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Subj: AH-1W TRAINING AND READINESS MANUAL

Ref: (a) NAVMC 3500.14C

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

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

2. Cancellation. NAVMC 3500.49

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

a. Programs of Instruction (POIs) have been aligned with the AH-1Z and UH-1Y Pilot and Crew Chief POIs to the maximum extent possible.

b. Flight leadership syllabi have been revamped, with increased emphasis on academic and briefing requirements.

c. Emerging weapon systems and sensors were incorporated into syllabus events.

d. Added a new planning metric, the Core Model Training Standard, used to reflect the optimum number of aircrew required to execute each Stage of flight.

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

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Education Standards Division (MTESD) (C 466), Aviation Combat Element 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.

T. M. MURRAY
By direction

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CHAPTER 1

AH-1W TRAINING AND READINESS UNIT REQUIREMENTS

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CHAPTER 1

AH-1W TRAINING AND READINESS UNIT REQUIREMENTS

1.0 TRAINING AND READINESS REQUIREMENTS. The Marine Aviation Training and Readiness (T&R) Program provides the Marine Air-Ground Task Force (MAGTF) commander with an Aviation Combat Element (ACE) capable of executing the six functions of Marine Aviation. The T&R Program is the fundamental tool used by commanders to construct, attain, and maintain effective training programs. The standards established in this program are validated by subject matter experts to maximize combat capabilities for assigned METs while conserving resources. These standards describe and define unit capabilities and requirements necessary to maintain proficiency in mission skills and combat leadership. Training events are based on specific requirements and performance standards to ensure a common base of training and depth of combat capability.

1.1 MISSION. Support the MAGTF Commander by providing 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.

1.2 AH-1W 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 AH-1W units. As of this publication date, AH-1W units are authorized:

HMLA AH-1W Tactical Squadrons				
TABLE OF ORGANIZATION T/O				
Category	Squadron	Squadron(-)	Detachment	Reserves (3 Detachments)
	AH-1W	AH-1W	AH-1W	AH-1W
Aircraft	18	12	6	6
Pilots	44	28	14	14

Fleet Replacement Squadron HMLAT-303 AH-1W	
TABLE OF ORGANIZATION T/O	
AH-1W A/C	20
Pilots	25

1.3 SIX FUNCTIONS OF MARINE AVIATION

SIX FUNCTIONS OF MARINE AVIATION		
FUNCTION	**ABBREVIATION**	**DESCRIPTION**
Offensive Air Support	**OAS**	OAS involves air operations that are conducted against enemy installations, facilities, and personnel in order to directly assist in the attainment of MAGTF objectives by destroying enemy resources or isolating enemy military forces. Its primary support of the warfighting functions is to provide fires and force protection through CAS and DAS.
Assault Support	**ASPT**	ASPT contributes to the warfighting functions of maneuver and logistics. Maneuver warfare demands rapid, flexible maneuverability to achieve a decision. Assault support uses aircraft to provide tactical mobility and logistic support to the MAGTF for the movement of high priority personnel and cargo within the immediate area of operations (or the evacuation of personnel and cargo).
Anti-Air Warfare	**AAW**	AAW is the actions used to destroy or reduce the enemy air and missile threat to an acceptable 1evel The primary purpose of AAW is to gain and maintain whatever degree of air superiority is required; this permits the conduct of operations without prohibitive interference by opposing air and missile forces. AAW's other purpose is force protection.
Electronic Warfare	**EW**	EW is any military action involving the use of electromagnetic and directed energy to control the electromagnetic spectrum or to attack the enemy. EW supports the warfighting functions of fires, command and control, and intelligence through the three major subdivisions: electronic attack, electronic protection, and electronic warfare support.
Control of Aircraft & Missiles	**CoA&M**	The control of aircraft and missiles supports the warfighting function of Command and Control. The ACE commander maintains centralized command, while control is decentralized and executed through the Marine Air Command and Control System (MACCS). CoA&M integrates the other five functions of Marine Aviation by providing the commander with the ability to exercise Command and Control authority over Marine Aviation assets.
Air Reconnaissance	**AerRec**	AerRec employs visual observation and/or sensors in aerial vehicles to acquire intelligence information. It supports the intelligence warfighting function and is employed tactically, operationally, and strategically. The three types of air reconnaissance are visual, multi-sensor imagery, and electronic.

1.4 ABBREVIATIONS

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

1.5 DEFINITIONS

TERM	DEFINITION
Core Skill Introduction	Entry level training required to receive or be eligible for assignment of a primary MOS. Includes such training as systems / equipment, operations familiarization, initial crew procedures, and initial exposure to core skills.
Core Model	The Core Model is the basic foundation or standardized format by which all T&Rs are constructed. The Core model provides the capability of quantifying both unit and individual training requirements and measuring readiness. This is accomplished by linking community Mission Statements, Mission Essential Task Lists, Output Standards, Core Skill Proficiency Requirements and Combat Leadership Matrices
Core Skill	Fundamental, environmental, or conditional capabilities required to perform basic functions. These basic functions serve as tactical enablers that allow crews to progress to the more complex Mission Skills.
Mission Skill	Mission Skills enable a unit to execute a specific MET. They are comprised of advanced event(s) that are focused on MET performance and draw upon the knowledge, aeronautical abilities, and situational awareness developed during Core Skill training. 3000 Phase events.
Core Plus Skill	Training events that can be theater specific or that have a low likelihood of occurrence. They may be Fundamental, environmental, or conditional capabilities required to perform basic functions. 4000 Phase events.
Core Plus Mission	Training events that can be theater specific or that have a low likelihood of occurrence. They are comprised of advanced event(s) that are focused on Core Plus MET performance and draw upon the knowledge, aeronautical abilities, and situational awareness. 4000 Phase events.
Core Skill Proficiency (CSP)	CSP is a measure of training completion for 2000 Phase events. CSP is attained by executing all events listed in the Attain Table for each Core Skill. The individual must be simultaneously proficient in all events within that Core Skill to attain CSP.
Mission Skill Proficiency (MSP)	MSP is a measure of training completion for 3000 Phase events. MSP is attained by executing all events listed in the Attain Table for each Mission Skill. The individual must be simultaneously proficient in all events within that Mission Skill to attain MSP. MSP is directly related to Training Readiness.
Core Plus Skill Proficiency (CPSP)	CPSP is a measure of training completion for 4000 Phase "Skill" events. CPSP is attained by executing all events listed in the Attain Table for each Core Plus Skill. The individual must be simultaneously proficient in all events within that Core Plus Skill to attain CPSP.
Core Plus Mission Proficiency (CPMP)	CPMP is a measure of training completion for 4000 Phase "Mission" events. CPMP is attained by executing all events listed in the Attain Table for each Core Plus Mission. The individual must be simultaneously proficient in all events within that Core Plus Mission to attain CPMP.
Core Model Training Standard (CMTS)	CMTS is an objective optimum training standard used by squadrons that reflects the number of individuals trained to CSP/MSP, per crew position. The CMTS is for internal squadron planning only and is not utilized for readiness reporting. The numbers are determined by individual communities.
Core Model Minimum Requirement (CMMR)	CMMR represents the minimum crew definition qualifications and designations, the number of crews required per MET, and minimum Combat Leadership requirements for readiness reporting purposes.

1.6 MISSION ESSENTIAL TASK LIST (METL). The METL is a list of specified tasks a unit is expected to execute. Core METs are drawn from the Marine Corps Task List (MCTL), are standardized by type unit, and are used for reporting Core squadron readiness in DRRS-MC. Core Plus METs reflect 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 for that Assigned Mission. Chapter 7 of the Aviation T&R Program Manual provides additional information on Aviation Training Readiness policy.

HMLA AH-1W		
MISSION ESSENTIAL TASK LIST (METL)		
CORE		
MET	**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	**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

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

HMLA AH-1W							
MISSION ESSENTIAL TASK (MET) TO SIX FUNCTIONS OF MARINE AVIATION							
CORE							
MET	**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			

1.8 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. For example: the MET for EXP shows a one-to-one relationship with the EXP Mission Skill; the TRAP MET shows a one-to-one relationship with the TRAP Mission Skill, and so on. Shading indicates Core Plus.

AH-1W
MET TO CORE/MISSION/CORE PLUS/MISSION PLUS SKILL MATRIX

MARINE CORPS TASK (MCT) // MISSION ESSENTIAL TASK (MET)	CORE SKILLS (2000 PHASE)							MISSION SKILLS (3000 PHASE)								CORE PLUS (4000 PHASE) SKILLS						MISSION PLUS		
	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													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

1.9 MISSION ESSENTIAL TASKS (MET) OUTPUT STANDARDS. The following MET output standards are the required level of performance a squadron must be capable of sustaining during contingency/combat operations by MET to be considered MET-ready. Output standards will be demonstrated through the incorporation of unit training events. A core capable squadron 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% FMC aircraft and >90% T/O aircrew on hand. If unit FMC aircraft is <70% or T/O aircrew <90%, core capability will be degraded by a like percentage.

HMLA AH-1W			
MET Output Standards Squadron/Squadron(-)/Detachment (18/12/6 Aircraft)			
MCT	**MET**	**OUTPUT STANDARD**	
		MAXIMUM DAILY SORTIES*	**MAXIMUM MCT SORTIES**
MCT 1.3.3.3.2 **EXP**	Conduct Aviation Operations From Expeditionary Shore-Based Sites	24/16/8	24/16/8
MCT 3.2.3.1.1 **CAS**	Conduct Close Air Support		24/16/8
MCT 3.2.3.1.2.1 **AI**	Conduct Air Interdiction		24/16/8
MCT 3.2.3.1.2.2 **AR**	Conduct Armed Reconnaissance		24/16/8
MCT 3.2.3.1.2.3 **SCAR**	Conduct Strike Coordination and Reconnaissance		24/16/8
MCT 3.2.5.4 **FAC(A)**	Conduct Forward Air Control (Airborne)		12/8/4
MCT 6.2.1.1 **TRAP**	Conduct Aviation Support of Tactical Recovery of Aircraft and Personnel		24/16/8
MCT 6.1.1.11 **ESC**	Conduct Aerial Escort		24/16/8
Core Plus MET Output Standards			
MCT	**MET**	**OUTPUT STANDARD**	
		MAXIMUM DAILY SORTIES*	**MAXIMUM MCT SORTIES**
MCT 1.3.3.3.1 **CQ**	Conduct Aviation Operations From Expeditionary Sea-Based Sites	24/16/8	24/16/8
MCT 3.2.3.2 **OAAW**	Conduct Offensive Anti-air Warfare		12/8/4
MCT 6.1.1.8 **AAD**	Conduct Active Air Defense		12/8/4

* A 18/12/6 plane Mission Capable HMLA(AH-1W) Squadron/Squadron(-)/Detachment is able to execute 24/16/8 total overall sorties on a daily (24 hour period) basis during contingency/combat operations.

1.10 CORE MODEL MINIMUM REQUIREMENTS (CMMR) FOR READINESS REPORTING (DRRS-MC). The paragraphs and tables below delineate the minimum aircrew qualifications and designations required to execute the MET output standards of para 1.9. Chapter 7 of the Aviation T&R Program Manual provides additional guidance and a detailed description of readiness reporting using the Defense Readiness Reporting System – Marine Corps (DRRS-MC).

1.10.1 The CMMR Readiness Reporting Matrix delineates the minimum crew definition qualifications and designations, 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 under all light levels.

HMLA AH-1W					
AH-1W MINIMUM CREW QUALIFICATIONS / DESIGNATIONS REQUIRED FOR MET CAPABILITY Squadron/Squadron(-)/Detachment (18/12/6 Aircraft)					
CORE METS	**CREW POSITION**		**CREWS REQUIRED PER MET (CREW CMMR)**		
MCT	PILOT	COPILOT	**SQD**	**SQD(-)**	**DET**
1.3.3.3.2 **(EXP)**	MSP, AHC	ANSQ	12	8	4
3.2.3.1.1 **(CAS)**	MSP, AHC	ANSQ	12	8	4
3.2.3.1.2.1 **(AI)**	MSP, AHC	ANSQ	12	8	4
3.2.3.1.2.2 **(AR)**	MSP, AHC	ANSQ	12	8	4
3.2.3.1.2.3 **(SCAR)**	MSP, AHC	ANSQ	12	8	4
3.2.5.4 **(FAC(A))***	MSP, AHC, FAC(A)	ANSQ	8	6	2
6.2.1.1 **(TRAP)**	MSP, AHC	ANSQ	12	8	4
6.1.1.11 **(ESC)**	MSP, AHC	ANSQ	12	8	4
CORE PLUS METS	**CREW POSITION**		**SQD**	**SQD(-)**	**DET**
1.3.3.3.1 **(CQ)**	MSP, AHC, CQ	ANSQ, CQ	12	8	4
3.2.3.2 **(OAAW)**	MSP, AHC, DACM	ANSQ, DACM	6	4	2
6.1.1.8 **(AAD)**	MSP, AHC, DACM	ANSQ, DACM	6	4	2

COMBAT LEADERSHIP Squadron/Squadron(-)/Detachment (18/12/6 Aircraft)			
DESIGNATION	Squadron	Squadron(-)	Detachment
Attack Helicopter Commander (AHC)	18	12	6
Section Leader (SL)	9	6	3
Division Leader (DL)	6	4	2
Flight Leader (FL)**	4	3	1
Air Mission Commander (AMC)**	4	3	1

* A FAC(A) capable crew requires 1 FAC(A) per aircraft.
** Flight Leader and AMC Combat Leader 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.

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

HMLA AH-1W	
CORE MODEL TRAINING STANDARD (CMTS) Squadron/Squadron(-)/Detachment (18/12/6 Aircraft)	
CORE SKILLS (2000 PHASE)	
STAGE	PILOTS
TERF	36/24/12
TCT	36/24/12
REC	36/24/12
FCLP	30/20/10
SWD	30/20/10
ANSQ	30/20/10
FAM	36/24/12
CORE MISSIONS (3000 PHASE)	
STAGE	PILOTS
EXP	28/18/10
CAS	28/18/10
AI	28/18/10
AR	28/18/10
SCAR	28/18/10
FAC(A)	8/6/2
ESC	28/18/10
TRAP	28/18/10
CORE PLUS SKILLS (4000 PHASE)[1]	
STAGE	PILOTS
ESC	3/14 2/9 1/5
CAS	3/14 2/9 1/5
AR	3/14 2/9 1/5
AI	3/14 2/9 1/5
SCAR	3/14 2/9 1/5
OAAW (RW/FW) DACM	4/18 2/12 2/8
CBRN	2/44 1/28 1/14
CORE PLUS MISSIONS (4000 PHASE)[1]	
STAGE	PILOTS
CQ	4/28 2/18 2/10
OAAW	4/16 2/10 2/6
AAD	4/16 2/10 2/6
Note[1]: In the Core Plus METS the first number represents the number of individuals the 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 is recommended to train if that MET becomes required within an Assigned Mission/Directed Mission Set.	

1.12 INSTRUCTOR DESIGNATIONS (5000 Phase). An HMLA and HMLAT (AH-1W) squadron should possess the following number of personnel with the instructor designations listed in the matrix and IAW MCO 3500.12 (WTTP).

HMLA AH-1W	
AH-1W Squadron/Squadron-/Detachment (18/12/6 Aircraft) INSTRUCTOR TRAINING (5000 PHASE)	
DESIGNATION	**PILOTS**
BIP	10/7/3
TERFI	10/7/3
WTO	10/7/3
TSI	6/4/-
NSI	7/5/2
WTI	3/2/1
FAC(A)I	4/3/1
DACMI	3/2/1
FLSE	3/2/1
* FLSEs are Designated by the Group CO.	

HMLAT-303 AH-1W	
FRS Squadron (20 Aircraft) INSTRUCTOR TRAINING (5000 PHASE)	
DESIGNATION	**PILOTS**
BIP	25
TERFI	25
WTO	25
IP/FRSI	25
NS/FRSI	13
SI/ASI	8
NI/ANI	8
NSFI	8*
NSI	-
WTI	-
FAC(A)I	-
DACMI	-
FLSE	-
* HMLAT-303 NS Instructor requirement may include NSIs as well as NSFIs.	

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

1.13.1 Tactical Squadron

HMLA AH-1W	
Squadron/Squadron(-)/Detachment (18/12/6 Aircraft) DESIGNATIONS (6000 PHASE)	
DESIGNATIONS	PILOTS
Functional Check Pilot (FCP)	6/4/2

1.13.2 Fleet Replacement Squadron HMLAT-303

HMLAT-303 AH-1W	
FRS Squadron (20 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)	6

* Flight Leader requirements apply to HMLAT squadron, not individual aircraft models (may be filled by UH or AH pilot).

1.14 ORDNANCE REQUIREMENTS

1.14.1 General

1.14.1.1 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.

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

1.14.2 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.

1.14.3 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	1,000	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	1,000	300	300	**23,900**
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.

1.15 HMLA TRAINING RESOURCE REQUIREMENTS

1.15.1 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, but commanding officers may waive requirements based on existing range capabilities and limitations.

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

1.15.1.2 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).

1.15.1.3 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.

HMLA (AH-1)

Core METL

MCT 1.3.3.3.2	Conduct Aviation Operations From Expeditionary Shore-Based Sites (EXP)
MCT 3.2.3.1.1	Conduct Close Air Support (CAS)
MCT 3.2.3.1.2.1	Conduct Air Interdiction (AI)
MCT 3.2.3.1.2.2	Conduct Armed Reconnaissance (AR)
MCT 3.2.3.1.2.3	Conduct Strike Coordination and Reconnaissance (SCAR)
MCT 3.2.5.4	Conduct Forward Air Control (Airborne) [FAC(A)]
MCT 6.2.1.1	Conduct Aviation Support of Tactical Recovery of Aircraft and Personnel (TRAP)
MCT 6.1.1.11	Conduct Aerial Escort (ESC)

Core Plus

MCT 1.3.3.3.1	Conduct Aviation Operations From Expeditionary Sea-Based Sites (CQ)
MCT 3.2.3.2	Conduct Offensive Anti-air Warfare (OAAW)
MCT 6.1.1.8	Conduct Active Air Defense (AAD)

MCT 1.3.3.3.2 Conduct Aviation Operations From Expeditionary Shore-Based Sites

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 (18)/Squadron(-)(12)/Detachment (6) {18/12/6} Aircraft
AH-1Z Squadron (15)/Squadron(-)(10)/Detachment (5) {15/10/5} Aircraft

Personnel:
- 19/13/6 AH-1W aircrews formed
- 16/11/5 AH-1Z aircrews formed
- 90% of squadron T/O personnel MOS qualified and deployable
  - And Level 2 (L2) IAW ALERTS.
- 100% critical MOS fill

Equipment:
- 70% Full Mission Capable (FMC) aircraft of PAA
  - 12/8/4 AH-1W aircraft
  - 10/7/3 AH-1Z aircraft

  OR

  Upon establishment, 100 percent RFT entitlement IAW T/M/S standard.
- Operational support equipment fully supports MCT

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

Output Standards:
- 24/16/8 AH-1W sorties daily sustained during contingency/combat
- 20/16/8 AH-1Z 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 (18)/Squadron(-)(12)/Detachment (6) {18/12/6} Aircraft
AH-1Z Squadron (15)/Squadron(-)(10)/Detachment (5) {15/10/5} Aircraft

Personnel:
- 19/13/6 AH-1W aircrews formed
- 16/11/5 AH-1Z aircrews formed
- 90% of squadron T/O personnel MOS qualified and deployable
  - And Level 2 (L2) IAW ALERTS.
- 100% critical MOS fill

Equipment:
- 70% Full Mission Capable (FMC) aircraft of PAA
  - 12/8/4 AH-1W aircraft
  - 10/7/3 AH-1Z aircraft

  OR

  Upon establishment, 100 percent RFT entitlement IAW T/M/S standard.
- Operational support equipment fully supports MCT

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

Output Standards:
- 24/16/8 AH-1W sorties daily sustained during contingency/combat
- 20/16/8 AH-1Z sorties daily sustained during contingency/combat

MCT 3.2.3.1.2.1 Conduct Air Interdiction

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 (18)/Squadron(-)(12)/Detachment (6) {18/12/6} Aircraft
AH-1Z Squadron (15)/Squadron(-)(10)/Detachment (5) {15/10/5} Aircraft

Personnel:
- 19/13/6 AH-1W aircrews formed
- 16/11/5 AH-1Z aircrews formed
- 90% of squadron T/O personnel MOS qualified and deployable
  - And Level 2 (L2) IAW ALERTS.
- 100% critical MOS fill

Equipment:
- 70% Full Mission Capable (FMC) aircraft of PAA
  - 12/8/4 AH-1W aircraft
  - 10/7/3 AH-1Z aircraft

  OR

  Upon establishment, 100 percent RFT entitlement IAW T/M/S standard.
- Operational support equipment fully supports MCT

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

Output Standards:
- 24/16/8 AH-1W sorties daily sustained during contingency/combat

- 20/16/8 AH-1Z sorties daily sustained during contingency/combat

MCT 3.2.3.1.2.2 Conduct Armed Reconnaissance

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 (18)/Squadron(-)(12)/Detachment (6) {18/12/6} Aircraft
AH-1Z Squadron (15)/Squadron(-)(10)/Detachment (5) {15/10/5} Aircraft

Personnel:
- 19/13/6 AH-1W aircrews formed
- 16/11/5 AH-1Z aircrews formed
- 90% of squadron T/O personnel MOS qualified and deployable
  - And Level 2 (L2) IAW ALERTS.
- 100% critical MOS fill

Equipment:
- 70% Full Mission Capable (FMC) aircraft of PAA
  - 12/8/4 AH-1W aircraft
  - 10/7/3 AH-1Z aircraft

  OR

  Upon establishment, 100 percent RFT entitlement IAW T/M/S standard.
- Operational support equipment fully supports MCT

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

Output Standards:
- 24/16/8 AH-1W sorties daily sustained during contingency/combat

- 20/16/8 AH-1Z 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 (18)/Squadron(-)(12)/Detachment (6) {18/12/6} Aircraft
AH-1Z Squadron (15)/Squadron(-)(10)/Detachment (5) {15/10/5} Aircraft

Personnel:
- 19/13/6 AH-1W aircrews formed
- 16/11/5 AH-1Z aircrews formed
- 90% of squadron T/O personnel MOS qualified and deployable
  - And Level 2 (L2) IAW ALERTS.
- 100% critical MOS fill

Equipment:
- 70% Full Mission Capable (FMC) aircraft of PAA
  - 12/8/4 AH-1W aircraft
  - 10/7/3 AH-1Z aircraft

  OR

  Upon establishment, 100 percent RFT entitlement IAW T/M/S standard.
- Operational support equipment fully supports MCT

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

Output Standards:

- 24/16/8 AH-1W sorties daily sustained during contingency/combat
- 20/16/8 AH-1Z 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 (18)/Squadron(-)(12)/Detachment (6) {18/12/6} Aircraft
AH-1Z Squadron (15)/Squadron(-)(10)/Detachment (5) {15/10/5} Aircraft

Personnel:

- 19/13/6 AH-1W aircrews formed
- 16/11/5 AH-1Z aircrews formed
- 90% of squadron T/O personnel MOS qualified and deployable
  - And Level 2 (L2) IAW ALERTS.
- 100% critical MOS fill

Equipment:

- 70% Full Mission Capable (FMC) aircraft of PAA
  - 12/8/4 AH-1W aircraft
  - 10/7/3 AH-1Z aircraft

  OR

  Upon establishment, 100 percent RFT entitlement IAW T/M/S standard.
- Operational support equipment fully supports MCT

Training:

- 8/6/2 AH-1W aircrews MET-capable IAW T&R requirements
- 6/4/2 AH-1Z aircrews MET-capable IAW T&R requirements

Output Standards:

- 12/8/4 AH-1W sorties daily sustained during contingency/combat
- 12/8/4 AH-1Z 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 (18)/Squadron(-)(12)/Detachment (6) {18/12/6} Aircraft
AH-1Z Squadron (15)/Squadron(-)(10)/Detachment (5) {15/10/5} Aircraft

Personnel:

- 19/13/6 AH-1W aircrews formed
- 16/11/5 AH-1Z aircrews formed
- 90% of squadron T/O personnel MOS qualified and deployable
  - And Level 2 (L2) IAW ALERTS.
- 100% critical MOS fill

Equipment:

- 70% Full Mission Capable (FMC) aircraft of PAA
  - 12/8/4 AH-1W aircraft
  - 10/7/3 AH-1Z aircraft

  OR

  Upon establishment, 100 percent RFT entitlement IAW T/M/S standard.
- Operational support equipment fully supports MCT

Training:

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

- 12/8/4 AH-1Z aircrews MET-capable IAW T&R requirements

Output Standards:
- 24/16/8 AH-1W sorties daily sustained during contingency/combat
- 20/16/8 AH-1Z sorties daily sustained during contingency/combat

MCT 6.1.1.11 Conduct Aerial Escort Operations

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 (18)/Squadron(-)(12)/Detachment (6) {18/12/6} Aircraft
AH-1Z Squadron (15)/Squadron(-)(10)/Detachment (5) {15/10/5} Aircraft

Personnel:
- 19/13/6 AH-1W aircrews formed
- 16/11/5 AH-1Z aircrews formed
- 90% of squadron T/O personnel MOS qualified and deployable
  - And Level 2 (L2) IAW ALERTS.
- 100% critical MOS fill

Equipment:
- 70% Full Mission Capable (FMC) aircraft of PAA
  - 12/8/4 AH-1W aircraft
  - 10/7/3 AH-1Z aircraft

  OR

  Upon establishment, 100 percent RFT entitlement IAW T/M/S standard.
- Operational support equipment fully supports MCT

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

- 12/8/4 AH-1Z aircrews MET-capable IAW T&R requirements

Output Standards:

- 24/16/8 AH-1W sorties daily sustained during contingency/combat
- 20/16/8 AH-1Z sorties daily sustained during contingency/combat

Core Plus

MCT 1.3.3.3.1 Conduct Aviation Operations From Expeditionary Sea-Based Sites

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 (18)/Squadron(-)(12)/Detachment (6) {18/12/6} Aircraft
AH-1Z Squadron (15)/Squadron(-)(10)/Detachment (5) {15/10/5} Aircraft

Personnel:

- 19/13/6 AH-1W aircrews formed
- 16/11/5 AH-1Z aircrews formed
- 90% of squadron T/O personnel MOS qualified and deployable
  - And Level 2 (L2) IAW ALERTS.
- 100% critical MOS fill

Equipment:

- 70% Full Mission Capable (FMC) aircraft of PAA
  - 12/8/4 AH-1W aircraft
  - 10/7/3 AH-1Z aircraft

  OR

  Upon establishment, 100 percent RFT entitlement IAW T/M/S standard.
- Operational support equipment fully supports MCT

Training:

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

Output Standards:

- 24/16/8 AH-1W sorties daily sustained during contingency/combat
- 20/16/8 AH-1Z 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 (18)/Squadron(-)(12)/Detachment (6) {18/12/6} Aircraft
AH-1Z Squadron (15)/Squadron(-)(10)/Detachment (5) {15/10/5} Aircraft

Personnel:
- 19/13/6 AH-1W aircrews formed
- 16/11/5 AH-1Z aircrews formed
- 90% of squadron T/O personnel MOS qualified and deployable
  - And Level 2 (L2) IAW ALERTS.
- 100% critical MOS fill

Equipment:
- 70% Full Mission Capable (FMC) aircraft of PAA
  - 12/8/4 AH-1W aircraft
  - 10/7/3 AH-1Z aircraft

  OR

  Upon establishment, 100 percent RFT entitlement IAW T/M/S standard.
- Operational support equipment fully supports MCT

Training:
- 6/4/2 AH-1W aircrews MET-capable IAW T&R requirements
- 5/3/2 AH-1Z aircrews MET-capable IAW T&R requirements

Output Standards:
- 12/8/4 AH-1W sorties daily sustained during contingency/combat
- 10/6/4 AH-1Z sorties daily sustained during contingency/combat

MCT 6.1.1.8 Conduct Active Air Defense

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 (18)/Squadron(-)(12)/Detachment (6) {18/12/6} Aircraft
AH-1Z Squadron (15)/Squadron(-)(10)/Detachment (5) {15/10/5} Aircraft

Personnel:
- 19/13/6 AH-1W aircrews formed
- 16/11/5 AH-1Z aircrews formed
- 90% of squadron T/O personnel MOS qualified and deployable
  - And Level 2 (L2) IAW ALERTS.
- 100% critical MOS fill

Equipment:
- 70% Full Mission Capable (FMC) aircraft of PAA
  - 12/8/4 AH-1W aircraft
  - 10/7/3 AH-1Z aircraft

  OR

  Upon establishment, 100 percent RFT entitlement IAW T/M/S standard.
- Operational support equipment fully supports MCT

Training:
- 6/4/2 AH-1W aircrews MET-capable IAW T&R requirements
- 5/3/2 AH-1Z aircrews MET-capable IAW T&R requirements

Output Standards:
- 12/8/4 AH-1W sorties daily sustained during contingency/combat
- 10/6/4 AH-1Z sorties daily sustained during contingency/combat

AH-1W PILOT

CHAPTER 2

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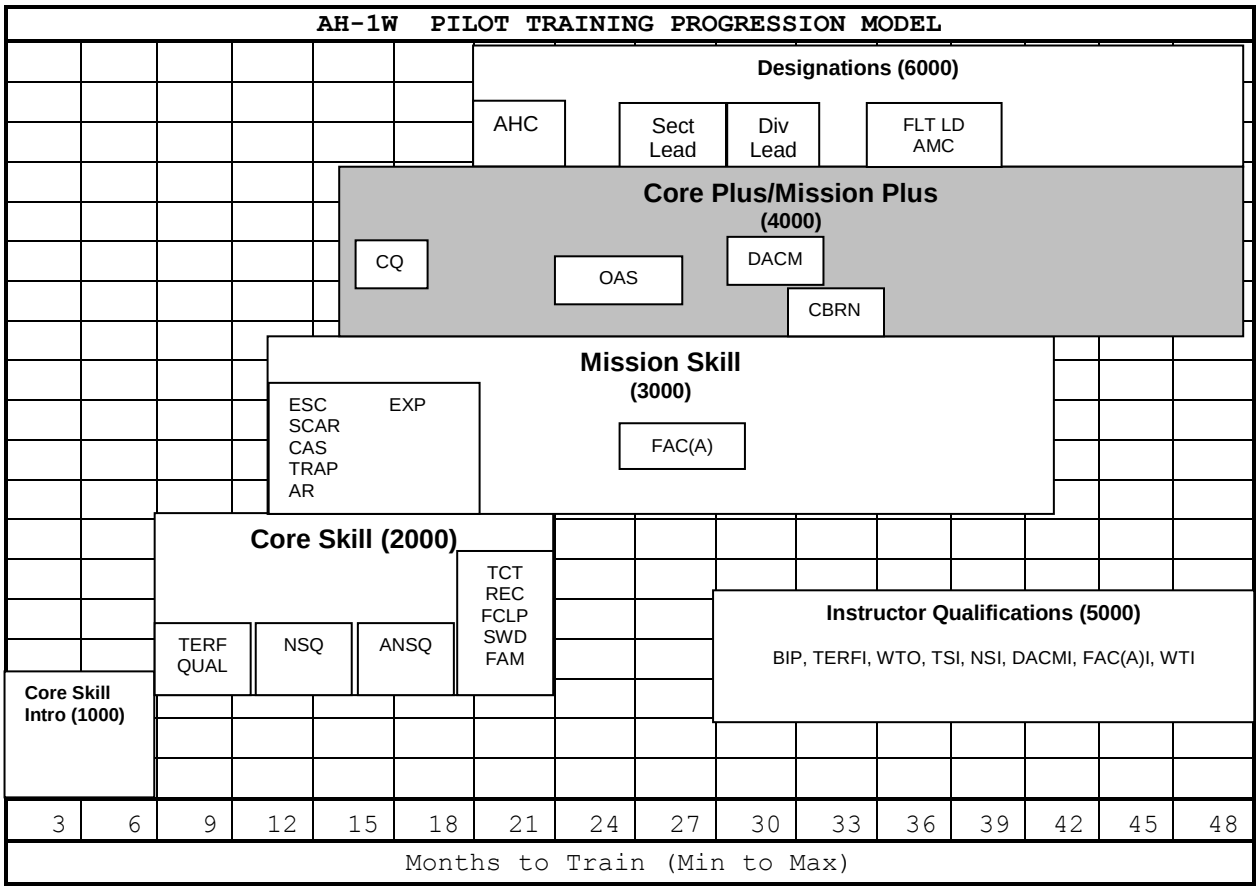
CHAPTER 2
AH-1W PILOT

2.0 AH-1W PILOT 7565 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 AH-1W PILOT 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 PROFICIENCY & CURRENCY

2.2.1 Proficiency. Proficiency is a measure of achievement of a specific skill. Refly factors establish the maximum time between demonstration of those particular skills. To regain proficiency, an individual shall complete the delinquent events with a proficient crewman/flight lead. If an entire unit loses proficiency, unit instructors shall regain proficiency by completing an event with an instructor from a like unit. If not feasible, the instructor shall regain proficiency by completing the event with another instructor. If a unit has only one instructor and cannot complete the event with an instructor from another unit, the instructor shall regain proficiency with another aircraft commander or as designated by the commanding officer.

2.2.2 Currency. A control measure used to provide an additional margin of safety based on exposure frequency to a particular skill. 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 individual type mission profiles can be found in Chapter 3 of the Aviation T&R Program Manual.

2.3 INDIVIDUAL CORE SKILL PROFICIENCY REQUIREMENTS

2.3.1 Management of individual CSP serves as the foundation for developing proficiency requirements in DRRS-MC.

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

2.3.3 Proficiency is attained by individual Core Skill where the training events for each skill are determined by POI assignment.

2.3.4 Once proficiency has been attained by Core Skill (by any POI assignment) then the individual maintains proficiency by executing those events noted in the maintain table and in the Maintain POI column of the Attain and Maintain Table. An individual maintains proficiency by individual Core Skill.

Note
Individuals may be attaining proficiency
in some Core Skills while maintaining
proficiency in other Core Skills.

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

AH-1W ATTAIN AND MAINTAIN PROFICIENCY TABLE						
CORE SKILLS (2000 Phase)						
SKILL	STAGE	T&R DESCRIPTION	ATTTAIN PROFICIENCY			MAINTAIN PROFICIENCY
			BASIC POI	REFRESHER POI	SERIES CONVERSION POI	MAINTAIN POI
TERF	TERF	Rev TERF	2100R	2100R		
	TERF	Rev NVD TERF	2101R	2101R	2101R	2101R
TCT	STCT	Intro ASE RADAR/IR	S2200			
	STCT	Tactical ASE Employ	S2201R	S2201R	S2201R	S2201R
REC	SREC	Intro Day RECCE	S2300			
	REC	Intro NVD RECCE	2301R	2301R	2301R	2301R
FCLP	SFCLP	Intro FCLP	S2500			
	FCLP	Day FCLP	2501R	2501R		
	FCLP	Night FCLP	2502R	2502R		2502R
SWD	SSWD	Intro Hellfire	S2600			
	SSWD	Review Hellfire/Intro APKWS	2601R	2601R		2601R
	SWD	Live Hellfire & 20mm	2602R	2602R		2602R
	SSWD	RKT/Gun Del Prof	S2603		S2603	
	SWD	RKT/Gun Del Prof	2604R	2604R	2604R	
	SWD	Scored RKT Del	2605R	2605R	2605R	2605R
	SWD	NVD RKT/Gun Del	2606			
	SWD	Refine NVD RKT/Gun	2607R	2607R	2607R	2607R
	SWD	Moving Target Gunnery	2610R	2610R		2610R
ANSQ	SANSQ	NVD LLL EPs	S2700		S2700	
	ANSQ	NVD LLL FAM/Nav	2701R	2701R	2701R	2701R
	ANSQ	NVD LLL TACFORM/TERF	2702R	2702R		2702R
	SANSQ	Intro NVD LLL Ord	S2704			
	ANSQ	Rev NVD LLL Ord Del	2705R	2705R	2705R	2705R
FAM	FAM	FAM/INST Proficiency	2800R	2800R	2800R	2800R
	SFAM	EP Simulator	S2801R	S2801R	S2801R	S2801R

NOTE

Specific Maintain events are selected by community SMEs to update corresponding skills in the Attain table. Maintaining proficiency in these select events will ensure the individual will never go delinquent in that corresponding skill in the Attain table.

2.4 INDIVIDUAL MISSION SKILL PROFICIENCY REQUIREMENTS

2.4.1 Management of individual MSP serves as the foundation for developing proficiency requirements in DRRS-MC.

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

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

2.4.4 Once proficiency has been attained by Mission Skill (by any POI assignment) then the individual maintains proficiency by executing those events noted in the Maintain table and in the Maintain POI column of the Attain and Maintain Table. An individual maintains proficiency by individual Mission Skill.

Note

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

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

AH-1W ATTAIN AND MAINTAIN PROFICIENCY TABLE						
MISSION SKILLS (3000 Phase)						
SKILL	STAGE	T&R DESCRIPTION	ATTTAIN PROFICIENCY			MAINTAIN PROFICIENCY
			BASIC	REFRESHER	SERIES CONV	
ESC	ESC	ASPT ESC	3100			
	ESC	NVD ASPT ESC	3101R	3101R	3101R	
	SESC	SIM ASPT ESC	3102R	3102R	3102R	3102R
	ESC	Surface ESC	3103R	3103R		
	ANSQ	NVD LLL TACFORM/TERF	2702R	2702R		2702R
CAS	SCAS	Intro CAS	3300		3300	
	CAS	Intro Day CAS	3301R	3301R	3301R	3301R
	CAS	Intro NVD CAS HLL	3302			
	CAS	Intro NVD CAS LLL	3303R	3303R	3303R	3303R
	CAS	Intro Urban CAS	3304R	3304R		3304R
	ANSQ	Rev NVD LLL Ord Del	2705R	2705R	2705R	2705R
AR	AR	Armed Recon	3305R	3305R		3305R
	SSWD	Review Hellfire/Intro APKWS	2601R	2601R		2601R
	ANSQ	Rev NVD LLL Ord Del	2705R	2705R	2705R	2705R
AI	AI	Aerial Interdiction	3306R	3306R	3306R	3306R
	SSWD	Review Hellfire/Intro APKWS	2601R	2601R		2601R
	ANSQ	NVD LLL TACFORM/TERF	2702R	2702R		2702R
SCAR	SCAR	SCAR	3307R	3307R		3307R
	SSWD	Review Hellfire/Intro APKWS	2601R	2601R		2601R
	ANSQ	Rev NVD LLL Ord Del	2705R	2705R	2705R	2705R
TRAP	TRAP	TRAP	3308R	3308R		3308R
	ESC	ASPT ESC	3102R	3102R	3102R	3102R
	ANSQ	NVD LLL TACFORM/TERF	2702R	2702R		2702R
FAC(A)	FAC(A)	IDF Control	3400R	3400R		3400R
	FAC(A)	RW Control	3401R	3401R		3401R
	FAC(A)	FW Control	3402R	3402R		3402R
	FAC(A)	NVD FW Control	3403R	3403R		3403R
	FAC(A)	Sup Arms Consolidate	3404R	3404R		3404R
	ANSQ	Rev NVD LLL Ord Del	2705R	2705R	2705R	2705R
EXP	EXP	EXP (FARP) Ops	3600R	3600R		
	EXP	EXP (FARP) Ops NVD	3601R	3601R	3601R	3601R
	EXP	EXP RVL Day	3602R	3602R		
	EXP	EXP RVL NVD	3603R	3603R	3603R	3603R
	ANSQ	NVD LLL FAM/Nav	2701R	2701R	2701R	2701R

NOTE

Specific Maintain events are selected by community SMEs to update corresponding skills in the Attain table. Maintaining proficiency in these select events will ensure the individual will never go delinquent in that corresponding skill in the Attain table.

2.5 INDIVIDUAL CORE PLUS SKILL PROFICIENCY REQUIREMENTS

2.5.1 Management of individual CPSP serves as the foundation for developing proficiency requirements in DRRS-MC.

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

2.5.3 Proficiency is attained by individual Core Plus Skill where the training events for each skill are determined by POI assignment.

2.5.4 Once proficiency has been attained by Core Plus Skill (by any POI assignment) then the individual maintains proficiency by executing those events noted in the Maintain table and in the Maintain POI column of the Attain and Maintain Table. An individual maintains proficiency by individual Core Plus Skill.

Note

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

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

AH-1W ATTAIN AND MAINTAIN PROFICIENCY TABLE						
CORE PLUS (4000 Phase)						
SKILL	STAGE	T&R DESCRIPTION	ATTTAIN PROFICIENCY			MAINTAIN PROFICIENCY
			BASIC	REFRESHER	SERIES CONV	
ESC	ESC	Helo ESC Med/Hi	4200R	4200R		4200R
	ANSQ	Rev NVD LLL Form/TERF Nav	2702R	2702R		2702R
CAS	CAS	Urban CAS Med/High	4201R	4201R		4201R
	ANSQ	Rev NVD LLL Ord Del	2705R	2705R	2705R	2705R
AR	AR	AR Med/High Threat	4205R	4205R		4205R
	SSWD	Review Hellfire/Intro APKWS	2601R	2601R		2601R
	ANSQ	Rev NVD LLL Ord Del	2705R	2705R	2705R	2705R
AI	AI	AI Med/High Threat	4206R	4206R		4206R
	SSWD	Review Hellfire/Intro APKWS	2601R	2601R		2601R
	ANSQ	NVD LLL Form/TERF Nav	2702R	2702R		2702R
SCAR	SCAR	SCAR	4207R	4207R		4207R
	SSWD	Review Hellfire/Intro APKWS	2601R	2601R		2601R
	ANSQ	Rev NVD LLL Ord Del	2705R	2705R	2705R	2705R
OAAW	OAAW	OAAW	4209R	4209R		4209R
	ANSQ	NVD LLL Form/TERF Nav	2702R	2702R		2702R
AAD	RWDACM	OWP DACM	4300R	4300R		4300R
	RWDACM	1v1 RW	4301		4301	
	RWDACM	2V1 RW	4302			
	RWDACM	Rev 1v1/2v1 RW	4303R	4303R		4303R
	ANSQ	NVD LLL Form/TERF Nav	2702R	2702R		2702R
	FWDACM	1v1 FW	4304		4304	
	FWDACM	2v2 FW	4305R	4305R		4305R
	ANSQ	NVD LLL Form/TERF Nav	2702R	2702R		2702R
CBRN	SCBRN	CBRN	4400R	4400R		4400R
CQ	CQ	Day CQ	4600R	4600R	4600R	
	CQ	NVD CQ	4601R	4601R	4601R	4601R
	CQ	Unaided CQ	4602R	4602R	4602R	
	ANSQ	NVD LLL FAM/Nav	2701R	2701R	2701R	2701R

NOTE

Specific Maintain events are selected by community SMEs to update corresponding skills in the Attain table. Maintaining proficiency in these select events will ensure the individual will never go delinquent in that corresponding skill in the Attain table.

2.6 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 INDIVIDUAL QUALIFICATION REQUIREMENTS	
Qualification	**Initial Event Qualification Requirements**
INSTRUMENT (INST-6100)	IAW OPNAV 3710.7 and an annual qualification letter signed by the commanding officer.
NATOPS (NTPS-6101)	IAW OPNAV 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
CQ	4600,4601,4602
RW DACM	TERFQ,4300,4301,4302,4303
FW DACM	TERFQ,4304,4305

AH-1W PILOT INDIVIDUAL DESIGNATION REQUIREMENTS	
Designation	**Initial Event Designated Requirements**
FCP	DESG-6300, FCP-6200, 6201, 6202, 6203, 6204, 6205 and IAW AH-1W NATOPS.
PQM (DESG-6300)	Successful completion of NATOPS and Instrument checks and CSIX 1901.
AHC (DESG-6398)	DESG-6300, 6398, ANSQ. Successful completion of the Core Skills Phase and the ESC, CAS, AR, AI, SCAR, TRAP and EXP stages through TRAP-3308 and EXP 3603 of the Mission Skill Phase meet the requirements for the PUI to be eligible for the AHC designation. Refly of the SWD-2605 attaining Mission Skills Phase ordnance accuracy.
SECTION LEAD (DESG-6498)	DESG-6398, 6400, 6401, 6498
DIVISION LEAD (DESG-6598)	SL-6498, 6500, 6501, 6598
FLIGHT LEAD (DESG-6698)	FL-6698
AMC (DESG-6798)	AMC-6798
BIP	5100,5101,5102,5103,5104
TERFI	5110,5111
NI/ANI	Per NATOPS, FRS, and Squadron Guidance
WTO	5200,5201,5202,5203
TSI	5210,5211
CSI	5300,5301,5302,5303
FRSI	5310,5311,5312,5313,5314,5315,5316,5317,5318,5319
FRSI-SI	5320,5321
FLSE	IAW Flight Leadership Program Model Manager requirements.
FAC(A)I	IAW the MAWTS-1 Course Catalogs. 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. FRS commanding officers should designate NSFIs as appropriate per the MAWTS-1 Course Catalog.
NSFI	
DACMI	
NSI	
WTI	

Tracking Code Requirements	
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-6906	FAC(A) Standardization Tracking Code

2.7 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 2.24). ***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.***

2.7.1 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 Skill Introduction Training	USMC AH-1W FRS
27-165	Core Skill/Mission Skill Training	Tactical Squadron
54-190	Core Plus Skill Training	Tactical Squadron

2.7.2 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 paragraph 2.24.3 of 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.

2.7.2.1 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.

2.7.2.2 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

2.7.3.3 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.

2.7.3.4 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 Skill Introduction Training	USMC AH-1W FRS
9-17	Core Skill/Mission Skill Training	Tactical Squadron
9-17	Core Plus Skill Training	Tactical Squadron

2.7.4 Modified Refresher/Refresher (MR/R) POI.

2.7.4.1 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:

2.7.4.1.1 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.

2.7.4.1.2 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.

2.7.4.1.3 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.

2.7.4.1.4 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.

2.7.4.2 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.

2.7.4.3 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 2.23), previously designated AH-1Z pilots shall complete all R coded events. Incomplete events will either be new events, like CAS-3304, with no direct comparison to a AH-1Z event (in the 8 Mar 11 T&R), or an event with no proficiency date because the pilot never performed it in the AH-1Z or because there is no event conversion defined. The current AH-1Z T&R has an equivalent CAS-3304 event and can be used for conversion if not delinquent. ***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.

2.7.4.4 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
1-2	Interactive Courseware	USMC AH-1W FRS
3-8	Core Skill Introduction Training	USMC AH-1W FRS
9-30	Core Skill/Mission Skill Training	Tactical Squadron
9-30	Core Plus Skill Training	Tactical Squadron

2.7.5 Fleet Replacement Squadron and NATOPS/Assistant NATOPS POI

WEEKS	COURSE	PERFORMING ACTIVITY
1-4	Fleet Replacement Squadron Instructor	USMC AH-1W FRS
1	Fleet Replacement Squadron Standardization Instructor	USMC AH-1W FRS
1	NATOPS/Assistant NATOPS Instructor	Tactical Squadron

2.7.6 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

2.7.7 MAWTS-1 Level Instructor POI

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

2.7.8 Flight Leadership POI

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

2.8 ACADEMIC TRAINING

2.8.1 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.

2.8.2 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:

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

2.8.2.2 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.

2.8.2.3 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.

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

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

NIPR: https://vcepub.tecom.usmc.mil/sites/msc/magtftc/mawts1/departments1/ASD/AH-1%20Division.aspx Click on Departments, ASD, AH-1 for general unclassified information.

SIPR: http://www.mawts1.usmc.smil.mil/ Click on Departments, AH-1 for general information, then select Departments, Academics, Generics, Common or Specific for WTI classified and unclassified courseware. Click on ASP for Academic Support Package courseware.

2.8.2.6 Graduate Level Courses. There are 5 graduate level courses (FAC(A)I, NSFI, 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.

2.8.2.7 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

2.9 EVENT REQUIREMENTS

2.9.1 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.

2.9.1.1 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.

2.9.1.2 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).

2.9.1.3 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.

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

2.9.1.5 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.

2.9.1.6 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.

2.9.1.7 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.

2.9.1.8 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.

2.9.2 Event Header

2.9.2.1 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.

2.9.2.2 Refly Factor. Refly (proficiency interval) factors reflect 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).

2.9.2.3 Programs of Instruction. Delineates event requirements for specific syllabi.

2.9.2.4 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

2.9.2.5 "E"-Coded Events. Delineates a special event that requires an evaluation. The "E"-coded event also requires an ATF upon execution of every occurance.

2.9.2.6 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	Event performed in aircraft preferred/simulator optional
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

2.9.2.6.1 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.

2.9.3 Event Body

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

2.9.3.1.1 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.

2.9.3.1.2 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.

2.9.3.1.3 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.

2.9.3.1.4 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.

2.9.3.2 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.***

2.9.3.2.1 Grading Standards

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

2.9.3.2.1.2 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.

2.9.3.2.1.3 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.

2.9.3.2.1.4 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.

2.9.3.3 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.

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

2.9.3.5 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 OPNAVINST, 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.

2.10 CORE SKILL INTRODUCTION FRS ACADEMIC PHASE (1000)

2.10.1 Purpose. To develop a Core Skill 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.

2.10.2 General

2.10.2.1 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.

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

CORE SKILL 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

2.11.2.2 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.

2.11 CORE SKILL INTRODUCTION PHASE

2.11.1 Purpose. To develop a Core Skill 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 Skill 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.

2.11.2 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 Skills Introduction Phase standardization.**

2.11.2.1 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.

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

	CORE SKILL INTRODUCTION PHASE
PAR NO.	**STAGE NAME**
2.11.3	Familiarization (FAM)
2.11.4	Instrument (INST)
2.11.5	Formation (FORM)

2.11.6	Terrain Flight (TERF)
2.11.7	Navigation (NAV)
2.11.8	Specific Weapons Delivery (SWD)
2.11.9	Threat Counter-Tactics (TCT)
2.11.10	Core Skill Introduction Check (CSIX)

2.11.3 Familiarization (FAM)

2.11.3.1 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.

2.11.3.2 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-1100 0.0 * D A STATIC 1 AH-1W

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. ACAD-1000 through 1003

Crew. FRSI/PUI

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

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. FAM-1100

Crew. FRSI/PUI

SFAM-1102	1.5	*	SC	D	WST/APT	S-TEN	1 AH-1W

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. ACAD-1004-1006, FAM-1101

Crew. CSI or FRSI/PUI

SFAM-1103 1.5 * SC D WST/APT S-TEN 1 AH-1W

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. SFAM-1102

Crew. CSI or FRSI/PUI

FAM-1104 1.5 * 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. ACAD-1004, 1005, SFAM-1103

Crew. FRSI/PUI

FAM-1105 2.0 * 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. SFAM-1104

Crew. FRSI/PUI

SFAM-1106 1.5 * D WST/APT S-TEN 1 AH-1W

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. FAM-1104

Crew. CSI OR FRSI/PUI

SFAM-1107 1.5 * R,SC,MR D WST/APT S-TEN 1 AH-1W

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. SFAM-1106

Crew. CSI OR FRSI/PUI

FAM-1108 2.0 * 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. FAM-1105, SFAM-1107

Crew. FRSI/PUI

FAM-1109 2.0 * 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. FAM-1108

Crew. FRSI/PUI

FAM-1110 2.0 * 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. FAM-1109

Crew. FRSI/PUI

SFAM-1111 1.5 * R,SC,MR D WST/APT S-TEN 1 AH-1W

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. 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 conduct all procedures and maneuvers IAW the AH- 1W NATOPS and MDG.
PUI shall perform a minimum of five full autorotations.

Prerequisites. FAM-1110

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

FAM-1112 2.0 * 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. SFAM-1111

Crew. FRSI/PUI

FAM-1113 2.0 * 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. FAM-1112

Crew. FRSI/PUI

FAM-1114 2.0 * R,SC,MR D E 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. SFAM-1113

Crew. ANI/PUI

SFAM-1115 1.5 * D WST/APT S-TEN 1 AH-1W

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. FAM-1114

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

SFAM-1116 1.5 * R,SC,MR D E WST/APT S-TEN 1 AH-1W

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. FAM-1114, SFAM-1115

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

FAM-1117 2.0 * 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. FAM-1114

Crew. FRSI/PUI

FAM-1118	2.0	*	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. SFAM-1116, FAM-1117

Crew. FRSI/PUI

FAM-1119 2.0 * R,SC,MR D E 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. FAM-1118

Crew. ANI/PUI

SFAM-1120 1.5 * NS WST/APT S-TEN 1 AH-1W

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. ACAD-1011, FAM-1119

Crew. CSI or NSFI/PUI

FAM-1121 1.5 * 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. SFAM-1120

Crew. NSFI/PUI

FAM-1122 1.5 * 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. FAM-1121

Crew. NSFI/PUI

2.11.4 Instruments (INST)

2.11.4.1 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.

2.11.4.2 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.

SINST-1200 1.5 * R,SC,MR (N) WST/APT S-TEN 1 AH-1W

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 OPNAV 3710.
- CSI or FRSI will simulate all ATC communications.
- PUI shall conduct a minimum of 2 approaches.

Prerequisites. ACAD-1007, FAM-1119

Crew. CSI OR FRSI/PUI

INST-1201 1.5 * (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 OPNAV 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 OPNAV 3710.

Prerequisites. SINST-1200

Crew. FRSI/PUI

INST-1202 1.5 * 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 OPNAV 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 OPNAV 3710.

Prerequisites. INST-1201

Crew. FRSI/PUI

SINST-1203 1.5 * R,SC,MR (N) E WST/APT 1 AH-1W

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 OPNAV 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 OPNAV 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. INST-1202

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

2.11.5 Formation (FORM)

2.11.5.1 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.

2.11.5.2 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.

FORM-1300 2.0 * 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. ACAD-1008, NAV-1500

Crew. FRSI/PUI

FORM-1301 2.0 * 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. FORM-1300

Crew. FRSI/PUI

FORM-1302 2.0 * D S/A 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. FORM-1301

Crew. FRSI/PUI

FORM-1303 1.5 * 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. FAM-1121, FORM-1301

Crew. NSFI/PUI

FORM-1304 2.0 * D E 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. FORM-1302, 1303

Crew. ANI/PUI

2.11.6 Terrain Flight (TERF)

2.11.6.1 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.

2.11.6.2 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.

TERF-1400	2.0	*	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. ACAD-1009, NAV-1500 (FORM-1300~Section)

External Syllabus Support. Authorized TERF area

Crew. FRSI/PUI

TERF-1401 2.0 * 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. TERF-1400 (FORM-1300~Section)

External Syllabus Support. Authorized TERF area

Crew. FRSI/PUI

TERF-1402 2.0 * 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. TERF-1400 (FORM-1300~Section)

External Syllabus Support. Authorized TERF area

Crew. FRSI/PUI

TERF-1403 2.0 * 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. FAM-1121, TERF-1401 (FORM-1303~Section)

External Syllabus Support. Authorized TERF area

Crew. NSFI/PUI

2.11.7 Navigation (NAV)

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

2.11.8.2 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.

NAV-1500 2.0 * 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. ACAD-1010, INST-1203

Crew. FRSI/PUI

NAV-1501 2.0 * 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. FAM-1121, NAV-1500

Crew. NSFI/PUI

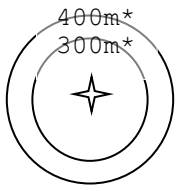
2.11.8 Specific Weapons Delivery (SWD)

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

2.11.8.2 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 SKILL 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.

SSWD-1600 1.5 * R,SC D WST/APT S-TEN 1 AH-1W

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 skill introduction accuracy metric while adhering to all range regulations.

Prerequisites. ACAD-1013, FORM-1300, TERF-1400

Crew. CSI OR FRSI/PUI

SWD-1601 1.5 * 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 skill introduction accuracy metric while adhering to all range regulations.

Prerequisites. SSWD-1600

Ordnance. (400) rounds 20mm

Range Requirements. LASER safe live fire range

Crew. FRSI/PUI

SSWD-1602 1.5 * R,SC D WST/APT S-TEN 1 AH-1W

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 skill introduction accuracy metric while adhering to all range regulations.

Prerequisites. SSWD-1600

Crew. FRSI/PUI

SWD-1603 1.5 * 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 Skill Introduction accuracy metric while adhering to all range regulations.

Prerequisites. SWD-1601, SSWD-1602, TCT-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	*	R,SC,MR	D	E	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 skill introduction accuracy metric** while adhering to all range regulations.

Prerequisites. SWD-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

2.11.9 Threat Counter-Tactics(TCT)

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

2.11.9.2 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.

STCT-1700 1.5 * R,SC,MR D WST/APT S-TEN 1 AH-1W

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. ACAD-1012, FORM-1300, TERF-1400

Crew. CSI or FRSI/PUI

2.11.10 Core Skill Introduction Check (CSIX)

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

2.11.10.2 General. The PUI will demonstrate proficiency through the Core Skill Introduction phase. Upon completion of the evaluation event, the PUI will be designated as PQM IAW AH-1W NATOPS Chapter 5. CSIX-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 CSIX phase or the PUI shall be scheduled for a 1.5 hour FAM warmup prior to CSIX-1901.

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

Ground/Academic Training. N/A.

SCSIX-1900 1.5 * R,SC,MR D E WST/APT S-TEN 1 AH-1W

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. FORM-1304, TERF-1403, NAV-1502, SWD-1604

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

CSIX-1901 2.0 * R,SC,MR D E A 1 AH-1W

Goal. RS – Core Skill Introduction Check.

Requirements

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. SCSIX-1900

Crew. ASI/PUI

2.12 CORE SKILL ACADEMIC PHASE (2000)

2.12.1 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.

2.12.2 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.

2.12.3 Core Skill academic events are listed below.

CORE SKILLS 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)**
FCLP	
No Lectures	
SWD	
ACAD-2063	(S) AGM-114 Hellfire
ACAD-2064	(S) AIM-9
ACAD-2066	Rockets
ACAD-2067	20mm
ANSQ	
No Lectures	
FAM	
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.	

2.13 CORE SKILL PHASE (2000)

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

2.13.2 General. 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.

2.13.2.1 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.

2.13.2.2 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.

2.13.2.3 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.

2.13.2.4 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.

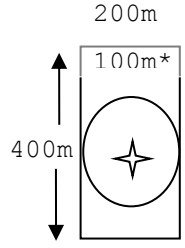
2.13.2.5 Prior to completion of the Core Skills/Mission Skills Phase, Expeditionary Shore Based (FARP) Operations shall be conducted. Refer to Mission Skills Phase, paragraph 2.15.12 for sortie requirements. EXP-3600 through 3603 may be logged in conjunction with any Core or Mission Skills Phase event.

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

	CORE SKILL PHASE
PAR NO.	**STAGE NAME**
2.13.5	Terrain Flight (TERF)
2.13.6	Threat Counter-Tactica (TCT)
2.13.7	Reconaissance (REC)
2.13.8	Field Carrier Landing Practice (FCLP)
2.13.9	Specific Weapons Delivery
2.13.10	Advanced Night Systems Qualification (ANSQ)
2.13.11	Familiarization (FAM)

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

2.13.4 Ordnance Delivery. For Core Skill 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.

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

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

2.13.5 Terrain Flight/Navigation (TERF)

2.13.5.1 Purpose. To enhance proficiency in terrain flight and navigation.

2.13.5.2 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.

TERF-2100 2.0 180 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. ACAD-2012

Range Requirement. Authorized TERF route, high bird if required

Crew. TERFI/PUI

TERF-2101	2.0	180	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. ACAD-2013 through 2020 prior to completion, TERF-2100

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

Crew. NSI/PUI

2.13.6 Threat Counter Tactics (TCT)

2.13.6.1 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.

2.13.6.2 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, NTS/NTSU and LDRS.

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

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

STCT-2200	1.5	*	D	WST/APT S-TEN	1 AH-1W

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. ACAD-2021, 2023

Crew. TSI/PUI

STCT-2201 1.5 365 R,SC,M (NS) WST/APT S-TEN+/A 1 AH-1W & 1 H-1

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. STCT-2200 (TERF-2100~AC, TERF-2101~NS)

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. TSI(NSI)/PUI (WTO(NSI)/PUI~AC)

2.13.7 Reconnaissance (REC)

2.13.7.1 Purpose. To develop proficiency in reconnaissance operations.

2.13.7.2 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 NTS/NTSU and DVR.

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

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

SREC-2300 1.5 * D WST/APT S TEN/A 1 AH-1W

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. ACAD-2011 (TERF-2100~AC)

Range Requirement. Authorized TERF area, LASER safe range

External Syllabus Support. Thermally augmented threat vehicles if available.

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

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

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

Requirements

Discuss
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. TERF-2101, SREC-2300

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

External Syllabus Support. Thermally augmented threat vehicles if available

Crew. NSI/PUI

2.13.8 Field Carrier Landing Practice (FCLP)

2.13.8.1 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.

2.13.8.2 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.

SFCLP-2500 1.5 * D/NS/N* WST/APT S-TEN 1 AH-1W

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.

Prerequisites. N/A

Crew. TSI+NSI/PUI

FCLP-2501 1.0 365 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. SFCLP-2500

External Syllabus Support. FCLP pad

Crew. BIP/PUI

FCLP-2502 1.0 365 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

2.13.9 Specific Weapons Delivery (SWD)

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

2.13.9.2 General. At the completion of this stage, the PUI will have demonstrated proficiency in ordnance delivery and proper use of the NTS/NTSU 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.

SSWD-2600 1.5 * D WST/APT S-TEN/A 1 AH-1W

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. ACAD-2063, 2064, 2066, 2067, SREC-2300 (TERF-2100~AC)

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

Range Requirement. LASER safe range

Crew. TSI/PUI

SSWD-2601 1.5 180 R,M D WST/APT S-TEN/A 1 AH-1W

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. SSWD-2600 (TERF-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. TSI/PUI (WTO/PUI~AC)

SWD-2602 1.5 730 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. TERF-2100, SSWD-2601 (TERF-2101, REC-2301~NS)

Ordnance. (1) live Hellfire, (400) rounds 20mm

Range Requirement. Live fire and LASER safe range

Crew. WTO(NSI)/PUI

SSWD-2603 1.5 * SC D/NS WST/APT S TEN 1 AH-1W

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. STCT-2200, SREC-2301

Crew. TSI/PUI

SWD-2604 1.5 * 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 profile.

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. TERF-2100, SSWD-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 R,SC,M D E 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 profile.

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. SWD-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 * 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. TERF-2101, SWD-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 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. SWD-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 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. SWD-2603 (SWD-2607~NS, SWD-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 (TSI(NSI)/PUI~SIM)

2.13.10 Advanced Night System Qualification (ANSQ)

2.13.10.1 Purpose. To develop proficiency during LLL operations.

2.13.10.2 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 conditions.

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

SANSQ-2700	1.5	*	SC	NS	WST/APT S-TEN	1 AH-1W

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. TSI+NSI/PUI

ANSQ-2701 2.0 180 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. SANSQ-2700

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

Crew. NSI/PUI

ANSQ-2702 1.5 180 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. ANSQ-2701

Range Requirement. Authorized TERF area and route. Pure section preferred

Crew. NSI/PUI

SANSQ-2704 1.5 * NS WST/APT S-TEN/A 1 AH-1W

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 (ANSQ-2702~AC)

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

Crew. TSI+NSI/PUI (NSI/PUI~AC).

ANSQ-2705	1.5	180	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. ANSQ-2702, SANSQ-2704.

Ordnance. (7) 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

2.13.11 Familiarization (FAM)

2.13.11.1 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.

2.13.11.2 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.

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

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

FAM-2800 1.5 90 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. CSIX-1901

Crew. BIP(NSI)/PUI.

SFAM-2801 1.5 90 R,SC,M (NS) E WST/APT S-TEN/A 1 AH-1W

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. CSIX-1901

Crew. CSI (BIP(NSI)/PUI~AC)

2.14 MISSION SKILLS ACADEMIC PHASE (3000)

2.14.1 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)].

2.14.2 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.

2.14.3 Mission Skill academic events are listed below.

MISSION SKILLS 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*
No Lectures	
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.	

2.15 MISSION SKILL PHASE (3000)

2.15.1 Purpose. To produce a mission skills proficient pilot. Upon completion of the Mission Skills phase, pilots should be proficient in Mission Essential Task.

2.15.2 General. Upon completion of the Mission Skills phase, pilots may be designated Attack Helicopter Commander (AHC)and Forward Air Controller (Airborne) [FAC(A)].

Completion of the Core Skills Phase and the ESC, CAS, AR, AI, SCAR, TRAP and EXP stages through TRAP-3308 and EXP 3603 of the Mission Skill 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.

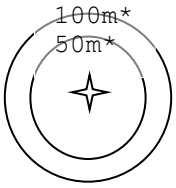
Prior to completion of the Core/Mission Skills Phase, Expeditionary Shore Based (FARP) Operations shall be conducted. Refer to Mission Skills Phase, paragraph 2.15.10 for sortie requirements. EXP-3600 through EXP-3603 shall be logged in conjunction with any Core or Mission Skills Phase event.

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

	MISSION SKILL PHASE
PAR NO.	**STAGE NAME**
2.15.3	Escort (ESC)
2.15.4	Close Air Support (CAS)
2.15.5	Armed Reconaissance (AR)
2.15.6	Air Interdiction
2.15.7	Strike Coordination and Reconaissance (SCAR)
2.15.8	Tactical Recovery of Aircraft Equipment and Personnel (TRAP)
2.15.9	Forward Air Controller (Airborne) FAC(A)
2.15.10	Expeditionary Operations (EXP)

2.15.2.2 Ordnance Delivery. At the completion of this stage, the PUI will have demonstrated increased accuracy during ordnance delivery and proper use of the NTS/NTSU 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 Skills 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. 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.

2.15.4.1 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.

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

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

2.15.2.2.3 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.

2.15.2.2.4 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.

2.15.2.2.5 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.

2.15.3 Escort (ESC)

2.15.3.1 Purpose. To develop proficiency in prescribed airborne and surface escort formations and maneuvers.

2.15.3.2 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.

ESC-3100	1.5	*	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. ACAD-3008, 3009, SSWD-2603 (SWD-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	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. ACAD-3010, 3011, ESC-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 R,SC,M (NS) WST/APT S-TEN+/A 1 AH-1W & 1 H-1

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. ACAD-3003 through 3005, 3019, ESC-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)

Exernal Syllabus Support. Device operator. If flown in aircraft one or more assault support aircraft.

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

ESC-3103 1.5 * R (NS) A 1 AH-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. SSWD-2603 (NSQ~NS, ANSQ~LLL, SWD-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

2.15.4 Close Air Support (CAS)

2.15.4.1 Purpose. To develop procedures and skills to tactically employ the aircraft while conducting CAS missions under varying threat conditions.

2.15.4.2 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.

SCAS-3300	1.5	*	SC	D/NS	WST/APT	S-TEN+	1 AH-1W & 1 H-1

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. ACAD-3030 through 3033, SSWD-2600, SANSQ-2704

Crew. TSI+NSI/PUI

CAS-3301 1.5 180 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. SCAS-3300

Ordnance. (1) captive PGM, (7) 2.75 inch rockets, (200) rounds 20mm, (60) chaff/flares

Range Requirements. Live fire and LASER safe range

External Syllabus Support. TACP

Crew. WTO/PUI

CAS-3302 1.5 * 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. CAS-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	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. CAS-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	R,M	(NS)	A/S-TEN+	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. CAS-3301 (CAS-3302~, CAS-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.

2.15.5 Armed Reconnaissance (AR)

2.15.5.1 Purpose. To develop procedures and skills to tactically employ the aircraft while conducting Armed Reconnaissance (AR) missions under varying threat conditions.

2.15.5.2 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.

AR-3305	1.5	365	R,M	(NS)	A	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. ACAD-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

2.15.6 Air Interdiction (AI)

2.15.6.1 Purpose. To develop procedures and skills to tactically employ the aircraft while conducting Air Interdiction (AI) missions under varying threat conditions.

2.15.6.2 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.

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

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

AI-3306	1.5	365	R,SC,M	NS	A	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. ACAD-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 aavailable

Crew. WTO(NSI)/PUI

2.15.7 Strike Coordination and Reconnaissance (SCAR)

2.15.7.1 Purpose. To develop procedures and skills to tactically employ the aircraft while conducting SCAR missions under varying threat conditions.

2.15.7.2 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.

SCAR-3307	1.5	365	R,M	(NS)	A/S-TEN+	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. ACAD-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

2.15.8 Tactical Recovery of Aircraft and Personnel (TRAP)

2.15.8.1 Purpose. To develop procedures and skills to tactically employ the aircraft while conducting TRAP missions under varying threat conditions.

2.15.8.2 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.

TRAP-3308 1.5 365 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. ACAD-3038, 3039, ANSQ, ESC-3100 (ESC-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

2.15.9 Forward Air Controller (Airborne) FAC(A)

2.15.9.1 Purpose. To qualify PUI as a FAC(A) in accordance with applicable

directives.

2.15.9.2 General. 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. At the completion of this stage the PUI will have met the certification requirements of the Joint FAC(A) MOA. The PUI may be designated a FAC(A) by the squadron commanding officer. Outlined requirements are listed in the most recent JCAS AP MOA-JFAC(A), and the T&R Program Manual Chapter 3. The JFAC(A) MOA can be found on the MAWTS-1 intranet via the TECOM Webpage at: https://vcepub.tecom.usmc.mil/sites/msc/magtftc/mawts1/jfaca/SitePages/JFAC(A).aspx.

Pilots 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. The FAC(A)I may simulate the ground FAC if one is not available.

One event (FACA-3401 through FACA-3404) shall be flown in support of a qualified JTAC. Four of the controls during the initial POI shall be under non-permissive conditions. A "non-permissive" control is defined as a control where the target area threat level dictates that the FAC(A) must use threat counter-tactics and countermeasures. The FAC(A) must use a tactical scenario which requires a full 9-line CAS attack brief (IP to target area).

Upon successful completion of this stage of training through FACA-3404 and compliance with JFAC(A) MOA certification requirements, the commanding officer may issue a T&R FAC(A) qualification as well as a JFAC(A) MOA FAC(A) certification.

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 and conduct a minimum of six successful live controls IAW the current JFAC(A) MOA.

FACA-3400 is annotated A/S. If this event is an initial sortie for the PUI, it SHALL be flown in the aircraft. Subsequent flights of this event can be flown in the simulator to maintain proficiency.

FACA-3401 and 3402 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 log controls for JFAC(A) proficiency requirements. Controls logged during simulator events SHALL only be daytime, type 2 or 3. The WST/APT SHALL be operated by a TSI from the command post (not from a crew seat). Where a S-TEN+ is specified the IP may simulate the man in the loop. A co-pilot SHALL be required for CRM purposes and cockpit management.

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.

FACA-3400 1.5 365 R,M (NS) A/S-TEN 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 four (4) fire missions, two (2) of which shall be adjust fire missions, one (1) shall be a SEAD mission.

PUI shall achieve desired effects (destroy, neutralize or suppress)on selected targets.

Prerequisites. ACAD 3041, 3042, DESG-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 (TSI(NSI)+FAC(A)/PUI~SIM)

FACA-3401 1.5 365 R,M (NS) A/S*-TEN+ 1 AH-1W & 1 H-1

Goal. FS – Introduce control of RW aircraft.

Requirements

Discuss
- 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 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 RW CAS assets into objective area mechanics
- RW communication and control procedures

Performance Standards
- PUI shall demonstrate a basic knowledge of RW CAS aircraft planning, preparation and execution.
- PUI shall conduct a minimum of four (4) RW controls consisting of at least:
  - (1) type 1 RW control
  - (1) type 2 RW control
  - (1) type 3 RW control
- PUI shall utilize a minimum of one (1) 9-Line CAS attack brief.
- PUI shall utilize at least two (2) 5-Line CAS attack briefs.

Prerequisites. ACAD 3041, 3042, DESG-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. 2 RW CAS aircraft with ordnance, Ground Maneuver Unit with TACP

Crew. FAC(A)I/PUI

FACA-3402	1.5	365	R,M	D	A/S*-TEN+	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. ACAD 3041, 3042, DESG-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	R,M	NS	A	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. ACAD 3041, 3042, DESG-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	R,M	(NS)	A	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. FACA-3400 through FACA-3402 (FACA-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

2.15.10 Expeditionary Shore-based Site Operations

2.15.10.1 Purpose. To introduce day and night flight and ground operations from an expeditionary site.

2.15.10.2 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 skills 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.

EXP-3600	0.0	*	R	D	A/S-TEN	1 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. ACAD-3045, ACPM-8310, 8311, TERF-2100

External Syllabus Support. Actual or simulated FARP

Crew. BIP/PUI

EXP-3601	0.0	180	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. ACAD-3045, ACPM-8310, 8311, TERF-2101 (ANSQ-2701~LLL)

External Syllabus Support. Actual or simulated FARP

Crew. NSI/PUI

EXP-3602	0.0	*	R	D	A/S*-TEN	1 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. TERF-2100

Crew. BIP/PUI

EXP-3603 0.0 120 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

2.16 CORE PLUS ACADEMIC PHASE (4000)

2.16.1 Purpose. To develop a Core Plus Skill complete pilot. These academics facilitate understanding of higher threat operations in the AH-1W 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.

2.16.2 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.

2.16.3 Core Skill academic events are listed below.

CORE PLUS ACADEMIC PHASE	
TRAINING CODES	**COURSEWARE**
GENERAL REQUIREMENTS	
ACAD-4001	(S) Airborne Early Warning
ESC	
No Lectures	
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	
	No Lectures
CQ	
No Lectures	
*Indicates classes that should be presented to all pilots annually.	

2.17 CORE PLUS/MISSION PLUS PHASE (4000)

2.17.1 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.

2.17.2 General. Upon completion of each individual stage, the pilot will be considered Core Plus/Mission Plus proficient in that stage.

Completion of 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.

2.17.2.1 Stages. The following stages are included in the Core Plus/Mission Plus Phase of training.

	CORE PLUS SKILL PHASE
PAR NO.	**STAGE NAME**
2.17.3	Escort (ESC)
2.17.4	Close Air Support (CAS)
2.17.5	Armed Reconnaissance
2.17.6	Air Interdiction
2.17.7	Strike Coordiantion and Reconaisance (SCAR)
2.17.8	Offensive Anti-Air Warfare
2.17.9	Rotary Wing Defensive Air Combat Maneuvering (RWDACM)
2.17.10	Fixed Wing Defensive Air Combat Maneuvering (FWDACM)
2.17.11	Chemical, Biological, Radiological and Nuclear Warfare (CBRN)
2.17.12	Carrier Qualified (CQ)

2.17.2.2 Ordnance Delivery. At 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 (See Paragraph 2.15.4). 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.

2.17.3 Escort (ESC)

2.17.3.1 Purpose. To refine proficiency in escort missions.

2.17.3.2 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.

ESC-4200 1.5 730 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. DESG-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

2.17.4 Close Air Support (CAS)

2.17.4.1 Purpose. To refine proficiency in Close Air Support missions.

2.17.4.2 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.

CAS-4201	1.5	730	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. SL-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 (TSI+WTI/PUI~SIM)

2.17.5 Armed Reconnaissance (AR)

2.17.5.1 Purpose. To refine proficiency in Armed Reconnaissance missions.

2.17.5.2 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.

AR-4205	1.5	730	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. SL-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

2.17.6 Air Interdiction (AI)

2.17.6.1 Purpose. To refine proficiency in AI missions.

2.17.6.2 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.

AI-4206	1.5	730	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. SL-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

2.17.7 Strike Coordination and Reconnaissance (SCAR)

2.17.7.1 Purpose. To refine proficiency in Strike Cooridination and Reconnaissance missions.

2.17.7.2 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.

SCAR-4207 1.5 730 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. DESG-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 (TSI+WTI/PUI~SIM)

2.17.8 Offensive Anti-Air Warfare (OAAW)

2.17.8.1 Purpose. To refine proficiency in OAAW missions.

2.17.8.2 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.

OAAW-4209 2.0 730 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. ACPM-8300, AI-4206, SCAR-4207

Ordnance. (1) captive PGM

Range Requirements. Live fire and LASER safe range.

Crew. WTI/PUI.

2.17.9 Rotary Wing DACM (RWDACM)

2.17.9.1 Purpose. To demonstrate and introduce RWDACM and to qualify the PUI as RWDACM complete.

2.17.9.2 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.

DACM-4300 1.5 485 R,M D A 2 AH-1W

Goal. OS - Introduce outside weapons parameters air-to-air tactics.

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.

Performance Standards
- PUI shall conduct one complete line number sequence (from both friendly and bandit roles).
- PUI shall demonstrate appropriate tactics to engage adversary aircraft outside weapons parameters.

Prerequisites. SSWD-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/PUI

DACM-4301 1.0 * 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, STCT-2201, SREC-2300, SSWD-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 * 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. DACM-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 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. ACAD-3013, 4030 through 4034, DACM-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

2.17.10 Fixed-Wing Defensive Air Combat Maneuvering (FWDACM)

2.17.10.1 Purpose. To demonstrate and introduce FWDACM and to qualify the PUI as FWDACM complete.

2.17.10.2 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.

DACM-4304 1.0 * 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, STCT-2201, SREC-2300, SSWD-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 R,M 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. ACAD-4030 through 4032, 4035, 4036, DACM-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

2.17.11 Chemical, Biological, Radiological and Nuclear warfare (CBRN)

2.17.11.1 Purpose. To introduce the pilot to operations while wearing the aviator's CBR protective mask.

2.17.11.1 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-1W 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.

SCBRN-4400 1.0 * R,M D/NS WST/APT S/A 1 AH-1W

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. (TERF-2101~AC)

Crew. TSI+NSI/PUI (NSI/PUI~AC)

2.17.12 Carrier Qualification (CQ)

2.17.12.1 Purpose. To introduce day and night flight operations from a carrier deck or air capable ship.

2.17.12.2 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 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.

CQ-4600 1.0 365 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. FCLP-2501

External Syllabus Support. Landing platform afloat

Crew. BIP/PUI

CQ-4601	1.0	365	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, FCLP-2502, CQ-4600.

External Syllabus Support. Landing platform afloat

Crew. NSI/PUI

CQ-4602	1.0	365	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. FCLP-2502, CQ-4600

External Syllabus Support. Landing platform afloat

Crew. BIP/PUI

2.18 INSTRUCTOR UNDER TRAINING ACADEMIC PHASE (5000)

2.18.1 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.

2.18.2 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.

2.18.3 Instructor Under Training academic events are listed below.

INSTRUCTOR UNDER TRAINING ACADEMIC PHASE	
TRAINING CODES	**COURSEWARE**
GENERAL REQUIREMENTS	
No Lectures	
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 Aerodynamic s
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	TSI Introduction
ACAD-5028	Tactical Simulator Scenarios
CSI	
Refer to MATSS provided courseware	
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
	FRS-SI
ACAD-5070	Fleet Replacement Squadron Standardization Instructor Course (FRS-SIC)
* Indicates classes that should be presented to all pilots annually.	

2.19 INSTRUCTOR TRAINING PHASE (5000)

2.19.1 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.

2.19.2 General. Upon completion of this phase of training the IUT may be designated a BIP, TERFI, WTO, TSI, CSI, FRSI, FRS-SI, 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.

Completion of the FRS-SI stage meets the requirements for the IUT to be designated a FRS-SI. At the discretion of the squadron commanding officer a letter designating the IUT as a FRS-SI 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.

2.19.2.1 Stages. The following stages are included in the Instructor Phase of training.

	INSTRUCTOR PHASE
PAR NO.	**STAGE NAME**
2.19.3	Basic Instructor Pilot (BIP)
2.19.4	Terrain Flight Instructor (TERFI)
2.19.5	Weapons Training Officer (WTO)
2.19.6	Tactial Simulator Instructor (TSI)
2.19.7	Contract Simulator Instructor (CSI)
2.19.8	Fleet Replacement Squadron Instructor (FRSI)
2.19.9	Fleet Replacement Squadron Standardization Instructor (FRS-SI)
2.19.10	Forward Air Controller (Airborne) Instructor [FAC(A)I]
2.19.11	Night Systems Familiarization Instructor (NSFI)
2.19.12	Defensive Air Combat Maneuvering Instructor (DACMI)
2.19.13	Night Systems Instructor (NSI)
2.19.14	Flight Lead Standardization Evaulator (FLSE)

2.19.2.2 Ordnance Delivery. For ordnance accuracy metrics, refer to paragraph 2.19.5.

2.19.3 Basic Instructor Pilot (BIP)

2.19.3.1 Purpose. To qualify the IUT to instruct basic FAM, INST, FORM, FCLP, and CQ.

2.19.3.2 General. To instruct CQ, IUT must meet currency requirements outlined in OPNAVINST 3710.7.

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

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

SBIP-5100 1.5 * R,SC D WST/APT 1 AH-1W

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. DESG-6398

External Syllabus Support. Device operator

Crew. TSI/IUT/co-pilot

SBIP-5101 1.5 * D WST/APT S-TEN/A 1 AH-1W

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. SBIP-5100

External Syllabus Support. Device operator. If flown in the aircraft:
FCLP pad

Crew. TSI/IUT/co-pilot (WTO/IUT~AC)

SBIP-5102 1.5 * (N*) WST/APT S-TEN/A 1 AH-1W

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. SBIP-5100

External Syllabus Support. Device operator

Crew. TSI + IFBM/IUT (WTO+IFBM/IUT~AC)

BIP-5103 1.5 * 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. SBIP-5100

Crew. WTO/IUT

BIP-5104	1.5	*	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
OPNAVINST 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. BIP-5101-5103

Crew. WTO/IUT

2.19.4 Terrain Flight Instructor (TERFI)

2.19.4.1 Purpose. To qualify the IUT as a TERF instructor.

2.19.4.2 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.

STERF-5110	1.5	*		D	WST/APT S-TEN/A	1 AH-1W

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. ACAD 5011 through 5013, BIP-5104

External Syllabus Support. Authorized TERF maneuvering area

Crew. TSI/IUT/co-pilot (WTO/IUT~AC)

TERF-5111	1.5	*	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. STERF-5110

External Syllabus Support. Authorized TERF route

Crew. WTO/IUT

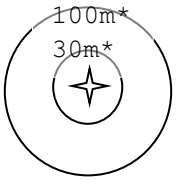
2.19.5 Weapons Training Officer (WTO)

2.19.5.1 Purpose. To qualify the IUT as a WTO.

2.19.5.2 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, TSI, NSFI, NSI, DACMI, or WTI qualifications. As such, 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.

SWTO-5200 1.5 * R,SC D WST/APT S-TEN 1 AH-1W

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. TERF-5111

External Syllabus Support. Device operator

Crew. TSI+NSI/IUT/co-pilot

SWTO-5201 1.5 * D WST/APT S-TEN/A 1 AH-1W

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. SWTO-5200

External Syllabus Support. Device operator

Crew. TSI+NSI/IUT/co-pilot

WTO-5202 1.5 * 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. SWTO-5201

Ordnance. (1) captive PGM, (7) 2.75 inch rockets, (300) rounds 20mm, (30) chaff/flares

Crew. NSI/IUT

WTO-5203	1.5	*	R,SC	D	E	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. WTO-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

2.19.6 Tactical Simulator Instructor (TSI)

2.19.6.1 Purpose. To qualify the IUT as a TSI capable of providing tactical simulation training in the AH-1W WST/APT.

2.19.6.2 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 Skills Phase, Mission Skills Phase and Core Plus/Mission Plus Skills 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.

STSI-5210	1.5	*	R	D	WST/APT	S-TEN	1 AH-1W

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	*	D	WST/APT S-TEN	1 AH-1W

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

2.19.7 Contract Simulator Instructor (CSI)

2.19.7.1 Purpose. To develop qualified Contract Simulator Instructors (CSIs) using a standardized instructor program. This syllabus is designed to prepare CSIs to instruct Core Skills Introduction Phase, and select Core Skills Phase, events in the simulator.

2.19.7.2 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.

SCSI-5300 1.5 365 M D E WST/APT S-TEN 1 AH-1W

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 M (N*) E WST/APT S-TEN 1 AH-1W

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 M D E WST/APT S-TEN 1 AH-1W

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. ACAD-1012, Candidate CSI

Crew. WTI+TSI/IUT

SCSI-5303 1.5 365 M D E WST/APT S-TEN 1 AH-1W

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+TSI/IUT

2.19.8 Fleet Replacement Squadron Instructor (FRSI)

2.19.8.1 Purpose. To certify the IUT as a Fleet Replacment Squadron Instructor capable of instructing Core Skills Introduction Phase events. Emphasis will be placed on instructor proficiency, training standardization, and aircraft recovery from various regimes.

2.19.8.2 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.

SFRSI-5310 1.5 * D WST/APT S-TEN 1 AH-1W

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. WTO-5203

Crew. CSI/IUT

FRSI-5311 2.0 * 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. SFRSI-5310

Crew FRSI/IUT

FRSI-5312 2.0 * 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. FRSI-5311

Crew FRSI/IUT

FRSI-5313 2.0 * D E 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. FRSI-5312

Crew ASI/IUT

FRSI-5314 2.0 * R (N) E 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 OPNAV 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 OPNAV 3710.

Prerequisites. SFRSI-5310

Crew. ASI/IUT

FRSI-5315 2.0 * 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. SFRSI-5310

Crew. ASI/IUT

FRSI-5316 2.0 * 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. SFRSI-5310

External Syllabus Support. Authorized TERF maneuvering area

Crew. FRSI/IUT

SFRSI-5317 1.5 * D WST/APT S-TEN 1 AH-1W

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. SFRSI-5310

Crew. CSI or FRSI/PUI

FRSI-5318 1.5 * R D E 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. SFRSI-5317

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

Range Requirements. Live fire and LASER safe

Crew. FRSI/IUT

FRSI-5319 2.0 * 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. FRSI-5313, 5315, 5316

Crew ASI/IUT

2.19.9 Fleet Replacement Squadron Standardization Instructor (FRS-SI)

2.19.9.1 Purpose. To certify the IUT as an FRS-SI or an FRS-ASI capable of instructing Core Skill Introduction evaluation events and specified FRSI events. Emphasis will be placed on Core Skill Introduction instructional standardization, Core Skill Introduction evaluation standardization, scenario based training, and role playing during evaluation flights with a pilot in command-based standard.

2.19.9.2 General. IUT must have been designated FRSI, NSFI/NSI, and ANI prior to beginning the FRS-SI syllabus. The lead standardization instructor will be indicated by FRS-SI, and assistant standardization instructors will be indicated by FRS-ASI. The FRS-SI/FRS-ASI relationship is similar to the NI and ANI relationship as described in OPNAV 3710.

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

Ground/Academic Training. IAW the HMLAT-303 FRS Course Catalog.

FRSSI-5320 2.0 * D A 1 AH-1W & 1 H-1

Goal. FS - Introduce the conduct of the FORM-1304 formation stage evaluation.

Requirements

Discuss
Safety considerations
Considerations for executing in conjunction with actual FORM-1300
Scenario based training management and role playing
Grading and pass/fail standardization
RAC tendencies

Review
Refer to performance standards.

Performance Standards.
Event shall be conducted cross cockpit in conjunction with a FORM-1301 PUI event and a FORM-1304 PUI event. FRS-ASI under training shall give the 1301 and be the section leader, and IP shall give the 1304.
FRS-ASI under training will coordinate with IP for the conduct of the flight. IUT shall give special attention to planning, briefing, and debriefing and the execution of contingency items for the FORM-1304.

Crew FRS-SI/IUT

SFRSSI-5321 1.5 * D WST/APT S-TEN 1 AH-1W

Goal. Introduce the conduct of the CSIX-1900 and CSIX-1901 evaluation.

Requirements

Discuss
Differences between CSIX-1900 and CSIX-1901 and aircraft related safety considerations
Scenario based training management and role playing
Grading and pass/fail standardization
RAC tendencies

Review
Refer to performance standards

Performance Standards.
Under the supervision of and in coordination with the IP, the IUT shall give the CSIX-1900 to an actual RAC PUI.

Prerequisites. ACAD-5337

Crew FRS-SI/IUT/RAC PUI/1500 complete copilot

2.19.10 Forward Air Controller (Airborne) Instructor (FAC(A)I)

2.19.10.1 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.

2.19.10.2 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.

FACAI-5400	1.5	*		(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	*	R	(NS)	E	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

2.19.11 Night Systems Familiarization Instructor (NSFI)

2.19.11.1 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 Skill Introduction Phase.

2.19.11.2 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.

NSFI-5600	1.5	*		NS		A	1 AH-1W

Requirement. Reference the MAWTS-1 AH-1 Course Catalog for the NSFI POI.

NSFI-5601	1.5	*		NS		A	2 AH-1W

Requirement. Reference the MAWTS-1 AH-1 Course Catalog for the NSFI POI.

NSFI-5602	1.5	*	R	NS	E	A	1 AH-1W

Requirement. Reference the MAWTS-1 AH-1 Course Catalog for the NSFI POI.

2.19.12 Defensive Air Combat Maneuvering Instructor (DACMI)

2.19.12.1 Purpose. To certify the IUT as a Rotary Wind 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.

2.19.12.2 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.

DACMI-5800 1.5 * 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 * 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 * R D E 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 * R D E 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

2.19.13 Night Systems Instructor (NSI)

2.19.13.1 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.

2.19.13.2 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.

NSI-5900	1.0	*	SC	NS		A/S	1 AH-1W

Requirement. Reference the MAWTS-1 AH-1 Course Catalog for the NSI POI.

NSI-5901	1.0	*		NS		A	1 AH-1W

Requirement. Reference the MAWTS-1 AH-1 Course Catalog for the NSI POI.

NSI-5902	1.5	*		NS		A	1 AH-1W & 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	*	SC	NS		A	1 AH-1W & 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	*	R	NS	E	WST/APT S-TEN+/A	1 AH-1W

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	*	R	NS	E	A	1 AH-1W & 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

2.19.14 Flight Lead Standardization Evaluator (FLSE)

2.19.14.1 Purpose. To certify and designate the pilot as a FLSE.

2.19.14.2 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 annual 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 Skill Introduction Refresher training is at the discretion of the MAG CO. For aircrew who require Core Skill 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.

FLSE-5920	2.0	*	R	(NS)	E	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	365	Annual FLSE Training

Goal. Complete annual FLSE training with the Program Coordinator.

Requirement. Annual training with the FLSE Program Coordinator

Performance Standard. Successful completion of the annual FLSE training

Prerequisite. FLSE-5920

External Syllabus Support. Program Coordinator

2.20 REQUIREMENTS, QUALIFICATIONS AND DESIGNATIONS (RQD) ACADEMIC PHASE 6000)

2.20.1 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.

2.20.2 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.

2.20.3 Flight leadership academic events are listed below.

REQUIREMENTS, QUALIFICATIONS AND DESIGNATIONS ACADEMIC PHASE	
TRAINING CODES	**COURSEWARE**
INST/NATOPS	
No Lectures	
FCP	
No Lectures	
PQM	
No Lectures	
UHC	
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.

2.21 REQUIREMENTS, QUALIFICATIONS, DESIGNATIONS (RQD) PHASE (6000)

2.21.1 Purpose. To outline the requirements for qualifications, designations, and flight leadership.

2.21.2 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 Skills Phase and the Mission Skills 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.

CRP is not awarded for 6000-level sorties, however, CRP credit may be obtained by logging the appropriate training code(s) in the 2000-4000 phase syllabi.

2.21.2.1 Stages. The following stages are included in the Requirements, Qualifications and Designation (RQD) phase.

	REQUIREMENTS, QUALIFCATIONS AND DESIGANTIONS PHASE
PAR NO.	**STAGE NAME**
2.21.3	Instrument Rating(INST)
2.21.4	NATOPS Qualification (NATOPS)
2.21.5	Crew Resource Management Training (CRM)
2.21.6	Functional Check Pilot (FCP)
2.21.7	Pilot Qualified in Model (PQM)
2.21.8	Attack Helicopter Commander (AHC)
2.21.9	Section Leader (SL)
2.21.10	Division Leader (DL)
2.21.11	Flight Leader (FL)
2.21.12	Air Misison Commander (AMC)
2.21.13	Specific Operations Tracking Codes (SOTC)

2.21.2.2 Ordnance Delivery. At At the completion of applicable stages, the PUI will have demonstrated increased accuracy during ordnance delivery and proper use of the NTS/NTSU 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 Skill Phase (See Paragraph 2.15.4). 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.

2.21.3 Instrument Rating (INST)

2.21.3.1 Purpose. To certify the PUI as instrument rated in the AH-1W.

2.21.3.2 General. The instrument rating is an annual requirement. PUI shall log annual instrument minimum requirements prior to event IAW OPNAVINST 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 OPNAVINST 3710.7.

INST-6000 8.0 365 R,M Instrument Ground School

Goal. Attend an TYCOM approved instrument ground school per OPNAVINST 3710.7.

Performance Standards. Achieve a grade of qualified IAW OPNAVINST 3710.7.

INST-6001 1.0 365 R,M Instrument Ground School Exam

Goal. To evaluate the airman's knowledge of instrument flight and procedures.

Performance Standards. Achieve a grade of qualified IAW OPNAVINST 3710.7.

INST-6100 1.5 365 R,M (N) E A/S-TEN 1 AH-1W

Goal. OS - Conduct an annual instrument check.

Requirement. Successfully conduct the check IAW the NATOPS, MDG, OPNAVINST 3710.7 and Instrument Flight Manual (IFM).

Performance Standards. IAW the NATOPS, MDG, OPNAVINST 3710.7 and Instrument Flight Manual (IFM).

Prerequisites. INST-6000, INST-6001 and IAW OPNAVINST 3710.7

Crew. BIP+IFBM (NSI required if flown using NVDs)/PUI

2.21.4 NATOPS Qualification

2.21.4.1 Purpose. To certify the PUI as NATOPS qualified in the AH-1W.

2.21.4.2 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.

NTPS-6002 1.5 365 R,SC,M 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 R,SC,M 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 R,SC,M 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 R,SC,M (N) E A/S 1 AH-1W

Goal. OS - Conduct an annual NATOPS check.

Requirement. Successfully conduct the evaluation IAW OPNAVINST 3710.7 and NATOPS.

Performance Standards. IAW OPNAVINST 3710.7 and NATOPS

Prerequisites. Grade of qualified on NTPS-6002, 6003, 6004

Crew. BIP +NI/ANI (NSI required if flown using NVDs)/PUI

2.21.5 Annual Crew Resource Management (CRM) Evaluation

2.21.5.1 Purpose. Conduct annual CRM ground training and flight evaluation.

2.21.5.2 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.

CRM-6005 1.0 365 R,SC,M 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 R,SC,M E S/A 1 AH-1W CRM EVAL

Goal. OS - Conduct an annual Crew Resource Management evaluation.

Requirement. Successfully conduct the evaluation IAW OPNAVINST 3710.7 and NATOPS. The evaluation should be conducted in conjunction with the annual NATOPS evaluation flight when possible.

Performance Standards. IAW OPNAVINST 3710.7 and NATOPS.

2.21.6 Functional Check Pilot (FCP)

2.21.6.1 Purpose. To introduce, develop proficiency in, and evaluate FCF procedures.

2.21.6.2 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.

FCP-6006	1.0	*					FCP Open Book Exam

Goal. Successful completion of the FCP open-book exam.

FCP-6007	1.0	*					FCP Closed Book Exam

Goal. Successful completion of the FCP closed-book exam.

SFCP-6200	1.5	*	R,SC	D	WST/APT S-TEN/A	1	AH-1W

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. CSIX-1901

External Syllabus Support. Device operator

Crew. BIP+FCP/PUI

FCP-6201 1.5 * 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. SFCP-6200

Crew. BIP+FCP/PUI

FCP-6202 1.5 * 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. FCP-6201

Crew. BIP+FCP/PUI

FCP-6203 1.5 * 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. FCP-6202

Crew. BIP+FCP/PUI

FCP-6204 1.5 * 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 * R,SC D E 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

2.21.7 Pilot Qualified in Model (PQM)

2.21.7.1 Purpose. Tracking code for PQM.

2.21.7.2 General. Completion of the Core Skill 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 Skill Introduction Phase.

DESG-6300	0.0	*	SC	D	A	1 AH-1W

Goal. RS - Qualify PUI as PQM.

Requirement. Completion of the Core Skill Introduction Phase

Prerequisites. CSIX-1901

2.21.8 Attack Helicopter Commander (AHC)

2.21.8.1 Purpose. To qualify the PUI as an Attack Helicopter Commander (AHC).

2.21.8.2 General. Completion of the Core Skills Phase and the ESC, CAS, AR, AI, SCAR, TRAP and EXP stages through TRAP-3308 and EXP 3603 of the Mission Skill 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.

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 Skill 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.

DESG-6398	1.5	*	R,SC	(NS)	E	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 Skills 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 DVR 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. ACPM-8300, 8310, 8321 through 8326, 8340, 8350, 8351, DESG-6300, Core Skills Phase and Mission Skills Phase complete, refly of SWD-2605 IAW Mission Skills Phase ordnance accuracy standards (may be flown in conjunction with the DESG-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

2.21.9 Section Leader

2.21.9.1 Purpose. To prepare and evaluate a prospective section lead's ability to plan, brief, lead and debrief a section.

2.21.9.2 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. Additionally, during the 50 hour prerequisite period the PUI shall brief and lead a minimum of 2 sections, prior to beginning the section lead syllabus.

PUI shall be evaluated on ordnance delivery accuracy utilizing Core Plus/Mission Plus Skills 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.

SL-6400	1.5	*	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. Minimum of 50 hours as designated AHC and three flights in wingman position as a designated AHC. Additionally, during the 50 hour prerequisite period the PUI shall brief and lead a minimum of 2 sections prior to beginning the section lead syllabus.

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	*	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. Minimum of 50 hours as designated AHC and three flights in wingman position as a designated AHC. Additionally, during the 50 hour prerequisite period the PUI shall brief and lead a minimum of 2 sections, prior to beginning the section lead syllabus.

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 * R (NS) E 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

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

2.21.10 Division Leader

2.21.10.1 Purpose. To prepare and evaluate a prospective division lead's ability to plan, brief, lead and debrief a division.

2.21.10.2 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.

DL-6500	1.5	*	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	*	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	*	R	(NS)	E	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

2.21.11 Flight Leader

2.21.11.1 Purpose. To prepare and evaluate a prospective flight lead's ability to plan, brief, lead and debrief a flight.

2.21.11.2 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.

FL-6698 1.5 * R (NS) E 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

2.21.12 Air Mission Commander (AMC)

2.21.12.1 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.

2.21.12.2 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.

AMC-6798 1.5 * R (NS) E 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. ACAD 6070, 6071, DL-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

2.21.13 Specific Operations Tracking Codes (SOTC)

2.21.13.1 Purpose. To provide a vehicle for Tracking Codes associated with specific operations. All codes will be logged in conjunction with the appropriately flown sortie.

2.21.13.2 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.

Ground/Academic Training. N/A.

SOTC-6900	*	R	NS	A	1 AH-1W

Goal. RS - 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	*	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	*	R	(NS)	A	1 AH-1W

Goal. RS - 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	*	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	*	R	(NS)	A	1 AH-1W

Goal. RS - 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 R (NS) A/S-TEN+ 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-6998 * R,SC D A 1 AH-1W

Goal. OS – Day autorotation tracking code.

Requirement. Conduct one daytime autorotation.

Ordnance. As required

Crew. BIP/PUI

SOTC-6999 * R,SC NS A 1 AH-1W

Goal. OS – NS autorotation tracking code.

Requirement. Conduct one NS autorotation.

Ordnance. As required

Crew. NSI/PUI

2.22 AVIATION CAREER PROGRESSION MODEL

2.22.1 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.

2.22.2 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.

2.22.3 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.

2.22.4 ACPM CORE SKILL TRAINING PHASE

2.22.4.1 Purpose. To provide and introduce basic integration of the ACE within the MAGTF and ACE Battle Staff planning.

2.22.4.2 General. The PUI must be complete the ACPM-8200 series prior to PQM designation.

ACPM-8200 0.5 * 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 * 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 * 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 * 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 * 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.

2.22.5 ACPM MISSION SKILL TRAINING EVENTS

2.22.5.1 Purpose. To provide and introduce basic integration of the ACE within the MAGTF and Joint environment.

2.22.5.2 General. The PUI must be complete the ACPM-8300 series prior to AHC designation.

ACPM-8300 0.8 * 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 * 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 * 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 * 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 * 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. ACPM-8320.

ACPM-8322 0.3 * 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. ACPM-8321.

ACPM-8323 0.3 * 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. ACPM-8322.

ACPM-8324 0.3 * 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. ACPM-8323.

ACPM-8325 0.3 * 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. ACPM-8324.

ACPM-8326 0.3 * 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. ACPM-8325.

ACPM-8340 0.5 * 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 * 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 * TACRON Organizations and Functions

Learning Objectives
TBD

ACPM-8231 1.0 * Battle Command Display

Learning Objectives

Introduce the Battle Command Display.

ACPM-8240 1.7 * Six Functions of Marine Aviation

Learning Objectives

To better understand the 6 functions of Marine Corps Aviation.

ACPM-8241 1.3 * 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 * Site Commander Primer

Learning Objectives

Introduce fundamentals and functions of Site Command.

ACPM-8250 0.8 * 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.

2.22.6 ACPM FLIGHT LEADERSHIP TRAINING EVENTS

2.22.6.1 Purpose. To provide the prospective flight leader the concepts of basic integration of the MAGTF within the Joint environment.

2.22.6.2 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 * 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 * Joint Ops Introduction

Learning Objectives

Understand Joint Operation Command relationships.
Understand the main responsibilities for each Functional Component Commander.

ACPM-8620 1.0 * ESG/CSG Integration

Learning Objectives

TBD

ACPM-8640 0.8 * 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 * 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.
Identify different imagery products ATARS can provide

2.23 SYLLABUS EVALUATION FORMS. Syllabus event forms will reside at MAWTS-1. Forms will reside on the unclassified site.

2.24 SYLLABUS MATRICES

2.24.1 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.

2.24.2 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.

2.24.3 Pilot T&R Syllabus Matrix

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)																									
2000 ACAD	ACAD	AN/ARC-210 HQ/SG	2000	X					1.0					(N)		G				*			2000	2000
	ACAD	Introduction to NVG Tactical Environment	2001	X					1.0					(N)		G				*			2001	2001
	ACAD	Aeromedical Aspects of NVG Aided Flight	2002	X					1.0					(N)		G				*			2002	2002
	ACAD	NVD Design Consideration	2003	X					1.0					(N)		G				*			2003	2003
	ACAD	FLIR System and Image Optimazation	2004	X					1.0					(N)		G				*			2004	2004
	ACAD	Operational Considerations and Sensor Integration	2005	X					1.0					(N)		G				*			2005	2005
	ACAD	NVG RELATED MISHAP LESSONS LEARNED (T/M/S SPECIFIC)	2006	X					1.0					(N)		G				*			2006	2006
	ACAD	ROC-V (Day)	2011	X					1.0					(N)		G				*			2011	2011
	ACAD	H-1 Aerodynamics	2012	X					1.0					(N)		G				*			2012	
	ACAD	Night Op Environment	2013	X					1.0					(N)		G				*			2013	2013
	ACAD	NVG Sys & Image Char	2014	X					1.0					(N)		G				*			2014	2014
	ACAD	Human Factors	2015	X					1.0					(N)		G				*			2015	2015
	ACAD	FLIR Intro & Theory	2016	X					1.0					(N)		G				*			2016	2016
	ACAD	NVG Components/Prefl	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 & Planning	2020	X					1.0					(N)		G				*			2020	2020
	ACAD	(S) Evasive Maneuvers	2021	X					1.0					(N)		G				*			2021	2021
	ACAD	(S) HMLA ASE	2023R	X	X		X		1.0					(N)		G				365			2023R	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	3013
	ACAD	Rockets	2066	X					1.0					(N)		G				*			2066	2066
	ACAD	20mm	2067	X					1.0					(N)		G				*			2067	2067
		2000 ACAD SKILL TOTAL						17	17.0	0	0.0	0	0.0											
2000 TERF	TERF	Rev TERF	2100R	X	X								2.0	D	FS	A	1			180			2100R	2100R
	TERF	Rev NVD TERF	2101R	X	X	X	X						2.0	NS	RS	A	1			180				2101R
		2000 TERF SKILL TOTAL						0	0.0	0	0.0	2	4.0											
2000 TCT	STCT	Intro ASE RADAR/IR	S2200	X							1.5			D	RS	S	1			*			S2200	S2200
	STCT	Tactical ASE Employ	S2201R	X	X	X	X				1.5			(NS)	RS	S/A	2			365				S2201R

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												
2000 TCT SKILL TOTAL								0	0.0	2	3.0	0	0.0											
2000 REC	SREC	Intro Day RECCE	S2300	X							1.5			D	FS	S/A	1			*			S2300	S2300
	REC	Intro NVD RECCE	2301R	X	X	X	X						1.5	NS	FS	A	2			120				2301R
2000 REC SKILL TOTAL								0	0.0	1	1.5	1	1.5											
2000 FCLP	SFCLP	Intro FCLP	S2500	X							1.5			D/NS/N*	OS	S	1			*			S2500	S2500
	FCLP	Day FCLP	2501R	X	X								1.0	D	OS	A	1			365			2501R	2501R
	FCLP	Night FCLP	2502R	X	X		X						1.0	N*/NS	OS	A	1			365			2502R	2502R
2000 FCLP SKILL TOTAL								0	0.0	1	1.5	2	2.0											
2000 SWD	SSWD	Intro Hellfire	S2600	X							1.5			D	FS	S/A	1			*			S2600	S2600
	SSWD	Review Hellfire/Intro APKWS	2601R	X	X		X				1.5			D	RS	S/A	1			180			2601R	2601R
	SWD	Live Hellfire & 20mm	2602R	X	X		X						1.5	(NS)	FS	A	1			730			2602R	2602
	SSWD	RKT/Gun Del Prof	S2603	X		X					1.5			D/NS	RS	S	1			*				2603
	SWD	RKT/Gun Del Prof	2604R	X	X	X							1.5	D	RS	A	1			*				2604
	SWD	Scored RKT Del	2605R	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	Refine NVD RKT/Gun	2607R	X	X	X	X						1.5	NS	RS	A	2			180				2607
	SWD	Moving Target Gunnery	2610R	X	X		X						1.5	(NS)	OS	A/S	1			365			2610R	
2000 SWD SKILL TOTAL								0	0.0	3	4.5	6	9.0											
2000 ANSQ	SANSQ	NVD LLL EPs	S2700	X		X					1.5			NS	RS	S	1			*				S2700
	ANSQ	NVD LLL FAM/Nav	2701R	X	X	X	X						2.0	NS	FS	A	1			180				2701R
	ANSQ	NVD LLL TACFORM/TERF	2702R	X	X		X						1.5	NS	RS	A	2			180			2702R	2702R
	SANSQ	Intro NVD LLL Ord	S2704	X							1.5			NS	RS	S/A	1			*			S2704	S2704
	ANSQ	Rev NVD LLL Ord Del	2705R	X	X	X	X						1.5	NS	RS	A	2			180				2705R
2000 ANSQ SKILL TOTAL								0	0.0	2	3.0	3	5.0											
2000 FAM	FAM	FAM/INST Proficiency	2800R	X	X	X	X						1.5	(NS)	OS	A	1			90				2800
	SFAM	EP Simulator	S2801R	X	X	X	X				1.5			(NS)	OS	S/A	1			90				S2801R
2000 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											

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											
MISSION SKILL (3000 Phase)																								
3000 ACAD	ACAD	Intel Prep Battlefield	3000	X										(N)		G				*			3000	2001
	ACAD	Problem Framing	3001	X					1.0					(N)		G				*			3001	2005
	ACAD	ROE Planning	3002	X					1.0					(N)		G				*			3002	3022
	ACAD	GCE RAID Planning	3003	X					1.0					(N)		G				*			3003	3004
	ACAD	Execution Checklist	3004	X					1.0					(N)		G				*			3004	3005
	ACAD	Objective Area Plan	3005R	X	X		X		1.0					(N)		G				365			3005R	2006
	ACAD	NEO Execution	3006	X					1.0					(N)		G				*			3006	3007
	ACAD	Rapid Response Plan	3007	X					1.0					(N)		G				*			3007	3008
	ACAD	(S) RADAR Guided Surface to Air Missiles	3008	X					1.0					(N)		G				*			3008	2024
	ACAD	(S) REC Threat to the MAGTF	3009	X					1.0					(N)		G				*			3009	2002
	ACAD	(S) IR Threat to RW Aircraft	3010R	X	X		X		1.0					(N)		G				365			3010R	2003
	ACAD	(S) ADA Threat to RW Aurcraft	3011R	X	X		X		1.0					(N)		G				365			3011R	2004
	ACAD	(S) Laser Threat	3012	X					1.0					(N)		G				*			3012	3003
	ACAD	(S) Electronic Warfare	3013	X					1.0					(N)		G				*			3013	
	ACAD	Assault Support Escort Tactics	3019R	X	X		X		1.0					(N)		G				365			3019R	3010
	ACAD	(S) RW OAS	3030R	X	X		X		1.0					(N)		G				365			3030R	3030
	ACAD	Urban CAS	3031R	X	X		X		1.0					(N)		G				365			3031R	3031
	ACAD	Close Air Support	3032	X					1.0					(N)		G				*			3032	
	ACAD	CAS Standardization	3033R	X	X		X		1.0					(N)		G				365			3033R	
	ACAD	(S) Weaponeering	3034	X					1.0					(N)		G				*			3034	2064
	ACAD	HMLA AR and SCAR TTPs	3035	X					1.0					(N)		G				*			3035	3035
	ACAD	(S) Personnel Recovery	3038	X					1.0					(N)		G				*			3038	3020
	ACAD	(S) TRAP	3039	X					1.0					(N)		G				*			3039	3021
	ACAD	JFAC(A) Courseware	3041R	X	X		X		1.0					(N)		G				365			3041R	3041
	ACAD	FAC(A) TTPs	3042	X										(N)		G				*			3042	3042
	ACAD	HMLA FARP Ops	3045	X					1.0					(N)		G				*			3045	
3000 ACAD SKILL TOTAL								24	24.0	0	0.0	0	0.0											

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												
3000 ESC	ESC	ASPT ESC	3100	X									1.5	D	OS	A	2			*			3100	3101
	ESC	NVD ASPT ESC	3101R	X	X	X							1.5	NS	OS	A	2			365				3102
	SESC	SIM ASPT ESC	3102R	X	X	X	X				1.5			(NS)	OS	S/A	2			365				3100
	ESC	Surface ESC	3103R	X	X								1.5	(NS)	OS	A	2			*			3103R	3103
	ANSQ	NVD LLL TACFORM/TERF	2702R	X	X		X																	
3000 ESC SKILL TOTAL								0	0.0	1	1.5	3	4.5											
3000 CAS	SCAS	Intro CAS	S3300	X		X					1.5			D/NS	FS	S	2			*				S3300
	CAS	Intro Day CAS	3301R	X	X	X	X						1.5	D	FS	A	2			180				3301R
	CAS	Intro NVD CAS HLL	3302	X									1.5	NS	FS	A	2			*			3302	3302
	CAS	Intro NVD CAS LLL	3303R	X	X	X	X						1.5	NS	OS	A	2			180				3303R
	CAS	Intro Urban CAS	3304R	X	X		X						1.5	(NS)	OS	A/S	2			365			3304R	
	ANSQ	Rev NVD LLL Ord Del	2705R	X	X	X	X																	
3000 CAS SKILL TOTAL								0	0.0	1	1.5	4	6.0											
3000 AR	AR	Armed Recon	3305R	X	X		X						1.5	(NS)	OS	A	2			365			3305R	3305R
	SSWD	Review Hellfire/Intro APKWS	2601R	X	X		X																	
	ANSQ	Rev NVD LLL Ord Del	2705R	X	X	X	X																	
3000 AR SKILL TOTAL								0	0.0	0	0.0	1	1.5											
3000 AI	AI	Aerial Interdiction	3306R	X	X	X	X						1.5	NS	OS	A	2			365				3306R
	SSWD	Review Hellfire/Intro APKWS	2601R	X	X		X																	
	ANSQ	NVD LLL TACFORM/TERF	2702R	X	X		X																	
3000 AI SKILL TOTAL								0	0.0	0	0.0	1	1.5											
3000 SCAR	SCAR	SCAR	3307R	X	X		X						1.5	(NS)	OS	A/S	2			365			3307R	3307R
	SSWD	Review Hellfire/Intro APKWS	2601R	X	X		X																	
	ANSQ	Rev NVD LLL Ord Del	2705R	X	X	X	X																	
3000 SCAR 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											
3000 TRAP	TRAP	TRAP	3308R	X	X		X						1.5	(NS)	OS	A	2			365			3308R	3308R
	SESC	SIM ASPT ESC	3102R	X	X	X	X																	
	ANSQ	NVD LLL TACFORM/TERF	2702R	X	X		X																	
3000 TRAP SKILL TOTAL								0	0.0	0	0.0	1	1.5											
3000 FAC(A)	FAC(A)	IDF Control	3400R	X	X		X						1.5	(NS)	FS	A/S	1			365			3400R	3400R
	FAC(A)	RW Control	3401R	X	X		X						1.5	(NS)	FS	A/S	2			365			3401R	3401R
	FAC(A)	FW Control	3402R	X	X		X						1.5	D	FS	A/S	2			365			3402R	3402R
	FAC(A)	NVD FW Control	3403R	X	X		X						1.5	NS	FS	A	2			365			3403R	3403R
	FAC(A)	Sup Arms Consolidate	3404R	X	X		X						1.5	(NS)	FS	A	2			365			3404R	3404R
	ANSQ	Rev NVD LLL Ord Del	2705R	X	X	X	X																	
3000 FAC(A) SKILL TOTAL								0	0.0	0	0.0	5	7.5											
3000 EXP	EXP	EXP (FARP) Ops	3600R	X	X								0.0	D	OS	A/S	1			*			3600	3600
	EXP	EXP (FARP) Ops NVD	3601R	X	X	X	X						0.0	NS	OS	A/S	1			180				3601R
	EXP	EXP RVL Day	3602R	X	X			0	0.0				0.0	D	OS	A/S	1			*			3602	
	EXP	EXP RVL NVD	3603R	X	X	X	X						0.0	NS	OS	A/S	1			120				
	ANSQ	NVD LLL FAM/Nav	2701R	X	X	X	X																	
3000 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											

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 PLUS (4000 Phase)																								
4000 ACAD	ACAD	(S) Airborne Early Warning	4001	X					1.0					(N)		G				*			4001	4020
	ACAD	Review Raid Planning	4021	X					1.0					(N)		G				*			4021	
	ACAD	Review Prolem Framing	4022	X					1.0					(N)		G				*			4022	
	ACAD	Review (S) Urban CAS	4023	X					1.0					(N)		G				*			4023	
	ACAD	Review Objective Area Planning	4024	X					1.0					(N)		G				*			4024	
	ACAD	Review ROE Planning	4025	X					1.0					(N)		G				*			4025	
	ACAD	Review (S) RW OAS	4026	X	X		X		1.0					(N)		G				365			4026	
	ACAD	Review HMLA AR & SCAR TTPs	4027	X					1.0					(N)		G				*			4030	
	ACAD	DACM Planning Considerations	4030	X					1.0					(N)		G				*			4030	4030
	ACAD	DACM Parts 1-4	4031	X					1.0					(N)		G				*			4031	4031
	ACAD	DACM Example RW Flight Brief	4032	X					1.0					(N)		G				*			4032	4032
	ACAD	(S) RW Threat to MAGTF	4033	X					1.0					(N)		G				*			4033	4033
	ACAD	(S) Attack Helo Threat	4034	X					1.0					(N)		G				*			4034	4034
	ACAD	(S) FW Threat to MAGTF	4035	X					1.0					(N)		G				*			4035	4035
	ACAD	(S) FW Threat to RW A/C	4036	X					1.0					(N)		G				*			4036	4036
4000 ACAD SKILL TOTAL								15	15.0	0	0.0	0	0.0											
4000 ESC	ESC	Helo ESC Med/High Threat	4200R	X	X		X						1.5	(NS)	OS	A/S	2			730			4200R	4200R
	ANSQ	NVD LLL TACFORM/TERF	2702R	X	X		X																	
4000 ESC SKILL TOTAL								0	0.0	0	0.0	1	1.5											
4000 CAS	CAS	CAS Med/High Threat	4201R	X	X		X						1.5	(NS)	OS	A/S	2			730			4201R	4201R
	ANSQ	Rev NVD LLL Ord Del	2705R	X	X	X	X																	
4000 CAS SKILL TOTAL								0	0.0	0	0.0	1	1.5											
4000 AR	AR	AR Med/High Threat	4205R	X	X		X						1.5	(NS)	OS	A	2			730			4205R	4205R
	SSWD	Review Hellfire/Intro APKWS	2601R	X	X		X																	
	ANSQ	Rev NVD LLL Ord Del	2705R	X	X	X	X																	
4000 AR 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											
4000 AI	AI	AI Med/High Threat	4206R	X	X		X						1.5	(NS)	OS	A	2			730			4206R	4206R
	SSWD	Review Hellfire/Intro APKWS	2601R	X	X		X																	
	ANSQ	NVD LLL TACFORM/TERF	2702R	X	X		X																	
4000 AI SKILL TOTAL								0	0.0	0	0.0	1	1.5											
4000 SCAR	SCAR	SCAR	4207R	X	X		X						1.5	(NS)	OS	A/S	2			730			4207R	4207R
	SSWD	Review Hellfire/Intro APKWS	2601R	X	X		X																	
	ANSQ	Rev NVD LLL Ord Del	2705R	X	X	X	X																	
4000 SCAR SKILL TOTAL								0	0.0	0	0.0	1	1.5											
4000 OAAW	OAAW	OAAW	4209R	X	X		X						2.0	(NS)	OS	A/S	2			730			4209R	4209R
	ANSQ	NVD LLL TACFORM/TERF	2702R	X	X		X																	
4000 OAAW SKILL TOTAL								0	0.0	0	0.0	1	2.0											
4000 AAD	RWDACM	OWP DACM	4300R	X	X		X						1.5	D	OS	A	2			485			4300	2610
	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	4302
	RWDACM	Rev 1v1/2v1 RW	4303R	X	X		X						2.0	D	OS	A	2			485			4303R	4303R
	ANSQ	NVD LLL TACFORM/TERF	2702R	X	X		X																	
4000 AAD SKILL TOTAL								0	0.0	0	0.0	4	5.5											
4000 AAD	FWDACM	1v1 FW	4304	X		X							1.0	D	RS	A	1			*				4304
	FWDACM	2v2 FW	4305R	X	X		X						1.0	D	RS	A	2			485			4305R	4305R
	ANSQ	NVD LLL TACFORM/TERF	2702R	X	X		X																	
4000 AAD SKILL TOTAL								0	0.0	0	0.0	2	2.0											
4000 CBRN	SCBRN	CBRN	S4400R	X	X		X				1.0			D/NS	OS	S/A	1			*			S4400R	S4400R
4000 CBRN SKILL TOTAL								0	0.0	1	1.0	0	0.0											
4000 CQ	CQ	Day CQ	4600R	X	X	X							1.0	D	OS	A	1			365				4600R
	CQ	NVD CQ	4601R	X	X	X	X						1.0	NS	OS	A	1			365				4601R
	CQ	Unaided CQ	4602R	X	X	X							1.0	N*	OS	A	1			365				4602R
	ANSQ	NVD LLL FAM/Nav	2701R	X	X	X	X																	
4000 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)																								
5000 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	5024
	ACAD	Briefing/Debriefing	5005	X					1.0					(N)		G				*			5005	5025
	ACAD	Review 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 from TCT, REC, SWD, ESC and CAS stages	5020	X					1.0					(N)		G				*			5020	5020
	ACAD	IUT presentation of chalk talk/lecture	5021	X					1.0					(N)		G				*			5021	5021
	ACAD	How to Give a 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 Simulator Scenarios	5028	X					1.0					(N)		G				*			5028	
	ACAD	FRSI Course	5060	X					1.0					(N)		G				*			5060	
	ACAD	Fam Stage Lectures	5061	X					1.0					(N)		G				*			5061	
	ACAD	Inst Stage Lectures	5062	X					1.0					(N)		G				*			5062	
	ACAD	Form Stage Lectures	5063	X					1.0					(N)		G				*			5063	
	ACAD	TERF Stage lectures	5064	X					1.0					(N)		G				*			5064	
	ACAD	Nav Stage Lectures	5065	X					1.0					(N)		G				*			5065	
	ACAD	SWD Stage Lectures	5066	X					1.0					(N)		G				*			5066	
	ACAD	FRS-Stan Instr Course	5070	X					1.0					(N)		G				*			5070	
5000 ACAD SKILL TOTAL								23	23.0	0	0.0	0	0.0											
5000 BIP	SBIP	EP Stan	S5100R	X	X	X					1.5			D	OS	S	1			*				S5100R
	SBIP	FAM/FCLP Maneuvers	S5101	X							1.5			D	FS	S/A	1			*			S5101	S5101
	SBIP	INST Rev	S5102	X							1.5			(N*)	FS	S/A	1			*			S5102	S5102
	BIP	IUT FORM Flt Rev	5103	X									1.5	D	FS	A	2			*			5103	5103
	BIP	FAM Maneuvers Rev	5104R	X	X	X							1.5	D	OS	A	1			*				5104R
5000 BIP SKILL TOTAL								0	0.0	3	4.5	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											
5000 TERFI	STERFI	TERF Maneuvers	S5110	X							1.5			D	OS	S/A	1			*			S5110	S5110
	TERFI	TERF Nav	5111R	X	X								1.5	D	OS	A	2			*			5111R	5111R
5000 TERFI SKILL TOTAL								0	0.0	1	1.5	1	1.5											
5000 WTO	SWTO	Rkt/Gun/Sys Rev	S5200R	X	X	X					1.5			D	FS	S	1			*				S5200R
	SWTO	R/S Ord Del Rev	S5201	X							1.5			D	RS	S/A	1			*			S5201	S5201
	WTO	F/S Ord Del IUT Tech	5202	X									1.5	D	FS	A	2			*			5202	5202
	WTO	R/S Ord Del IUT Tech	5203R	X	X	X							1.5	D	RS	A	2			*	X			5203R
5000 WTO SKILL TOTAL								0	0.0	2	3.0	2	3.0											
5000 TSI	STSI	Intro Sim Functions	S5210R	X	X						1.5			D	CP	S	1			*			S5210R	S5210R
	STSI	Rev Sim Functions	S5211R	X							1.5			D	CP	S	1			*			S5211R	S5211R
5000 TSI SKILL TOTAL								0	0.0	2	3.0	0	0.0											
5000 CSI	SCSI	EP & FAM Stan	S5300	X			X				1.5			D	OS	S	1			365	X		S5300	S5300
	SCSI	INST Stan	S5301	X			X				1.5			(N*)	RS	S	1			365	X		S5301	S5301
	SCSI	Sys/ASE Rev	S5302	X			X				1.5			D	RS	S	1			365	X		S5302	S5302
	SCSI	Rev Ord Delivery	S5303	X			X				1.5			D	RS	S	1			365	X		S5303	S5303
5000 CSI SKILL TOTAL								0	0.0	4	6.0	0	0.0											
5000 FAC(A)I	FAC(A)I	FAC(A)I UT	5400	X									1.5	(NS)	OS	A	2			*			5400	5400
	FAC(A)I	FAC(A)I Check	5401R	X	X								1.5	(NS)	OS	A	2			*	X		5401R	5401R
5000 FAC(A)I SKILL TOTAL								0	0.0	0	0.0	2	3.0											
5000 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	5802R	X	X								1.5	D	OS	A	2			*	X		5802R	5802R
	DACMI	1v1 & 2v1 FW Eval	5803R	X	X								1.5	D	OS	A	2			*	X		5803R	5803R
5000 DACMI SKILL TOTAL								0	0.0	0	0.0	4	6.0											
5000 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	TACFORM/Ord Del Low Threat	5902	X									1.5	NS	OS	A	2			*			5902	5902
	NSI	TACFORM/Ord Del Med/High Threat	5903	X		X							1.5	NS	OS	A	2			*				5903
	NSI	NSI Standization Sim	5904R	X	X						1.5			NS	OS	S/A	1			*	X		5904R	
	NSI	NSI Check	5905R	X	X								2.0	NS	OS	A	2			*	X		5905R	5904
5000 NSI SKILL TOTAL								0	0.0	1	1.5	5	7.0											

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											
REQUIREMENTS, CERTIFICATIONS, DESIGNATIONS, AND QUALIFICATIONS (6000 Phase)																								
6000 INST	INST	INST Grd Sch	6000R	X	X		X		8.0					(N)		G				365		X	6000R	6000
	INST	INST Grd Sch Exam	6001R	X	X		X		1.0					(N)		G				365	X	X	6001R	6001
	INST	Annual INST Check	6100R	X	X		X						1.5	(N*)		A/S	1			365	X	X	6100R	6100
		6000 INST SKILL TOTAL						2	9.0	0	0.0	1	1.5											
6000 NTPS	NTPS	Open Book NATOPS	6002R	X	X	X	X		2.0					(N)		G				365	X	X		6002
	NTPS	Closed Book NATOPS	6003R	X	X	X	X		1.0					(N)		G				365	X	X		6003
	NTPS	Oral NATOPS	6004R	X	X	X	X		1.0					(N)		G				365	X	X		6004
	NTPS	NATOPS Check	6101R	X	X	X	X						1.5	(N)		A/S	1			365	X	X		6101
		6000 NTPS SKILL TOTAL						3	4.0	0	0.0	1	1.5											
6000 CRM	CRM	Crew Resource Mngt	6005R	X	X	X	X		1.0					(N)		G				365		X		6005
	CRM	CRM Eval	6102R	X	X	X	X						0.1	(N)		A	1			365	X	X		3102
		6000 CRM SKILL TOTAL						1	1.0	0	0.0	1	0.1											
6000 FCP	FCP	FCP Open Book Exam	6006	X					1.0					(N)		G				*	X		6006	
	FCP	FCP Closed Book Exam	6007	X					1.0					(N)		G				*	X		6007	
	SFCP	Demo FCF Procedures	S6200R	X	X	X					1.5			D	OS	S	1			*				6200
	FCP	Intro FCF Procedures	6201	X							1.5			D	RS	A	1			*			6201	6201
	FCP	Conduct FCF	6202	X									1.5	D	OS	A	1			*			6202	6202
	FCP	Rev FCF Procedures	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	6205R	X	X	X							1.5	D	RS	A	1			*	X			6205

		6000 FCP SKILL TOTAL						2	2.0	2	3.0	4	6.0													
6000 ACAD	ACAD	Review Intel Prep BattleField	6040	X					1.0					(N)		G				*			6040	
	ACAD	(S) MAGTF Targeting	6041R	X	X				1.0					(N)		G				365			6041R	6041
	ACAD	JTAC Aircrew Integration	6042	X					1.0					(N)		G				*			6042	
	ACAD	Review ROE Planning	6050	X					1.0					(N)		G				*			6050	
	ACAD	Review Objective Area Planning	6051R	X	X				1.0					(N)		G				365			6051R	
	ACAD	Review (S) Weaponeering	6052	X					1.0					(N)		G				*			6052	
	ACAD	Review TRAP TTPs	6060	X					1.0					(N)		G				*			6060	
	ACAD	Review Exection Checklist	6061	X					1.0					(N)		G				*			6061	
	ACAD	Review Rapid Response Planning Process	6070	X					1.0					(N)		G				*				
	ACAD	Air Mission Commander	6071	X					1.0					(N)		G				*				
	ACAD	Review NEO Execution	6072	X					1.0					(N)		G				*				
		6000 ACAD SKILL TOTAL						5	5.0	0	0.0	0	0.0													
6000 DESG	DESG	PQM Eval	6300	X		X							0.0	D	RS	A	1			*	X	X		6300
	DESG	AHC Eval	6398R	X	X	X							1.5	(NS)	RS	A	1			*	X	X		6398R
		6000 DESG SKILL TOTAL						0	0.0	0	0.0	2	1.5													
6000 SL	SL	Sec Ldr Day	6400	X									1.5	D	OS	A	2			*			6400	6400
	SL	Night Sec Ldr	6401	X									1.5	NS	OS	A	2			*			6401	6401
	SL	Sec Ldr Eval	6498R	X	X								1.5	(NS)	OS	A	2			*	X		6498R	6498R
		6000 SL SKILL TOTAL						0	0.0	0	0.0	3	4.5													
6000 DL	DL	Div Ldr Day	6500	X									1.5	D	OS	A	3			*			6500	6500
	DL	Div Ldr Night	6501	X									1.5	NS	OS	A	3			*			6501	6501
	DL	Div Ldr Eval	6598R	X	X								1.5	(NS)	OS	A	3			*	X		6598R	6598R
		6000 DL SKILL TOTAL						0	0.0	0	0.0	3	4.5													
6000 FL	FL	Flt Ldr Eval	6698R	X	X								1.5	(NS)	OS	A	5			*	X		6698R	6698R
		6000 FL SKILL TOTAL						0	0.0	0	0.0	1	1.5													
6000 AMC	AMC	AMC Eval	6798R	X	X								1.5	(NS)	OS	A	1			*	X		6798R	6798R
		6000 AMC SKILL TOTAL						0	0.0	0	0.0	1	1.5													
6000 SOTC	SOTC	Illum Rkt	6900R	X	X								0.0	NS	OS	A	1			*			6900R	6900R
	SOTC	Guided Rkt Prof	6901R	X	X								0.0	(NS)	OS	A	1			*			6901R	6901R
	SOTC	Flechette Rkt	6902R	X	X								0.0	(NS)	OS	A	1			*			6902R	6902R
	SOTC	JAGM Prof	6903R	X	X								0.0	(NS)	OS	A	1			*			6903R	6903R
	SOTC	Hellfire Prof	6904R	X	X								0.0	(NS)	OS	A	1			*			6904R	6904R
	SOTC	AIM-9 Prof	6905R	X	X								0.0	(NS)	OS	A	1			*			6905R	6905R
	SOTC	FAC(A) Standardization	6906R	X	X								0.0	(NS)	OS	A/S	1			730			6906R	
		6000 SOTC SKILL TOTAL						0	0.0	0	0.0	7	0.0													
6000	AUTOTRK	Day Auto Rotation	6998R	X	X	X							0.1	D		A	1			*				

AUTOTRK	AUTOTRK	Night Auto Rotation	6999R	X	X	X							0.1	N		A	1			*				
6000 AUTOTRK SKILL TOTAL								0	0.0	0	0.0	2	0.2											
ACPM (8000 Phase)																								
8000 ACPM	ACPM	MACCS AGENCIES, FUNCTIONS & CONTROL OF A/C & MISSILES	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 SUPP	8210	X					0.7					(N)		G				*			8210	8210
	ACPM	ACE BATTLESTAFF	8230	X					1.0					(N)		G				*			8230	8230
	ACPM	BATTLE COMMAND DISPL	8231	X					1.0					(N)		G				*			8231	8231
	ACPM	SIX FUNCTIONS OF MAR	8240	X					1.7					(N)		G				*			8240	8240
	ACPM	ASR/JTAR INTRO AND PRAC APP	8241	X					1.3					(N)		G				*			8241	8241
	ACPM	SITE COMMAND PRIMER	8242	X					1.0					(N)		G				*			8242	8242
	ACPM	THEATER AIR GROUND SYSTEM	8250	X					0.9					(N)		G				*			8250	8250
	ACPM	AIR DEFENSE	8300	X					0.9					(N)		G				*			8300	8300
	ACPM	FORWARD ARMING AND REFUELING	8310	X					0.8					(N)		G				*			8310	8310
	ACPM	MARINE TFS	8311	X										(N)		G				*				
	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	INTEGRATING FIRES AND AIRSPACE	8340	X					0.5					(N)		G				*			8340	8340
	ACPM	PHASING CONTROL ASHORE	8350	X					0.9					(N)		G				*			8350	8350
	ACPM	TACRON ORGANIZATIONS & FUNCTIONS	8351	X					1.0					(N)		G				*			8351	8351
	ACPM	ESG/CSG INTEGRATION	8620	X					1.0					(N)		G				*			8620	8620
	ACPM	TACTICAL AIR COMMAND CENTER	8630	X					1.0					(N)		G				*			8630	8630
	ACPM	JOINT DATA NETWORK	8640	X					0.9					(N)		G				*			8640	8640
	ACPM	MAGTF THEATER AND NATIONAL ISR EMPLOYMENT	8641	X					1.3					(N)		G				*			8641	8641
	ACPM	JOINT OPS INTRO	8660	X					0.5					(N)		G				*			8660	8660
8000 ACPM SKILL TOTAL								26	20.6	0	0.0	0	0.0											

2.25 AH-1W PREREQUISITE AND CHAINING MATRIX

AH-1W PREREQUISITE AND CHAINING MATRIX							
SKILL	STAGE	T&R DESCRIPTION	EVENT NUMBER	PREREQUISITE	PREREQ NOTES	CHAINING	CHAINING NOTES
CORE SKILL (2000 Phase)							
2000 TERF	TERF	Rev TERF	2100R	2012			
	TERF	Rev NVD TERF	2101R	2013,2014,2015,2016,2017,2018,2019,2020,2100		2100	
2000 TCT	STCT	Intro ASE RADAR/IR	S2200	2021, 2023			
	STCT	Tactical ASE Employ	S2201R	2200,NS2101	2100~AC		
2000 REC	SREC	Intro Day RECCE	S2300	2011	2100~AC		
	REC	Intro NVD RECCE	2301R	2101,2300		2100,2101	
2000 FCLP	SFCLP	Intro FCLP	S2500				
	FCLP	Day FCLP	2501R	2500			
	FCLP	Night FCLP	2502R	2501		2501	
2000 SWD	SSWD	Intro Hellfire	S2600	2063,2064,2066,2067,2300	2100~AC		
	SSWD	Review Hellfire/Intro APKWS	2601R	2600	2100~AC		
	SWD	Live Hellfire & 20mm	2602R	2100,2601,NS~2101,NS~2301		NS~2301	
	SSWD	RKT/Gun Del Prof	S2603	2200,2301			
	SWD	RKT/Gun Del Prof	2604R	2100,2603			
	SWD	Scored RKT Del	2605R	2604		2604	
	SWD	NVD RKT/Gun Del	2606	2101,2604		2301	
	SWD	Refine NVD RKT/Gun	2607R	2606		2301	
	SWD	Moving Target Gunnery	2610R	2603,NS~2607,LLL~2705		NS~2607,LLL~2705	
2000 ANSQ	SANSQ	NVD LLL EPs	S2700	NSQ			
	ANSQ	NVD LLL FAM/Nav	2701R	2700			
	ANSQ	NVD LLL TACFORM/TERF	2702R	2701		2701	
	SANSQ	Intro NVD LLL Ord	S2704	NSQ	2702~AC		
	ANSQ	Rev NVD LLL Ord Del	2705R	2702,2704		2301,2607,2701,2702	
2000 FAM	FAM	FAM/INST Proficiency	2800R	1901		LLL~2701	
	SFAM	EP Simulator	S2801R	1901			
MISSION SKILLS (3000 Phase)							
3000 ESC	ESC	ASPT ESC	3100	3008,3009,2603	2604~ORD		2600~ORD
	ESC	NVD ASPT ESC	3101R	3010,3011,3100,NS~NSQ,LLL~ANSQ		2301	2600~ORD, 2607~ORD NS, 2705~ORD LLL
	SESC	SIM ASPT ESC	3102R	3003,3004,3005,3019,3101		2201,2601,2602,3101	
	ESC	Surface ESC	3103R	2603,NS~NSQ,LLL~ANSQ		NS~2301,LLL2702,	2602~ORD, 2607~ORD NS, 2705~ORD LLL
	ANSQ	NVD LLL TACFORM/TERF	2702R				

AH-1W PREREQUISITE AND CHAINING MATRIX							
SKILL	STAGE	T&R DESCRIPTION	EVENT NUMBER	PREREQUISITE	PREREQ NOTES	CHAINING	CHAINING NOTES
3000 CAS	SCAS	Intro CAS	S3300	3030,3031,3032,3033,2600,2704		2600,2601,2602	
	CAS	Intro Day CAS	3301R	3300		2601,2602	
	CAS	Intro NVD CAS HLL	3302	3301,NS~NSQ,LLL~ANSQ		2301,2601,2602,2607,3301	
	CAS	Intro NVD CAS LLL	3303R	3302,ANSQ		2301,2601,2602,2607,2705,3301,3302	
	CAS	Intro Urban CAS	3304R	3301,NS~NSQ,LLL~ANSQ		2601,2602,3301,NS~2301,NS-2607,LLL~3303	
	ANSQ	Rev NVD LLL Ord Del	2705R				
3000 AR	AR	Armed Recon	3305R	3030,3035,ANSQ		2601,2602,NS~2301,	2607~ORD NS, 2705~ORD LLL
	SSWD	Review Hellfire/Intro APKWS	2601R				
	ANSQ	Rev NVD LLL Ord Del	2705R				
3000 AI	AI	Aerial Interdiction	3306R	3030,ANSQ		2601,2602,NS~2301	2607~ORD NS, 2705~ORD LLL
	SSWD	Review Hellfire/Intro APKWS	2601R				
	ANSQ	NVD LLL TACFORM/TERF	2702R				
3000 SCAR	SCAR	SCAR	3307R	3030,3035,ANSQ		2601,2602,NS~2301	2607~ORD NS, 2705~ORD LLL
	SSWD	Review Hellfire/Intro APKWS	2601R				
	ANSQ	Rev NVD LLL Ord Del	2705R				
3000 TRAP	TRAP	TRAP	3308R	3038,3039,ANSQ,3100,NS~3101		2601,2602,NS~2301	2607~ORD NS, 2705~ORD LLL
	SESC	SIM ASPT ESC	3102R				
	ANSQ	NVD LLL TACFORM/TERF	2702R				
3000 FAC(A)	FAC(A)	IDF Control	3400R	3041,3042,6300		NS~2301	
	FAC(A)	RW Control	3401R	3041,3042,6398		3301,NS~2301,LLL~3303	
	FAC(A)	FW Control	3402R	3041,3042,6398		3301	
	FAC(A)	NVD FW Control	3403R	3041,3042,6398		3301,3402,NS~2301,LLL~3303	
	FAC(A)	Sup Arms Consolidate	3404R	3400,3401,3402,NS~3403		3301,3402,NS~2301,NS~3403,LLL~3303	
	ANSQ	Rev NVD LLL Ord Del	2705R				
3000 EXP	EXP	EXP (FARP) Ops	3600R	3045,8310,8311,2100			
	EXP	EXP (FARP) Ops NVD	3601R	3045,8310,8311,2101,LLL~2701		3600,LLL~2701	
	EXP	EXP RVL Day	3602R	2100			
	EXP	EXP RVL NVD	3603R	2101,LLL-2701		3602,LLL~2701	
	ANSQ	NVD LLL FAM/Nav	2701R				
CORE PLUS (4000 Phase)							
4000 ESC	ESC	Helo ESC Med/High Threat	4200R	6498			
	ANSQ	NVD LLL	2702R				

AH-1W PREREQUISITE AND CHAINING MATRIX							
SKILL	STAGE	T&R DESCRIPTION	EVENT NUMBER	PREREQUISITE	PREREQ NOTES	CHAINING	CHAINING NOTES
		TACFORM/TERF					
4000 CAS	CAS	CAS Med/High Threat	4201R	6498			
	ANSQ	Rev NVD LLL Ord Del	2705R				
4000 AR	AR	AR Med/High Threat	4205R	6498			
	SSWD	Review Hellfire/Intro APKWS	2601R				
	ANSQ	Rev NVD LLL Ord Del	2705R				
4000 AI	AI	AI Med/High Threat	4206R	6498			
	SSWD	Review Hellfire/Intro APKWS	2601R				
	ANSQ	NVD LLL TACFORM/TERF	2702R				
4000 SCAR	SCAR	SCAR	4207R	6498			
	SSWD	Review Hellfire/Intro APKWS	2601R				
	ANSQ	Rev NVD LLL Ord Del	2705R				
4000 OAAW	OAAW	OAAW	4209R	8300,4206,4207			
	ANSQ	NVD LLL TACFORM/TERF	2702R				
4000 AAD	RWDACM	OWP DACM	4300R	2603			
	RWDACM	1v1 RW	4301	TERF,2201,2300,2603			
	RWDACM	2V1 RW	4302	4301			
	RWDACM	Rev 1v1/2v1 RW	4303R	3013,4030,4031,4032,4033,4034,4302			
	ANSQ	NVD LLL TACFORM/TERF	2702R				
4000 AAD	FWDACM	1v1 FW	4304	TERF,2201,2300,2603			
	FWDACM	2v2 FW	4305R	4030,4031,4032,4035,4036,4304			
	ANSQ	NVD LLL TACFORM/TERF	2702R				
4000 CBRN	SCBRN	CBRN	S4400R		2101~AC		
4000 CQ	CQ	Day CQ	4600R	2501		2501	
	CQ	NVD CQ	4601R	NSQ,2502,4600		2501,2502,4600,4602	
	CQ	Unaided CQ	4602R	2502,4600		2501,2502,4600	
	ANSQ	NVD LLL FAM/Nav	2701R				
INSTRUCTOR TRAINING (5000 Phase)							
5000 BIP	SBIP	EP Stan	S5100R	6398		2801	
	SBIP	FAM/FCLP Maneuvers	S5101	5100		2500,2801	
	SBIP	INST Rev	S5102	5100		2801	
	BIP	IUT FORM Flt Rev	5103	5100			
	BIP	FAM Maneuvers	5104R	5101,5102,5103		2800	

AH-1W PREREQUISITE AND CHAINING MATRIX							
SKILL	STAGE	T&R DESCRIPTION	EVENT NUMBER	PREREQUISITE	PREREQ NOTES	CHAINING	CHAINING NOTES
		Rev					
5000 TERFI	STERFI	TERF Maneuvers	S5110	5011,5012,5013,5104			
	TERFI	TERF Nav	5111R	5110		2100	
5000 WTO	SWTO	Rkt/Gun/Sys Rev	S5200R	5111		2600	
	SWTO	R/S Ord Del Rev	S5201	5200		2200,2603	
	WTO	F/S Ord Del IUT Tech	5202	5201			
	WTO	R/S Ord Del IUT Tech	5203R	5202		2604	
5000 TSI	STSI	Intro Sim Functions	S5210R	5026, in BIP syllabus			
	STSI	Rev Sim Functions	S5211R	5210			
5000 CSI	SCSI	EP & FAM Stan	S5300	Candidate CSI			
	SCSI	INST Stan	S5301	Candidate CSI			
	SCSI	Sys/ASE Rev	S5302	Candidate CSI			
	SCSI	Rev Ord Delivery	S5303	Candidate CSI			
5000 FAC(A)I	FAC(A)I	FAC(A)I UT	5400	IAW MAWTS-1 Course Catalog			
	FAC(A)I	FAC(A)I Check	5401R	5400			
5000 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	5802R	5800		4303	
	DACMI	1v1 & 2v1 FW Eval	5803R	5801		4304,4305	
5000 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	5904R	5900,5901,5902,5903		2101,2201,2301,2607,2700,2701,2705	
	NSI	NSI Check	5905R	5904		2101,2201,2301,2607,2700,2701,2705,2800,2801	
REQUIREMENTS, CERTIFICATIONS, DESIGNATIONS, AND QUALIFICATIONS (6000 Phase)							
6000 INST	INST	INST Grd Sch	6000R				
	INST	INST Grd Sch Exam	6001R	6000			
	INST	Annual INST Check	6100R	6000,6001			
6000 NTPS	NTPS	Open Book NATOPS	6002R				
	NTPS	Closed Book NATOPS	6003R				
	NTPS	Oral NATOPS	6004R				
	NTPS	NATOPS Check	6101R	6002,6003,6004		2800	

AH-1W PREREQUISITE AND CHAINING MATRIX							
SKILL	STAGE	T&R DESCRIPTION	EVENT NUMBER	PREREQUISITE	PREREQ NOTES	CHAINING	CHAINING NOTES
6000 CRM	CRM	Crew Resource Mngt	6005R				
	CRM	CRM Eval	6102R				
6000 FCP	FCP	FCP Open Book Exam	6006				
	FCP	FCP Closed Book Exam	6007				
	SFCP	Demo FCF Procedures	S6200R	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	6205R	6006,6007,6200,6201,6202,6203,6204			
6000 DESG	DESG	PQM Eval	6300	1901			
	DESG	AHC Eval	6398R	8300,8310,8321,8322,8323,8324,8325,8326,8340,8350,8351,6300,Core and Mission Skills Complete			
6000 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	6498R	8630,8660,6400,6401		NS~2702	2607~ORD NS, 2705~ORD LLL
6000 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	6598R	8640,8641,6500,6501			2601~ORD,2603~ORD, 2607~ORD NS, 2705~ORD LLL
6000 FL	FL	Flt Ldr Eval	6698R	6598		2702~NS, 2601,2603~ORD,2607~ORD NS,2705~ORD LLL	
6000 AMC	AMC	AMC Eval	6798R	6070,6071,6598			
6000 SOTC	SOTC	Illum Rkt	6900R				
	SOTC	Guided Rkt Prof	6901R				
	SOTC	Flechette Rkt	6902R				
	SOTC	JAGM Prof	6903R				
	SOTC	Hellfire Prof	6904R				
	SOTC	AIM-9 Prof	6905R				
	SOTC	FAC(A) Standardization	6906R				
6000 AUTOTRK	AUTOTRK	Day Auto Rotation	6998R				
	AUTOTRK	Night Auto Rotation	6999R				

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2.24.4 AH-1W 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)						
2000 TERF	TERF	Rev TERF	2100R			Authorized TERF route
	TERF	Rev NVD TERF	2101R			Authorized TERF route
2000 TCT	STCT	Intro ASE RADAR/IR	S2200			
	STCT	Tactical ASE Employ	S2201R		(1) Captive HF, (60) Chaff/Flares ~AC	
2000 REC	SREC	Intro Day RECCE	S2300			Authorized TERF area, LASER safe range
	REC	Intro NVD RECCE	2301R			Authorized TERF area, LASER safe range
2000 FCLP	SFCLP	Intro FCLP	S2500			
	FCLP	Day FCLP	2501R			
	FCLP	Night FCLP	2502R			
2000 SWD	SSWD	Intro Hellfire	S2600		(1) Captive HF ~AC	LASER safe range
	SSWD	Review Hellfire/Intro APKWS	2601R		(1) Captive HF, (2) 2.75" APKWS, (300) 20mm ~AC	Live fire and LASER safe range
	SWD	Live Hellfire & 20mm	2602R	(1) Live HF, (400) 20mm		Live fire and LASER safe range. Thermally significant targets
	SSWD	RKT/Gun Del Prof	S2603			
	SWD	RKT/Gun Del Prof	2604R	(7) 2.75" rockets, (300) 20mm		Live fire and LASER safe range
	SWD	Scored RKT Del	2605R	(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	2607R	(7) 2.75" rockets, (300) 20mm, (60) chaff/flare		Live fire and LASER safe range. Thermally significant targets
	SWD	Moving Target Gunnery	2610R	(7) 2.75" rockets, (500) 20mm		Live fire and LASER safe range. Moving target or one aircraft for shadow
2000 ANSQ	SANSQ	NVD LLL EPs	S2700			
	ANSQ	NVD LLL FAM/Nav	2701R			
	ANSQ	NVD LLL TACFORM/TERF	2702R			Authorized TERF area
	SANSQ	Intro NVD LLL Ord	S2704			Live fire and LASER safe range. Thermally significant targets
	ANSQ	Rev NVD LLL Ord Del	2705R	(7) 2.75" rockets, (500) 20mm, (60) chaff/flare		Live fire and LASER safe range. Thermally significant targets
2000 FAM	FAM	FAM/INST Proficiency	2800R			
	SFAM	EP Simulator	S2801R			

AH-1W ORDNANCE AND RANGE MATRIX						
SKILL	STAGE	T&R DESCRIPTION	EVENT NUMBER	ORDNANCE	ORDNANCE NOTES	RANGE
MISSION SKILLS (3000 Phase)						
3000 ESC	ESC	ASPT ESC	3100	(1) Captive PGM, (1) CATM-9, (7) 2.75 inch rockets, (300) 20mm, (60) chaff/flare	Optional	Live fire and LASER safe range. Thermally significant targets
	ESC	NVD ASPT ESC	3101R	(1) Captive PGM, (1) CATM-9, (7) 2.75 inch rockets, (300) 20mm, (60) chaff/flare	Optional	Live fire and LASER safe range. Thermally significant targets
	SESC	SIM ASPT ESC	3102R	(1) Captive PGM, (1) CATM-9, (7) 2.75 inch rockets, (300) 20mm, (60) chaff/flare	Optional	Live fire and LASER safe range. One or more assault support aircraft~AC
	ESC	Surface ESC	3103R	(1) Captive PGM, (7) 2.75" rockets, (300) 20mm, (60) chaff/flare	Optional	Live fire and LASER safe range. One ground/amphibious unit (minimum three vehicles)
	ANSQ	NVD LLL TACFORM/TERF	2702R			
3000 CAS	SCAS	Intro CAS	S3300			
	CAS	Intro Day CAS	3301R	(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	3303R	(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	3304R	(1) Captive PGM, (7) 2.75" rockets, (300) 20mm, (60) chaff/flare		Live fire and LASER safe range, suitable urban environment or MOUT facility
	ANSQ	Rev NVD LLL Ord Del	2705R			
3000 AR	AR	Armed Recon	3305R	(1) Captive PGM, (7) 2.75" rockets, (500) 20mm, (60) chaff/flare		Live fire and LASER safe range. Thermally significant targets
	SSWD	Review Hellfire/Intro APKWS	2601R			
	ANSQ	Rev NVD LLL Ord Del	2705R			
3000 AI	AI	Aerial Interdiction	3306R	(1) Captive PGM, (7) 2.75" rockets, (300) 20mm, (60) chaff/flare		Live fire and LASER safe range. Thermally significant targets
	SSWD	Review Hellfire/Intro APKWS	2601R			
	ANSQ	NVD LLL TACFORM/TERF	2702R			
3000 SCAR	SCAR	SCAR	3307R	(1) Captive PGM, (7) 2.75" rockets, (300) 20mm, (60) chaff/flare		Live fire and LASER safe range
	SSWD	Review Hellfire/Intro APKWS	2601R			
	ANSQ	Rev NVD LLL Ord Del	2705R			
3000 TRAP	TRAP	TRAP	3308R	(1) Captive PGM, (7) 2.75" rockets, (300) 20mm, (60) chaff/flare	Optional	Live fire and LASER safe range. Thermally significant targets
	SESC	SIM ASPT ESC	3102R			
	ANSQ	NVD LLL TACFORM/TERF	2702R			

AH-1W ORDNANCE AND RANGE MATRIX						
SKILL	STAGE	T&R DESCRIPTION	EVENT NUMBER	ORDNANCE	ORDNANCE NOTES	RANGE
3000 FAC(A)	FAC(A)	IDF Control	3400R	(1) Captive PGM, (7) 2.75" rockets, (300) 20mm, (60) chaff/flare	Optional	Live fire and LASER safe range with thermally significant targets, if available
	FAC(A)	RW Control	3401R	(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	3402R	(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	3403R	(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	3404R	(1) Captive PGM, (7) 2.75" RP rockets, (300) 20mm		Live fire and LASER safe range with thermally significant targets, if available
	ANSQ	Rev NVD LLL Ord Del	2705R			
3000 EXP	EXP	EXP (FARP) Ops	3600R			
	EXP	EXP (FARP) Ops NVD	3601R			
	EXP	EXP RVL Day	3602R			
	EXP	EXP RVL NVD	3603R			
	ANSQ	NVD LLL FAM/Nav	2701R			
CORE PLUS (4000 Phase)						
4000 ESC	ESC	Helo ESC Med/High Threat	4200R	(1) Captive PGM, (7) 2.75" rockets, (300) 20mm, (60) chaff/flare		Live fire and LASER safe range with thermally significant targets, if available
	ANSQ	NVD LLL TACFORM/TERF	2702R			
4000 CAS	CAS	CAS Med/High Threat	4201R	(1) Captive PGM, (7) 2.75" rockets, (200) 20mm, (60) chaff/flare		Live fire and LASER safe range with thermally significant targets, if available
	ANSQ	Rev NVD LLL Ord Del	2705R			
4000 AR	AR	AR Med/High Threat	4205R	(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
	SSWD	Review Hellfire/Intro APKWS	2601R			
	ANSQ	Rev NVD LLL Ord Del	2705R			
4000 AI	AI	AI Med/High Threat	4206R	(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
	SSWD	Review Hellfire/Intro APKWS	2601R			
	ANSQ	NVD LLL TACFORM/TERF	2702R			
4000 SCAR	SCAR	SCAR	4207R	(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
	SSWD	Review Hellfire/Intro APKWS	2601R			
	ANSQ	Rev NVD LLL Ord Del	2705R			
4000 OAAW	OAAW	OAAW	4209R	(1) captive PGM		Live fire and LASER safe range
	ANSQ	NVD LLL TACFORM/TERF	2702R			

AH-1W ORDNANCE AND RANGE MATRIX						
SKILL	STAGE	T&R DESCRIPTION	EVENT NUMBER	ORDNANCE	ORDNANCE NOTES	RANGE
4000 AAD	RWDACM	OWP DACM	4300R	(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	4303R	(1) CATM-9, (30) flares and TCTS pod (as required)		Appropriate air-to-air training area
	ANSQ	NVD LLL TACFORM/TERF	2702R			
4000 AAD	FWDACM	1v1 FW	4304	(1) CATM-9, (30) flares and TCTS pod (as required)		Appropriate air-to-air training area
	FWDACM	2v2 FW	4305R	(1) CATM-9, (30) flares and TCTS pod (as required)		Appropriate air-to-air training area
	ANSQ	NVD LLL TACFORM/TERF	2702R			
4000 CBRN	SCBRN	CBRN	S4400R			
4000 CQ	CQ	Day CQ	4600R			
	CQ	NVD CQ	4601R			
	CQ	Unaided CQ	4602R			
	ANSQ	NVD LLL FAM/Nav	2701R			
INSTRUCTOR TRAINING (5000 Phase)						
5000 BIP	SBIP	EP Stan	S5100R			
	SBIP	FAM/FCLP Maneuvers	S5101			FCLP pad~AC
	SBIP	INST Rev	S5102			
	BIP	IUT FORM Flt Rev	5103			
	BIP	FAM Maneuvers Rev	5104R			
5000 TERFI	STERFI	TERF Maneuvers	S5110			
	TERFI	TERF Nav	5111R			
5000 WTO	SWTO	Rkt/Gun/Sys Rev	S5200R			
	SWTO	R/S Ord Del Rev	S5201			
	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	5203R	(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
5000 TSI	STSI	Intro Sim Functions	S5210R			
	STSI	Rev Sim Functions	S5211R			
5000 CSI	SCSI	EP & FAM Stan	S5300			
	SCSI	INST Stan	S5301			
	SCSI	Sys/ASE Rev	S5302			
	SCSI	Rev Ord Delivery	S5303			
5000 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	5401R	(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

AH-1W ORDNANCE AND RANGE MATRIX						
SKILL	STAGE	T&R DESCRIPTION	EVENT NUMBER	ORDNANCE	ORDNANCE NOTES	RANGE
5000 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	5802R	(1) captive AIM-9, (60) flares and TCTS pod (optional)		Appropriate air-to-air training area
	DACMI	1v1 & 2v1 FW Eval	5803R	(1) captive AIM-9, (60) flares and TCTS pod (optional)		Appropriate air-to-air training area
5000 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	5904R			
	NSI	NSI Check	5905R	(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)						
6000 INST	INST	INST Grd Sch	6000R			
	INST	INST Grd Sch Exam	6001R			
	INST	Annual INST Check	6100R			
6000 NTPS	NTPS	Open Book NATOPS	6002R			
	NTPS	Closed Book NATOPS	6003R			
	NTPS	Oral NATOPS	6004R			
	NTPS	NATOPS Check	6101R			
6000 CRM	CRM	Crew Resource Mngt	6005R			
	CRM	CRM Eval	6102R			
6000 FCP	FCP	FCP Open Book Exam	6006			
	FCP	FCP Closed Book Exam	6007			
	SFCP	Demo FCF Procedures	S6200R			
	FCP	Intro FCF Procedures	6201			
	FCP	Conduct FCF	6202			
	FCP	Rev FCF Procedures	6203			
	FCP	Main/Tailrotor Track	6204			
	FCP	FCP Eval	6205R			

AH-1W ORDNANCE AND RANGE MATRIX						
SKILL	STAGE	T&R DESCRIPTION	EVENT NUMBER	ORDNANCE	ORDNANCE NOTES	RANGE
6000 DESG	DESG	PQM Eval	6300			
	DESG	AHC Eval	6398R			
6000 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	6498R	(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
6000 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	6598R	(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
6000 FL	FL	Flt Ldr Eval	6698R	(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
6000 AMC	AMC	AMC Eval	6798R	(1) captive PGM, (7) 2.75 inch rockets, (300) rounds 20mm, (60) chaff/flares	Optional	Live fire and LASER safe range with thermally significant targets, if available
6000 SOTC	SOTC	Illum Rkt	6900R			
	SOTC	Guided Rkt Prof	6901R			
	SOTC	Flechette Rkt	6902R			
	SOTC	JAGM Prof	6903R			
	SOTC	Hellfire Prof	6904R			
	SOTC	AIM-9 Prof	6905R			
	SOTC	FAC(A) Standardization	6906R			
6000 AUTOTRK	AUTOTRK	Day Auto Rotation	6998R			
	AUTOTRK	Night Auto Rotation	6999R			

2.26 AH-1W FRS T&R SYLLABUS MATRIX

AH-1W FRS T&R MATRIX (1000 AND 5000 Phase)																								
SKILL	STAGE	T&R DESCRIPTION	EVENT NUMBER	POI				ACAD/GRND		SIM		FLIGHT		COND	SEAT	TYPE	# A/C	REFLY	PREREQUISITE	PREREQ NOTES	CHAINING	EVAL	MIRROR W->Z	EVENT CONV W->W
				B	R	SC	MR	#	TIME	#	TIME	#	TIME											
CORE SKILL INTRODUCTION (1000 Phase)																								
1000 ACAD	ACAD	Light Attack University	1000	X					1.0					(N)		G		*					1000	
	ACAD	CBT/Interactive Courseware	1001	X					1.0					(N)		G		*					1001	1009
	ACAD	Weight & Power Lecture	1002	X					1.0					(N)		G		*					1002	
	ACAD	CDNU/EGI/ARC-210 Basics	1003	X					1.0					(N)		G		*						
	ACAD	T/M/S Crew Resource Management	1004R	X	X				1.0					(N)		G		365					1004R	1001
	ACAD	Intro to Mission Planning Software	1005	X					1.0					(N)		G		*					1005	1000
	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	1004
	ACAD	TERF Stage Lecture	1009	X					1.0					(N)		G		*					1009	1005
	ACAD	NAV Stage Lecture	1010	X					1.0					(N)		G		*					1010	1006
	ACAD	NVD NITE Lab	1011	X					1.0					(N)		G		*					1011	1002
	ACAD	TCT/ASE Lecture	1012	X					1.0					(N)		G		*					1012	1008
	ACAD	SWD Stage Lecture	1013	X					1.0					(N)		G		*					1013	1007
1000 ACAD SKILL TOTAL								14	14.0	0	0.0	0	0.0											

AH-1W FRS T&R MATRIX (1000 AND 5000 Phase)																								
SKILL	STAGE	T&R DESCRIPTION	EVENT NUMBER	POI				ACAD/GRND		SIM		FLIGHT		COND	SEAT	TYPE	# A/C	REFLY	PREREQUISITE	PREREQ NOTES	CHAINING	EVAL	MIRROR W->Z	EVENT CONV W->W
				B	R	SC	MR	#	TIME	#	TIME	#	TIME											
1000 FAM	FAM	Intro Pre/Post Flt	1100	X									0.0	D		A	1	*	1000,1001,1002,1003				1100	1101
	FAM	Review Pre/Post Flt	1101R	X	X	X	X						0.0	D		A	1	*	1100					1102
	SFAM	Checklist Intro/Ground Proc	S1102	X		X					1.5			D	FS/RS	S	1	*	1004,1005,1006,1101					1103
	SFAM	Intro Basic FAM	S1103	X		X					1.5			D	FS	S	1	*	1102					1104
	FAM	Intro FAM Maneuvers	1104	X		X							1.5	D	FS	A	1	*	1004,1005,1103					1105
	FAM	Intro NAV/INST Procedures	1105	X		X							2.0	D	FS	A	1	*	1104					
	SFAM	Intro FAM/INST Maneuvers	S1106	X							1.5			D	RS	S	1	*	1104				1106	1107
	SFAM	Review FAM/INST Maneuvers	S1107R	X	X	X	X				1.5			D	RS	S	1	*	1106					
	FAM	Intro FAM Maneuvers	1108	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 Maneuvers	1110R	X	X	X	X						2.0	D	FS	A	1	*	1109					1110
	SFAM	Intro EPs/CRM	S1111R	X	X	X	X				1.5			D	FS	S	1	*	1110					
	FAM	Intro/Review FAM Maneuvers	1112	X									2.0	D	RS	A	1	*	1111				1112	
	FAM	Intro/Review FAM Maneuvers	1113R	X	X	X	X						2.0	D	RS	A	1	*	1112					1111
	FAM	FAM Maneuvers Eval	1114R	X	X	X	X						1.5	D	RS	A	1	*	1113			X		1112
	SFAM	Intro/Review EP's/CRM	S1115	X							1.5			D	RS	S	1	*	1114				1114	1113
	SFAM	Evaluate Emerg Maneuvers	S1116R	X	X	X	X				1.5			D	RS	S	1	*	1114,1115					
	FAM	Intro/Review FAM Maneuvers	1117	X									2.0	D	FS	A	1	*	1114					
	FAM	Review FAM Maneuvers	1118R	X	X	X	X						2.0	D	RS	A	1	*	1116,1117					1120
	FAM	FAM Maneuver Eval	1119R	X	X	X	X						2.0	D	RS	A	1	*	1118			X		1121
	SFAM	Intro NVD FAM Maneuvers	S1120	X							1.5			NS	FS	S	1	*	1011,1119					1116
	FAM	Intro NVD FAM Maneuvers	1121	X									1.5	NS	FS	A	1	*	1120					1117
	FAM	Intro NVD FAM Maneuvers	1122R	X	X	X	X						1.5	NS	RS	A	1	*	1121					1118
1000 FAM SKILL TOTAL								0	0.0	8	12.0	15	24.0											
1000 INST	SINST	Intro TACAN/GCA	S1200R	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				1202	1202
	INST	Intro GCA/INST NAV	1202R	X	X	X	X						1.5	(N)	RS	A	1	*	1201					1203
	SINST	Eval INST/CRM	S1203R	X	X	X	X				1.5			(N)	RS	S	1	*	1202					1204
1000 INST SKILL TOTAL								0	0.0	2	3.0	2	3.0											
1000 FORM	FORM	Intro FORM Flt	1300	X									2.0	D	FS	A	2	*	1008,1500				S1300	1300
	FORM	Intro FORM/TAC FORM	1301R	X	X		X						2.0	D	RS	A	2	*	1300				1301R	1301
	FORM	Intro Div FORM	1302	X									2.0	D	RS	A	3	*	1301				S1302	1302
	FORM	Intro NVD FORM	1303R	X	X								1.5	NS	OS	A	2	*	1121,1301				1303R	1303
	FORM	FORM Eval	1304	X									2.0	D	RS	A	2	*	1302,1303			X	1304	
1000 FORM SKILL TOTAL								0	0.0	0	0.0	5	9.5											

AH-1W FRS T&R MATRIX (1000 AND 5000 Phase)

SKILL	STAGE	T&R DESCRIPTION	EVENT NUMBER	POI				ACAD/GRND		SIM		FLIGHT		COND	SEAT	TYPE	# A/C	REFLY	PREREQUISITE	PREREQ NOTES	CHAINING	EVAL	MIRROR W->Z	EVENT CONV W->W
				B	R	SC	MR	#	TIME	#	TIME	#	TIME											
1000 TERF	TERF	Intro TERF	1400R	X									2.0	D	FS	A	1	*	1009,1500	1300~Sec			1400R	1400
	TERF	Review TERF Maneuvers	1401R	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			1503	1501
	TERF	Intro NVD TERF	1403R	X	X		X						2.0	NS	FS	A	1	*	1121,1401	1303~Sec			1401	1402
1000 TERF SKILL TOTAL								0	0.0	0	0.0	4	8.0											
1000 NAV	NAV	Intro Flt NAV	1500	X									2.0	D	FS	A	1	*	1010,1203				S1502R	1500
	NAV	Intro NVD Nav	1501R	X	X	X							2.0	NS	FS	A	1	*	1121,1500					1502
1000 NAV SKILL TOTAL								0	0.0	0	0.0	2	4.0											
1000 SWD	SSWD	Intro FS Weapons Systems	S1600R	X	X	X					1.5			D	FS	S	1	*	1013,1300,1400					1600
	SWD	Intro FS Weapons Systems	1601	X		X							1.5	D	FS	A	1	*	1600					1601
	SSWD	Intro RS Weapons Delivery	S1602R	X	X	X					1.5			D	RS	S	1	*	1600					1602
	SWD	Intro SWD	1603R	X	X	X	X						1.5	D	RS	A	1	*	1601,1602,1700					1603
	SWD	SWD Eval	1604R	X	X	X	X						1.5	D	RS	A	1	*	1603					1604
1000 SWD SKILL TOTAL								0	0.0	2	3.0	3	4.5											
1000 TCT	STCT	Intro ASE Ops	S1700	X	X	X	X				1.5			D	RS	S	1	*	1012,1300,1400					1700
1000 TCT SKILL TOTAL								0	0.0	1	1.5	0	0.0											
1000 CSIX	SCSIX	EP/CRM Eval	S1900R	X	X	X	X				1.5			D	RS	S	1	*	1304,1403,1502,1604				X		1900
	CSIX	Core Skill Intro Ck	1901R	X	X	X	X						2.0	D	RS	A	1	*	1900				X		1901
1000 CSIX SKILL TOTAL								0	0.0	1	1.5	1	2.0											
								14	14.0	15	22.5	33	57.0											

AH-1W FRS T&R MATRIX (1000 AND 5000 Phase)																								
SKILL	STAGE	T&R DESCRIPTION	EVENT NUMBER	POI				ACAD/GRND		SIM		FLIGHT		COND	SEAT	TYPE	# A/C	REFLY	PREREQUISITE	PREREQ NOTES	CHAINING	EVAL	MIRROR W->Z	EVENT CONV W->W
				B	R	SC	MR	#	TIME	#	TIME	#	TIME											
FRS INSTRUCTOR TRAINING (5000 Phase)																								
5000 FRSI	SFRSI	EP Stan	S5310	X							1.5			D	RS	S	1	*	5203		2801		S5310	5310
	FRSI	FAM Review & Stan	5311	X									2.0	D	RS	A	1	*	5310		2800		5311	5311
	FRSI	FAM Review & Stan	5312	X									2.0	D	FS	A	1	*	5311		2800		5312	5312
	FRSI	FAM Eval	5313	X									2.0	D	FS	A	1	*	5312		2800	X	5313	5319
	FRSI	INST Flt Proc Eval	5314R	X	X								1.5	(N)	FS	A	1	*	5310		2800	X	5314R	5314
	FRSI	FORM Stan	5315R	X	X								2.0	D	RS	A	2	*	5310				5315R	5315
	FRSI	TERF Review & Stan	5316R	X	X								2.0	D	OS	A	1	*	5310		2100		5316R	5316
	SFRSI	Weapons Review & Stan	S5317	X							1.5			D	FS/RS	S	1	*	5310		2601		S5317	5317
	FRSI	Weapons Eval & Stan	5318R	X	X								1.5	D	FS	A	2	*	5317		2605	X	5318R	5318
	FRSI	Review NVD FAM Maneuvers	5319R	X	X								2.0	NS	RS	A	1	*	NSI/NSFI,5313,5315,5316		2800		5319R	5313
5000 FRSI SKILL TOTAL								0	0.0	2	3.0	8	15.0											
5000 FRS-SI	FRS-SI	Intro Form Stage Eval Setup	5320	X									2.0	D	FS	A	2	*	5337				5320	
	SFRS-SI	Intro CSIX 1900 & 1901 Eval Setup	5321	X							1.5			D		S	1	*	5337				5321	
5000 FRS-SI SKILL TOTAL								0	0.0	1	1.5	1	2.0											
5000 NSFI	NSFI	NAV & TERF IUT	5600	X									1.5	NS		A	1	*			2101,2701, 2702,2800		5600	5600
	NSFI	FORM IUT	5601	X									1.5	NS		A	2	*			2701,2702 ,2800		5601	5601
	NSFI	NSFI Check	5602R	X	X								1.5	NS		A	1	*			2800	X	5602R	5602
5000 NSFI SKILL TOTAL								0	0.0	0	0.0	3	4.5											