joint air tasking cycle.

Understand the responsibilities of the joint ATO production team.

Understand the processes used in the production of the joint air tasking order.

Understand how TBMCS 1.1.3 is used to produce the joint air tasking order.

Prerequisite. 8323

ACPM-8325 0.3 * B G Joint Air Tasking Cycle Phase 5: Force Execution

Learning Objectives

Understand the primary functions and responsibilities of the AOC.

Understand how the JAOC organizes for the execution phase.

Understand how TBMCS 1.1.3 is used during the execution phase

Prerequisite. 8324

ACPM-8326 0.3 * B G Joint Air Tasking Cycle Phase 6: Combat Assessment

Learning Objectives

Understand the three inter-related components of combat assessment.

Understand the key factors concerning the three components of combat assessment.

Understand the purpose of BDA based upon current doctrine.

Understand physical damage, functional damage, and the target system assessment process.

Understand the purpose of the re-attack recommendation.

Prerequisite. 8325

ACPM-8340 0.5 * B G Integrating Fires & Airspace within the MAGTF

Learning Objectives

List the (14) Fire Support Principles.

Identify and discuss the (2) types of FSCMs.

Identify where most of the fire support coordination occurs within the MAGTF.

Discuss the purpose of ACMs.

Discuss the need for integrating FSCMs and ACMs.

Identify the required components of the JFA as an FSCM.

Identify the differences between the JFA and GARS.

ACPM-8350 0.8 * B G Phasing Control Ashore

Learning Objectives

Identify the Navy agency most akin to the LF FSCC.

Identify what must be established ashore for control to be phased from the Navy TACC to the landing force.

ACPM-8351 1.0 * B G TACRON Organizations and Functions

Learning Objectives. TBD

ACPM-8231 1.0 * B G Battle Command Display

Learning Objectives. Introduce the Battle Command Display.

ACPM-8240 1.7 * B G Six Functions of Marine Aviation

Learning Objectives. To better understand the 6 functions of Marine Corps Aviation.

ACPM-8241 1.3 * B G JTAR/ASR Introduction and Practical Application

Learning Objective

Understand the ATO cycle and the request process.

Write a technically correct JTAR.

Write a technically correct EW JTAR.

Write a technically correct EARF.

Write a technically correct ASR.

Track submitted air requests using various web-based programs.

Introduce the Automated Tracking System.

ACPM-8242 1.0 * B G Site Commander Primer

Learning Objectives. Introduce fundamentals and functions of Site Command.

ACPM-8250 0.8 * B G Theater Air Ground System (TAGS)

Learning Objectives

Identify the primary characteristics of TAGS.

Identify the primary surveillance agency within the Theater Air Control System.

Identify the element within the Army Air and Ground System responsible for integrating operational fires and synchronizing deep operations.

Identify the element within the Navy's Tactical Air Control System responsible for coordinating power projection.

Identify the commander within an amphibious task force who is subordinate to the Air Defense Commander (ADC) and responsible for the detection and engagement of hostile tracks in the AOA.

Identify the Marine Corps' contribution to overall Theater Air Ground System.

2.19.3 ACPM Flight Leadership Training Events

Purpose. To provide the prospective flight leader the concepts of basic integration of the MAGTF within the Joint environment.

General. Completion of Flight Leadership Training Events is required prior to the following flight leadership designations:

Section Leader: ACPM-8630, ACPM-8660.

Division Leader: ACPM-8640, ACPM-8641.

Flight Leader: ACPM-8620.

However, the PUI does not need to be in a specific flight leader syllabus in order to receive 8600 level training events.

ACPM-8630 1.0 * B G Tactical Air Command Center (TACC)

Learning Objectives

Without aid of references, identify the mission of the TACC.

Without aid of references, identify the major tasks/duties of the TACC.

Without aid of references, identify the three sections being supported by intelligence.

Without aid of references, identify the key TACC personnel and their responsibilities.

Without aid of references, identify the equipment associated with a full TACC capability.

ACPM-8660 0.4 * B G Joint Ops Introduction

Learning Objectives

Understand Joint Operation Command relationships.

Understand the main responsibilities for each Functional Component Commander.

ACPM-8620 1.0 * B G ESG/CSG Integration

Learning Objectives. TBD

ACPM-8640 0.8 * B G Joint Data Network

Learning Objectives

Understand the four components of the JDN.

Understand the differences between the Single Integrated Air Picture (SIAP), Common Tactical Picture (CTP), and Common Operational Picture (COP).

Understand the differences between Sensor Network(s), Joint Data Network (JDN), and Joint Planning Network (JPN).

Understand how the ACE builds its CTP and how information is shared throughout the ACE and the Marine Air Command and Control System (MACCS).

Know the primary system that will “tie in” the intelligence flow throughout the Marine Aviation Command and Control System (MACCS).

ACPM-8641 1.3 * B G MAGTF Theater and National ISR Employment

Learning Objectives

Define priority intelligence requirement.

Identify basic tenets of the National Imagery Interpretability Rating Scale.

Recognize sfFtrengths and weaknesses of the EO, SAR, and IR sensors found on national satellites.

Know the three categories of SIGINT.

Identify the information requirements used in the UAS planning process.

Identify what effective planning of UAS employment involves.

Identify key planning considerations outlined for UAS employment.

Define “Non-Traditional ISR”.

Identify the most common shortfalls on JTARs submitted for NTISR support.

Identify the most common shortfalls on JTARs submitted for ATARS support.

2.20 SYLLABUS EVALUATION FORMS. Syllabus event forms will reside at MAWTS-1. Forms will reside on the unclassified site.

2.21 SYLLABUS MATRICES GENERAL INFORMATION

2.21.1 T&R Chaining

Event chaining allows for the completion of more complex and/or advanced events using the same skills to update proficiency status of events.

Only events in a sequence entailing demonstration of equivalent skills shall be chained.

When a T&R event is logged, the proficiency dates of other T&R events (usually lower in number) may be updated.

The T&R code that is logged is known as the "chaining code," and the updated codes are "chained codes."

Chained codes are not always updated when a chaining code is logged.

Conditional Chaining. The following environmental conditions further specify which T&R codes are chain-updated:

Night Systems Optional. Chained codes annotated with a tilde after them, e.g. 2101~NS, are only chain-updated if the chaining code is flown using night systems.

Light Level Optional. Chained codes annotated with a tilde and a 'NS' after them, e.g. 2101~NS, are only chain-updated if the chaining code is flown using night systems during HLL. Chained codes annotated with a tilde and a 'LLL' after them, e.g. 2701~LLL, are only chain-updated if the chaining code is flown using night systems during LLL.

2.21.2 Syllabus Event Conversion. The syllabus event conversion information is used to convert T&R syllabus event proficiency status of the previous T&R syllabus into event proficiency status of the current T&R for individuals.

2.22 T&R SYLLABUS MATRIX (2000-8000)

AH-1W T&R SYLLABUS MATRIX																										
SKILL	STAGE	T&R DESCRIPTION	EVENT NUMBER	ATTAIN			MAINTAIN	ACAD/GRND		SIM		FLIGHT		COND	SEAT	TYPE	# A/C or Sim	NETWORK	NUM-NET	REFLY	EVAL	EOM	MIRROR (Z->W)	EVENT CONV (W->W)
				B	R	SC		#	TIME	#	TIME	#	TIME												
CORE SKILL (2000 Phase)																										
ACAD	ACAD	AN/ARC-210	2000	X					1.0					(N)		G				*			2000	2000
	ACAD	Intro NVG	2001	X					1.0					(N)		G				*			2001	2001
	ACAD	Aeromedical	2002	X					1.0					(N)		G				*			2002	2002
	ACAD	NVD Design	2003	X					1.0					(N)		G				*			2003	2003
	ACAD	FLIR	2004	X					1.0					(N)		G				*			2004	2004
	ACAD	Sensor Integration	2005	X					1.0					(N)		G				*			2005	2005
	ACAD	NVG RELATED MIS	2006	X					1.0					(N)		G				*			2006	2006
	ACAD	ROC-V (Day)	2011	X					1.0					(N)		G				*			2011	2011
	ACAD	H-1 Aero	2012	X					1.0					(N)		G				*				2012
	ACAD	Night Op Env	2013	X					1.0					(N)		G				*			2013	2013
	ACAD	NVG Sys	2014	X					1.0					(N)		G				*			2014	2014
	ACAD	Human Factors	2015	X					1.0					(N)		G				*			2015	2015
	ACAD	FLIR Intro	2016	X					1.0					(N)		G				*			2016	2016
	ACAD	NVG Components	2017	X					1.0					(N)		G				*			2017	2017
	ACAD	NVG Illusions	2018	X					1.0					(N)		G				*			2018	2018
	ACAD	Circadian Rythm	2019	X					1.0					(N)		G				*			2019	2019
	ACAD	Night Ops	2020	X					1.0					(N)		G				*			2020	2020
	ACAD	(S) Evasive Maneuvers	2021	X					1.0					(N)		G				*			2021	2021
	ACAD	(S) HMLA ASE	2023	X	X		X		1.0					(N)		G				365			2023	2023
	ACAD	(S) AGM-114 Hellfire	2063	X					1.0					(N)		G				*			2063	2063
	ACAD	(S)AIM-9	2064	X					1.0					(N)		G				*			2064	2064
	ACAD	Rockets	2066	X					1.0					(N)		G				*			2066	2066
	ACAD	20mm	2067	X					1.0					(N)		G				*			2067	2067
ACAD SKILL TOTAL								17	17.0	0	0.0	0	0.0											
TERF	TERF	TERF	2100	X	X								2.0	D	FS	A	1			180				2100
	TERF	NVD TERF	2101	X	X	X	X						2.0	NS	RS	A	1			180				2101
TERF SKILL TOTAL								0	0.0	0	0.0	2	4.0											
TCT	STCT	IASE RADAR/IR	2200	X							1.5			D	RS	S	1			*			2200	2200
	STCT	Tactical ASE Employ	2201	X	X	X	X				1.5			(NS)	RS	S/A	2			365				2201
TCT SKILL TOTAL								0	0.0	2	3.0	0	0.0											
REC	SREC	Day RECCE	2300	X							1.5			D	FS	S/A	1			*			2300	2300
	REC	NVD RECCE	2301	X	X	X	X						1.5	NS	FS	S/A	2			120				2301
REC SKILL TOTAL								0	0.0	1	1.5	1	1.5											
FCLP	SFCLP	Intro FCLP	2500	X							1.5			D/NS/N*	OS	S	1			*			2500	2500
	FCLP	Day FCLP	2501	X	X								1.0	D	OS	A	1			365			2501	2501
	FCLP	Night FCLP	2502	X	X		X						1.0	N*/NS	OS	A	1			365			2502	2502
FCLP SKILL TOTAL								0	0.0	1	1.5	2	2.0											
SWD	SSWD	Intro Hellfire	2600	X							1.5			D	FS	S/A	1			*			2600	2600
	SSWD	APKWS	2601	X	X		X				1.5			D	RS	S/A	1			180			2601	2601
	SWD	Live Hellfire & 20mm	2602	X	X		X						1.5	(NS)	FS	A	1			730			2602	2602
	SSWD	RKT/Gun Del Prof	2603	X		X					1.5			D/NS	RS	S	1			*				2603
	SWD	RKT/Gun Del Prof	2604	X	X	X							1.5	D	RS	A	1			*				2604
	SWD	Scored RKT Del	2605	X	X	X	X						1.5	D	RS	A	1			180				2605
	SWD	NVD RKT/Gun Del	2606	X									1.5	NS	RS	A	1			*			2606	2606
	SWD	NVD RKT/Gun	2607	X	X	X	X						1.5	NS	RS	A	2			180				2607
	SWD	Moving Target Gunnery	2610	X	X		X						1.5	(NS)	OS	A/S	1			365			2610	2610
SWD SKILL TOTAL								0	0.0	3	4.5	6	9.0											

AH-1W T&R SYLLABUS MATRIX																									
SKILL	STAGE	T&R DESCRIPTION	EVENT NUMBER	ATTAIN			MAINTAIN	ACAD/GRND		SIM		FLIGHT		COND	SEAT	TYPE	# A/C or Sim	NETWORK	NUM-NET	REFLY	EVAL	EOM	MIRROR (Z->W)	EVENT CONV (W->W)
				B	R	SC		#	TIME	#	TIME	#	TIME												
ANSQ	SANSQ	LLL EPs	2700	X		X					1.5			NS	RS	S	1			*				2700
	ANSQ	LLL FAM/Nav	2701	X	X	X	X						2.0	NS	FS	A	1			180				2701
	ANSQ	LLL TERF	2702	X	X		X						1.5	NS	RS	A	2			180			2702	2702
	SANSQ	LLL Ord	2704	X							1.5			NS	RS	S/A	1			*			2704	2704
	ANSQ	LLL Ord	2705	X	X	X	X						1.5	NS	RS	A	2			180				2705
ANSQ SKILL TOTAL								0	0.0	2	3.0	3	5.0											
FAM	FAM	FAM/INST	2800	X	X	X	X						1.5	(NS)	OS	A	1			90				2800
	SFAM	EP Sim	2801	X	X	X	X				1.5			(NS)	OS	S/A	1			90				2801
FAM SKILL TOTAL								0	0.0	1	1.5	1	1.5											
CORE SKILL (2000 Phase) TOTAL								17	17.0	10	15.0	15	23.0											
MISSION SKILL (3000 Phase)																								
ACAD	ACAD	Intel Battlefield	3000	X										(N)		G				*			3000	3000
	ACAD	Problem Framing	3001	X					1.0					(N)		G				*			3001	3001
	ACAD	ROE Planning	3002	X					1.0					(N)		G				*			3002	3002
	ACAD	GCE RAID Planning	3003	X					1.0					(N)		G				*			3003	3003
	ACAD	Execution Checklist	3004	X					1.0					(N)		G				*			3004	3004
	ACAD	Objective Area Plan	3005	X	X		X		1.0					(N)		G				365			3005	3005
	ACAD	NEO Execution	3006	X					1.0					(N)		G				*			3006	3006
	ACAD	Rapid Response Plan	3007	X					1.0					(N)		G				*			3007	3007
	ACAD	(S) RADAR	3008	X					1.0					(N)		G				*			3008	3008
	ACAD	(S) Threat to the MAGTF	3009	X					1.0					(N)		G				*			3009	3009
	ACAD	(S) IR Threat	3010	X	X		X		1.0					(N)		G				365			3010	3010
	ACAD	(S) ADA Threat	3011	X	X		X		1.0					(N)		G				365			3011	3011
	ACAD	(S) Laser Threat	3012	X					1.0					(N)		G				*			3012	3012
	ACAD	(S) EW	3013	X					1.0					(N)		G				*			3013	3013
	ACAD	Escort Tactics	3019	X	X		X		1.0					(N)		G				365			3019	3019
	ACAD	(S) RW OAS	3030	X	X		X		1.0					(N)		G				365			3030	3030
	ACAD	Urban CAS	3031	X	X		X		1.0					(N)		G				365			3031	3031
	ACAD	CCAS	3032	X					1.0					(N)		G				*			3032	3032
	ACAD	CAS Stan	3033	X	X		X		1.0					(N)		G				365			3033	3033
	ACAD	(S) Weaponeering	3034	X					1.0					(N)		G				*			3034	3034
	ACAD	AR and SCAR TTPs	3035	X					1.0					(N)		G				*			3035	3035
	ACAD	(S) Personnel Recovery	3038	X					1.0					(N)		G				*			3038	3038
	ACAD	(S) TRAP	3039	X					1.0					(N)		G				*			3039	3039
	ACAD	JFAC(A) Courseware	3041	X	X		X		1.0					(N)		G				365			3041	3041
	ACAD	FAC(A) TTPs	3042	X										(N)		G				*			3042	3042
	ACAD	HMLA FARP Ops	3045	X					1.0					(N)		G				*			3045	3045
ACAD SKILL TOTAL								24	24.0	0	0.0	0	0.0											
ESC	ESC	ASPT ESC	3100	X									1.5	D	OS	A	2			*			3100	3101
	ESC	NVD ASPT ESC	3101	X	X	X							1.5	NS	OS	A	2			365				3102
	SESC	SIM ASPT ESC	3102	X	X	X	X				1.5			(NS)	OS	S/A	2			365				3100
	ESC	Surface ESC	3103	X	X								1.5	(NS)	OS	A/S	2			1095			3103	3103
	ANSQ	LLL TERF	2702	X	X		X																	
ESC SKILL TOTAL								0	0.0	1	1.5	3	4.5											
CAS	SCAS	Intro CAS	3300	X		X					1.5			D/NS	FS	S	2			*				3300
	CAS	Day CAS	3301	X	X	X	X						1.5	D	FS	A	2			180				3301
	CAS	HLL CAS	3302	X									1.5	NS	FS	A	2			*			3302	3302
	CAS	LLL CAS	3303	X	X	X	X						1.5	NS	OS	A	2			180				3303
	CAS	Urban CAS	3304	X	X		X						1.5	(NS)	OS	A/S	2			365			3304	3304
	ANSQ	LLL Ord Del	2705	X	X	X	X																	
CAS SKILL TOTAL								0	0.0	1	1.5	4	6.0											

AH-1W T&R SYLLABUS MATRIX																										
SKILL	STAGE	T&R DESCRIPTION	EVENT NUMBER	ATTAIN			MAINTAIN	ACAD/GRND		SIM		FLIGHT		COND	SEAT	TYPE	# A/C or Sim	NETWORK	NUM-NET	REFLY	EVAL	EOM	MIRROR (Z->W)	EVENT CONV (W->W)
				B	R	SC		#	TIME	#	TIME	#	TIME												
AR	AR	AR	3305	X	X		X						1.5	(NS)	OS	A/S*	2			365			3305	3305
	SSWD	Hellfire/APKWS	2601	X	X		X																	
	ANSQ	LLL Ord Del	2705	X	X	X	X																	
AR SKILL TOTAL								0	0.0	0	0.0	1	1.5											
AI	AI	AI	3306	X	X	X	X						1.5	(NS)	OS	A/S*	2			365			3306	3306
	SSWD	Hellfire/APKWS	2601	X	X		X																	
	ANSQ	LLL TERF	2702	X	X		X																	
AI SKILL TOTAL								0	0.0	0	0.0	1	1.5											
SCAR	SCAR	SCAR	3307	X	X		X						2.0	(NS)	OS	A/S	2			365			3307	3307
	SSWD	Hellfire/APKWS	2601	X	X		X																	
	ANSQ	LLL Ord Del	2705	X	X	X	X																	
SCAR SKILL TOTAL								0	0.0	0	0.0	1	2.0											
TRAP	TRAP	TRAP	3308	X	X		X						1.5	(NS)	OS	A	2			365			3308	3308
	SESC	SIM ASPT ESC	3102	X	X	X	X																	
	ANSQ	LLL TERF	2702	X	X		X																	
TRAP SKILL TOTAL								0	0.0	0	0.0	1	1.5											
FAC(A)	FAC(A)	IDF Control	3400	X	X		X						1.5	(NS)	FS	A/S*	1			365			3400	3400
	SFAC(A)	RW Control	3401	X	X		X				1.5			(NS)	FS	S/A	2			365			3401	3401
	FAC(A)	FW Control	3402	X	X		X						1.5	D	FS	A/S*	2			365			3402	3402
	FAC(A)	NVD FW Control	3403	X	X		X						1.5	NS	FS	A/S*	2			365			3403	3403
	FAC(A)	Sup Arms	3404	X	X		X						1.5	(NS)	FS	A/S*	2			365			3404	3404
	ANSQ	LLL Ord Del	2705	X	X	X	X																	
FAC(A) SKILL TOTAL								0	0.0	1	1.5	4	6.0											
EXP	EXP	FARP	3600	X									0.0	D	OS	A/S	1			*				3600
	EXP	NVD FARP	3601	X	X	X	X						0.0	NS	OS	A/S	1			180				3601
	EXP	RVL Day	3602	X	X			0	0.0				0.0	D	OS	A/S	1			*				3602
	EXP	RVL NVD	3603	X	X	X	X						0.0	NS	OS	A/S	1			180				3603
	ANSQ	LLL FAM/Nav	2701	X	X	X	X																	
EXP SKILL TOTAL								0	0.0	0	0.0	4	0.0											
MISSION SKILL (3000 Phase) TOTAL								24	24.0	2	3.0	20	24.0											
CORE PLUS (4000 Phase)																								
ACAD	ACAD	(S) Airborne Early Warning	4001	X					1.0					(N)		G				*				4001
	ACAD	Raid Planning	4021	X					1.0					(N)		G				*				4021
	ACAD	Prolem Framing	4022	X					1.0					(N)		G				*				4022
	ACAD	(S) Urban CAS	4023	X					1.0					(N)		G				*				4023
	ACAD	Objective Area Planning	4024	X					1.0					(N)		G				*				4024
	ACAD	ROE Planning	4025	X					1.0					(N)		G				*				4025
	ACAD	(S) RW OAS	4026	X	X		X		1.0					(N)		G				365				4026
	ACAD	AR & SCAR TTPs	4027	X					1.0					(N)		G				*				4027
	ACAD	DACM Planning	4030	X					1.0					(N)		G				*				4030
	ACAD	DACM Parts 1-4	4031	X					1.0					(N)		G				*				4031
	ACAD	DACM RW Brief	4032	X					1.0					(N)		G				*				4032
	ACAD	(S) RW Threat to MAGTF	4033	X					1.0					(N)		G				*				4033
	ACAD	(S) Attack Helo Threat	4034	X					1.0					(N)		G				*				4034
	ACAD	(S) FW Threat to MAGTF	4035	X					1.0					(N)		G				*				4035
	ACAD	(S) FW Threat to RW A/C	4036	X					1.0					(N)		G				*				4036
ACAD SKILL TOTAL								15	15.0	0	0.0	0	0.0											
ESC	ESC	Helo ESC Med/High Threat	4200	X	X		X						1.5	(NS)	OS	A/S	2			730			4200	4200
	ANSQ	LLL TERF	2702	X	X		X																	
ESC SKILL TOTAL								0	0.0	0	0.0	1	1.5											

AH-1W T&R SYLLABUS MATRIX																									
SKILL	STAGE	T&R DESCRIPTION	EVENT NUMBER	ATTAIN			MAINTAIN	ACAD/GRND		SIM		FLIGHT		COND	SEAT	TYPE	# A/C or Sim	NETWORK	NUM-NET	REFLY	EVAL	EOM	MIRROR (Z->W)	EVENT CONV (W->W)
				B	R	SC		#	TIME	#	TIME	#	TIME												
CAS	CAS	CAS Med/High Threat	4201	X	X		X						1.5	(NS)	OS	A/S	2			730			4201	4201
	ANSQ	LLL Ord Del	2705	X	X	X	X																	
CAS SKILL TOTAL								0	0.0	0	0.0	1	1.5											
AR	AR	AR Med/High Threat	4205	X	X		X						1.5	(NS)	OS	A	2			730			4205	4205
	SSWD	Review Hellfire/APKWS	2601	X	X		X																	
	ANSQ	LLL Ord Del	2705	X	X	X	X																	
AR SKILL TOTAL								0	0.0	0	0.0	1	1.5											
AI	AI	AI Med/High Threat	4206	X	X		X						1.5	(NS)	OS	A	2			730			4206	4206
	SSWD	Review Hellfire/APKWS	2601	X	X		X																	
	ANSQ	LLL TERF	2702	X	X		X																	
AI SKILL TOTAL								0	0.0	0	0.0	1	1.5											
SCAR	SCAR	SCAR	4207	X	X		X						1.5	(NS)	OS	A/S	2			730			4207	4207
	SSWD	Review Hellfire/APKWS	2601	X	X		X																	
	ANSQ	LLL Ord Del	2705	X	X	X	X																	
SCAR SKILL TOTAL								0	0.0	0	0.0	1	1.5											
OAAW	OAAW	OAAW	4209	X	X		X						2.0	(NS)	OS	A/S	2			730			4209	4209
	ANSQ	LLL TERF	2702	X	X		X																	
OAAW SKILL TOTAL								0	0.0	0	0.0	1	2.0											
AAD	RWDACM	OWP DACM	4300	X	X		X						1.5	D	OS	A	2			485				4300
	RWDACM	1v1 RW	4301	X		X							1.0	D	RS	A	2			*				4301
	RWDACM	2V1 RW	4302	X									1.0	D	RS	A	2			*				4302
	RWDACM	Rev 1v1/2v1 RW	4303	X	X		X						2.0	D	OS	A	2			485				4303
	ANSQ	LLL TERF	2702	X	X		X																	
AAD SKILL TOTAL								0	0.0	0	0.0	4	5.5											
AAD	FWDACM	1v1 FW	4304	X		X							1.0	D	RS	A	1			*				4304
	FWDACM	2v2 FW	4305	X	X		X						1.0	D	RS	A	2			485				4305
	ANSQ	LLL TERF	2702	X	X		X																	
AAD SKILL TOTAL								0	0.0	0	0.0	2	2.0											
CBRN	SCBRN	CBRN	4400	X	X		X				1.0			D/NS	OS	S/A	1			1095			4400	4400
CBRN SKILL TOTAL								0	0.0	1	1.0	0	0.0											
CQ	CQ	Day CQ	4600	X	X	X							1.0	D	OS	A	1			365				4600
	CQ	NVD CQ	4601	X	X	X	X						1.0	NS	OS	A	1			365				4601
	CQ	Unaided CQ	4602	X	X	X							1.0	N*	OS	A	1			365				4602
	ANSQ	LLL FAM/Nav	2701	X	X	X	X																	
CQ SKILL TOTAL								0	0.0	0	0.0	3	3.0											
CORE PLUS (4000 Phase) TOTAL								15	15.0	1	1.0	15	20.0											

AH-1W T&R SYLLABUS MATRIX																											
SKILL	STAGE	T&R DESCRIPTION	EVENT NUMBER	ATTAIN			MAINTAIN	ACAD/GRND		SIM		FLIGHT		COND	SEAT	TYPE	# A/C or Sim	NETWORK	NUM-NET	REFLY	EVAL	EOM	MIRROR (Z->W)	EVENT CONV (W->W)
				B	R	SC		#	TIME	#	TIME	#	TIME												
INSTRUCTOR TRAINING (5000 Phase)																											
ACAD	ACAD	Training Mngt	5001	X					1.0					(N)		G				*			5001	5001
	ACAD	Inst Philosophy	5002	X					1.0					(N)		G				*			5002	5002
	ACAD	Coach or Umpire	5003	X					1.0					(N)		G				*			5003	5003
	ACAD	Student Trends	5004	X					1.0					(N)		G				*			5004	5004
	ACAD	Briefing/Debriefing	5005	X					1.0					(N)		G				*			5005	5005
	ACAD	H-1 Aerodynamics	5011	X					1.0					(N)		G				*			5011	
	ACAD	How to Write an ATF	5012	X					1.0					(N)		G				*			5012	5012
	ACAD	Insructional Stan	5013	X					1.0					(N)		G				*			5013	5013
	ACAD	Review Lectures	5020	X					1.0					(N)		G				*			5020	5020
	ACAD	IUT presentation	5021	X					1.0					(N)		G				*			5021	5021
	ACAD	Quality X	5022	X					1.0					(N)		G				*			5022	5022
	ACAD	How to Build a Scenario	5023	X					1.0					(N)		G				*			5023	5023
	ACAD	AH-1W IOS	5026	X					1.0					(N)		G				*			5026	
	ACAD	TSI Introduction	5027	X					1.0					(N)		G				*			5027	
	ACAD	Tactical Sim Scenarios	5028	X					1.0					(N)		G				*			5028	
	ACAD	FRSI Course	5060	X					1.0					(N)		G				*			5060	
	ACAD	Fam Lectures	5061	X					1.0					(N)		G				*			5061	
	ACAD	Inst Lectures	5062	X					1.0					(N)		G				*			5062	
	ACAD	Form Lectures	5063	X					1.0					(N)		G				*			5063	
	ACAD	TERF lectures	5064	X					1.0					(N)		G				*			5064	
	ACAD	Nav Lectures	5065	X					1.0					(N)		G				*			5065	
	ACAD	SWD Lectures	5066	X					1.0					(N)		G				*			5066	
ACAD SKILL TOTAL								23	23.0	0	0.0	0	0.0											
BIP	SBIP	EP Stan	5100	X	X	X					1.5			D	OS	S	1			*				5100
	SBIP	FAM/FCLP	5101	X							1.5			D	FS	S/A	1			*			5101	5101
	SBIP	INST	5102	X							1.5			(N*)	FS	S/A	1			*			5102	5102
	BIP	FORM	5103	X									1.5	D	FS	A	2			*			5103	5103
	BIP	FAM	5104	X	X	X							1.5	D	OS	A	1			*				5104
BIP SKILL TOTAL								0	0.0	3	4.5	2	3.0											
TERFI	STERFI	TERF	5110	X							1.5			D	OS	S/A	1			*			5110	5110
	TERFI	TERF Nav	5111	X	X								1.5	D	OS	A	2			*			5111	5111
TERFI SKILL TOTAL								0	0.0	1	1.5	1	1.5											
WTO	SWTO	Rkt/Gun/Sys	5200	X	X	X					1.5			D	FS	S	1			*				5200
	SWTO	R/S Ord Del	5201	X							1.5			D	RS	S/A	1			*			5201	5201
	WTO	F/S Ord Del IUT Tech	5202	X									1.5	D	FS	A	2			*			5202	5202
	WTO	R/S Ord Del IUT Tech	5203	X	X	X							1.5	D	RS	A	2			*				5203
WTO SKILL TOTAL								0	0.0	2	3.0	2	3.0											
TSI	STSI	Review sIM Operation	5210	X	X						1.5			D		S	1			*				5210
	STSI	Evaluation	5211	X							1.5			D		S	1			*				5211
TSI SKILL TOTAL										2	3.0													
CSI	SCSI	EP & FAM Stan	5300	X	X		X				1.5			D	OS	S	1			365			5300	5300
	SCSI	INST Stan	5301	X	X		X				1.5			(N*)	RS	S	1			365			5301	5301
	SCSI	Sys/ASE Rev	5302	X	X		X				1.5			D	RS	S	1			365			5302	5302
	SCSI	Rev Ord Delivery	5303	X	X		X				1.5			D	RS	S	1			365			5303	5303
CSI SKILL TOTAL								0	0.0	4	6.0	0	0.0											
FAC(A)I	FAC(A)I	FAC(A)I Sim	5400	X									1.5	(NS)	OS	S	1			*			5400	
	FAC(A)I	FAC(A)I UT	5401	X									1.5	(NS)	OS	A	2			*			5401	5400
	FAC(A)I	FAC(A)I Check	5402	X	X								1.5	(NS)	OS	A	2			*			5402	5401
FAC(A)I SKILL TOTAL								0	0.0	0	0.0	2	3.0											

AH-1W T&R SYLLABUS MATRIX																									
SKILL	STAGE	T&R DESCRIPTION	EVENT NUMBER	ATTAIN			MAINTAIN	ACAD/GRND		SIM		FLIGHT		COND	SEAT	TYPE	# A/C or Sim	NETWORK	NUM-NET	REFLY	EVAL	EOM	MIRROR (Z->W)	EVENT CONV (W->W)
				B	R	SC		#	TIME	#	TIME	#	TIME											
DACMI	DACMI	1v1 & 2v1 RW	5800	X									1.5	D	OS	A	2			*			5800	5800
	DACMI	1v1 & 2v1 FW	5801	X									1.5	D	OS	A	2			*			5801	5801
	DACMI	1v1 &2v1 RW Eval	5802	X	X								1.5	D	OS	A	2			*			5802	5802
	DACMI	1v1 & 2v1 FW Eval	5803	X	X								1.5	D	OS	A	2			*			5803	5803
DACMI SKILL TOTAL								0	0.0	0	0.0	4	6.0											
NSI	NSI	EPs & FAM Stan	5900	X		X							1.0	NS	OS	A/S	1			*				5900
	NSI	NVD Nav	5901	X									1.0	NS	OS	A	1			*			5901	5901
	NSI	Ord Del Low Threat	5902	X									1.5	NS	OS	A	2			*			5902	5902
	NSI	Ord Del Med/High Threat	5903	X		X							1.5	NS	OS	A	2			*				5903
	SNSI	NSI Stan Sim	5904	X	X						1.5			NS	OS	S	1			*			5904	5904
	NSI	NSI Check	5905	X	X								2.0	NS	OS	A	2			*			5905	5905
NSI SKILL TOTAL								0	0.0	1	1.5	5	7.0											
FLSE	FLSE	LSE EVAL	5920	X	X								2.0	(NS)	OS	A	1+			*				5920
	FLSE	FLSE QTRLY TRAINING	5921	X	X	X			0.0					(N)		G				90				5921
FLSE SKILL TOTAL								1	0.0	0	0.0	1	2.0											
REQUIREMENTS, CERTIFICATIONS, DESIGNATIONS, AND QUALIFICATIONS (6000 Phase)																								
INST	INST	INST Grd Sch	6000	X	X	X	X		8.0					(N)		G				365		X	6000	6000
	INST	INST Exam	6001	X	X	X	X		1.0					(N)		G				365	X	X	6001	6001
	INST	INST Check	6100	X	X	X	X				1.5			(N)		S/A	1			365	X	X	6100	6100
INST SKILL TOTAL								2	9.0	1	1.5													
NTPS	NTPS	NATOPS-Open	6002	X	X	X	X		1.5					(N)		G				365	X	X		6002
	NTPS	NATOPS-Closed	6003	X	X	X	X		1.0					(N)		G				365	X	X		6003
	NTPS	NATOPS-Oral	6004	X	X	X	X		1.0					(N)		G				365	X	X		6004
	NTPS	NATOPS Check	6101	X	X	X	X						1.5	(N)		A/S	1			365	X	X		6101
NTPS SKILL TOTAL								3	3.5	0	0.0	1	1.5											
CRM	CRM	CRM	6005	X	X	X	X		1.0					(N)		G				365		X		6005
	CRM	CRM Eval	6102	X	X	X	X						0.1	(N)		A	1			365	X	X		3102
CRM SKILL TOTAL								1	1.0	0	0.0	1	0.1											
FCP	FCP	FCP-Open	6006	X					1.0					(N)		G				*	X		6006	6006
	FCP	FCP-Closed	6007	X					1.0					(N)		G				*	X		6007	6007
	SFCP	Demo FCF	6200	X	X	X					1.5			D	OS	S	1			*				6200
	SFCP	Intro FCF	6201	X							1.5			D	RS	S	1			*			6201	6201
	FCP	Conduct FCF	6202	X									1.5	D	OS	A	1			*			6202	6202
	FCP	Rev FCF	6203	X									1.5	D	OS	A	1			*			6203	6203
	FCP	Main/Tailrotor Track	6204	X		X							1.5	D	RS	A	1			*				6204
	FCP	FCP Eval	6205	X	X	X							1.5	D	RS	A	1			*	X			6205
FCP SKILL TOTAL								2	2.0	2	3.0	4	6.0											
ACAD	ACAD	Prep BattleField	6040	X					1.0					(N)		G				*			6040	6040
	ACAD	(S) MAGTF Targeting	6041	X	X				1.0					(N)		G				365			6041	6041
	ACAD	JTAC Aircrew Integration	6042	X					1.0					(N)		G				*			6042	6042
	ACAD	Review ROE	6050	X					1.0					(N)		G				*			6050	6050
	ACAD	Review Objective Area	6051	X	X				1.0					(N)		G				365			6051	6051
	ACAD	Review (S) Weaponeering	6052	X					1.0					(N)		G				*			6052	6052
	ACAD	Review TRAP TTPs	6060	X					1.0					(N)		G				*			6060	6060
	ACAD	Review Exection Checklist	6061	X					1.0					(N)		G				*			6061	6061
	ACAD	Rapid Response Planning	6070	X					1.0					(N)		G				*				
	ACAD	Air Mission Commander	6071	X					1.0					(N)		G				*				
	ACAD	NEO Execution	6072	X					1.0					(N)		G				*				
ACAD SKILL TOTAL								5	5.0	0	0.0	0	0.0											
DESG	DESG	PQM Eval	6300	X		X							0.0	D	RS	A	1			*	X	X		6300
	DESG	AHC Eval	6398	X	X	X							1.5	(NS)	RS	A	1			*	X	X		6398
DESG SKILL TOTAL								0	0.0	0	0.0	2	1.5											
SL	SL	Sec Ldr Day	6400	X									1.5	D	OS	A	2			*			6400	6400
	SL	NS Sec Ldr	6401	X									1.5	NS	OS	A	2			*			6401	6401
	SL	Sec Ldr Eval	6498	X	X								1.5	(NS)	OS	A	2			*	X		6498	6498

AH-1W T&R SYLLABUS MATRIX																										
SKILL	STAGE	T&R DESCRIPTION	EVENT NUMBER	ATTAIN			MAINTAIN	ACAD/GRND		SIM		FLIGHT		COND	SEAT	TYPE	# A/C or Sim	NETWORK	NUM-NET	REFLY	EVAL	EOM	MIRROR (Z->W)	EVENT CONV (W->W)
				B	R	SC		#	TIME	#	TIME	#	TIME												
SL SKILL TOTAL								0	0.0	0	0.0	3	4.5												
DL	DL	Div Ldr Day	6500	X									1.5	D	OS	A	3			*			6500	6500
	DL	NS Div Ldr	6501	X									1.5	NS	OS	A	3			*			6501	6501
	DL	Div Ldr Eval	6598	X	X								1.5	(NS)	OS	A	3			*	X		6598	6598
DL SKILL TOTAL								0	0.0	0	0.0	3	4.5												
FL	FL	Flt Ldr Eval	6698	X	X								1.5	(NS)	OS	A	5			*	X		6698	6698
FL SKILL TOTAL								0	0.0	0	0.0	1	1.5												
AMC	AMC	AMC Eval	6798	X	X								1.5	(NS)	OS	A	1			*	X		6798	6798
AMC SKILL TOTAL								0	0.0	0	0.0	1	1.5												
SOTC	SOTC	Illum Rkt	6900	X	X								0.0	NS	OS	A	1			*			6900	6900
	SOTC	Guided Rkt Prof	6901	X	X								0.0	(NS)	OS	A	1			*			6901	6901
	SOTC	Flechette Rkt	6902	X	X								0.0	(NS)	OS	A	1			*			6902	6902
	SOTC	Hellfire Prof	6904	X	X								0.0	(NS)	OS	A	1			*			6904	6904
	SOTC	AIM-9 Prof	6905	X	X								0.0	(NS)	OS	A	1			*			6905	6905
	SOTC	FAC(A) Standardization	6906	X	X								0.0	(NS)	OS	A/S	1			730			6906	6906
	SOTC	APKWS	6907	X	X								0.0	(NS)	OS	A/S	1			*			6907	
SOTC SKILL TOTAL								0	0.0	0	0.0	7	0.0												
AUTOTRK	AUTOTRK	Day Auto	6998	X	X	X							0.1	D		A	1			*				6998
	AUTOTRK	Night Auto	6999	X	X	X							0.1	N		A	1			*				6999
AUTOTRK SKILL TOTAL								0	0.0	0	0.0	2	0.2												
MET	MET	EXP	7000	X	X		X						1.5	(NS)	OS	A	2+			730				NEW
	MET	CAS	7002	X	X		X						1.5	(NS)	OS	A	2+			730				NEW
	MET	AI	7003	X	X		X						1.5	(NS)	OS	A	2+			730				NEW
	MET	AR	7004	X	X		X						1.5	(NS)	OS	A	2+			730				NEW
	MET	SCAR	7005	X	X		X						1.5	(NS)	OS	A	2+			730				NEW
	MET	FAC(A)	7006	X	X		X						1.5	(NS)	OS	A	2+			730				NEW
	MET	TRAP	7009	X	X		X						1.5	(NS)	OS	A	2+			730				NEW
	MET	AE	7010	X	X		X						1.5	(NS)	OS	A	2+			730				NEW
	MET	SEA	7012	X	X		X						1.5	(NS)	OS	A	2+			730				NEW
	MET	OAAW	7013	X	X		X						1.5	(NS)	OS	A	2+			730				NEW
	MET	AAD	7016	X	X		X						1.5	(NS)	OS	A	2+			730				NEW
MET SKILL TOTAL								0	0.0	0	0.0	16	16.5												

AH-1W T&R SYLLABUS MATRIX																									
SKILL	STAGE	T&R DESCRIPTION	EVENT NUMBER	ATTAIN			MAINTAIN	ACAD/GRND		SIM		FLIGHT		COND	SEAT	TYPE	# A/C or Sim	NETWORK	NUM-NET	REFLY	EVAL	EOM	MIRROR (Z->W)	EVENT CONV (W->W)
				B	R	SC		#	TIME	#	TIME	#	TIME												
ACPM (8000 Phase)																									
	ACPM	MACCS	8200	X					0.5					(N)		G				*			8200	8200
	ACPM	MWCS BRIEF	8201	X					0.5					(N)		G				*			8201	8201
	ACPM	ACA AND AIRSPACE	8202	X					0.8					(N)		G				*			8202	8202
	ACPM	AVIATION GROUND	8210	X					0.7					(N)		G				*			8210	8210
	ACPM	ACE BATTLESTAFF	8230	X					1.0					(N)		G				*			8230	8230
	ACPM	BATTLE COMMAND	8231	X					1.0					(N)		G				*			8231	8231
	ACPM	SIX FUNCTIONS	8240	X					1.7					(N)		G				*			8240	8240
	ACPM	ASR/JTAR INTRO	8241	X					1.3					(N)		G				*			8241	8241
	ACPM	SITE COMMAND	8242	X					1.0					(N)		G				*			8242	8242
	ACPM	THEATER AIR GROUND	8250	X					0.9					(N)		G				*			8250	8250
	ACPM	AIR DEFENSE	8300	X					0.9					(N)		G				*			8300	8300
	ACPM	FORWFARP	8310	X					0.8					(N)		G				*			8310	8310
	ACPM	MARINE TFS	8311	X										(N)		G				*				
ACPM	ACPM	JOINT AIR TASKING 1	8321	X					0.4					(N)		G				*			8321	8321
	ACPM	JOINT AIR TASKING 2	8322	X					0.4					(N)		G				*			8322	8322
	ACPM	JOINT AIR TASKING 3	8323	X					0.4					(N)		G				*			8323	8323
	ACPM	JOINT AIR TASKING 4	8324	X					0.4					(N)		G				*			8324	8324
	ACPM	JOINT AIR TASKING 5	8325	X					0.4					(N)		G				*			8325	8325
	ACPM	JOINT AIR TASKING 6	8326	X					0.4					(N)		G				*			8326	8326
	ACPM	FIRES AND AIRSPACE	8340	X					0.5					(N)		G				*			8340	8340
	ACPM	PHASING CONTROL	8350	X					0.9					(N)		G				*			8350	8350
	ACPM	TACRON	8351	X					1.0					(N)		G				*			8351	8351
	ACPM	ESG/CSG INTEGRATION	8620	X					1.0					(N)		G				*			8620	8620
	ACPM	TACC	8630	X					1.0					(N)		G				*			8630	8630
	ACPM	JOINT DATA	8640	X					0.9					(N)		G				*			8640	8640
	ACPM	MAGTF THEATER	8641	X					1.3					(N)		G				*			8641	8641
	ACPM	JOINT OPS INTRO	8660	X					0.5					(N)		G				*			8660	8660
ACPM SKILL TOTAL								26	20.6	0	0.0	0	0.0											

2.23 PREREQUISITE AND CHAINING MATRIX

AH-1W PREREQUISITE AND CHAINING MATRIX							
SKILL	STAGE	T&R DESCRIPTION	EVENT NUMBER	PREREQUISITE	PREREQUISITE NOTES	CHAINING	CHAINING NOTES
CORE SKILL (2000 Phase)							
TERF	TERF	Rev TERF	2100	2012			
	TERF	Rev NVD TERF	2101	2013,2014,2015,2016,2017,2018,2019,2020,2100		2100	
TCT	STCT	Intro ASE RADAR/IR	2200	2021, 2023			
	STCT	Tactical ASE Employ	2201	2200	2101~NS, 2100~AC		
REC	SREC	Intro Day RECCE	2300	2011	2100~AC		
	REC	Intro NVD RECCE	2301	2101,2300		2100,2101	
FCLP	SFCLP	Intro FCLP	2500				
	FCLP	Day FCLP	2501	2500			
	FCLP	Night FCLP	2502	2501		2501	
SWD	SSWD	Intro Hellfire	2600	2063,2064,2066,2067,2300	2100~AC		
	SSWD	Review Hellfire/Intro APKWS	2601	2600	2100~AC		
	SWD	Live Hellfire & 20mm	2602	2100,2601	2301~NS,2101~NS		2301~NS
	SSWD	RKT/Gun Del Prof	2603	2200,2301			
	SWD	RKT/Gun Del Prof	2604	2100,2603			
	SWD	Scored RKT Del	2605	2604		2604	
	SWD	NVD RKT/Gun Del	2606	2101,2604		2301	
	SWD	Refine NVD RKT/Gun	2607	2606		2301	
	SWD	Moving Target Gunnery	2610	2603	2607~NS,2705~LLL		2607~NS,2705~LLL
ANSQ	SANSQ	NVD LLL EPs	2700	NSQ			
	ANSQ	NVD LLL FAM/Nav	2701	2700			
	ANSQ	NVD LLL TACFORM/TERF	2702	2701		2701	
	SANSQ	Intro NVD LLL Ord	2704	NSQ	2702~AC		
	ANSQ	Rev NVD LLL Ord Del	2705	2702,2704		2301,2607,2701,2702	
FAM	FAM	FAM/INST Proficiency	2800	1901			2701~LLL
	SFAM	EP Simulator	2801	1901			
MISSION SKILLS (3000 Phase)							
ESC	ESC	ASPT ESC	3100	3008,3009,2603	2604~ORD		2600~ORD
	ESC	NVD ASPT ESC	3101	3010,3011,3100,NSQ~NS,ANSQ~LLL		2301	2600~ORD, 2607~ORD NS, 2705~ORD LLL
	SESC	SIM ASPT ESC	3102	3003,3004,3005,3019,3101		2201,2601,2602,3101	
	ESC	Surface ESC	3103	2603,NS~NSQ,LLL~ANSQ			2602~ORD, 2607~ORD NS, 2705~ORD LLL.2301~NS,2702~LLL,
	ANSQ	NVD LLL TACFORM/TERF	2702				
CAS	SCAS	Intro CAS	3300	3030,3031,3032,3033,2600,2704		2600,2601,2602	
	CAS	Intro Day CAS	3301	3300		2601,2602	
	CAS	Intro NVD CAS HLL	3302	3301,NSQ		2301,2601,2602,2607,3301	
	CAS	Intro NVD CAS LLL	3303	3302,ANSQ		2301,2601,2602,2607,2705,3301,3302	
	CAS	Intro Urban CAS	3304	3301,NSQ~NS,ANSQ~LLL		2601,2602,3301	2301~NS,2607~ORD NS,3303-LLL,2705 ORD LLL
	ANSQ	Rev NVD LLL Ord Del	2705				
AR	AR	Armed Recon	3305	3030,3035,ANSQ		2601,2602	2607~ORD NS, 2705~ORD LLL, NS~2301,
	SSWD	Review Hellfire/Intro APKWS	2601				
	ANSQ	Rev NVD LLL Ord Del	2705				
AI	AI	Aerial Interdiction	3306	3030,ANSQ		2601,2602	2607~ORD NS, 2705~ORD LLL, NS~2301
	SSWD	Review Hellfire/Intro APKWS	2601				
	ANSQ	NVD LLL TACFORM/TERF	2702				
SCAR	SCAR	SCAR	3307	3030,3035,ANSQ,3305		2601,2602	2607~ORD NS, 2705~ORD LLL, NS~2301
	SSWD	Review Hellfire/Intro APKWS	2601				
	ANSQ	Rev NVD LLL Ord Del	2705				
TRAP	TRAP	TRAP	3308	3038,3039,ANSQ,3100	3101~NS	2601,2602	2607~ORD NS, 2705~ORD LLL, NS~2301
	SESC	SIM ASPT ESC	3102				
	ANSQ	NVD LLL TACFORM/TERF	2702				

AH-1W PREREQUISITE AND CHAINING MATRIX							
SKILL	STAGE	T&R DESCRIPTION	EVENT NUMBER	PREREQUISITE	PREREQUISITE NOTES	CHAINING	CHAINING NOTES
FAC(A)	FAC(A)	IDF Control	3400	3041,3042,6300		NS~2301	
	FAC(A)	RW Control	3401	3041,3042,6398		3301,NS~2301,LLL~3303	
	FAC(A)	FW Control	3402	3041,3042,6398		3301	
	FAC(A)	NVD FW Control	3403	3041,3042,6398		3301,3402,NS~2301,LLL~3303	
	FAC(A)	Sup Arms Consolidate	3404	3400,3401,3402	3403~NS	3301,3402,NS~2301,NS~3403,LLL~3303	
	ANSQ	Rev NVD LLL Ord Del	2705				
EXP	EXP	EXP (FARP) Ops	3600	3045,8310,8311,2100			
	EXP	EXP (FARP) Ops NVD	3601	3045,8310,8311,2101	2701~LLL	3600	LLL~2701
	EXP	EXP RVL Day	3602	2100			
	EXP	EXP RVL NVD	3603	2101	2701~LLL	3602	LLL~2701
	ANSQ	NVD LLL FAM/Nav	2701				
CORE PLUS (4000 Phase)							
ESC	ESC	Helo ESC Med/High Threat	4200	6498			
	ANSQ	NVD LLL TACFORM/TERF	2702				
CAS	CAS	CAS Med/High Threat	4201	6498			
	ANSQ	Rev NVD LLL Ord Del	2705				
AR	AR	AR Med/High Threat	4205	6498			
	SSWD	Review Hellfire/Intro APKWS	2601				
	ANSQ	Rev NVD LLL Ord Del	2705				
AI	AI	AI Med/High Threat	4206	6498			
	SSWD	Review Hellfire/Intro APKWS	2601				
	ANSQ	NVD LLL TACFORM/TERF	2702				
SCAR	SCAR	SCAR	4207	6498			
	SSWD	Review Hellfire/Intro APKWS	2601				
	ANSQ	Rev NVD LLL Ord Del	2705				
OAAW	OAAW	OAAW	4209	8300,4206,4207			
	ANSQ	NVD LLL TACFORM/TERF	2702				
AAD	RWDACM	OWP DACM	4300	2603			
	RWDACM	1v1 RW	4301	TERF,2201,2300,2603			
	RWDACM	2V1 RW	4302	4301			
	RWDACM	Rev 1v1/2v1 RW	4303	3013,4030,4031,4032,4033,4034,4302			
	ANSQ	NVD LLL TACFORM/TERF	2702				
AAD	FWDACM	1v1 FW	4304	TERF,2201,2300,2603			
	FWDACM	2v2 FW	4305	4030,4031,4032,4035,4036,4304			
	ANSQ	NVD LLL TACFORM/TERF	2702				
CBRN	SCBRN	CBRN	4400		2101~AC		
CQ	CQ	Day CQ	4600	2501		2501	
	CQ	NVD CQ	4601	NSQ,2502,4600		2501,2502,4600,4602	
	CQ	Unaided CQ	4602	2502,4600		2501,2502,4600	
	ANSQ	NVD LLL FAM/Nav	2701				
INSTRUCTOR TRAINING (5000 Phase)							
BIP	SBIP	EP Stan	5100	6398		2801	
	SBIP	FAM/FCLP Maneuvers	5101	5100		2500,2801	
	SBIP	INST Rev	5102	5100		2801	
	BIP	IUT FORM Flt Rev	5103	5100			
	BIP	FAM Maneuvers Rev	5104	5101,5102,5103		2800	
TERFI	STERFI	TERF Maneuvers	5110	5011,5012,5013,5104			
	TERFI	TERF Nav	5111	5110		2100	
WTO	SWTO	Rkt/Gun/Sys Rev	5200	5111		2600	
	SWTO	R/S Ord Del Rev	5201	5200		2200,2603	
	WTO	F/S Ord Del IUT Tech	5202	5201			
	WTO	R/S Ord Del IUT Tech	5203	5202		2604	

AH-1W PREREQUISITE AND CHAINING MATRIX							
SKILL	STAGE	T&R DESCRIPTION	EVENT NUMBER	PREREQUISITE	PREREQUISITE NOTES	CHAINING	CHAINING NOTES
TSI	STSI	Review SIM operation	5210	5026	In BIP Syllabus		
	STSI	Eval	5211	5210			
CSI	SCSI	EP & FAM Stan	5300	Candidate CSI			
	SCSI	INST Stan	5301	Candidate CSI			
	SCSI	Sys/ASE Rev	5302	Candidate CSI			
	SCSI	Rev Ord Delivery	5303	Candidate CSI			
FAC(A)I	FAC(A)I	FAC(A)I Sim	5400	IAW MAWTS-1 Course Catalog			
	FAC(A)I	FAC(A)I UT	5401	IAW MAWTS-1 Course Catalog			
	FAC(A)I	FAC(A)I Check	5402	5401			
DACMI	DACMI	1v1 & 2v1 RW	5800	IAW MAWTS-1 Course Catalog		4300,4301,4302,4303	
	DACMI	1v1 & 2v1 FW	5801	IAW MAWTS-1 Course Catalog		4304,4305	
	DACMI	1v1 &2v1 RW Eval	5802	5800		4303	
	DACMI	1v1 & 2v1 FW Eval	5803	5801		4304,4305	
NSI	NSI	EPs & FAM Stan	5900	IAW MAWTS-1 Course Catalog		2101,2700,2701,2800,2801	
	NSI	NVD Nav	5901	IAW MAWTS-1 Course Catalog		2101,2700,2701,2800,2801	
	NSI	TACFORM/Ord Del Low Threat	5902	IAW MAWTS-1 Course Catalog		2201,2301,2607,2700,2701,2705,2800,2801	
	NSI	TACFORM/Ord Del Med/High Threat	5903	IAW MAWTS-1 Course Catalog		2101,2201,2301,2607,2700,2701,2705	
	NSI	NSI Standization Sim	5904	5900,5901,5902,5903		2101,2201,2301,2607,2700,2701,2705	
	NSI	NSI Check	5905	5904		2101,2201,2301,2607,2700,2701,2705,2800,2801	
REQUIREMENTS, CERTIFICATIONS, DESIGNATIONS, AND QUALIFICATIONS (6000 Phase)							
INST	INST	INST Grd Sch	6000				
	INST	INST Grd Sch Exam	6001	6000			
	INST	Annual INST Check	6100	6000,6001			
NTPS	NTPS	Open Book NATOPS	6002				
	NTPS	Closed Book NATOPS	6003				
	NTPS	Oral NATOPS	6004				
	NTPS	NATOPS Check	6101	6002,6003,6004		2800	
CRM	CRM	Crew Resource Mngt	6005				
	CRM	CRM Eval	6102				
FCP	FCP	FCP Open Book Exam	6006				
	FCP	FCP Closed Book Exam	6007				
	SFCP	Demo FCF Procedures	6200	6300		2801	
	FCP	Intro FCF Procedures	6201	6200			
	FCP	Conduct FCF	6202	6201			
	FCP	Rev FCF Procedures	6203	6202			
	FCP	Main/Tailrotor Track	6204	6200			
	FCP	FCP Eval	6205	6006,6007,6200,6201,6202,6203,6204			
DESG	DESG	PQM Eval	6300	1901			
	DESG	AHC Eval	6398	8300,8310,8321,8322,8323,8324,8325,8326,8340,8350,8351,6300,Core and Mission Skills Complete			
SL	SL	Sec Ldr Day	6400	6398			2603~ORD
	SL	Night Sec Ldr	6401	6398		2702	2607~ORD NS,2705~ORD LLL
	SL	Sec Ldr Eval	6498	8630,8660,6400,6401			2607~ORD NS, 2705~ORD , NS~2702
DL	DL	Div Ldr Day	6500	6498			2601~ORD, 2603~ORD
	DL	Div Ldr Night	6501	6498		2702	2601~ORD,2603~ORD, 2607~ORD NS, 2705~ORD LLL
	DL	Div Ldr Eval	6598	8640,8641,6500,6501			2601~ORD,2603~ORD, 2607~ORD NS, 2705~ORD LLL
FL	FL	Flt Ldr Eval	6698	6598			2702~NS, 2601,2603~ORD,2607~ORD NS,2705~ORD LLL
AMC	AMC	AMC Eval	6798	6070,6071,6598			

AH-1W PREREQUISITE AND CHAINING MATRIX							
SKILL	STAGE	T&R DESCRIPTION	EVENT NUMBER	PREREQUISITE	PREREQUISITE NOTES	CHAINING	CHAINING NOTES
6000 SOTC	SOTC	Illum Rkt	6900				
	SOTC	Guided Rkt Prof	6901				
	SOTC	Flechette Rkt	6902				
	SOTC	JAGM Prof	6903				
	SOTC	Hellfire Prof	6904				
	SOTC	AIM-9 Prof	6905				
	SOTC	FAC(A) Standardization	6906				
6000 AUTOTRK	AUTOTRK	Day Auto Rotation	6998				
	AUTOTRK	Night Auto Rotation	6999				

2.24 ORDNANCE AND RANGE MATRIX

AH-1W ORDNANCE AND RANGE MATRIX						
SKILL	STAGE	T&R DESCRIPTION	EVENT NUMBER	ORDNANCE	ORDNANCE NOTES	RANGE
CORE SKILLS (2000 Phase)						
TERF	TERF	Rev TERF	2100			Authorized TERF route
	TERF	Rev NVD TERF	2101			Authorized TERF route
TCT	STCT	Intro ASE RADAR/IR	2200			
	STCT	Tactical ASE Employ	2201	(1) Captive HF, (60) Chaff/Flares	~AC	
REC	SREC	Intro Day RECCE	2300			Authorized TERF area, LASER safe range
	REC	Intro NVD RECCE	2301			Authorized TERF area, LASER safe range
FCLP	SFCLP	Intro FCLP	2500			
	FCLP	Day FCLP	2501			
	FCLP	Night FCLP	2502			
SWD	SSWD	Intro Hellfire	2600	(1) Captive HF ~AC		LASER safe range
	SSWD	Review Hellfire/Intro APKWS	2601	(1) Captive HF, (2) 2.75" APKWS, (300) 20mm ~AC		Live fire and LASER safe range
	SWD	Live Hellfire & 20mm	2602	(1) Live HF, (400) 20mm		Live fire and LASER safe range. Thermally significant targets
	SSWD	RKT/Gun Del Prof	2603			
	SWD	RKT/Gun Del Prof	2604	(7) 2.75" rockets, (300) 20mm		Live fire and LASER safe range
	SWD	Scored RKT Del	2605	(19) 2.75 rockets, (300) 20mm		Scored, live fire and LASER safe range
	SWD	NVD RKT/Gun Del	2606	(7) 2.75" rockets, (300) 20mm, (60) chaff/flare		Live fire and LASER safe range. Thermally significant targets
	SWD	Refine NVD RKT/Gun	2607	(7) 2.75" rockets, (300) 20mm, (60) chaff/flare		Live fire and LASER safe range. Thermally significant targets
	SWD	Moving Target Gunnery	2610	(7) 2.75" rockets, (500) 20mm		Live fire and LASER safe range. Moving target or one aircraft for shadow
ANSQ	SANSQ	NVD LLL EPs	2700			
	ANSQ	NVD LLL FAM/Nav	2701			
	ANSQ	NVD LLL TACFORM/TERF	2702			Authorized TERF area
	SANSQ	Intro NVD LLL Ord	2704			Live fire and LASER safe range. Thermally significant targets
	ANSQ	Rev NVD LLL Ord Del	2705	(7) 2.75" rockets, (500) 20mm, (60) chaff/flare		Live fire and LASER safe range. Thermally significant targets
MISSION SKILLS (3000 Phase)						
ESC	ESC	ASPT ESC	3100	(1) Captive PGM, (1) CATM-9, (7) 2.75 inch rockets, (300) 20mm, (60) chaff/flare		Live fire and LASER safe range. Thermally significant targets
	ESC	NVD ASPT ESC	3101	(1) Captive PGM, (1) CATM-9, (7) 2.75 inch rockets, (300) 20mm, (60) chaff/flare		Live fire and LASER safe range. Thermally significant targets
	SESC	SIM ASPT ESC	3102	(1) Captive PGM, (1) CATM-9, (7) 2.75 inch rockets, (300) 20mm, (60) chaff/flare		Live fire and LASER safe range. One or more assault support aircraft~AC
	ESC	Surface ESC	3103	(1) Captive PGM, (7) 2.75" rockets, (300) 20mm, (60) chaff/flare		Live fire and LASER safe range. One ground/amphibious unit (minimum three vehicles)
CAS	SCAS	Intro CAS	3300			
	CAS	Intro Day CAS	3301	(1) Captive PGM, (7) 2.75" rockets, (200) 20mm, (60) chaff/flare		Live fire and LASER safe range. Thermally significant targets
	CAS	Intro NVD CAS HLL	3302	(1) Captive PGM, (7) 2.75" rockets, (500) 20mm, (60) chaff/flare		Live fire and LASER safe range. Thermally significant targets
	CAS	Intro NVD CAS LLL	3303	(1) Captive PGM, (7) 2.75" rockets, (500) 20mm, (60) chaff/flare		Live fire and LASER safe range. Thermally significant targets
	CAS	Intro Urban CAS	3304	(1) Captive PGM, (7) 2.75" rockets, (300) 20mm, (60) chaff/flare		Live fire and LASER safe range, suitable urban environment or MOUT facility
AR	AR	Armed Recon	3305	(1) Captive PGM, (7) 2.75" rockets, (500) 20mm, (60) chaff/flare		Live fire and LASER safe range. Thermally significant targets
AI	AI	Aerial Interdiction	3306	(1) Captive PGM, (7) 2.75" rockets, (300) 20mm, (60) chaff/flare		Live fire and LASER safe range. Thermally significant targets
SCAR	SCAR	SCAR	3307	(1) Captive PGM, (7) 2.75" rockets, (300) 20mm, (60) chaff/flare		Live fire and LASER safe range
TRAP	TRAP	TRAP	3308	(1) Captive PGM, (7) 2.75" rockets, (300) 20mm, (60) chaff/flare		Live fire and LASER safe range. Thermally significant targets
FAC(A)	FAC(A)	IDF Control	3400	(1) Captive PGM, (7) 2.75" rockets, (300) 20mm, (60) chaff/flare		Live fire and LASER safe range with thermally significant targets, if available
	FAC(A)	RW Control	3401	(1) Captive PGM, (7) 2.75" RP rockets, (300) 20mm		Live fire and LASER safe range with thermally significant targets, if available
	FAC(A)	FW Control	3402	(1) Captive PGM, (7) 2.75" RP rockets, (300) 20mm		Live fire and LASER safe range with thermally significant targets, if available
	FAC(A)	NVD FW Control	3403	(1) Captive PGM, (7) 2.75" RP rockets, (300) 20mm		Live fire and LASER safe range with thermally significant targets, if available
	FAC(A)	Sup Arms Consolidate	3404	(1) Captive PGM, (7) 2.75" RP rockets, (300) 20mm		Live fire and LASER safe range with thermally significant targets, if available
CORE PLUS (4000 Phase)						
ESC	ESC	Helo ESC Med/High Threat	4200	(1) Captive PGM, (7) 2.75" rockets, (300) 20mm, (60) chaff/flare		Live fire and LASER safe range with thermally significant targets, if available
CAS	CAS	CAS Med/High Threat	4201	(1) Captive PGM, (7) 2.75" rockets, (200) 20mm, (60) chaff/flare		Live fire and LASER safe range with thermally significant targets, if available
AR	AR	AR Med/High Threat	4205	(1) captive PGM, (7) 2.75 inch rockets, (300) rounds 20mm, (60) chaff/flares		Live fire and LASER safe range with thermally significant targets, if available
AI	AI	AI Med/High Threat	4206	(1) captive PGM, (7) 2.75 inch rockets, (300) rounds 20mm, (60) chaff/flares		Live fire and LASER safe range with thermally significant targets, if available
SCAR	SCAR	SCAR	4207	(1) captive PGM, (7) 2.75 inch rockets, (200) rounds 20mm, (60) chaff/flares		Live fire and LASER safe range with thermally significant targets, if available
OAAW	OAAW	OAAW	4209	(1) captive PGM		Live fire and LASER safe range

AH-1W ORDNANCE AND RANGE MATRIX						
SKILL	STAGE	T&R DESCRIPTION	EVENT NUMBER	ORDNANCE	ORDNANCE NOTES	RANGE
AAD	RWDACM	OWP DACM	4300	(1) CATM-9,(30) flares		Authorized TERF area
	RWDACM	1v1 RW	4301	(1) CATM-9, (30) flares and TCTS pod (as required)		Appropriate air-to-air training area
	RWDACM	2V1 RW	4302	(1) CATM-9, (30) flares and TCTS pod (as required)		Appropriate air-to-air training area
	RWDACM	Rev 1v1/2v1 RW	4303	(1) CATM-9, (30) flares and TCTS pod (as required)		Appropriate air-to-air training area
	FWDACM	1v1 FW	4304	(1) CATM-9, (30) flares and TCTS pod (as required)		Appropriate air-to-air training area
	FWDACM	2v2 FW	4305	(1) CATM-9, (30) flares and TCTS pod (as required)		Appropriate air-to-air training area
CQ	CQ	Day CQ	4600			
	CQ	NVD CQ	4601			
	CQ	Unaided CQ	4602			
INSTRUCTOR TRAINING (5000 Phase)						
TERFI	STERFI	TERF Maneuvers	5110			
	TERFI	TERF Nav	5111			Authorized TERF area
WTO	SWTO	Rkt/Gun/Sys Rev	5200			
	SWTO	R/S Ord Del Rev	5201			
	WTO	F/S Ord Del IUT Tech	5202	(1) captive PGM, (7) 2.75 inch rockets, (300) rounds 20mm, (30) chaff/flares		Live fire and LASER safe range with thermally significant targets, if available
	WTO	R/S Ord Del IUT Tech	5203	(1) captive PGM, (7) 2.75 inch rockets, (300) rounds 20mm, (30) chaff/flares		Live fire and LASER safe range with thermally significant targets, if available
FAC(A)I	FAC(A)I	FAC(A)I UT	5400	(1) captive PGM, (7) 2.75 inch RP rockets, (300) rounds 20mm, (60) chaff/flares		Live fire and LASER safe range with thermally significant targets, if available
	FAC(A)I	FAC(A)I Check	5401	(1) captive PGM, (7) 2.75 inch RP rockets, (300) rounds 20mm, (60) chaff/flares		Live fire and LASER safe range with thermally significant targets, if available
DACMI	DACMI	1v1 & 2v1 RW	5800	(1) captive AIM-9, (60) flares and TCTS pod (optional)		Appropriate air-to-air training area
	DACMI	1v1 & 2v1 FW	5801	(1) captive AIM-9, (60) flares and TCTS pod (optional)		Appropriate air-to-air training area
	DACMI	1v1 &2v1 RW Eval	5802	(1) captive AIM-9, (60) flares and TCTS pod (optional)		Appropriate air-to-air training area
	DACMI	1v1 & 2v1 FW Eval	5803	(1) captive AIM-9, (60) flares and TCTS pod (optional)		Appropriate air-to-air training area
NSI	NSI	EPs & FAM Stan	5900			
	NSI	NVD Nav	5901			
	NSI	TACFORM/Ord Del Low Threat	5902	(1) captive PGM, (7) 2.75 inch rockets, (300) rounds 20mm, (60) chaff/flares		Live fire and LASER safe range with thermally significant targets, if available
	NSI	TACFORM/Ord Del Med/High Threat	5903	(1) captive PGM, (7) 2.75 inch rockets, (300) rounds 20mm, (60) chaff/flares		Live fire and LASER safe range with thermally significant targets, if available
	NSI	NSI Standization Sim	5904			
	NSI	NSI Check	5905	(1) captive PGM, (7) 2.75 inch rockets, (300) rounds 20mm, (60) chaff/flares		Live fire and LASER safe range with thermally significant targets, if available
REQUIREMENTS, CERTIFICATIONS, DESIGNATIONS, AND QUALIFICATIONS (6000 Phase)						
SL	SL	Sec Ldr Day	6400	(1) captive PGM, (7) 2.75 inch rockets, (300) rounds 20mm, (60) chaff/flares		Live fire and LASER safe range with thermally significant targets, if available
	SL	Night Sec Ldr	6401	(1) captive PGM, (7) 2.75 inch rockets, (300) rounds 20mm, (60) chaff/flares		Live fire and LASER safe range with thermally significant targets, if available
	SL	Sec Ldr Eval	6498	(1) captive PGM, (7) 2.75 inch rockets, (300) rounds 20mm, (60) chaff/flares		Live fire and LASER safe range with thermally significant targets, if available
DL	DL	Div Ldr Day	6500	(1) captive PGM, (7) 2.75 inch rockets, (300) rounds 20mm, (60) chaff/flares		Live fire and LASER safe range with thermally significant targets, if available
	DL	Div Ldr Night	6501	(1) captive PGM, (7) 2.75 inch rockets, (300) rounds 20mm, (60) chaff/flares		Live fire and LASER safe range with thermally significant targets, if available
	DL	Div Ldr Eval	6598	(1) captive PGM, (7) 2.75 inch rockets, (300) rounds 20mm, (60) chaff/flares		Live fire and LASER safe range with thermally significant targets, if available
FL	FL	Flt Ldr Eval	6698	(1) captive PGM, (7) 2.75 inch rockets, (300) rounds 20mm, (60) chaff/flares		Live fire and LASER safe range with thermally significant targets, if available
AMC	AMC	AMC Eval	6798	(1) captive PGM, (7) 2.75 inch rockets, (300) rounds 20mm, (60) chaff/flares		Live fire and LASER safe range with thermally significant targets, if available

2.25 T&R SYLLABUS MATRIX 1000 PHASE

AH-1W T&R SYLLABUS MATRIX (1000 PHASE)

SKILL	PREFIX	T&R DESCRIPTION	EVENT NUMBER	BASIC	REFRESHER	SERIES CONV	MOD REFRESHER	ACAD #	ACAD TIME	SIM #	SIM TIME	FLIGHT #	FLIGHT TIME	COND	SEAT	TYPE	# A/C or Sim	REFLY	PREREQ	PREREQ NOTES	ORD	ORD QUAN	RANGE	EVENT CONV
Academics (ACAD)																								
ACAD	ACAD	Light Attack University	1000	X					1.0					(N)		G		*						1000
	ACAD	CBT/Courseware	1001	X					1.0					(N)		G		*						1001
	ACAD	Weight & Power Lecture	1002	X					1.0					(N)		G		*						1002
	ACAD	CDNU/EGI/ARC-210	1003	X					1.0					(N)		G		*						1003
	ACAD	CRM	1004	X					1.0					(N)		G		*						1004
	ACAD	Mission Planning	1005	X					1.0					(N)		G		*						1005
	ACAD	FAM stage Lecture	1006	X					1.0					(N)		G		*						1006
	ACAD	INST stage Lecture	1007	X					1.0					(N)		G		*						1007
	ACAD	FORM stage Lecture	1008	X					1.0					(N)		G		*						1008
	ACAD	TERF Stage Lecture	1009	X					1.0					(N)		G		*						1009
	ACAD	NAV Stage Lecture	1010	X					1.0					(N)		G		*						1010
	ACAD	NVD NITE Lab	1011	X					1.0					(N)		G		*						1011
	ACAD	TCT/ASE Lecture	1012	X					1.0					(N)		G		*						1012
	ACAD	SWD Stage Lecture	1013	X					1.0					(N)		G		*						1013
ACAD TOTAL								14	14.0	0	0.0	0	0.0											
Familiarization (FAM)																								
FAM	FAM	Intro Pre/Post Flt	1100	X									0.0	D		A	1	*	1000-1003					1100
	FAM	Review Pre/Post Flt	1101	X	X	X	X						0.0	D		A	1	*	1100					1101
	SFAM	Checklist Intro	1102	X		X					1.5			D	FS	S	1	*	1004-1006,1101					1102
	SFAM	Intro Basic FAM	1103	X		X					1.5			D	FS	S	1	*	1102					1103
	FAM	Intro FAM Maneuvers	1104	X		X							1.5	D	FS	A	1	*	1004,1005,1103					1104
	FAM	Intro NAV/INST	1105	X		X							2.0	D	FS	A	1	*	1104					1105
	SFAM	Intro FAM/INST	1106	X							1.5			D	RS	S	1	*	1104					1106
	SFAM	Rev FAM/INST	1107	X	X	X	X				1.5			D	RS	S	1	*	1106					1107
	FAM	Intro FAM Maneuvers	1108	X	X	X	X						2.0	D	RS	A	1	*	1105,1107					1108
	FAM	Review FAM Maneuvers	1109	X		X							2.0	D	RS	A	1	*	1108					1109
	FAM	Intro/Review FAM	1110	X	X	X	X						2.0	D	FS	A	1	*	1109					1110
	SFAM	Intro EPs/CRM	1111	X	X	X	X				1.5			D	FS	S	1	*	1110					1111
	FAM	Intro/Review FAM	1112	X									2.0	D	RS	A	1	*	1111					1112
	FAM	Intro/Review FAM	1113	X	X	X	X						2.0	D	RS	A	1	*	1112					1113
	FAM	FAM Maneuvers Eval	1114	X	X	X	X						2.0	D	RS	A	1	*	1113					1114
	SFAM	Intro/Review EP's/CRM	1115	X							1.5			D	RS	S	1	*	1114					1115
	SFAM	Evaluate	1116	X	X	X	X				1.5			D	RS	S	1	*	1114,1115					1116
	FAM	Review FAM	1117	X									2.0	D	FS	A	1	*	1114					1117
	FAM	Review FAM Maneuvers	1118	X	X	X	X						2.0	D	RS	A	1	*	1116,1117					1118
	FAM	FAM Maneuver Eval	1119	X	X	X	X						2.0	D	RS	A	1	*	1118					1119
	SFAM	Intro NVD FAM	1120	X							1.5			NS	FS	S	1	*	1011,1119					1120
	FAM	Intro NVD FAM	1121	X									1.5	NS	FS	A	1	*	1120					1121
	FAM	Intro NVD FAM	1122	X	X	X	X						1.5	NS	RS	A	1	*	1121					1122
FAM TOTAL								0	0.0	8	12.0	15	26.5											
Instrument (INST)																								
INST	SINST	Intro TACAN/GCA	1200	X	X	X	X				1.5			(N)	RS	S	1	*	1007,1119					1200
	INST	Intro TACAN/GCA	1201	X									1.5	(N)	RS	A	1	*	1200					1201
	INST	Intro GCA/INST NAV	1202	X	X	X	X						1.5	(N)	RS	A	1	*	1201					1202
	SINST	Eval INST/CRM	1203	X	X	X	X				1.5			(N)	RS	S	1	*	1202					1203
INST TOTAL								0	0.0	2	3.0	2	3.0											

AH-1W T&R SYLLABUS MATRIX (1000 PHASE)

SKILL	PREFIX	T&R DESCRIPTION	EVENT NUMBER	BASIC	REFRESHER	SERIES CONV	MOD REFRESHER	ACAD #	ACAD TIME	SIM #	SIM TIME	FLIGHT #	FLIGHT TIME	COND	SEAT	TYPE	# A/C or Sim	REFLY	PREREQ	PREREQ NOTES	ORD	ORD QUAN	RANGE	EVENT CONV
Formation (FORM)																								
FORM	FORM	Intro FORM Flt	1300	X									2.0	D	FS	A	2	*	1008,1500					1300
	FORM	Intro FORM/TAC FORM	1301	X	X		X						2.0	D	RS	A	1+	*	1300					1301
	FORM	Intro Div FORM	1302	X									2.0	D	RS	A	2+	*	1301					1302
	FORM	Intro NVD FORM	1303	X	X								1.5	NS	OS	A	1+	*	1121,1301					1303
	FORM	FORM Eval	1304	X									2.0	D	RS	A	1+	*	1302,1303					1304
FORM TOTAL								**0**	**0.0**	**0**	**0.0**	**5**	**9.5**											
Terrain Flight (TERF)																								
TERF	TERF	Intro TERF	1400	X									2.0	D	FS	A	1	*	1009,1500	1300~Sec				1400
	TERF	Review TERF Maneuvers	1401	X	X	X	X						2.0	D	RS	A	1	*	1400	1300~Sec				1401
	TERF	Intro TERF Nav	1402	X									2.0	D	OS	A	1	*	1400	1300~Sec				1402
	TERF	Intro NVD TERF	1403	X	X		X						2.0	NS	FS	A	1	*	1121,1401	1303~Sec				1403
TERF TOTAL								**0**	**0.0**	**0**	**0.0**	**4**	**8.0**											
Navigation (NAV)																								
NAV	NAV	Intro Flt NAV	1500	X									2.0	D	FS	A	1	*	1010,1203					1500
	NAV	Intro NVD Nav	1501	X	X	X							2.0	NS	FS	A	1	*	1121,1500					1502
NAV TOTAL								**0**	**0.0**	**0**	**0.0**	**2**	**4.0**											
Specific Weapons Delivery (SWD)																								
SWD	SSWD	FS Weapons Systems	1600	X	X	X					1.5			D	FS	S	1	*	1013,1300,1400					1600
	SWD	FS Weapons Systems	1601	X		X							1.5	D	FS	A	1	*	1600		20mm	400	Laser Safe	1601
	SSWD	RS Weapons Delivery	1602	X	X	X					1.5			D	RS	S	1	*	1600					1602
	SWD	Intro SWD	1603	X	X	X	X						1.5	D	RS	A	1	*	1601,1602,1700		2.75",5.00",20mm	7,4,300	Laser Safe	1603
	SWD	SWD Eval	1604	X	X	X	X						1.5	D	RS	A	1	*	1603		2.75",20mm	7,300	Laser Safe (raked/scored)	1604
SWD TOTAL								**0**	**0.0**	**2**	**3.0**	**3**	**4.5**											
Threat Counter Tactics (TCT)																								
TCT	STCT	Intro ASE Ops	1700	X	X	X	X				1.5			D	RS	S	1	*	1012,1300,1400					1700
TCT TOTAL								**0**	**0.0**	**1**	**1.5**	**0**	**0.0**											
Core Introduction Check (CIX)																								
CIX	SCIX	EP/CRM Eval	1900	X	X	X	X				1.5			D	RS	S	1	*	1304,1403,1502,1604					1900
	CIX	Core Skill Intro Ck	1901	X	X	X	X						2.0	D	RS	A	1	*	1900					1901
CIX TOTAL								**0**	**0.0**	**1**	**1.5**	**1**	**2.0**											
CORE INTRODUCTION TOTAL								**14**	**14.0**	**14**	**21.0**	**32**	**57.5**											

2.26 T&R SYLLABUS MATRIX FRS INSTRUCTOR (5000)

T&R SYLLABUS MATRIX FRS INSTRUCTOR ONLY (5000)																				
SKILL	PREFIX	T&R DESCRIPTION	EVENT NUMBER	BASIC	REFRESHER	SIMULATOR		FLIGHT		CONDITIONS	SEAT	DEVICE	NUMBER	REFLY	PREREQUISITE	CHAINING	ORDNANCE	ORD NUM	RANGE	EVENT CONV
						#	SIM TIME	#	FLT TIME											
Fleet Replacement Squadron Instructor (FRSI)																				
FRSI	SFRSI	EP Stan	5310	X			1.5			D	RS	S	1	*	5203	2801				5310
	FRSI	FAM Review & Stan	5311	X					2.0	D	RS	A	1	*	5310	2800				5311
	FRSI	FAM Review & Stan	5312	X					2.0	D	FS	A	1	*	5311	2800				5312
	FRSI	FAM Eval	5313	X					2.0	D	FS	A	1	*	5312	2800				5313
	FRSI	INST Flt Proc Eval	5314	X	X				2.0	(N)	FS	A	1	*	5310	2800				5314
	FRSI	FORM Stan	5315	X	X				2.0	D	RS	A	2	*	5310					5315
	FRSI	TERF Review & Stan	5316	X	X				2.0	D	RS	A	1	*	5310	2100				5316
	SFRSI	Weapons Review & Stan	5317	X			1.5			D		S	1	*	5310	2601				5317
	FRSI	Weapons Eval & Stan	5318	X	X				1.5	D	FS	A	2	*	5317	2605	2.75",20mm	7,300	Laser Safe	5318
	FRSI	NVD FAM Maneuvers	5319	X	X				2.0	NS	RS	A	1	*	5313,5315,5316	2800				5319
FRSI TOTAL						**2**	**3.0**	**8**	**15.5**											
Night Systems Familiarization Instructor (NSFI)																				
NSFI	NSFI	NAV & TERF IUT	5600	X					1.5	NS		A	1	*		2101,2701,2702,2800				5600
	NSFI	FORM IUT	5601	X					1.5	NS		A	2	*		2701,2702,2800				5601
	NSFI	NSFI Check	5602	X	X				1.5	NS		A	1	*		2800				5602
NSFI TOTAL						**0**	**0.0**	**3**	**4.5**											