DEPARTMENT OF THE NAVY
HEADQUARTERS UNITED STATES MARINE CORPS
3000 MARINE CORPS PENTAGON
WASHINGTON, DC 20350-3000

NAVMC 3500.51B
C 465
09 JUL 2013

NAVMC 3500.51B

From: Commandant of the Marine Corps
To: Distribution List

Subj: AV-8B TRAINING AND READINESS (T&R) MANUAL

Ref: (a) NAVMC 3500.14C

Encl: (1) AV-8B T&R Manual

1. Purpose. In accordance with reference (a), this T&R Manual, contained in enclosure (1), revises standards and regulations regarding the training of AV-8B aircrew.

2. Scope. Highlights of major T&R planning considerations included in this AV-8B T&R Manual are as follows:

a. The Fleet Replacement Squadron (FRS) has been leveraged to introduce skills, systems, and sensors in accordance with reference (a) guidance and in line with other Type/Model/Series aircraft.

b. Emphasis has been placed on end-state requirements for combat flight leadership qualifications such as Division Lead and Section Lead. This revision ensures that pilots with these qualifications are being trained as the tactical backbone of the community, with the ability to lead all Mission Essential Tasks (MET) and to instruct combat wingmen.

c. The 2000 through 4000 Phase syllabi have been modified in order to transition the FRS graduate to a combat flight lead with a focus on Core MET competency and expected assigned mission tasks.

3. Information. Recommended changes to this manual should be submitted via the syllabus sponsor and the appropriate chain of command to: Commanding General (CG), Training and Education Command (TECOM), Marine Air Ground Task Force Training and Education Standards Division (MTESD) (C 465), Aviation Standards

Branch using standard Naval correspondence or the Automated Message Handling System plain language address: CG TECOM MTESD.

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

5. Certification. Reviewed and approved this date.

T. M. MURRAY
By direction

DISTRIBUTION: PCN 1003197710

DEPARTMENT OF THE NAVY
HEADQUARTERS UNITED STATES MARINE CORPS
3000 MARINE CORPS PENTAGON
WASHINGTON, DC 20350-3000

NAVMC 3500.51B Ch 1
C 466

SEP 2 3 2014

NAVMC 3500.51B Ch 1

From: Commandant of the Marine Corps
To: Distribution List

Subj: AV-8B TRAINING AND READINESS MANUAL

Ref: (a) NAVMC 3500.14C

Encl: (1) AV-8B T&R Manual Change

1. Purpose. To transmit a change to the basic manual.

2. Scope. Highlights of major Training and Readiness (T&R) changes included in this AV-8B T&R Manual are as follows:

a. Chapter 1. An Air Defense Flight Leader designation has been added to the Combat/Flight Leadership table.

b. Chapter 2

(1) The Air Defense Flight Leader designation has been added to the Qualification and Designation table.

(2) The Division Flight Leadership syllabus now consists of 2 ground events, 1 simulator event, and 3 aircraft events.

(3) The device used for the Division Leader event 6305 has changed from "Aircraft" to "Simulator."

(4) A new event, Air Defense Flight Lead 6500, has been added.

3. Information. Recommended changes to this Manual should be submitted via the syllabus sponsor and the appropriate chain of command to: Commanding General (CG), Training and Education Command (TECOM), Marine Air Ground Task Force Training and Education Standards Division (MTESD), (C 466), Aviation

Standards Branch using standard Naval Correspondence or the Automated Message Handling System plain language address: CG TECOM MTESD.

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

5. Certification. Reviewed and approved this date.

J. W. LUKEMAN
By direction

DISTRIBUTION: PCN 10031977201

CHAPTER 1

AV-8B TRAINING AND READINESS UNIT REQUIREMENTS

THIS PAGE BLANK

CHAPTER 1

AV-8B 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.

NOTE: The AV-8B T&R manual and its corresponding Core Competency Resource Model (CCRM) does not, by itself, program sufficient hours for AV-8B pilots to maintain minimum proficiency standards for safe operations.

- Based on studies by the Center for Naval Analysis and the Naval Safety Center, there is a significant increase in mishap rates for aviators who have accrued less than 15 hours in the last 30 days. This relationship applies to both experienced and inexperienced aircrew populations.
- The T&R currency intervals are guidelines for tactical proficiency and do not ensure minimum hours for single-seat safety of flight standards. To meet recognized safety of flight standards, commanders should make every effort to ensure their AV-8B pilots fly more than 15 hours in the previous 30 days.
- Operational Risk Management shall be used to determine appropriate control measures for pilots with less than 15 hours in the previous 30 days. These control measure may include, but are not limited to: additional simulator events, limited sortie complexity, experienced flight leadership, and daylight operations.

1.1 VMA MISSION

1.1.1 Tactical Squadron. Support the MAGTF Commander by destroying surface and airbornetargets and escorting friendly aircraft, day or night, under all weather conditions, during expeditionary, joint, or combined operations.

1.1.2 VMAT-203 Fleet Replacement Squadron. Conduct Core Skill Introduction attack training for selected aircrews in the AV-8B and provide technical training for aviation maintenance personnel.

1.2 VMA 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 AV-8 squadrons. As of this publication date; VMA Squadrons, VMAT, and detachments are authorized:

AV-8 Table of Organization				
Pilots and Aircraft	Tactical Squadrons			VMAT-203 (VMA FRS)
	Squadron	Squadron (-)	Detachment	
Pilots	22	13	9	27
AV-8B	14	8	6	13
TAV-8B	N/A	N/A	N/A	13

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.
Aerial Reconnaissance	**AerRec**	AerRec employs visual observation and/or sensors in aerial vehicles to acquire intelligence information. It supports the intelligence warfighting function and is employed tactically, operationally, and strategically. The three types of air reconnaissance are visual, multi-sensor imagery, and electronic.

1.4 ABBREVIATIONS

CORE SKILLS	
AA	Air-to-Air
AAR	Air-to-Air Refueling
AS	Air-to-Surface
FAM	Familiarization
INT	Intercepts
LAT	Low Altitude Tactics
NS	Night Systems
TCT	Threat Countertactics
MISSION SKILLS	
AI	Air Interdiction
AR	Armed Reconnaissance
CAS	Close Air Support
EXP	Shore-based Expeditionary
SCAR	Strike Coordination and Reconnaissance
CORE PLUS SKILLS	
ADLAT	Advanced Low Altitude Tactics
FCLP (D)	Field Carrier Landing Practice, Day
FCLP (N)	Field Carrier Landing Practice, Night
LFE	Large Force Exercise
CFF	Call For Fire
MISSION PLUS SKILLS	
AAD	Active Air Defense
AE	Aerial Escort
CQ (D)	Carrier Qualification, Day
CQ (N)	Carrier Qualification, Night
FOB	Shore-based Restricted
MIR	Multi-sensor Imagery Reconnaissance
OAAW	Offensive Anti-air Warfare
FAC(A)	Forward Air Controller (Airborne)

1.5 DEFINITIONS

TERM	DEFINITION
Core Model	The Core Model is the basic foundation or standardized format by which all T&Rs are constructed. The Core model provides the capability of quantifying both unit and individual training requirements and measuring readiness. This is accomplished by linking community Mission Statements, Mission Essential Task Lists, Output Standards, Core Skill Proficiency Requirements and Combat Leadership Matrices
Core Skill	Fundamental, environmental, or conditional capabilities required to perform basic functions. These basic functions serve as tactical enablers that allow crews to progress to the more complex Mission Skills. Primarily 2000 Phase events but may be introduced in the 1000 Phase.
Mission Skill	Mission Skills enable a unit to execute a specific MET. They are comprised of advanced event(s) that are focused on MET performance and draw upon the knowledge, aeronautical abilities, and situational awareness developed during Core Skill training. 3000 Phase events.
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 RR)	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 comprised of specified capabilities-based Mission Essential Tasks (METs) which a unit is designed to execute. METs are drawn from the Marine Corps Task List (MCTL), are standardized by type unit, and defined as Core or Core Plus METs. Core METs are those tasks that a unit is expected to execute at all times, and are the only METs used in reporting the Training Level (T-Level) for the Core Mission (C-Level) in the Defense Readiness Reporting System – Marine Corps (DRRS-MC). Core Plus METs identify additional capabilities to support missions or plans which are limited in scope, theater specific, or have a lower probability of execution. Core Plus METs may be included in readiness reporting when contained within an Assigned Mission METL. An Assigned Mission METL consists of only selected METs (drawn from Core and Core Plus METs) necessary to conduct the

assigned mission. MCO 3000.13 Readiness Reporting and Chapter 7 of the Aviation T&R Program Manual provide additional information on Aviation Training readiness reporting.

VMA AV-8B		
MISSION ESSENTIAL TASK LIST (METL)		
CORE		
MET	**ABBREVIATION**	**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 Air 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
CORE PLUS		
MET	**ABBREVIATION**	**DESCRIPTION**
MCT 1.3.3.3.1	**SEA**	Conduct Aviation Operations From Expeditionary Sea-Based Sites
MCT 1.3.3.3.2.1	**FOB**	Conduct Aviation Operations From Expeditionary Restricted Sites
MCT 2.2.5.2.2	**MIR**	Conduct Multi-Sensor Imagery Reconnaissance
MCT 3.2.3.2	**OAAW**	Conduct Offensive Anti-air Warfare
MCT 3.2.5.4	**FAC(A)**	Conduct Forward Air Control (Airborne)
MCT 6.1.1.8	**AAD**	Conduct Active Air Defense
MCT 6.1.1.11	**AE**	Conduct Aerial Escort

1.7 MET TO SIX FUNCTIONS OF MARINE AVIATION

VMA AV-8B							
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					
MCT 3.2.3.1.1	**CAS**	X					
MCT 3.2.3.1.2.1	**AI**	X					
MCT 3.2.3.1.2.2	**AR**	X			X		X
MCT 3.2.3.1.2.3	**SCAR**	X					X
CORE PLUS							
MCT 1.3.3.3.1	**SEA**	X					
MCT 1.3.3.3.2.1	**FOB**	X					
MCT 2.2.5.2.2	**MIR**	X					X
MCT 3.2.3.2	**OAAW**			X			
MCT 3.2.5.4	**FAC(A)**	X	X				
MCT 6.1.1.8	**AAD**			X			
MCT 6.1.1.11	**AE**	X	X	X			

1.8 MET TO CORE/MISSION/CORE PLUS/MISSION PLUS 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 CAS MET shows a one-to-one relationship with the CAS Mission Skill, and so on. Shading indicates Core Plus.

VMA AV-8B																										
MET TO CORE SKILLS/MISSION SKILLS/CORE PLUS SKILLS/MISSION PLUS SKILLS																										
MET	CORE													CORE PLUS (4000 PHASE)												
	SKILLS (2000 PHASE)								MISSIONS (3000 PHASE)					SKILLS					MISSION PLUS							
	FAM	TCT	AAR	LAT	INT	AS	NS	AA	EXP	CAS	AI	AR	SCAR	CFF	FCLP (D)	FCLP (N)	ADV LAT	LFE	CQ (D)	CQ (N)	FOB	MIR	OAAW	FAC(A)	AAD	AE
MCT 1.3.3.3.2 EXP	X						X		X																	
MCT 3.2.3.1.1 CAS	X	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	X								
MCT 3.2.3.1.2.2 AR	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								
CORE PLUS																										
MCT 1.3.3.3.1 SEA	X						X								X	X			X	X						
MCT 1.3.3.3.2.1 FOB	X						X														X					
MCT 2.2.5.2.2 MIR	X	X	X	X	X	X	X															X				
MCT 3.2.3.2 OAAW	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 6.1.1.8 AAD	X	X	X	X	X		X	X																	X	
MCT 6.1.1.11 AE	X	X	X	X	X	X	X	X							X											X

1.9 MISSION ESSENTIAL TASK OUTPUT STANDARDS. The following MET output standards are the required level of performance a VMA 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 VMA 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 1.3 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.

VMA AV-8B [SQUADRON]			
MET OUTPUT STANDARDS MATRIX			
CORE			
MET	ABBREVIATION	MAXIMUM DAILY SORTIES	MAXIMUM SORTIES PER MET
		SQD/SQD(-)/DET	SQD/SQD(-)/DET
MCT 1.3.3.3.2	EXP	20/12/8	20/12/8
MCT 3.2.3.1.1	CAS		20/12/8
MCT 3.2.3.1.2.1	AI		20/12/8
MCT 3.2.3.1.2.2	AR		20/12/8
MCT 3.2.3.1.2.3	SCAR		20/12/8
CORE PLUS			
MET	ABBREVIATION	MAXIMUM DAILY SORTIES	MAXIMUM SORTIES PER MET
		SQD/SQD(-)/DET	SQD/SQD(-)/DET
MCT 1.3.3.3.1	SEA	20/12/8	20/12/8
MCT 1.3.3.3.2.1	FOB		20/12/8
MCT 2.2.5.2.2	MIR		20/12/8
MCT 3.2.3.2	OAAW		12/8/8
MCT 3.2.5.4	FAC(A)		4/2/2
MCT 6.1.1.8	AAD		12/8/8
MCT 6.1.1.11	AE		20/12/8

Note: A 14/8/6 plane Mission Capable VMA squadron/squadron(-) /detachment is able to execute 20/12/8 total overall sorties on a daily (24 hour period) basis during contingency/combat operations. Based on historical flight hour data, average sortie duration is 1.3 hours for the AV-8B.

1.10 CORE MODEL MINIMUM REQUIREMENT (CMMR) FOR READINESS REPORTING (DRRS-MC). The paragraphs and tables below delineate the minimum aircrew qualifications and designations required to execute the MET training standards and MET observed standards of para 1.9. MCO 3000.13 Readiness Reporting and 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 depicts the minimum crew composition (defined as a combination of qualifications and designations) reflecting the number of crews required per MET and minimum Combat Leadership requirements for readiness reporting purposes. The number of crews formed using the below minimum standards per crew capture the readiness capability of a squadron to perform the MET sortie under all light levels.

VMA AV-8B					
CMMR READINESS REPORTING MATRIX					
VMA MINIMUM CREW QUALIFICATIONS / DESIGNATIONS REQUIRED FOR MET CAPABILITY					
CORE					
MET	ABBREVIATION	PILOT	CREWS REQUIRED BY MET		
			SQUADRON	SQUADRON(-)	DETACHMENT
MCT 1.3.3.3.2	EXP	MSP	15	8	9
MCT 3.2.3.1.1	CAS	MSP	12	8	5
MCT 3.2.3.1.2.1	AI	MSP	12	8	5
MCT 3.2.3.1.2.2	AR	MSP	12	8	5
MCT 3.2.3.1.2.3	SCAR	MSP	12	8	5
CORE PLUS					
MET	ABBREVIATION	PILOT	CREWS REQUIRED BY MET[1]		
			SQUADRON	SQUADRON(-)	DETACHMENT
MCT 1.3.3.3.1	SEA	MSP	17(8)	12(6)	9(5)
MCT 1.3.3.3.2.1	FOB	MSP	17	12	9
MCT 2.2.5.2.2	MIR	MSP	15	9	6
MCT 3.2.3.2	OAAW	MSP	6	4	4
MCT 3.2.5.4	FAC(A)	MSP	2	1	1
MCT 6.1.1.8	AAD	MSP	6	4	4
MCT 6.1.1.11	AE	MSP	12	8	5
COMBAT/FLIGHT LEADERSHIP CMMR					
DESIGNATION	PILOTS				
	SQUADRON		SQUADRON(-)		DETACHMENT
SECTION LEADER (SL)	12		7		5
DIVISION LEADER (DL)	6		3		3
MISSION COMMANDER (MC)	3		2		1
AIR DEFENSE FLIGHT LEADER (ADFL)	0		0		1

* Number in parentheses denotes number of night CQ qualified aircrew.
** A FAC(A) capable crew requires 1 FAC(A) per Flight.

Squadron: Based on 70 percent RBA of T/O aircraft and 90 percent of T/O pilots, a Harrier squadron can sustain 20 sorties per day. The number of pilots listed is the number required to execute a flight schedule of 6 T 6 T 4 T 4 with half the pilots flying twice per day. Some skills are reduced based on percentage requirements of that skill across the commensurate mission skills. Exceptions are FCLP/CQ, where all pilots on board would be expected to be at least CQ(D) and where 7 pilots would be required to support a 6-plane wave and a current night LSO.

Squadron (-): Based on 70 percent RBA of T/O aircraft and 90 percent of T/O pilots, an 8-plane squadron (-) can sustain 12 sorties per day. The number of pilots listed is the number required to execute a flight schedule of 4 T 4 T 4 with half of the pilots flying twice per day. Some core plus skills are reduced based on percentage requirements of that core plus skill across the commensurate mission skills. Exceptions are FCLP/CQ, where all pilots on board would be expected to be at least CQ(D) and where 5 pilots would be required to support 1 4-plane wave and a current night LSO.

Detachment: Based on 70 percent RBA of T/O aircraft and 90 percent of T/O pilots, a 6-plane detachment can sustain 8 sorties per day. For a detachment, the number of pilots listed is the number required to execute a flight schedule of 3 T 3 T 2 with all pilots flying once per day. Some core plus skills are reduced based on percentage requirements of that core plus skill across the commensurate mission skills. Exceptions are FCLP/CQ, all pilots on board would

be expected to be at least CQ(D) and where 5 pilots would be required to support two 2-plane waves and a current night LSO.

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 shall enable a squadron to form Core Model Minimum Requirement (CMMR) crews for Mission Skills (and Mission Plus Skills when required). For single-seat aircraft, the number of aircrews trained to MSP standards in the CMTS Matrix and CMMR may be the same.

VMA AV-8B CMTS MATRIX			
CORE SKILLS	**SQUADRON**	**SQUADRON(-)**	**DETACHMENT**
CORE SKILLS (2000 Phase)			
FAM	18	9	9
TCT	15	9	9
INT	15	9	9
AAR	15	9	6
LAT	15	9	6
AS	15	9	9
NS	15	9	6
AA	14	9	7
MISSION SKILLS (3000 Phase)			
MISSION SKILLS	**SQUADRON**	**SQUADRON(-)**	**DETACHMENT**
EXP	17	9	9
CAS	15	9	6
AI	15	9	6
AR	15	9	6
SCAR	15	9	6
CORE PLUS(4000 Phase)			
CORE PLUS SKILLS			
CORE PLUS SKILLS	**SQUADRON[1]**	**SQUADRON(-)[1]**	**DETACHMENT[1]**
ADV LAT	(2)/4	(2)/2	(2)/8
CFF	2	1	1
FCLP (D)	(5)/15	(3)/9	(9)/9
FCLP (N)	(5)/8	(3)/6	(6)/9
LFE	(5)/11	(3)/6	(2)/5
MISSION PLUS SKILLS			
CORE PLUS MISSION SKILLS	**SQUADRON[1]**	**SQUADRON(-)[1]**	**DETACHMENT[1]**
CQ (D)	(5)/15	(3)/9	(9)/9
CQ (N)	(5)/8	(3)/6	(6)/9
FOB	(10)/15	(6)/9	(4)/9
MIR	(12)/15	(9)/13	(9)/9
OAAW	(5)/8	(3)/5	(5)/6
FAC(A)	(2)/2	(1)/1	(1)/1
AAD	(5)/8	(3)/5	(5)/6
AE	(8)/15	(6)/9	(5)/6

Note[1]: In the Core Plus METS the first number represents the number of pilots 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 pilots the squadron must train

if that MET becomes required within an Assigned Mission/Directed Mission Set.

1.12 INSTRUCTOR DESIGNATIONS

VMA AV-8B				
INSTRUCTOR DESIGNATION CMTS MATRIX (5000 Phase)				
DESIGNATION	**SQUDARON**	**SQUADRON(-)**	**DETACHMENT**	**REMARKS**
LSO	5	2	3	INCLUDES T, A&B LSO
LSS (site)	2	1	1	SITE
LSS	12	7	5	MAIN BASE
WTO	6	4	2	INCLUDES WTI
LATI	3	2	1	INCLUDES WTI
NSI	2	1	1	INCLUDES WTI
NS LATI	1	1	0	INCLUDES WTI
ACTI	2	1	1	INCLUDES WTI
FAC(A)I*	0	0	0	INCLUDES WTI
WTI	2	1	1	ONE WTI IS A 2^{ND} OR 3^{RD} TOUR DEPT HEAD AND ONE WTI IS FILLING A PTO BILLET
NATOPS	4	2	2	
INST	4	2	2	
FLSE	2	1	1	MAG DESIGNATION

*NOTE: 1 FAC(A)I required per MAG

1.12.1 VMAT-203 INSTRUCTOR DESIGNATIONS (5000 Phase)

VMAT-203 AV-8B/TAV-8B	
INSTRUCTOR DESIGNATION CMTS MATRIX (5000 Phase)	
DESIGNATIONS	**PILOTS**
LSO	5
LSS	5
WTO	27
LATI	6
NSI	5
NSLATI	0
ACTI	4
FAC(A)I	0
WTI	2
FRSI	27
NATOPS	6
INSTRUMENT	6
FLSE*	1
*FLSEs are designated by the Group CO	

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

VMA AB-8B			
RCQD MATRIX (6000 PHASE)			
QUALIFICATION	SQUADRON	SQUADRON(-)	DETACHMENT
FCP	4	2	2

1.13.1 VMAT-203 REQUIREMENTS, CERTIFICATIONS, QUALIFICATIONS, AND DESIGNATIONS(RCQD) (6000 Phase)

AV-8B FRS (VMAT-203)	
FLIGHT LEADERSHIP	
DESIGNATION	**PILOTS**
SECTION LEADER	27
DIVISION LEADER	27
MISSION COMMANDER	0
AIR DEFENSE FLIGHT LEADER	0
FCP	10

1.14 VMA ORDNANCE REQUIREMENTS. Detailed Ordnance requirements are delineated in the AV-8B Ordnance Core Competency Resource Model (CCRM), developed and maintained by TECOM Aviation Training Division (ATD). Training Officers are encouraged to contact ATD for more information about Ordnance CCRM.

1.14.1 Fleet Replacement Squadron (FRS) (22 RACs base line)

ORDNANCE	RAC	SPT	IUT	Sqdn Total
25mm	300	0	0	11100
Mk-76	180	30	36	9102
Mk-82	4	0	0	148
BDU-45	4	0	0	148
Mk-83	0	0	0	0
Mk-83(I)	0	0	0	0
Mk-20/CBU-99/100	2	0	0	74
Mk-77	2	0	0	74
LUU-2	0	0	0	0
2.75” Rkt	7	0	0	259
5.0” Rkt	0	0	0	0
AGM-65E	0	0	0	0
LGTR	2	0	0	74
GBU-12/16	.5	0	0	18
JDAM	.5	0	0	19
AIM-9	0	0	0	0
Self-Protect Chaff	70	0	0	2590
Self-Protect Flare	220	100	0	11840

Note: FRS ordnance requirements are based upon predicted steady-state throughput requirements and standard support/overhead factors per RAC equivalent.

1.15 VMA TRAINING RESOURCE REQUIREMENTS. The range requirements in this table 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.

Category	Abbreviation	Name	Description	Notes
CAT I	MOA	Special Use Airspace or MOA	Per Flight Information Publications	
CAT I	RSTD	Restricted/ Warning Area	Per Flight Information Publications	

Category	Abbreviation	Name	Description	Notes
CAT I	MTR	Military Training Route	Per Flight Information Publications	
CAT I	LAT	LAT Course	Approved LAT course. Normally preferred over an MTR for dedicated LAT sorties.	
CAT I	AA	Air-to-Air Range	Any airspace that can support BFM or ACM. May include Restricted Airspace, MOAs, or Warning Areas, for example.	For Intercepts/BVR, a minimum airspace of 40 nm is usually required.
CAT I	AA GUNS	Air-to-Air Gunnery Range	Any airspace that can support Air-to-Air Gunnery on a towed Banner. Implies Restricted Airspace or Warning Areas, for example.	
CAT I	MACH 1+	Supersonic	Any airspace that can support Supersonic Flight.	
CAT I	AAR	Air-to-Air Refueling	Any airspace that can support AAR.	
CAT II	TACTS	Tactical Air Combat Training System	TACTS range-capable. A sophisticated airspace tracking and display instrumentation system used primarily in ACM and threat WEZ recognition. All maneuvers are displayed real-time for a squadron Range Training Officer (RTO). All data is recorded to allow the aircrew to conduct post-mission analysis or "debriefs."	TACTS usually includes ACM, NDBS, EW, NDWS, ARM, capabilities. Implies RSTD Airspace.
CAT II	EW	Electronic Warfare	Threat Emitters providing a dynamic red/or gray force threat environment to enhance threat recognition, self-protection, and defense-suppression techniques.	
CAT II	Hi Fi EW	High Fidelity EW	Hi Fidelity (live) Emitters. Live actual SAM systems with operators. Can provide feedback via tape debrief.	Often a desired substitute for EW, may be cost prohibitive.
CAT II	ACM	Air Combat Maneuvering	Supports training in A-A maneuvers and weapons employment under realistic conditions for manned high performance FW & RW aircraft. This includes weapon simulation (AIM-9, AIM-7, AIM-120) from launch to impact with kill & miss indications as well as Pk and reason for miss provided.	
CAT II	ARM	Anti-Radiation Missile	Supports training to ARM delivery with simulated missile fly-out and kill indications.	
CAT II	CEDS	Countermeasures Employments Detection System	Supports training to countermeasures by linking to the ALE via TACTS systems for EW training. Normally included in a TACTS EW range.	
CAT II	ATIS	Avenger TACTS Interface	Allows the LAAD Avenger team to plug into TACTS and evaluate control/scoring.	

Category	Abbreviation	Name	Description	Notes
CAT II	LSTSS	Large Scale Target Sensor System	A remote control scoring system capable of tracking LASER designator spots.	
CAT II	IWTS	Imaging Weapons Training System	Virtual simulation to provide pilot uplink imagery of weapon seeker image through TOF to actual target.	Supports SLAM-ER.
CAT II	URBN WPNS	Urban Weapons Impact Range	Urban CAS range capable of JCAS, LT INERT, and LSR.	
CAT II	URBN TRG	Urban Training	Urban area with overlying Restricted or MOA training airspace. Does not imply authorized weapons release or LASER use.	Example is a town, such as Yuma, under the Dome MOA.
CAT II	RKD RNG	Raked Range	Concentric circle range, with WISS. LSR and RLSR a desired capability but must be specified. Night lighting capability implied.	
CAT II	LSR	LASER Safe Range	Supports airborne LASER firing.	
CAT II	RLSR	Remote LASER Capable	A remote-operated ground LASER may designate a target.	Should be standard on a RKD RNG
CAT II	WISS	Weapons Impact Scoring Set	Scores bombing to designated targets. Scores can be relayed via voice or fax.	Should be standard on a RKD RNG
CAT II	NDBS	No Drop Bomb Scoring	Scores simulated bombing to designated targets. Scores can be relayed via tape debrief.	Should be standard on TACTS
CAT II	STRAFE	Strafe Pit/Target	A scored Strafing Pit or Target.	Often located near a RKD RNG
CAT II	TGT	Target	Any point- target that is authorized for releasing INERT weapons on.	May include an unscored Raked Range
CAT II	IR TGT	IR-Significant Target	IR-Significant target.	
CAT II	RDR TGT	RADAR-Significant Target	RADAR-Significant target.	
CAT II	LINK	LINK 16	LINK 16 available.	
CAT III	HE	HE Impact Area	Supports live HE ordnance. Implies EXP.	
CAT III	JCAS	JCAS TTPs	Supports all three types of CAS in the range. Allows JTAC personnel on range. Implies LSR and either INERT or HE.	
CAT III	LT INERT	Light Inert	Light Inert impact area.	MK-76/LGTR/ BDU-48 /Gun/ Rockets
CAT III	HVY INERT	Heavy Inert	Heavy Inert impact area.	500 lb and above

Category	Abbreviation	Name	Description	Notes
CAT III	JDAM	JDAM Impact Area/Target	Supports JDAM release.	
CAT III	JSOW	JSOW Impact Area/Target	Supports JSOW release.	
CAT III	LGB	LGB Impact Area/Target	Supports LGB (HE or HVY INERT) release and LASER firing.	
CAT III	AA MISSILE	AA Missile Firing Range	Supports AA missile firing.	AIM-9/ AIM-7/AIM-120
CAT III	AS MISSILE	A/S Missile Firing Range	Supports AS missile firing.	LMAV/ LGB/ Hellfire/TOW
CAT III	ARM MISSILE	ARM Missile Firing Range	Supports ARM missile firing. Requires an EW emitter.	AGM-88
CAT III	EXP	Expendables Authorized	Supports use of Chaff & Flares.	
CAT III	ICM	Improved Conventional Munitions	Supports ICM or Cluster munitions.	
CAT IV	IMC	Instrumented Multi-Spectral Cues	Full size replicas of actual AAA and SAM systems, IR-significant and normally linked to LSTSS and NDBS/WISS.	
CAT IV	MOCK	Mock-Up Targets	Full size replicas of Mechanized or Threat vehicles. IR-significant desired. Weapons release not implied.	
CAT IV	GWVS	Ground Warfare Visual Simulator	Provides enhanced battlefield realism via simulation of muzzle flashes for AAA and launch of SAMs.	
CAT IV	SST	Smokey SAM Team	Smoke Rockets to simulate MANPADs or RF SAMs.	
CAT IV	COMPLEX	Complex Target Array	Dispersed target array requiring sorting of targets and may include infrastructures such as runways, facilities, POL sites, etc. Implies INERT and LSR. WISS desired.	
CAT IV	TGT-FORM	Tactical Targets in Formation	Full size actual or replicas of Mechanized or Threat vehicles. IR-significant desired. Implies INERT and LSR. WISS desired.	
CAT IV	TGT-DISP	Tactical Targets Dispersed	Full size actual or replicas of Mechanized or Threat vehicles. IR-significant desired. Implies INERT and LSR. WISS desired.	
CAT IV	TGT-MOVE	Tactical Targets Moving	Full size actual or replicas of Mechanized or Threat vehicles. IR-significant desired. Implies LT INERT and LSR. WISS & LSTSS desired.	

Category	Abbreviation	Name	Description	Notes
CAT IV	RECCE ARRAY	Actual Tactical Targets in an Array for PID	Full size actual Mechanized or Threat vehicles. Organized in an array in order to allow PID. Weapons release not implied.	
CAT IV	STRUCTR	Structures	May include a building, bunker, or revetment. IR-significant desired. Inert weapons release authorized. LSR capable. WISS desired.	

THIS PAGE BLANK

APPENDIX A VMA MET WORKSHEET

Core

MCT 1.3.3.3.2	Conduct Aviation Operations From Expeditionary Shore-Based Sites
MCT 3.2.3.1.1	Conduct Close Air Support (CAS)
MCT 3.2.3.1.2.1	Conduct Air Interdiction
MCT 3.2.3.1.2.2	Conduct Armed Reconnaissance
MCT 3.2.3.1.2.3	Conduct Strike Coordination and Reconnaissance (SCAR)

Core Plus

MCT 1.3.3.3.1	Conduct Aviation Operations From Expeditionary Sea-Based Sites
MCT 1.3.3.3.2.1	Conduct Aviation Operations From Expeditionary Restricted Sites
MCT 3.2.3.2	Conduct Offensive Anti-air Warfare (OAAW)
MCT 3.2.5.4	Conduct Forward Air Control (Airborne) [FAC(A)]
MCT 2.2.5.2.2	Conduct Multi-sensor Imagery Reconnaissance
MCT 6.1.1.8	Conduct Active Air Defense
MCT 6.1.1.11	Conduct Aerial Escort

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: 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:
[Squadron/Squadron (-)/Detachment]

Personnel
- 20/11/9 Pilots
- 90% of personnel MOS qualified and deployable
- And Level 2 (L2) IAW ALERTS.
- 100% critical MOS fill

Equipment
- 70% Full Mission Capable (FMC) aircraft of PAA (10/6/4 aircraft)

OR

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

Training
- 15/8/9 AV-8B Pilots MET-capable IAW T&R requirements

Output Standards
20/12/8 sorties daily sustained during contingency/combat operations

MCT 3.2.3.1.1 Conduct Close Air Support (CAS)

Conditions:

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:
[Squadron/Squadron (-)/Detachment]

Personnel

- 20/11/9 Pilots
- 90% of personnel MOS qualified and deployable
  - And Level 2 (L2) IAW ALERTS.
- 100% critical MOS fill

Equipment

- 70% Full Mission Capable (FMC) aircraft of PAA (10/6/4 aircraft)
  OR
  Upon establishment, 100 percent RFT entitlement IAW T/M/S standard.
- Operational support equipment fully supports MCT

Training

- 12/8/5 AV-8B Pilots MET-capable IAW T&R requirements

Output Standards

- 20/12/8 sorties daily sustained during contingency/combat operations

MCT 3.2.3.1.2.1 Conduct Air Interdiction

Conditions:
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; No.

Standards:
[Squadron/Squadron (-)/Detachment]

Personnel

- 20/11/9 Pilots
- 90% of personnel MOS qualified and deployable
  - And Level 2 (L2) IAW ALERTS.
- 100% critical MOS fill

Equipment

- 70% Full Mission Capable (FMC) aircraft of PAA (10/6/4 aircraft)
  OR
  Upon establishment, 100 percent RFT entitlement IAW T/M/S standard.
- Operational support equipment fully supports MCT

Training

- 12/8/5 AV-8B Pilots MET-capable IAW T&R requirements

Output Standards

- 20/12/8 sorties daily sustained during contingency/combat operations

MCT 3.2.3.1.2.2 Conduct Armed Reconnaissance

Conditions:

C.1.3.1.3.11 Ceiling
Height of lowest cloud cover above sea level.
Descriptors: 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 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; No.

Standards:
[Squadron/Squadron (-)/Detachment]

Personnel

- 20/11/9 Pilots
- 90% of personnel MOS qualified and deployable
  - And Level 2 (L2) IAW ALERTS.
- 100% critical MOS fill

Equipment

- 70% Full Mission Capable (FMC) aircraft of PAA (10/6/4 aircraft)
  OR
  Upon establishment, 100 percent RFT entitlement IAW T/M/S standard.
- Operational support equipment fully supports MCT

Training

- 12/8/5 AV-8B Pilots MET-capable IAW T&R requirements

Output Standards

- 20/12/8 sorties daily sustained during contingency/combat operations

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

Conditions:
C.1.3.1.3.11 Ceiling
Height of lowest cloud cover above sea level.
Descriptors: 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 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:
[Squadron/Squadron (-)/Detachment]

Personnel
- 20/11/9 Pilots
- 90% of personnel MOS qualified and deployable
  - And Level 2 (L2) IAW ALERTS.
- 100% critical MOS fill

Equipment
- 70% Full Mission Capable (FMC) aircraft of PAA (10/6/4 aircraft)
  OR
  Upon establishment, 100 percent RFT entitlement IAW T/M/S standard.
- Operational support equipment fully supports MCT

Training
- 12/8/5 AV-8B Pilots MET-capable IAW T&R requirements

Output Standards
- 20/12/8 sorties daily sustained during contingency/combat operations

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)

Standards:
Squadron/Squadron (-)/Detachment

Personnel
- 20/11/9 Pilots
- 90% of personnel MOS qualified and deployable
  - And Level 2 (L2) IAW ALERTS.
- 100% critical MOS fill

Equipment
- 70% Full Mission Capable (FMC) aircraft of PAA (10/6/4 aircraft)
  OR
  Upon establishment, 100 percent RFT entitlement IAW T/M/S standard.
- Operational support equipment fully supports MCT

Training
- 17/12/9 AV-8B Pilots CQ Mission Skill Proficient (MSP) IAW T&R requirements
- 8/6/5 AV-8B Pilots CQ(N) MSP IAW T&R requirements

Output Standards
- 20/12/8 sorties daily sustained during contingency/combat operations

MCT 1.3.3.3.2.1 Conduct Aviation Operations From Expeditionary Restricted 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)

Standards:

Squadron/Squadron (-)/Detachment

Personnel

- 20/11/9 Pilots
- 90% of personnel MOS qualified and deployable
  - And Level 2 (L2) IAW ALERTS.
- 100% critical MOS fill

Equipment

- 70% Full Mission Capable (FMC) aircraft of PAA (10/6/4 aircraft)
  OR
  Upon establishment, 100 percent RFT entitlement IAW T/M/S standard.
- Operational support equipment fully supports MCT

Training

- 17/12/9 AV-8B Pilots MET-capable IAW T&R requirements

Output Standards

- 20/12/8 sorties daily sustained during contingency/combat operations

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

Conditions:

C.1.3.1.3.11 Ceiling
Height of lowest cloud cover above sea level.
Descriptors: 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 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:
Squadron/Squadron (-)/Detachment

Personnel

- 20/11/9 Pilots
- 90% of personnel MOS qualified and deployable
  - And Level 2 (L2) IAW ALERTS.
- 100% critical MOS fill

Equipment

- 70% Full Mission Capable (FMC) aircraft of PAA (10/6/4 aircraft)
  OR
  Upon establishment, 100 percent RFT entitlement IAW T/M/S standard.
- Operational support equipment fully supports MCT

Training

- 2/1/1 AV-8B Pilots MET-capable IAW T&R requirements

Output Standards

- 4/2/2 sorties daily sustained during contingency/combat operations

MCT 2.2.5.2.2 Conduct Multi-sensor Imagery Reconnaissance

Conditions:

C.1.3.1.3.11 Ceiling
Height of lowest cloud cover above sea level.
Descriptors: 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 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:
Squadron/Squadron (-)/Detachment

Personnel
- 20/11/9 Pilots
- 90% of personnel MOS qualified and deployable
  - And Level 2 (L2) IAW ALERTS.
- 100% critical MOS fill

Equipment
- 70% Full Mission Capable (FMC) aircraft of PAA (10/6/4 aircraft)
  OR
  Upon establishment, 100 percent RFT entitlement IAW T/M/S standard.
- Operational support equipment fully supports MCT

Training
- 15/9/6 AV-8B Pilots MET-capable IAW T&R requirements

Output Standards
- 20/12/8 sorties daily sustained during contingency/combat operations

MCT 3.2.3.2 Conduct Anti-air Warfare (Offensive Anti-Air Warfare)(OAAW)

Conditions:

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; No.

Standards:
[Squadron/Squadron (-)/Detachment]

Personnel

- 20/11/9 Pilots
- 90% of personnel MOS qualified and deployable
  - And Level 2 (L2) IAW ALERTS.
- 100% critical MOS fill

Equipment

- 70% Full Mission Capable (FMC) aircraft of PAA (10/6/4 aircraft)

OR

Upon establishment, 100 percent RFT entitlement IAW T/M/S standard.

- Operational support equipment fully supports MCT

Training

- 6/4/4 AV-8B Pilots MET-capable IAW T&R requirements

Output Standards

- 12/8/8 sorties daily sustained during contingency/combat operations

MCT 6.1.1.8 Conduct Active Air Defense

Conditions:

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; No.

Standards:
[Squadron/Squadron (-)/Detachment]

Personnel

- 20/11/9 Pilots
- 90% of personnel MOS qualified and deployable
  - And Level 2 (L2) IAW ALERTS.
- 100% critical MOS fill

Equipment

- 70% Full Mission Capable (FMC) aircraft of PAA (10/6/4 aircraft)
  OR
  Upon establishment, 100 percent RFT entitlement IAW T/M/S standard.
- Operational support equipment fully supports MCT

Training

- 6/4/4 AV-8B Pilots MET-capable IAW T&R requirements

Output Standards

- 12/8/8 sorties daily sustained during contingency/combat operations

MCT 6.1.1.11 Conduct Aerial Escort

Conditions:

C.1.3.1.3.11 Ceiling

Height of lowest cloud cover above sea level.
Descriptors: 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 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; No.

Standards:
Squadron/Squadron (-)/Detachment

Personnel

- 20/11/9 Pilots
- 90% of personnel MOS qualified and deployable
  - And Level 2 (L2) IAW ALERTS.
- 100% critical MOS fill

Equipment

- 70% Full Mission Capable (FMC) aircraft of PAA (10/6/4 aircraft)
  OR
  Upon establishment, 100 percent RFT entitlement IAW T/M/S standard.
- Operational support equipment fully supports MCT

Training

- 12/8/5 AV-8B Pilots MET-capable IAW T&R requirements

Output Standards

- 20/12/8 sorties daily sustained during contingency/combat operations

CHAPTER 2

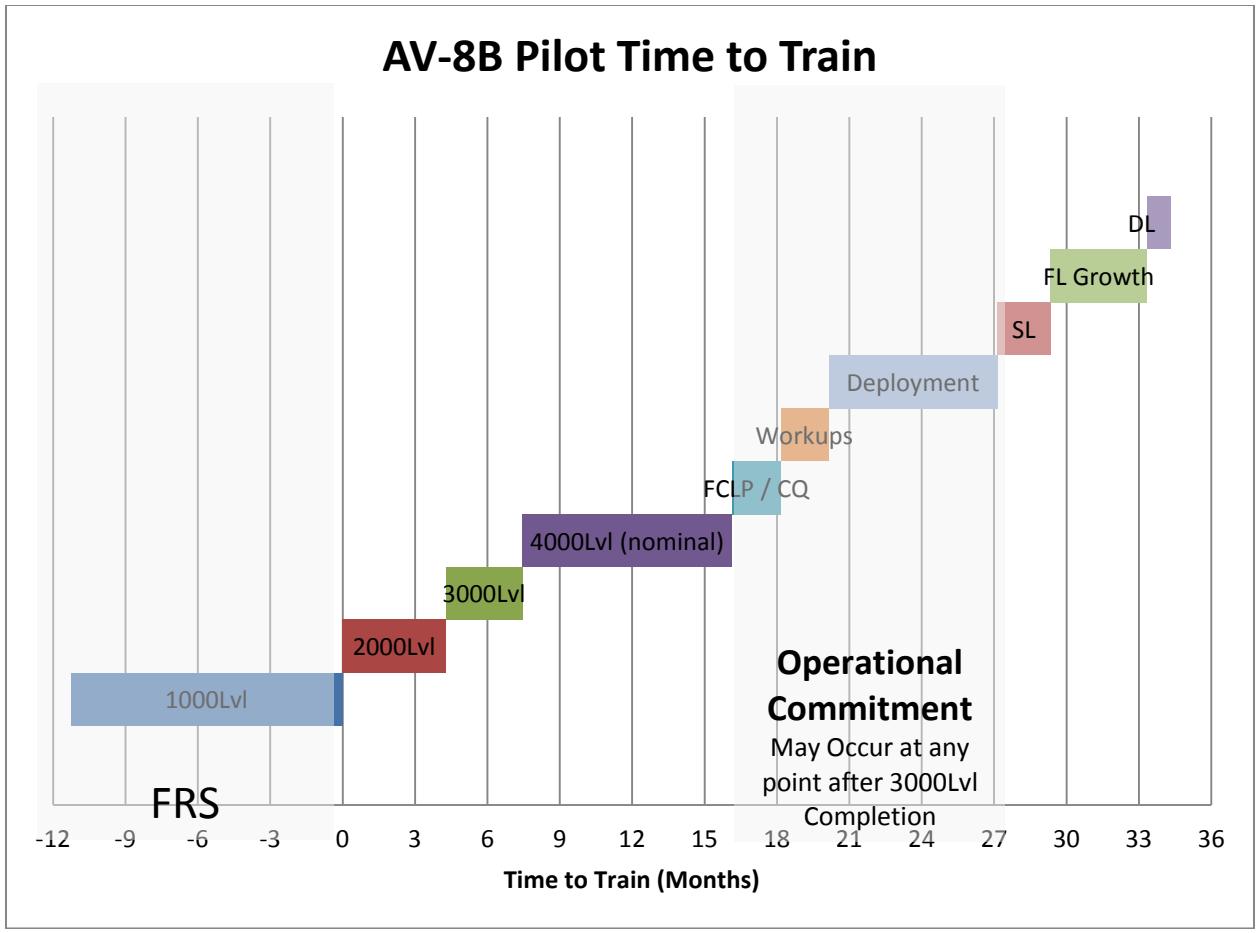
AV-8B PILOT INDIVIDUAL TRAINING AND READINESS REQUIREMENTS

CHAPTER 2

AV-8B PILOT INDIVIDUAL TRAINING AND READINESS REQUIREMENTS

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

2.1 PILOT TRAINING PROGRESSION MODEL. This model represents a planning factor for time to train (TTT) for the average AV-8B pilot in terms of Core Skill, Mission Skill, qualification, and designation attainment (see Figure 2-1). Units should use this model as a point of departure to generate individual training plans. The assumptions used to derive this model are as follows: 1. Three new syllabus events scheduled per week 2. 70% completion rate for flight syllabus events (which includes maintenance and weather cancellations as well as performance failures) 3. 90% completion rate for simulator syllabus events (which includes performance failures and simulator maintenance issues). It is important to note that most pilots will not complete every code in the 4000 level syllabus such as FAC(A) or night advanced LAT. Any reduction in required events would decrease TTT by a similar factor. Below is a generic example. This chart is part of a larger database spreadsheet from which PTOs can put in their own planning assumptions to develop specific TTT estimates for their squadron depending on deployment schedules, amount of CAT I pilots, deployment for training opportunities, and the squadron instructor base. When combined with expected TEEP commitments and realistic maintenance readiness forecasts, this database provides a valuable tool for the PTO to develop accurate training plans. Contact MAWTS-1 for the digital copy of this database to develop individual squadron training plans.



2.2 INDIVIDUAL CORE/MISSION/CORE PLUS SKILL PROFICIENCY REQUIREMENTS

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

2.2.2 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 toward CMMR Unit CSP requirements for that Core Skill.

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

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

Note

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

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

Note

See Aviation T&R Program Manual, Chapter 2 for amplifying information on POI updating.

2.3 ATTAIN MAINTAIN TABLE

AV-8B ATTAIN AND MAINTAIN TABLE				
	ATTAIN PROFICIENCY			MAINTAIN PROFICIENCY
SKILL	STAGE	BASIC POI	REFRESHER POI	MAINTAIN POI
2000 PHASE CORE SKILLS				
FAM	SFAM	2100		
	SFAM	2101R	2101R	2101R
	FAM	2102R	2102R	2102R
INT	SINT	2200		
	SINT	2201		
	INT	2202R	2202R	2202R
TCT	STCT	2300R	2300R	
	STCT	2301R	2301R	
	TCT	2302R	2302R	2302R
AAR	AAR	2400R	2400R	2400R
LAT	SLAT	2500R	2500R	2500R
	LAT	2501R	2501R	2501R
	LAT	2502R	2502R	2502R
AS	SAS	2600R	2600R	
	SAS	2601R	2601R	
	SAS	2602		
	SAS	2603		
	SAS	2604		
	AS	2605R	2605R	2605R
	AS	2606R	2606R	2606R
	AS	2607R	2607R	2607R
NS	SNS	2700R	2700R	
	NS	2701		
	NS	2702R	2702R	2702
AA	SAA	2800R	2800R	
	AA	2801R	2801R	2801R
	AA	2802		
	AA	2803		
	AA	2804R	2804R	2804R
	SAA	2805		
	SAA	2806		
	SAA	2807		
	SAA	2808R	2808R	
	SAA	2809		
	AA	2810		
	AA	2811		
	AA	2812R	2812R	2812R

3000 PHASE MISSION SKILLS				
CAS	SCAS	3100R	3100R	
	SCAS	3101		
	SCAS	3102R	3102R	
	SCAS	3103R	3103R	
	SCAS	3104R	3104R	
	CAS	3105R	3105R	3105R
	CAS	3106R	3106R	
	CAS	3107R	3107R	3107R
	CAS	3108		
	CAS	3109R	3109R	3109R
	CAS	3110R	3110R	
AR	SAR	3200		
	AR	3201		
	AR	3202R	3202R	3202R
	AR	3203R	3203R	3203R
	AR	3204		
SCAR	SSCAR	3300		
	SCAR	3301R	3301R	
	SCAR	3302R	3302R	3302R
AI	SAI	3400		
	SAI	3401		
	AI	3402R	3402R	3402R
	AI	3403R	3403R	3403R
	AI	3404R	3404R	3404R
	AI	3405R	3405R	
EXP	EXP	3500R	3500R	3500R
4000 PHASE CORE AND MISSION PLUS SKILLS				
FCLP(D)	SFCLP	4100R	4100R	
	FCLP	4101R	4101R	4101R
FCLP(N)	SFCLP	4102	4102R	
	FCLP	4103R	4103R	4103R
	SFCLP	4104R	4104R	
	FCLP	4105R	4105R	4105R
CQ(D)	SCQ	4130R	4130R	
	CQ	4131R	4131R	4131R
	CQ	4132R	4132R	4132R
CQ(N)	SCQ	4133R	4133R	
	SCQ	4134R	4134R	
	CQ	4135R	4135R	4135R
	CQ	4136R	4136R	4136R
FOB	SFOB	4160R	4160R	
	FOB	4161R	4161R	4161R
	SFOB	4162R	4162R	
	FOB	4163R	4163R	4163R
MIR	MIR	4200R	4200R	4200R
	EW	4250R	4250R	
ADVLAT	SADVLAT	4300		
	SADVLAT	4301R	4301R	4301R
	ADVLAT	4302		
	ADVLAT	4303R	4303R	4303R
	ADVLAT	4304R	4304R	
	ADVLAT	4305R	4305RR	4305R
AAD	SAAD	4400		
	SAAD	4401R	4401R	
	AAD	4402R	4402R	4402R
OAAW	SOAAW	4500R	4500R	
	OAAW	4501		
	OAAW	4502R	4502R	4502R
AE	SAE	4600R	4600R	

	AE	4601		
	SAE	4602R	4602R	4602R
	AE	4603		
CFF	CFF	4700		
FAC(A)	SFAC(A)	4800		
	SFAC(A)	4801		
	SFAC(A)	4802		
	SFAC(A)	4803R	4803R	4803R
	FAC(A)	4804R	4804R	4804R
	FAC(A)	4805R	4805R	4805R
	FAC(A)	4806R	4806R	4806R
	FAC(A)	4807R	4807R	4807R
	SFAC(A)	4808		
	SFAC(A)	4809		
	FAC(A)	4810R	4810R	4810R
	FAC(A)	4811R	4811R	4811R
	FAC(A)	4851R	4851R	4851R
LFE	LFE	4900R	4900R	4900R
	LFE	4901R	4901R	4901R

2.4 QUALIFICATION AND DESIGNATION. The table below delineates events required to be completed to attain initial qualifications, re-qualifications, and designations. In addition to event requirements, all stage lectures, briefs, squadron training, and prerequisites shall be completed prior to completing final events. Qualification and designation letters signed by the commanding officer shall be placed in the NATOPS and APR jackets. Loss of proficiency in all qualification events causes the associated qualification to be lost. Regaining a qualification requires completion of all R-coded events associated with that qualification.

2.5 QUALIFICATION AND DESIGNATION TABLE

INITIAL EVENT QUALIFICATION REQUIREMENTS	
Qualification (TRACKING CODE)	Event Requirements
NATOPS	IAW OPNAVINST 3710.7 and an annual qualification letter signed by the commanding officer,6000,6001,6002,6101,6103
INST	IAW OPNAVINST 3710.7 and an annual qualification letter signed by the commanding officer,6004,6005,6102
AAR	2400
LAT QUAL	2500,2501,2502
INT	2200,2201,2202
NSQ	2700,2701,2702
ACM QUAL	2800,2801,2802,2803,2804,2805,2806,2807,2808,2809,2810, 2811,2812
CQ(D)QUAL	4130,4131,4132
CQ(N)QUAL	4133,4134,4135,4136
ADV LAT	4300,4301,4302,4303,4304,4305
FAC(A) QUAL	4800,4801,4802,4803,4804,4805,4806,4807,4808,4809,4810, 4811,4851
PMCF	6600,6601
CFF	4700
AE	4600,4601,4602,4603

OAAW	4500,4501,4502
AAD	4400,4401,4402
EW	4250
MIR	4200
DEMO	6700,6701
Designations	
SECTION LEAD	6200,6201,6203,6204,6205,6206,6207,6208
DIVISION LEAD	6300,6301,6302,6303,6304
MISSION CMDR	6400,6401
ADFL	6500
FLSE	5900,5901
FRSI	IAW VMAT-203 IUT Flight Syllabus Guide
NATOPS E	Annual designation letter signed by the commanding officer
INST E	Annual designation letter signed by the commanding officer
WTO	5100,5101,5102,5103,5104,5105
LATI	5200,5201,5202,5203,5204
NSI	5300,5301,5302,5303
NS LATI	5400,5401,5402
ACTI	5500,5501,5502,5503,5504
FAC(A)I	5600,5601,5602,5603,5604
WTI	IAW MAWTS CC

2.6 AV-8B PILOT PROGRAMS OF INSTRUCTION (POI)

2.6.1 Basic (B) and Transition (T) POI. Transition pilots fly the entire Basic POI.

WEEKS	COURSE/PHASE	ACTIVITY
1-4	Transit and Preload	Training Squadron
5-50	Core Skill Introduction Training	Training Squadron
*1-12	Core Skill Training	Tactical Squadron
13-28	Mission Skill Training	Tactical Squadron
29-64	Core Plus Training	Tactical Squadron

*Core skill training time begins at entry into tactical squadron

2.6.2 Refresher (R) POI

WEEKS	COURSE / PHASE	ACTIVITY
1-4	Core Skill Introduction	Training Squadron
5-16	Core Skill Training	Tactical Squadron
17-28	Mission Skill Training	Tactical Squadron
29-50	Core Plus Training	Tactical Squadron

2.6.3 Modified Refresher (M) POI

WEEKS	COURSE/PHASE	ACTIVITY
1-3	Core Skill Introduction Training	Training Squadron
*	Core Skill Training	Tactical Squadron
*	Mission Skill Training	Tactical Squadron
*	Core Plus Training	Tactical Squadron

* Modified Refresher stages are based upon the full Refresher syllabus modified at the discretion of the squadron commanding officer.

2.6.4 Safe-for-Solo (SS) POI

WEEKS	COURSE/PHASE	ACTIVITY
1-2	Core Skill Introduction Training	Training Squadron

2.6.5 FRS Instructor POI

WEEKS	COURSE/PHASE	ACTIVITY
1-5	T/AV-8B Instructor Pilot (IP)	Training Squadron

2.6.6 Contract Simulator Instructor POI

WEEKS	COURSE/PHASE	ACTIVITY
1-2	2F150 Instructor Pilot (IP)	MATSS

2.6.7 Squadron Level Training. Ground 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).

2.7 ACADEMIC/GROUND TRAINING

2.7.1 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.

2.7.2 The following external ground training courses of instruction are required to complete the syllabus.

COURSE	ACTIVITY
SURVIVAL, EVASION, RESISTANCE, AND ESCAPE COURSE	NAS BRUNSWICK, ME, OR NAS NORTH ISLAND,CA.
NITE LAB	ANY MAWTS-1 APPROVED COURSE
ACPM	MAWTS-1

2.8 T&R SYLLABUS NOTES

2.8.1 Event Performance Requirements

2.8.1.1 A matrix will be put in the pilot's APR to track progression of all ground, academic, simulator, and flight events. As each training event is completed, the PTO will input the date of completion. It is highly recommended that MSHARP be used to create and maintain this matrix.

2.8.1.2 All events, to include simulators, shall begin with a brief emphasizing mission performance standards, administrative procedures, tactical employment, and CRM. All events shall end with a debrief emphasizing pilot performance utilizing all evaluation techniques available (e.g., TCTS, DAQ, tapes, participating aircrews, and AIC personnel).

2.8.1.3 An Aircrew Training Form (ATF) is required for any initial event completed by a Basic, Transition, Conversion, or Refresher pilot, or as recommended by the squadron Standardization Board.

2.8.1.4 The T&R manual is the Marine Corps pilot training document. It details the training requirements and standards. When operational commanders assign AV-8B squadrons to prolonged commitments where specific T&R training is not available (e.g., MEU deployments), it is expected that degradation in some mission areas will occur. Commanding officers are authorized and encouraged to employ the AV-8B in specific missions relating to their current situation and avoid those mission areas not relevant to their situation. It is not intended for squadrons to train to specific mission areas and avoid mission areas that the AV-8B is very capable of conducting but that are difficult to coordinate. This type of mission-specific training is granted only to squadron commanding officers deployed in austere conditions that prevent them from executing pilot training per the T&R manual.

2.8.2 T&R Phases

2.8.2.1 The 2000 phase (Core Skills) is skill-level training. Completion of this phase shall provide the pilot with the skills required to execute missions that directly support the unit METL.

2.8.2.2 The 3000 phase (Mission Skills) is mission-level training. Completion of this phase ensures the pilot is trained to execute missions that support the unit METL.

2.8.2.3 The 4000 phase (Core Plus)is Core Plus training. This phase contains training standards applicable to large-scale integrated missions, theater specific areas, or mission areas having a low probability of execution. This phase also trains pilots to be capable of leading/directing flights of numerous aircraft in a complex wartime scenario. Although Core Plus training events may provide valuable training opportunities, they are not part of the unit's readiness reporting.

2.8.2.4 The 5000 phase (Instructor Training) contains instructor syllabi and certification events and tracking codes for LSO/LSI controls.

2.8.2.5 The 6000 phase (R,C,Q,D) contains requirements, qualifications, and designations events. This phase also contains tracking codes for specific events useful to operations departments such as strategic tanking proficiency.

2.8.2.6 The 8000 phase contains ACPM events.

2.8.3 T&R Codes

2.8.3.1 In order to log a T&R code, pilots must complete all event requirements satisfactorily, achieving mission performance standards.

2.8.3.2 Pilots shall log the mission code and applicable tactic utilized (AS codes). Ordnance tracking codes have been removed but ordnance deliveries shall be logged in MSHARP. Aircrew must ensure that they select the proper ordnance in M-SHARP to ensure tracking. When scheduling sorties, training officers are allowed to schedule additional training codes based on anticipated ordnance delivery profiles, if the performance standards are met for the ordnance employed. Chaining has been incorporated to the largest extent possible. However, codes will not chain if a pilot is not proficient in that code. For example, the Division AR-3204 if flown during the day would chain AR-3201 and 3202. If the pilot is not proficient in AR-3201 and AR-3202, he would have to manually enter those codes in MSHARP to ensure proficiency is achieved and tracked.

2.8.3.3 If multiple syllabus events are to be accomplished during a single flight evolution, appropriate planning, briefing, and debriefing time must be allotted to ensure the training objectives are met.

2.8.3.4 In the event that ordnance or dissimilar adversary requirements are not available or the available training range does not fully support the syllabus event, these issues shall be logged in MSHARP as reasons for incompleting the event

2.8.4 Number of Aircraft Required. Some of the syllabus events in the T&R have 1+ or 2+ aircraft required. 1+ aircraft required implies that the flight may be flown as a single ship or greater. 2+ aircraft required implies that the flight may be flown as a section or greater.

2.8.5 Sortie Requirements. Sortie requirements state the minimum number of passes, engagements, or maneuvers required for completion. Sorties that do not complete all stated requirements in one sortie may complete the requirements of an event in multiple sorties, as long as the completion sorties are flown in succession and within normal currency windows. If a pilot's currency expires or the event requirements cannot be completed on the next scheduled sortie, then the event shall be re-flown in its entirety.

2.8.6 Event Conditions. The following table indicates the environmental (day or night) or night systems conditions required. Options include:

Code	Requirement
D	Shall be flown or conducted during day.
N	Shall be flown or conducted at night (using available night vision devices or flown unaided).
(N)	May be flown or conducted day or night; if at night, available night vision devices may be used or flown unaided.
NS	Shall be flown or conducted at night using available night vision devices.
(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.
L	Simulator event shall be flown as a linked event

Code	Requirement
(L)	Simulator event may be flown as a linked event and is recommended if linked simulators are available

2.8.7 Performance Standards. Performance standards are listed for each T&R event description. These are training standards for individual pilot performance and should be utilized as guidelines to determine the satisfactory completion of each event. If the pilot did not satisfactorily attain the performance standards, the training code shall not be logged as a completed flight.

2.8.7.1 All simulator and flight events shall be planned, briefed, executed, and debriefed IAW AV-8B NATOPS, Air NTTP, OPNAVINST 3710, doctrinal publications, and applicable SOPs.

2.8.7.2 An ATF shall be completed for all basic or refresher syllabus events, flight leadership work-up events, and instructor work-up events.

2.8.7.3 Each pilot shall have an APR. The squadron PTO shall ensure each ATF is entered in section 3 of the APR.

2.8.7.4 Performance standards are listed for each simulator and flight event. Training objectives are provided for all 2000 level AS events in order to provided standardized instruction for core skill events.

2.8.8 Ordnance. In the Core Skill Introduction phase, specific ordnance requirements are delineated for each event. For simulator events, a specific ordnance loadout is mandated. For flight events, a desired ordnance loadout is provided with acceptable substitutes. This approach is designed to give commanders maximum flexibility when attempting to balance training effectiveness with logistical and operational constraints (i.e., NCEA, component availability, range restrictions, weather, etc.). The following list delineates categories of ordnance:

Gun
Free-fall (GP).
Illumination.
Rockets.
Precision-Guided Munitions (PGMs).
Expendables.
Air-Intercept Missiles (AIMs).

2.8.8.1 In the category of ordnance, there exists wide latitude with regard to the use of simulation modes, captive carry, practice, inert, and high explosive ordnance. The ordnance requirements to execute this T&R are based on the ordnance module of the AV-8B CCRM model.

2.8.8.2 For Basic and Refresher POI, the ordnance loadout specified in the sortie description is required to complete the event.

2.8.9 Range Requirements

2.8.9.1 Individual training event descriptions list a series of ranges required and/or available to support the training event goals and accurately assess mission performance standards.

2.8.9.2 Reference Table in paragraph 1.10. The range capabilities matrix depicts the types of operations that can be supported by each type range.

2.8.10 Aviation Training Rules of Conduct. Pilots shall adhere to aviation training rules of conduct for Low Altitude, Night Systems (NS), Air Combat Maneuvering (ACM), and Forward Air Control (Airborne) [FAC(A)] operations in accordance with NAVMC 3500.14 (Aviation Training and Readiness Program

Manual). Pilots conducting NS LAT training (other than NSQ Low training under the supervision of an NSLATI) shall be NS Low qualified.

2.9 CORE SKILL INTRODUCTION PHASE

2.9.1 Core Skill Introduction Training

2.9.1.1 Purpose. This stage introduces newly winged aviators to and refreshes pilots on the fundamental skills required to employ the AV-8B. Introduce/review all procedures, skills, and weapons requisite for AV-8B NATOPS qualification.

2.9.1.2 General

Satisfactory performance metrics for Core Skill Introduction syllabus events are determined and maintained by VMAT-203. These performance standards are based on applicable publications (e.g., AV-8B NATOPS Manual, OPNAVINST 3710, etc.) but are tailored to fit adequate pilot performance that is commensurate with an acceptable level of progression. Additional performance standards are specified, when applicable, for each stage.

The passing grade on written examinations is 80 percent.

2.9.2 Familiarization (FAM)

2.9.2.1 Purpose. Introduce systems management and normal and emergency procedures.

2.9.2.2 General

An early stage FAM instructor (EFAMI) is required for events up to, and including, FAM-1119 as well as the safe for solo check ride FAM-1128.

A late-stage FAM instructor (LFAMI) is required for events after FAM-1119.

An FRS Landing Site Instructor (LSI-5703) shall supervise all solos.

2.9.2.3 Ground/Academic Training

Readings

AV-8B NATOPS Manual (A1-AV8BB-NFM-000):
Chapter 1 Aircraft and Engine
Chapter 2 Systems
Chapter 4 Operating Limitations
Chapter 7 Shore-Based Procedures
Chapter 11 Flight Characteristics
Chapter 12 General Emergencies
Chapter 13 Ground Emergencies
Chapter 14 Takeoff Emergencies
Chapter 15 In-Flight Emergencies
Chapter 16 Landing Emergencies
Chapter 17 Emergency Egress
Chapter 18 Emergency Procedures Checklist Display
Chapter 19 Instrument Procedures
Chapter 20 Extreme Weather Operation
Chapter 21 Communications
Chapter 22 Navigation
Chapter 23 Crew Resource Management
Chapter 24 NATOPS Evaluation

AV-8B NATIP (NTRP 3-22.4-AV8):
Section 2.2 IFF
Section 2.4 Digital Mapping Sets

Section 2.5 Video Recording System
Section 2.6 Navigation
Section 2.12 NAVFLIR

Air NTTP 3-22.3-AV8B:
Chapter 2 Mission Planning, Briefing, and Debriefing Standards
Chapter 3 Tactical Administration

V/STOL Pilot's Book of Corporate Knowledge:

Lectures
AFAM-0001, Familiarization Stage Brief

Receive the following AV-8B Courseware lectures:
AFAM-0002 AV-8B Engine, Part 1 & 2
AFAM-0003 Electrical and Lighting Systems
AFAM-0004 Fuel System
AFAM-0005 Hydraulic Power and Landing Systems
AFAM-0006 Flight Control Systems
AFAM-0007 Life Support Systems
AFAM-0008 Hazard Indicating Systems
AFAM-0009 Advanced Multi-purpose Color Display
AFAM-0010 Standby Flight Instruments
AFAM-0011 Mission Systems Computer (MSC)
AFAM-0012 Up Front Control Set
AFAM-0013 Communication/Identifications Equipment Part 1&2
AFAM-0014 Heads Up Display
AFAM-0015 INS Theory
AFAM-0016 GPS Theory
AFAM-0017 Navigation Systems, Part 1
AFAM-0018 Navigation Systems, Part 2
AFAM-0019 Navigation Systems, Part 3
AFAM-0020 Navigation Systems, Part 4
AFAM-0021 Ejection Seat
AFAM-0022 Survival Equipment
AFAM-0023 Operating Limits
AFAM-0024 Video Recording System
AFAM-0025 Aerodynamics
AFAM-0026 AV-8B/TAV-8B Differences
AFAM-0027 AV-8B Engine Handling and Performance
AFAM-0028 AV-8B Preflight
AFAM-0029 Normal Procedures, Part 1
AFAM-0030 Normal Procedures, Part 2
AFAM-0031 Normal Procedures, Part 3
AFAM-0032 Normal Procedures, Part 4
AFAM-0033 Normal Procedures, Part 5
AFAM-0034 Normal Procedures, Part 6
AFAM-0035 Normal Procedures, Part 7
AFAM-0036 Ground Emergencies
AFAM-0037 Takeoff Emergencies
AFAM-0038 In-Flight Emergencies, Part 1
AFAM-0039 In-Flight Emergencies, Part 2
AFAM-0040 In-Flight Emergencies, Part 3
AFAM-0041 Landing Emergencies
AFAM-0042 Briefing/Debriefing
AFAM-0043 Instrument Procedures
AFAM-0044 Aircraft Service and Handling
AFAM-0045 AV-8B Flight Preparation
AFAM-0050 VMAT-203 Flight SOP

AFAM-0051 Course Rules

Chalk Talks/Practical Application
AFAM-0046 Engine and Fuel Systems Trainer
AFAM-0047 Airframe Systems Trainer
AFAM-0048 Seat Brief, Survival Equipment, Parachute Hang & Egress Drill
AFAM-0049 JMPS: Basic Mission Planning

Exams
AFAM-0052, FAM Ground School exam (Open & closed book NATOPS)

SFAM-1100 2.0 * B,R,MR,SS S RNAWST

Goal. Introduce the AV-8B cockpit and the after entering cockpit, pre-start, starting engine, and before taxi checks. Introduce MPCD, emphasizing DVMS modes, UFC/ODU, communication systems, HUD, emphasizing V/STOL and navigation master modes symbology.

Requirement. Perform a cockpit orientation, DSU and VRS installation, pre -start, and starting engine checks. Perform INS ground alignment, RADAR power-up, before taxi and after landing checks. Conduct postflight aircraft data retrieval and DSU removal procedures.

Performance Standard. PUI shall execute all maneuvers IAW the VMAT-203 FSG. Refresh pilot reviews additional procedures per VMAT-203 FSG and requires 1.0 hours.

Prerequisite. Complete FAM stage ground/academic training.

SFAM-1101 2.0 * B S RNAWST

Goal. Review the AV-8B cockpit and the after entering cockpit, pre-start, starting engine, and before taxi checks. Introduce MPCD, emphasizing DVMS modes, UFC and ODU; communication systems; and HUD, emphasizing V/STOL and navigation master modes symbology.

Requirement. Perform a cockpit orientation; DSU and VRS installation; and after entering cockpit, pre-start, and starting engine checks. Perform INS ground alignment, RADAR power-up, and before taxiing and after landing checks. Conduct postflight aircraft data retrieval and DSU removal procedures.

Performance Standard. PUI shall execute all maneuvers IAW the VMAT-203 FSG.

Prerequisite. SFAM-1100

SFAM-1102 2.0 * B S RNAWST

Goal. Introduce takeoff, in-flight, and landing checks and maneuvers. Practice normal cockpit check procedures.

Requirement. Perform blindfold cockpit check; data transfer; engine data entry; and ANTISKID, brake, NWS, and pre-positioning checks. Perform takeoff checklist and 1-finger, 2/5-finger, CTO, and after takeoff checks. Perform climb technique, handling drills, approach to stall (clean, dirty), VFR straight-in, landing checklist, 2 STOL flap FNSL, PNB, VRST STO display, STOL flap STO, and 2 auto flap VNSL.

Performance Standard. PUI shall execute all maneuvers IAW the VMAT-203 FSG.

Prerequisite. SFAM-1101

SFAM-1103 2.0 * B,R,MR,SS S RNAWST

Goal. Introduce takeoff/in-flight/landing checks and maneuvers, PAR, and emergency procedures. Practice normal cockpit check procedures.

Requirement. Perform CWAIVER checks, PAR, waveoff, 2 STOL flap VNSL, 2 roll-and-go landings, VRST VL display, and 2 press-ups. Perform emergency procedures: emergency shutdown, abnormal start, and engine fire (fire warning light). Review CTO, STOL flap STO, 1 STOL flap FNSL, 1 AUTO FNSL, and 2 auto flap VNSL.

Performance Standard. PUI shall execute all maneuvers IAW the VMAT-203 FSG. Refresh pilot reviews procedures per VMAT-203 FSG and requires 1.0 hours.

Prerequisite. SFAM-1102

SFAM-1104 2.0 * B,R,MR,SS S RNAWST

Goal. Introduce takeoff/in-flight/landing checks and maneuvers, emergency procedures, and TACAN approach.

Requirement. Perform TACAN approach, 3 CL to full stop, 2 CL to touch-and-go landing, and 1 CL to roll-and-go landing. Perform emergency procedures: ground fire, loss of engine control, and oil system failure (oil caution light). Review STOL flap STO, 2 auto flap VNSL, and 2 press-ups.

Performance Standard. PUI shall execute all maneuvers IAW the VMAT-203 FSG. Refresh pilot reviews procedures per VMAT-203 FSG and requires 1.0 hours.

Prerequisite. SFAM-1103

SFAM-1105 2.0 * B S RNAWST

Goal. Introduce takeoff/in-flight/landing checks and maneuvers, and emergency procedures.

Requirement. Perform VFR overhead, 2 continuous VTO-accel, 3 RVL, 2 decel-VL, and box pattern. Perform emergency procedures: brake failure, abort, no liftoff on STO, main generator failure (GEN, DC, and STBY TR Caution LTS. Review STOL flap STO, 1 CL to roll-and-go landing, 1 STOL flap VNSL, and 1 press-up.

Performance Standard. PUI shall execute all maneuvers IAW the VMAT-203 FSG.

Prerequisite. SFAM-1104

SFAM-1106 2.0 * B S RNAWST

Goal. Introduce takeoff/in-flight/landing checks and maneuvers, and emergency procedures.

Requirement. Perform 2 RVTO, crosswind decel-VL, 1 Hover Stop Slow Landing (HSSL), and 2 SAAHS-off decal-VL. Perform emergency procedures: over-rotation on STO, standby TRU failure (STBY TR Caution Light), airstart, and SAS failure. Review STOL flap STO, continuous VTO-accel, 1 STOL flap FNSL, 1 CL to roll-and-go landing, 2 RVL, and 1 decel-VL.

Performance Standard. PUI shall execute all maneuvers IAW the VMAT-203 FSG.

Prerequisite. SFAM-1105

SFAM-1107 2.0 * B S RNAWST

Goal. Introduce takeoff/in-flight/landing checks and maneuvers, and emergency procedures.

Requirement. Perform 2 pedal turns, cruise flaps decal to VL and 2 non-continuous VTO. Perform emergency procedures: landing gear fails to retract, APU generator failure (APU GEN Caution Light), flap channel failure (flaps 1 or 2 caution), flap failure (flap warning light), and nosewheel steering caster failure. Review CTO, STOL flap STO, 1 STOL flap FNSL, 1 AUTO FNSL, 2 RVL, 2 crosswind decel-VL, and press-up.

Performance Standard. PUI shall execute all maneuvers IAW the VMAT-203 FSG.

Prerequisite. SFAM-1106

SFAM-1108 2.0 * B S RNAWST

Goal. Introduce emergency procedures. Practice takeoff/in-flight/landing checks and maneuvers.

Requirement. Perform 2 braking-stop decal-VL and 2 SAAHS-off RVL. Perform emergency procedures: uncommanded roll on VTO, uncommanded flap motion, uncommanded nose down pitch movement, landing gear fails to extend, and reaction control failure. Review STOL flap STO, 1 non-continuous VTO-accel, 1 STOL flap FNSL, 1 auto flap VNSL, 1 HSSL, 2 RVL, 1 SAAHS-off decal-VL, and press-up.

Performance Standard. PUI shall execute all maneuvers IAW the VMAT-203 FSG.

Prerequisite. SFAM-1107

SFAM-1109 2.0 * B S RNAWST

Goal. Introduce emergency procedures. Practice takeoff/in-flight/landing checks and maneuvers.

Requirement. Perform emergency procedures: flight control malfunction and HYD 1 failure (HYD 1 caution light). Review CTO, STOL flap STO, 1 auto flap VNSL, touch-and-go landing, 1 STOL flap VNSL, 1 SAAHS-off RVL, 1 crosswind decel-VL, 2 continuous VTO-accel, 2 braking-stop decel-VL, 2 SAAHS-off decel-VL, and press-up.

Performance Standard. PUI shall execute all maneuvers IAW the VMAT-203 FSG.

Prerequisite. SFAM-1108

SFAM-1110 2.0 * B S RNAWST

Goal. Introduce emergency procedures. Practice takeoff/in-flight/landing checks and maneuvers.

Requirement. Perform emergency procedures: single DECS failure (EFC Caution Light), dual DECS failure (JPTL warning light) or loss of engine control, engine mechanical failure, engine vibration, and IGV failure. Review STOL flap STO, PAR, 2 CL, 2 STOL flap VNSL, 1 RVL, 2 continuous VTO-accel, 2 crosswind decel-VL, 2 SAAHS-off decel-VL, and press-up.

Performance Standard. PUI shall execute all maneuvers IAW the VMAT-203 FSG.

Prerequisite. SFAM-1109

SFAM-1111 2.0 * B,R,MR,SS S RNAWST

Goal. Introduce emergency procedures. Practice takeoff/in-flight/landing checks and maneuvers.

Requirement. Perform emergency procedures: RPM fluctuation, compressor stall, fuel transfer failure (L trans / R trans caution light), and fuel low level (L fuel / R fuel caution light[s] flashing). Review CTO, TACAN approach, 1 STOL flap FNSL, STOL flap STO, 1 CL, 1 auto flap VNSL, 1 STOL flap VNSL, 1 RVL, RVTO, 1 crosswind decel-VL, 2 continuous VTO-accel, 1 braking-stop decel-VL, 1 SAAHS-off decel-VL, and press-up (pedal turn, box pattern).

Performance Standard. PUI shall execute all procedures and maneuvers IAW the VMAT-203 FSG. Refresh pilot reviews procedures per VMAT-203 FSG and requires 1.0 hours.

Prerequisite. SFAM-1110

SFAM-1112 2.0 * B,R,MR,SS S RNAWST

Goal. Introduce emergency procedures and progress check.

Requirement. Perform emergency procedures: total electrical failure (GEN, APU GEN, DC, STBY TRU), NORDO, low altitude flameout, midair, and bird strike. Review CTO, PAR, 1 STOL flap FNSL, STOL flap STO, 1 CL, 1 auto flap VNSL, 1 STOL flap VNSL, 1 RVL, RVTO, 1 crosswind decel-VL, non-continuous VTO-accel, 1 braking-stop decel-VL, 1 SAAHS-off decel-VL, and press-up (pedal turn, box pattern).

Performance Standard. PUI shall execute all procedures and maneuvers IAW the VMAT-203 FSG. Refresh pilot reviews procedures per VMAT-203 FSG and requires 1.0 hours.

Prerequisite. SFAM-1111

FAM-1113 1.3 * B,R,MR,SS A 1 TAV-8B

Goal. Introduce CTO, STOL flap STO, handling drills, STOL flap FNSL, and auto flap VNSL.

Requirement. Perform ejection seat preflight, intercom system, and visual signals. Perform CTO, STOL flap STO, handling drills, approach to stall (clean/dirty), VFR overhead, 2 STOL flap FNSL, and 2 auto flap VNSL. Conduct hot refueling and hot brake/dearming inspection.

Performance Standard. PUI shall execute all procedures and maneuvers IAW the VMAT-203 FSG. Refresh pilot reviews procedures per VMAT-203 FSG.

Prerequisite. SFAM-1112

FAM-1114 1.3 * B,R,MR,SS A 1 TAV-8B

Goal. Introduce TACAN approach, roll-and-go landings, STOL flap VNSL, and press-up. Practice takeoff/in-flight/landing checks and maneuvers.

Requirement. Perform TACAN approach, waveoff, roll-and-go landing, 2 STOL flap VNSL, and 2 press-ups. Review CTO, STOL flap STO, 1 STOL flap FNSL, 1 AUTO FNSL, and 2 auto flap VNSL.

Performance Standard. PUI shall execute all procedures and maneuvers IAW the VMAT-203 FSG. Refresh pilot reviews procedures per VMAT-203 FSG.

Prerequisite. FAM-1113

Range Requirement. MOA, RSTD.

FAM-1115 1.3 * B,R,MR,SS A 1 TAV-8B

Goal. Introduce PAR, CL, and touch-and-go landings. Practice takeoff/in-flight/landing checks and maneuvers.

Requirement. Perform PAR, 4 CL, and touch-and-go landings. Review STOL flap STO, 1 STOL flap FNSL, 1 AUTO FNSL, roll-and-go landing, and 2 press-ups.

Performance Standard. PUI shall execute all procedures and maneuvers IAW the VMAT-203 FSG. Refresh pilot reviews procedures per VMAT-203 FSG.

Prerequisite. FAM-1114

Range Requirement. MOA, RSTD.

FAM-1116 1.3 * B A 1 TAV-8B

Goal. Introduce RVL, VTO accel, decel-VL, and box pattern. Practice takeoff/in-flight/landing checks and maneuvers.

Requirement. Perform 2 RVL, continuous VTO-accel, 1 decel-VL, and box pattern. Review STOL flap STO, PAR, TACAN, 1 press-up, 2 CL, 1 STOL flap VNSL, and roll-and-go landing.

Performance Standard. PUI shall execute all procedures and maneuvers IAW the VMAT-203 FSG.

Prerequisite. FAM-1115

FAM-1117 1.3 * B A 1 TAV-8B

Goal. Introduce RVTO and HSSL. Review takeoff/in-flight/landing checks and procedures.

Requirement. Perform RVTO, HSSL, and cruise flap 1 decel-VL. Review STOL flap STO, 1 PAR, 2 RVL, 1 STOL flap FNSL, roll-and-go landing, 2 CL, continuous VTO-accel, and 2 decel-VL.

Performance Standard. PUI shall execute all procedures and maneuvers IAW the VMAT-203 FSG.

Prerequisite. FAM-1116

FAM-1118 1.3 * B A 1 TAV-8B

Goal. Introduce pedal turn. Practice takeoff/in-flight/landing checks and procedures.

Requirement. Perform pedal turn and 1 crosswind decel-VL. Review CTO, STOL flap STO, PAR, VFR overhead, 1 STOL flap FNSL, 2 RVL, continuous VTO-accel, 2 decel-VL, and 2 press-ups.

Performance Standard. PUI shall execute all procedures and maneuvers IAW the VMAT-203 FSG.

Prerequisite. FAM-1117

FAM-1119 1.3 * B,R,MR A 1 TAV-8B

Goal. Introduce SAAHS-off RVL. Practice touch-and-go landing and takeoff/in-flight/landing checks and procedures.

Requirement. Perform SAAHS-off RVL. Review touch-and-go landing, PAR, STOL flap STO, 1 STOL flap FNSL, 2 auto flap VNSL, 2 RVL, non-continuous VTO-accel, 1 crosswind decel-VL, and 1 press-up.

Performance Standard. PUI shall execute all procedures and maneuvers IAW the VMAT-203 FSG. Refresh pilot reviews procedures per VMAT-203 FSG.

Prerequisite. FAM-1118

2.9.3 Familiarization/Instrument (FAM/INST)

2.9.3.1 Purpose. NATOPS instrument evaluation POI designed to evaluate the pilot's knowledge of and adherence to NATOPS instrument procedures.

2.9.3.2 General

NATOPS instrument evaluation events shall consist of those items delineated in OPNAVINST 3710.7 series (NATOPS), NAVAIR 00-80T-112 (NATOPS Instrument Flight Manual), FAR/AIM, and other model manager lead community issues.

NATOPS instrument POI should not focus solely on the assessment of the individual but should also include an educational element.

The NATOPS instrument evaluator shall utilize the NATOPS model manager-generated NATOPS instrument Aviation Training Form (ATF) (see Appendix A of T&R Program Manual) and the evaluation metrics required for the accomplishment and performance of the standardized criteria to determine whether the aviator completed the sortie. A letter designating the pilot as NATOPS instrument qualified shall be placed in the aircrew's NATOPS jacket upon successful completion.

NATOPS instrument evaluees shall ensure that annual instrument minimums are in accordance with OPNAVINST 3710.7 series prior to commencement of the annual instrument evaluation flight.

A designated AV-8B NATOPS instrument check pilot will observe and certify that the PUI is qualified per OPNAVINST 3710.7 series.

2.9.3.3 Ground/Academic Training

Readings. Review OPNAVINST 3710.7 series.

Exams. AINST-6005, Annual Instrument Ground School exam.

AINST-6004 8.0 365 B,R,MR,SS,M Instrument Ground School (IGS)

Goal. The Instrument Ground School shall be an approved Commander Naval Air Forces (CNAF)-approved syllabus.

Performance Standard. Achieve a minimum grade of qualified on the instrument ground examination.

SFAM/INST-1120 2.0 * B S RNAWST

Goal. Introduce instrument flight planning, instrument flight procedures, partial panel instrument procedures, unusual attitude flight, and approaches. Practice takeoff/in-flight/landing checks and procedures.

Requirement. Perform instrument flight planning, instrument climb profile, intermediate level-off procedures, maximum range cruise profile, partial panel instrument flight, unusual attitude flight, holding procedures, IFR penetration procedures, TACAN approach, missed approach procedures, and ground controlled approach PAR. Review 1 STOL flap FNSL and 1 RVL.

Performance Standard. Satisfactorily execute all procedures IAW AV-8B NATOPS and OPNAVINST 3710. PUI shall execute all procedures and maneuvers IAW the VMAT-203 FSG.

Prerequisite. FAM-1119

SFAM/INST-1121 2.0 * B,R,MR S RNAWST

Goal. Introduce airways navigation on a round-robin flight. Practice instrument flight procedures, instrument flight planning, and takeoff/in-flight/landing checks and procedures.

Requirement. Perform airways navigation on a round-robin flight using maximum range en route procedures. Review instrument flight planning, instrument flight procedures, instrument climb profile, intermediate level-off procedures, maximum range cruise profile, partial panel, unusual attitudes, holding procedures, IFR penetration procedures, TACAN approach, missed approach procedures, and PAR. Review 1 auto flap VNSL and 1 RVL.

Performance Standard. Satisfactorily execute all procedures IAW AV-8B NATOPS and OPNAVINST 3710. PUI shall execute all procedures and maneuvers IAW the VMAT-203 FSG.

Prerequisite. SINST-1120

SFAM/INST-1122 2.0 * B S RNAWST

Goal. Introduce minimum fuel PAR. Review instrument flight procedures, airways navigation, and instrument flight planning.

Requirement. Perform minimum fuel PAR. Review instrument flight planning, instrument flight procedures, instrument climb profile, intermediate level-off procedures, maximum range cruise profile, airways navigation, IFR penetration procedures, and missed approach procedures. Review 1 STOL flap FNSL.

Performance Standard. Satisfactorily execute all procedures IAW AV-8B NATOPS and OPNAVINST 3710. PUI shall execute all procedures and maneuvers IAW the VMAT-203 FSG.

Prerequisite. SINST-1121

FAM/INST-1123 1.5 * B A 1 TAV-8B

Goal. Introduce instrument flight planning, instrument flight procedures, approach procedures, and missed approach procedures.

Requirement. Perform instrument flight planning, instrument climb profile, intermediate level-off procedures, maximum range cruise profile, unusual attitudes, holding procedures, IFR penetration procedures, TACAN approach, PAR, and missed approach procedures. Review 1 RVL and 1 decel-VL.

Performance Standard. Satisfactorily execute all procedures IAW AV-8B NATOPS and OPNAVINST 3710. PUI shall execute all procedures and maneuvers IAW the VMAT-203 FSG.

Prerequisite. SINST-1122

FAM/INST-1124 1.5 * B,R A 1 TAV-8B

Goal. Introduce airways navigation, round-robin flight, and minimum fuel GCA.

Requirement. Perform airways navigation and minimum fuel PAR. Review instrument flight planning, instrument climb profile, intermediate level-off procedures, maximum range cruise profile, holding procedures, IFR penetration procedures, TACAN approach, missed approach procedures, 1 RVL, and 1 decel-VL.

Performance Standard. Satisfactorily execute all procedures IAW AV-8B NATOPS and OPNAVINST 3710. PUI shall execute all procedures and maneuvers IAW the VMAT-203 FSG. Refresher pilot reviews procedures IAW VMAT-203 FSG and requires a 1.3.

Prerequisite. INST-1123

SFAM/INST-1125 1.5 * B,R,MR S RNAWST

Goal. Conduct an objective evaluation of the aviator's knowledge of and adherence to OPNAV instrument regulations mission planning, briefing, normal operating procedures, crew resource management, aircraft systems, performance criteria, emergency procedures, and debriefing.

Requirement. IAW POI listed in Appendix A of AV-8B T&R Manual.

Performance Standard. Execute all procedures IAW AV-8B NATOPS, OPNAVINST 3710.7 series, and applicable SOPs. PUI shall execute all procedures and maneuvers IAW the VMAT-203 FSG. The T&R code, REQ-6102, shall be logged at the completion of this sortie.

Prerequisite. INST-1124

FAM -1126 1.3 * B A 1 TAV-8B

Goal. Introduce VFR straight-in and SAAHS-off decel to VL. Review takeoff/in-flight/landing checks and procedures.

Requirement. PUI to conduct briefing. Perform VFR straight-in and SAAHS-off decel-VL. Review CTO, roll-and-go landing, VFR overhead, STOL flap STO, 1 STOL flap FNSL, 1 CL, 1 auto flap VNSL, 3 RVL, non-continuous VTO-accel, 1 decel-VL, and 1 press-up.

Performance Standard. PUI shall execute all procedures and maneuvers IAW the VMAT-203 FSG.

Prerequisite. SINST-1125

SFAM -1127 2.0 * B,R,MR S RNAWST

Goal. Introduce compound emergencies.

Requirement. Perform compound emergencies.

Performance Standard. PUI shall execute all procedures and maneuvers IAW the VMAT-203 FSG. Refresh pilot reviews procedures per VMAT-203 FSG and requires 1.0 hours.

Prerequisite. FAM-1126

FAM/INST-1128 1.3 * B,R,MR,SS A 1 TAV-8B

Goal. Safe for solo check.

Requirement. Review CTO, PAR, STOL flap STO, 1 STOL flap FNSL, 1 CL, 1 auto flap VNSL, 1 STOL flap VNSL, roll-and-go landing, 1 RVL, VTO-accel, 1 decel-VL, and 1 press-up.

Performance Standard. PUI shall execute all procedures and maneuvers IAW the VMAT-203 FSG. Refresh pilot reviews procedures per VMAT-203 FSG.

Prerequisite. SFAM-1127

FAM/INST-1129 1.3 * B,R,MR,SS A 1 AV-8B

Goal. Solo flight.

Requirement. Review CTO, GCA, and STOL flap STO. Execute 1 STOL flap FNSL, 1 CL, 1 auto flap VNSL, 1 STOL flap VNSL, 1 roll-and-go landing, 1 RVL, VTO-accel, 1 decel-VL, and 1 press-up.

Performance Standard. PUI shall execute all procedures and maneuvers IAW the VMAT-203 FSG.

Prerequisite. FAM-1128

2.9.4 Forward Operating Base Operations (FOB)

2.9.4.1 Purpose. Develop the requisite skills for FOB.

2.9.4.2 General. A FRS Landing Site Instructor (LSI-5705) shall supervise all events.

2.9.4.3 Ground/Academic Training

Readings
AV-8B NATOPS Manual (A1-AV8BB-NFM-000), Review Chapter 9, paragraph 9.3, Forward Operating Base
Air NTTP 3-22.3-AV8B, Review Chapter 13, Expeditionary Basing
Lectures
ACAD-0058, FOB Stage Brief

Receive the following AV-8B courseware lectures
ACAD-0059 V/STOL Concept of Operations
ACAD-0060 Forward Operating Base Procedures & Considerations

SFOB-1200 1.0 * B S RNAWST

Goal. Introduce Forward Operating Base (FOB) and emergency procedures.

Requirement. Conduct FOB operations and simulated emergency procedures. Perform 3 maximum performance STO and 4 precision RVL at an air facility.

Performance Standard. PUI shall execute all procedures and maneuvers IAW the VMAT-203 FSG. Achieve an average pass grade of 2.5.

Prerequisite. Complete FOB stage ground/academic training, FAM-1129.

FOB-1201 1.2 * B A 1 TAV-8B

Goal. Introduce FOB operations.

Requirement. Conduct FOB operations at an air facility. Perform 3 maximum performance STO and 4 precision RVL.

Performance Standard. PUI shall execute all procedures and maneuvers IAW the VMAT-203 FSG. Achieve an average pass grade of 2.5.

Prerequisite. SFOB-1200

External Syllabus Support. Air facility and LSS.

FOB-1202 0.8 * B A 1 AV-8B or TAV-8B

Goal. Practice FOB operations.

Requirement. Conduct FOB operations at an air facility. Perform 3 maximum performance STO and 4 precision RVL.

Performance Standard. PUI shall execute all procedures and maneuvers IAW the VMAT-203 FSG. Achieve an average pass grade of 2.5.

Prerequisite. FOB-1201.

External Syllabus Support. Air Facility and LSS.

2.9.5 Field Carrier Landing Practice (FCLP)

2.9.5.1 Purpose. Develop FCLP skills and qualify pilots FCLP(D).

2.9.5.2 General

A launch officer and FRS Landing Signal Officer (LSI-5706) are required for all events.
A minimum of 30 vertical landings is required for completion.
Completion of this stage constitutes FCLP(D) qualified.

2.9.5.3 Ground/Academic Training

Readings

V/STOL Shipboard and LSO NATOPS Manual (NAVAIR 00-80T-111):
Chapter 4 General Flight Procedures
Chapter 5 Flight Deck Procedures
Chapter 6 Launch and Departure Procedures
Chapter 7 Recovery Procedures
Chapter 9 Field Carrier Landing Practice
Chapter 10 Carrier Qualification Patterns
Chapter 11 V/STOL Communication Procedures
Chapter 12 Emergency Procedures

LHA/LHD NATOPS Manual (NAVAIR 00-80T-106):
Chapter 5 Launching Aircraft
Chapter 6 Recovering Aircraft

Air NTTP 3-22.3-AV8B
Chapter 13 Expeditionary Basing

Lectures
ACAD-0061, FCLP Stage Brief.

Receive the following AV-8B courseware lectures:
ACAD-0062 Field Carrier Landing Practice
ACAD-0063 MCALF Bogue Field FCLP Procedures

Exams. AFCLP-0064, FCLP Ground School exam.

SFCLP-1210 1.0 * B D S RNAWST

Goal. Introduce day FCLP normal and emergency procedures.

Requirement. Perform day FCLP normal and emergency FCLP procedures to a simulated L-Class ship. Perform a Case 1 recovery, 5 VL, and 4 STO.

Performance Standard. Satisfactorily execute all procedures IAW AV-8B NATOPS, V/STOL / LSO NATOPS, Shipboard Operating Bulletin, LHA/LHD NATOPS and the VMAT-203 FSG. Achieve an average pass grade of 2.5.

Prerequisite. Complete FCLP stage ground/academic training, FAM-1129.

FCLP-1211 1.0 * B D A 1 AV-8B

Goal. Introduce day FCLP.

Requirement. Perform day FCLP normal and emergency FCLP procedures to a simulated L-Class ship. Perform a Case 1 recovery, 4 VL, 3 STO, and test waveoff. Introduce launch officer signals.

Performance Standard. Satisfactorily execute all procedures IAW AV-8B NATOPS, V/STOL / LSO NATOPS, Shipboard Operating Bulletin, LHA/LHD NATOPS and the VMAT-203 FSG. Achieve an average pass grade of 2.5.

Prerequisite. SFCLP-1210

External Syllabus Support. Simulated L-Class ship with LSO and launch officer.

FCLP-1212 1.0 * B D A 1 AV-8B

Goal. Introduce simulated NORDO approach. Review day FCLP.

Requirement. Perform simulated NORDO approach. Review day FCLP normal and emergency procedures to a simulated L-Class ship. Review a Case 1 recovery, 4 VL, 3 STO, and launch officer signals.

Performance Standard. Satisfactorily execute all procedures IAW AV-8B NATOPS, V/STOL / LSO NATOPS, Shipboard Operating Bulletin, LHA/LHD NATOPS and the VMAT-203 FSG. Achieve an average pass grade of 2.5.

Prerequisite. FCLP-1211

External Syllabus Support. Simulated L-Class ship with LSO and launch officer.

FCLP-1213 1.0 * B D A 1 AV-8B

Goal. Review day FCLP.

Requirement. Review day FCLP normal and emergency procedures to a simulated L-Class ship. Review a Case 1 recovery, 4 VL, 3 STO, and launch officer signals.

Performance Standard. Satisfactorily execute all procedures IAW AV-8B NATOPS, V/STOL / LSO NATOPS, Shipboard Operating Bulletin, LHA/LHD NATOPS and the VMAT-203 FSG. Achieve an average pass grade of 2.5.

Prerequisite. FCLP-1212

External Syllabus Support. Simulated L-Class ship with LSO and launch officer.

FCLP-1214 1.0 * B D A 1 AV-8B

Goal. Review day FCLP.

Requirement. Review day FCLP normal and emergency procedures to a simulated L-Class ship. Review a Case 1 recovery, 4 VL, 3 STO, and launch officer signals.

Performance Standard. Satisfactorily execute all procedures IAW AV-8B NATOPS, V/STOL / LSO NATOPS, Shipboard Operating Bulletin, LHA/LHD NATOPS and the VMAT-203 FSG. Achieve an average pass grade of 2.5.

Prerequisite. FCLP-1213

External Syllabus Support. Simulated L-Class ship with LSO and launch officer.

FCLP-1215 1.0 * B D A 1 AV-8B

Goal. Review day FCLP.

Requirement. Review day FCLP normal and emergency procedures to a simulated L-Class ship. Review a Case 1 recovery, 4 VL, 3 STO, and launch officer signals.

Performance Standard. Satisfactorily execute all procedures IAW AV-8B NATOPS, V/STOL / LSO NATOPS, Shipboard Operating Bulletin, LHA/LHD NATOPS and the VMAT-203 FSG. Achieve an average pass grade of 2.5.

Prerequisite. FCLP-1214

External Syllabus Support. Simulated L-Class ship with LSO and launch officer.

FCLP-1216 1.0 * B D A 1 AV-8B

Goal. Day FCLP qualification.

Requirement. Review day FCLP normal and emergency procedures to a simulated L-Class ship. Review a Case 1 recovery, 4 VL, 3 STO, and launch officer signals.

Performance Standard. Execute all procedures IAW AV-8B NATOPS, V/STOL / LSO NATOPS, Shipboard Operating Bulletin, LHA/LHD NATOPS and the VMAT-203 FSG. Achieve an average pass grade of 2.5.

Prerequisite. FCLP-1215

External Syllabus Support. Simulated L-Class ship with LSO and launch officer.

2.9.6 Formation (FORM)

2.9.6.1 Purpose. Develop proficiency in section administrative formations.

2.9.2.2 General. A Fleet Replacement Squadron Instructor (FRSI) is required for all events.

2.9.6.3 Ground/Academic Training

Readings

AV-8B NATOPS Manual (A1-AV8BB-NFM-000)
Chapter 9 Paragraph 9.1, Formation Flight
Chapter 22 Paragraph 21.3, Visual Communications

Air NTTP 3-22.3-AV8B
Section 3.6 Tactical Formations and Maneuvering
Section 3.10.6 Battle Damage/Ordnance Checks

Lectures

AFORM-0066 FORM/TACFORM Stage Brief

Receive the following AV-8B courseware lectures
ACAD-0067 Administrative Formation
ACAD-0068 Section Tactical Formation
ACAD-0069 Division Tactical Formation

Exams. ACAD-0070, Formation Ground School exam.

FORM-1300 1.3 * B D A 2 TAV-8B

Goal. Introduce administrative section formation.

Requirement. Perform taxi and marshal procedures, section CTO, stream STO, parade formation, cross-under, lead change, cruise formation, running rendezvous, break-up and rendezvous, battle damage/ordnance checks, TACAN approach, and VFR break maneuver. Review 1 STOL flap FNSL, 1 auto flap VNSL, and 1 VL.

Performance Standard. PUI shall execute all procedures and maneuvers IAW the VMAT-203 FSG.

Prerequisite. Complete FORM stage ground/academic training, FAM-1129.

Range Requirement. MOA, RSTD.

FORM-1301 1.3 * B D A 2 AV-8B

Goal. Practice administrative section formation.

Requirement. Perform section PAR to low approach and full stop. Review taxi and marshal procedures, section stream STO, parade formation, cross-under, lead change, cruise formation, running rendezvous, and break-up and rendezvous. Review 1 CL, 1 RVL, and 2 decel-VL.

Performance Standard. PUI shall execute all procedures and maneuvers IAW the VMAT-203 FSG.

Prerequisite. FORM-1300

Range Requirement. MOA, RSTD.

2.9.7 Advanced Aircraft Handling (AAH)

2.9.7.1 Purpose. Introduce the handling characteristics of the AV-8 at slow speeds, with high G, and at medium altitude. Develop the requisite skills to fly in that regime.

2.9.7.2 General. Instructor shall be a FRS Advanced Aircraft Handling Instructor (AAHI).

2.9.7.3 Ground/Academic Training

Readings
AV-8B NATOPS Manual (A1-AV8BB-NFM-000), Review Chapter 11, Flight Characteristics.
AV-8B NATIP (NTRP 3-22.4-AV8B), Chapter 7, Aircraft Performance.
AV-8B McDonnell Aircraft Company Product Support Digest:
AV-8B High AOA & Spin Program, Part 1: Departure Resistance System.
AV-8B High AOA & Spin Program, Part 2: Spin Testing Phase.
Departure Resistance System.
Balancing Your DEPRES Account.
Aerodynamic and Flight Control Improvements.
Low Pressure Compressor Case Rub.

Lectures
ACAD-0072, AAH Stage Brief.

Receive the following AV-8B courseware lectures:
ACAD-0073, Aircraft Performance and Handling.
ACAD-0074, AV-8B Departure Avoidance.

Exams. AAAH-0075, Aircraft Handling and Departure Avoidance exam.

SAAH-1310 1.0 * B S RNAWST

Goal. Introduce advanced aircraft handling.

Requirement. Perform G-awareness maneuver, FENCE checks, break and hard turns, aerobatics, 3-G weave, energy management and turn rate drills, accelerated/high speed stalls and slow speed departure, slow speed/high AOA drills, and 250-knot loops.

Performance Standard. PUI shall execute all procedures and maneuvers IAW the VMAT-203 FSG.

Prerequisite. Complete AAH stage ground/academic training, FAM-1129.

AAH-1311 1.0 * B D A 1 TAV-8B

Goal. Introduce advanced aircraft handling.

Requirement. Perform G-awareness maneuver, FENCE checks, unloaded rolls, hard turns, turn rate drill, aerobatics, and 3-G weave. Review 1 CL and 1 decel-VL.

Performance Standard. PUI shall execute all procedures and maneuvers IAW the VMAT-203 FSG.

Prerequisite. SAAH-1310

Range Requirement. MOA, RSTD.

AAH-1312 1.0 * B D A 2 AV-8B

Goal. Introduce advanced aircraft handling.

Requirement. Introduce slow speed departure, break turns, energy management drills, deck transitions, slow speed/high AOA drills, and 250-knot loops. Review 1 decel-VL.

Performance Standard. PUI shall execute all procedures and maneuvers IAW the VMAT-203 FSG.

Prerequisite. AAH-1311, FORM-1301

Range Requirement. MOA, RSTD.

2.9.8 Tactical Formation (TACFORM)

2.9.8.1 Purpose. Develop proficiency in section tactical formations. Introduce division administrative and tactical formations.

2.9.8.2 General. A Fleet Replacement Squadron Instructor (FRSI) is required for all events.

2.9.8.3 Ground/Academic Training

Readings. Air NTTP 3-22.3-AV8B, Review Section 3.6, Tactical Formations and Maneuvering.

Lectures. Review the following AV-8B courseware lectures:
ACAD-0068, Section Tactical Formation.
ACAD-0069, Division Tactical Formation.

TACFORM-1320 1.1 * B,R,MR D A 2 TAV-8B

Goal. Introduce section tactical formation at medium altitude.

Requirement. Perform offensive and defensive combat spread, deployed echelon formation, check turns, NAV turns, TAC turns, cross turns, hook turns, and shackle turns at medium altitude in the comm-in environment. Introduce nozzle use to control closure during running rendezvous. Review 1 FNSL and 1 auto flap VNSL.

Performance Standard. PUI shall execute all procedures and maneuvers IAW the VMAT-203 FSG.

Prerequisite. Complete TACFORM stage ground/academic training, FORM-1301. Refresh pilot reviews procedures per VMAT-203 FSG.

Range Requirement. MOA, RSTD.

TACFORM-1321 1.1 * B D A 2 AV-8B

Goal. Introduce comm-out maneuvering at medium altitude.

Requirement. Perform fighter wing formation and comm-out maneuvering. Review offensive and defensive combat spread. Review check turns, NAV turns, TAC turns, cross turns, hook turns, and shackle turns at medium altitude in the comm-in environment. Review nozzle use to control closure during running rendezvous. Review 1 STOL flap VNSL and 2 decel-VL.

Performance Standard. PUI shall execute all procedures and maneuvers IAW the VMAT-203 FSG.

Prerequisite. TACFORM-1320

Range Requirement. MOA, RSTD.

TACFORM-1322 1.1 * B D A 2 AV-8B

Goal. Introduce section tactical formation at low level.

Requirement. Perform section formation as a wingman at low altitude. Perform defensive combat spread and comm-in turns to include check turns, NAV turns, TAC turns, cross turns, hook turns, and shackle turns at low level. Review RADALT checks, terrain clearance tasks, mission tasks (CT and NCMT), Mission Crosscheck Time (MCT) tasks, and G-awareness maneuver. Review 1 RVL and 2 decel-VL.

Performance Standard. PUI shall execute all procedures and maneuvers IAW the VMAT-203 FSG.

Prerequisite. TACFORM-1321

Range Requirement. MOA, RSTD.

TACFORM-1323 1.1 * B D A 2 AV-8B

Goal. Introduce section tactical formation at high altitude.

Requirement. Perform energy-sustaining turns (chased) and section formation as a wingman at or above 25,000 feet. Review offensive combat spread and comm-in and comm-out turns to include check turns, NAV turns, TAC turns, cross turns, hook turns, and shackle turns. Review nozzle use to control closure during running rendezvous. Review 1 RVL and 2 decel-VL.

Performance Standard. PUI shall execute all procedures and maneuvers IAW the VMAT-203 FSG.

Prerequisite. TACFORM-1321

Range Requirement. MOA, RSTD.

TACFORM-1324 1.1 * B D A 4 T/AV-8B

Goal. Introduce division formation at medium altitude.

Requirement. Perform division formation procedures including division marshal procedures, division stream STO, balanced parade formation,

fingertip formation, running rendezvous, break-up and rendezvous, division box, division cruise, deployed echelon, fluid 4 formations, and division VFR break. Review 1 auto flap VNSL and 1 decel-VL.

Performance Standard. PUI shall execute all procedures and maneuvers IAW the VMAT-203 FSG.

Prerequisite. TACFORM-1323

Range Requirement. MOA, RSTD.

2.9.9 Navigation (NAV)

2.9.9.1 Purpose. Develop the requisite skills integrating aircraft navigation systems to plan and execute navigation flights using aeronautical charts and visual checkpoints.

2.9.9.2 General. A Fleet Replacement Squadron Instructor (FRSI) is required for all events.

2.9.9.3 Ground/Academic Training

Readings. AV-8B NATIP (NTRP 3-22.4-AV8B):
Section 2.6.1, Inertial Navigation System.
Section 2.6.2, Global Positioning System.

Lectures
ACAD-0082, NAV Stage Brief.

Receive the following AV-8B courseware lecture
ACAD-0083, Low Level Navigation.

Chalk Talks/Practical Application
ACAD-0084, JMPS Low Level Planning.

Exams. ACAD-0085, Navigation Ground School exam.

SNAV-1330 0.5 * B S RNAWST

Goal. Introduce ingress/egress string and CST NAV system.

Requirement. Perform navigation at low altitude on input ingress string.

Performance Standard. PUI shall execute all procedures and maneuvers IAW the VMAT-203 FSG.

Prerequisite. Complete NAV stage academic/ground training, FAM-1129.

SNAV-1331 1.5 * B S RNAWST

Goal. Introduce navigation at low altitude.

Requirement. Perform navigation at low altitude on an MTR in an OSCAR-configured simulator emphasizing MPCD display, TACAN, Waypoint, Markpoint, Command Speed/Time, Waypoint Overfly, Non-Sequential route strings, HUD symbology differences, Target point, Steer-to-point, Point of Interest, Quick Access, and Null Points.

Performance Standard. PUI shall execute all procedures and maneuvers IAW the VMAT-203 FSG.

Prerequisite. SNAV-1330.

NAV-1332 1.3 * B D A 1 TAV-8B

Goal. Introduce navigation at low altitude.

Requirement. Perform navigation at low altitude on an MTR emphasizing JMPS planning, TACAN navigation, waypoint and markpoint utilization, Command Speed/Time, Non-Sequential route strings, HUD symbology differences, Target point, Steer-to-point, Point of Interest, Quick Access, and Null Points. Review 1 decel-VL.

Performance Standard. PUI shall execute all procedures and maneuvers IAW the VMAT-203 FSG.

Prerequisite. SNAV-1331

Range Requirement. MTR

2.9.10 Air-to-Air Refueling (AAR)

2.9.10.1 Purpose. Introduce day air-to-air refueling procedures.

2.9.10.2 General

An FRS Air-to-Air Refueling Instructor (AARI) is required for all events.
Completion of this stage constitutes day AAR qualified.

2.9.10.3 Ground/Academic Training

Readings
AV-8B NATOPS Manual (A1-AV8BB-NFM-000), Chapter 9, Paragraph 9.2, Air Refueling.
Aerial Refueling NATOPS Manual.
ATP-56(B), Air-to-Air Refueling.

Lectures
ACAD-0087, AAR Stage Brief.
Receive the following AV-8B courseware lecture: ACAD-0088, Aerial Refueling.

Exams. ACAD-0089, Aerial Refueling Ground School exam.

AAR-1340 1.5 * B D A 2 AV-8B

Goal. Day air-to-air refueling qualification.

Requirement. Perform day in-flight refueling from a refueling platform in the comm-in environment. Perform 2 wet and 4 dry plugs. Review 1 RVL, 1 CL, and 1 decel-VL.

Performance Standard. PUI shall execute all procedures and maneuvers IAW the VMAT-203 FSG.

Prerequisite. Complete AAR stage ground/academic training, FORM-1321 if flown in section, TACFORM-1324 if flown in division.

Range Requirement. AAR.

External Syllabus Support. Compatible tanker IAW ATP-56(B).

2.9.11 Threat Countertactics (TCT)

2.9.11.1 Purpose. Introduce the AV-8B EW suite and surface-to-air threat countertactics.

2.9.11.2 General

All flights should be flown on an EW range with TCTS coverage.
An RTO shall be used to the maximum extent possible.
A FRS Threat Countertactics Instructor (TCTI) shall instruct all events.

2.9.11.3 Ground/Academic Training

Readings
AV-8B NATIP (NTRP 3-22.4-AV8B) Chapter 3, Aircraft Survivability Equipment
Air NTTP 3-22.1-AV8B:
Review Chapter 3, Threat Countertactics
Review Appendix A, E-Pole Determination
Review Appendix B, Standard Expendable Loads

User's Manual for AV-8B CY20XX EW Suite

ALSA Communication Brevity

Lectures
ACAD-0090, TCT Stage Brief.

Receive the following AV-8B courseware lectures

ACAD-0091, Introduction to ALE-47
ACAD-0227, ALE-39 Countermeasures Dispensing System
ACAD-0228, ALR-67 Radar Warning Receiver
ACAD-0229, ALQ-164 DECM Pod
ACAD-0230, Expendable Decoys

MAWTS-1 Academic Support Package
ACAD-0092, AV-8B Aircraft Survivability Equipment (MAWTS-1 ASP)
ACAD-0094, Non-RF Surface-to-Air Missiles and AAA
ACAD-0095, RF Surface-to-Air Missiles
ACAD-0096, MAWTS-1 Common Courseware, Threat Countertactics

Chalk Talks/Practical Application. ACAD-0093, Threat Analysis Lab

Exams. ACAD-0097, Threat Countertactics Ground School exam

STCT-1350	1.5	*	B,R,MR		S		RNAWST

Goal. Introduce EW suite and applicable communication and surface-to-air threat countertactics at medium altitude.

Requirement. Introduce setup and employment of ALE, ALR, and ALQ. Demo multiple RWR indications along with applicable comm calls. Introduce ALQ-167/ALR-67 bit procedures. Perform ALSA communications and chaff/notch/assess, level-S, guns jink, hot/cold weave, and E-pole tactics. Utilize decision matrix for jettison criteria. Using RNAWST RADAR mode, complete required APG-65 ground checks and set-up. Complete TACADMIN to include RADAR checks. Perform preemptive and reactive expendable gameplans.

Performance Standard. PUI shall execute all procedures and maneuvers IAW the VMAT-203 FSG. Refresh pilot shall review procedures IAW VMAT-203 FSG and requires 1.0 hours.

Prerequisite. TCT stage brief, TCT stage ground/academic training, AAH-1312, SRAD-1361.

TCT-1351	1.0	*	B		D	A	2 AV-8B

Goal. Introduce surface-to-air threat countertactics at medium altitude.

Requirement. As a chased aircraft, perform ALSA communications and chaff/notch/assess, level-S, guns jink, hot/cold weave, and E-pole tactics at medium altitude for range-known threats. Utilize decision

matrix for jettison criteria. Perform preemptive and reactive expendable gameplans. Review ALE-39 and ALR-67 setup and employment. Review 1 decel-VL.

Performance Standard. PUI shall execute all procedures and maneuvers IAW the VMAT-203 FSG.

Prerequisite. STCT-1350

Ordnance. ALQ-164, 30 Chaff/30 Flares, TCTS Pod.

Range Requirement. TCTS Range, Electronic Warfare Range.

External Syllabus Support. TCTS, Hi Fi EW.

TCT-1352 1.0 * B D A 2 AV-8B

Goal. Introduce surface-to-air threat countertactics at medium altitude in section.

Requirement. In section, perform ALSA communications and E-pole, chaff/notch/assess, level-S, guns jink, & hot/cold weave at medium altitude for range-known & range unknown threats. Perform preemptive and reactive expendable gameplans. Review ALE-47 and ALR-67 setup and employment. Review 1 RVL.

Performance Standard. PUI shall execute all procedures and maneuvers IAW the VMAT-203 FSG.

Prerequisite. TCT-1351, TACFORM-1324

Ordnance. ALQ-164, 30 Chaff/30 Flares, TCTS Pod.

Range Requirement. TCTS Range, Electronic Warfare Range.

External Syllabus Support. TCTS debrief facility.

2.9.12 Radar Fundamentals (RAD)

2.9.12.1 Purpose. Introduce the APG-65 and basic employment.

2.9.12.2 General. A Radar Fundamentals Instructor shall instruct all events.

2.9.12.3 Ground/Academic Training

Readings

AV-8B NATOPS Manual (A1-AV8BB-NFM-000), Chapter 7, Paragraph 7.3.4.6, RADAR Trail Departure

AV-8B NATIP (NTRP 3-22.4-AV8B)
Section 1.1, Electromagnetic Theory
Section 1.2, RADAR Theory
Section 2.10, RADAR
Section 5.6, RADAR Attack Considerations

Air NTTP 3-22.1-AV8B
Chapter 6.9, All-Weather Intercepts
Chapter 7.4, Radar Set-Up/Optimization
ALSA Communication Brevity

Lectures

ACAD-0200, Radar Fundamentals Stage Brief

Receive the following AV-8B courseware lectures

ACAD-0201, Introduction to the RADAR
ACAD-0202, RADAR Theory

ACAD-0203, RADAR Display Interpretation and Prediction
ACAD-0204, Air-to-Surface RADAR Controls and Displays
ACAD -0205, Air-to-Surface RADAR Procedures
ACAD-0206, Air-to-Air RADAR Controls and Displays
ACAD-0207, Basic Intercept Geometry, Part 1
ACAD-0208, Basic Intercept Geometry, Part 2
ACAD-0209, Air-to-Air Search Techniques
ACAD-0210, Introduction to Air Intercept Control

Chalk Talks/Practical Application

ACAD-0211, Radar Set-Up and Optimizaton
ACAD-0212, Basic Intercepts.

Exams. ARAD-0213, Radar Fundamentals Stage Exam

SRAD-1360 1.5 * B S RNAWST

Goal. Introduce Air-to-Air and Air-to-Surface radar controls and displays, radar trail departure, and search/sanitization techniques.

Requirement. Introduce APG-65 setup. Introduce radar HOTAS controls and radar displays in both the Air-to-Surface and Air-to-Air modes. Introduce radar trail departure. Introduce radar checks. Introduce radar search/sanitization techniques. Introduce ACM modes of radar operation and short-range rejoin mechanics. Introduce Air-to-Surface mapping, expand maps, Ground Moving Target Tracker, and Sea Surface Search mode.

Performance Standard. PUI shall execute all procedures and maneuvers IAW the VMAT-203 FSG.

Prerequisite. FORM-1301

SRAD-1361 1.5 * B S RNAWST

Goal. Introduce radar All-Weather Intercepts.

Requirement. Review APG-65 setup, controls and displays. Perform radar trail departure. Perform two stern-conversion tanker rendezvous with KC-130J. Perform four forward-quarter All-Weather Intercepts.

Performance Standard. PUI shall execute all procedures and maneuvers IAW the VMAT-203 FSG.

Prerequisite. SRAD-1360

2.9.13 Air-to-Surface (AS)

2.9.13.1 Purpose. Develop proficiency in Basic Conventional Weapons Delivery (BCWD) skills, section tactical formation, and ALSA communications.

2.9.13.2 General
Scored ranges will be used to the maximum extent possible. If unavailable, performance criteria will be IAW Air NTTP 3-22.3-AV8B.
A FRS Air-to-Surface Instructor (ASI) is required for all events.

2.9.13.3 Ground/Academic Training

Readings

AV-8B NATIP (NTRP 3-22.4-AV8B)
Section 2.5, Stores Management Control Set
Chapter 5, A/S Weapon Delivery
Chapter 8, Weaponeering

Air NTTP 3-22.3-AV8B, Chapter 6, Air to Surface Fundamentals.

Air NTTP 3-22.1-AV8B, Appendix C, Reactive Weaponeering.

ALSA Communication Brevity.

Lectures

ACAD-0102, AS Stage Brief

Receive the following AV-8B courseware lectures:
ACAD-0103, Introduction to Mission Publications
ACAD-0104, A/G Weapons Delivery Theory
ACAD-0105, Computed Delivery Theory
ACAD-0106, Suspension Equipment
ACAD-0107, GP Bombs
ACAD-0108, GP Bomb Fuzing
ACAD-0109, 25mm Gun
ACAD-0110, Rockets
ACAD-0111, Weapon Delivery Limits and Restrictions
ACAD-0112, Weaponeering
ACAD-0113, Multiple Weapons Release Weaponeering
ACAD-0114, Forward-Firing Ordnance and Weaponeering
ACAD-0115, WARP
ACAD-0116, Laser Theory
ACAD-0117, Angle Rate Bombing System (ARBS)
ACAD-0118, Height Above Target
ACAD-0119, Target Designation Methods
ACAD-0120, SMS & Weapon System Programming
ACAD-0121, Computed Weapons Delivery Modes
ACAD-0122, Degraded Weapons Delivery Modes
ACAD-0123, Weapon Delivery Procedures, Part 1
ACAD-0124, Weapon Delivery Procedures, Part 2

Chalk Talks/Practical Application. ACAD-0125, JMPS Advanced Mission Planning Lab.

Exams. ACAD-0126, Air-to-Surface Ground School exam.

SAS-1400 1.5 * B S RNAWST

Goal. Introduce A/S stores programming and computed weapon delivery from medium altitude.

Requirement. Program multiple stores into Stores page. Manipulate weapons programming, Q/M/I fuze function, and arm time. Perform 6 30-degree and 6 45-degree BCIP/GCIP deliveries. Perform weapon system programming. Utilize adaptive roll-in technique, target placement angle, and curvilinear-to-straight-path tracking. Perform off-target maneuvers. Demonstrate knowledge of jettison system. Utilize WARP to generate weaponeering data.

Performance Standard. PUI shall execute all procedures and maneuvers IAW the VMAT-203 FSG.

Prerequisite. TCT ground school complete, TACFORM-1324.

Ordnance. 12 Mk-76.

SAS-1401 1.0 * B S RNAWST

Goal. Introduce 10-degree computed deliveries.

Requirement. Perform 8 10-degree deliveries of high drag and low drag ordnance. Utilize the adaptive roll-in technique, target placement

angle, and curvilinear-to-straight-path tracking. Perform off-target maneuvers. Utilize WARP to generate weaponeering data.

Performance Standard. PUI shall execute all procedures and maneuvers IAW the VMAT-203 FSG.

Prerequisite. SAS-1400

Ordnance. 6 Mk-76, 2 Mk-82 HD.

SAS-1402 1.0 * B S RNAWST

Goal. Introduce ARBS/TV deliveries.

Requirement. Perform a WOF update/designation. Introduce "J-Hook" maneuver. Perform straight-path-to-straight-path tracking. Utilize the ARBS/TV mode of the DMT to generate height above target data for CCIP and AUTO deliveries. Perform two CCIP to AUTO conversions. Review 6 30-degree and 6 45-degree deliveries. Utilize WARP to generate weaponeering data.

Performance Standard. PUI shall execute all procedures and maneuvers IAW the VMAT-203 FSG.

Prerequisite. SAS-1400

Ordnance. 12 Mk-76.

SAS-1403 1.0 * B S RNAWST

Goal. Introduce ARBS/LST deliveries.

Requirement. Perform 6 30-degree and 6 45-degree ARBS/LST deliveries. Review straight-path-to- straight-path tracking, and ARBS/TV deliveries. Utilize WARP to generate weaponeering data.

Performance Standard. PUI shall execute all procedures and maneuvers IAW the VMAT-203 FSG.

Prerequisite. SAS-1402

Ordnance. 12 Mk-76.

SAS-1404 1.0 * B S RNAWST

Goal. Introduce GAU-12 and rocket deliveries.

Requirement. Perform 4 20-degree GAU-12 and 8 20-degree 5.00" Zuni Rocket deliveries. Utilize the safe escape table and maximum fragmentation envelope chart to ensure safe releases. Utilize WARP to generate weaponeering data.

Performance Standard. PUI shall execute all procedures and maneuvers IAW the VMAT-203 FSG.

Prerequisite. SAS-1401

Ordnance. 300 rounds 25mm, 8 5.00" Zuni Rockets.

AS-1405 1.0 * B D A 1 TAV-8B

Goal. Introduce computed weapons deliveries.

Requirement. Perform 6 30-degree or 45-degree deliveries. Perform weapon preflight and weapon system programming. Utilize the adaptive roll-in technique, target placement angle, two BAUT/GAUT straight-path-to-straight-path and four BCIP/GCIP attacks. Perform off-target

maneuvers. Perform off-target rendezvous. Utilize WARP to generate weaponeering data. Review 1 decel-VL.

Performance Standard. PUI shall execute all procedures and maneuvers IAW the VMAT-203 FSG.

Prerequisite. SAS-1403

Ordnance. 6 Mk-76.

Range Requirement. RKD RNG.

AS-1406 1.0 * B D A 2 AV-8B

Goal. Practice medium angle deliveries.

Requirement. PUI perform briefing. Perform 6 30-degree or 45-degree BAUT/GAUT deliveries. Review weapon preflight. Review weapon system programming. Review the adaptive roll-in technique, target placement angle, two BAUT/GAUT straight-path-to-straight-path and four BCIP/GCIP attacks. Review off-target maneuvers and rendezvous. Utilize WARP to generate weaponeering data. Review 1 RVL.

Performance Standard. PUI shall execute all procedures and maneuvers IAW the VMAT-203 FSG.

Prerequisite. AS-1405

Ordnance. 6 Mk-76, 10 Flares.

Range Requirement. RKD RNG, EXP.

AS-1407 1.0 * B D A 2 AV-8B

Goal. Introduce ARBS/TV deliveries.

Requirement. Perform 6 30-degree or 45-degree ARBS/TV deliveries utilizing straight-path-to-straight-path tracking. Review adaptive roll-in technique, "J-Hook" maneuver off-target maneuvers, and off-target rendezvous. Utilize WARP to generate weaponeering data. Review 1 RVL.

Performance Standard. PUI shall execute all procedures and maneuvers IAW the VMAT-203 FSG.

Prerequisite. AS-1406

Ordnance. 6 Mk-76, 10 Flares.

Range Requirement. RKD RNG, EXP.

AS-1408 1.0 * B D A 2 AV-8B

Goal. Practice ARBS/TV and ARBS/LST deliveries.

Requirement. Perform 6 30-degree or 45-degree ARBS/TV or ARBS/LST deliveries utilizing straight-path to straight-path tracking. Review adaptive roll-in technique, off-target maneuvers, and off-target rendezvous. Utilize WARP to generate weaponeering data. Review 1 decel-VL.

Performance Standard. PUI shall execute all procedures and maneuvers IAW the VMAT-203 FSG.

Prerequisite. AS-1407

Ordnance. 6 Mk-76, 10 flares.

Range Requirement. RKD RNG, EXP.

AS-1409 1.0 * B D A 1 TAV-8B

Goal. Introduce 10-degree deliveries with low drag ordnance.

Requirement. Perform 6 10-degree CCIP deliveries of low drag ordnance. Utilize WARP to generate weaponeering data. Review 1 decel-VL.

Performance Standard. PUI shall execute all procedures and maneuvers IAW the VMAT-203 FSG.

Prerequisite. SAS-1401

Ordnance. 6 Mk-76.

Range Requirement. RKD RNG.

AS-1410 1.0 * B D A 2 AV-8B

Goal. Introduce GAU-12 employment and 10-degree deliveries with high drag ordnance.

Requirement. Perform 2 20-degree GAU-12 deliveries. Utilize the safe escape table and maximum fragmentation envelope chart to ensure safe releases. Perform 2 10-degree deliveries with high drag ordnance. Utilize WARP to generate weaponeering data. Review 1 decel-VL.

Performance Standard. PUI shall execute all procedures and maneuvers IAW the VMAT-203 FSG.

Prerequisite. SAS-1404, AS-1409

Ordnance. 300 rounds 25mm TP, 2 BDU-45 HD, 20 Flares.

Range Requirement. STRAFE, HVY INERT, WISS, EXP.

2.9.14 Low Altitude Tactics (LAT)

2.9.14.1 Purpose. Introduce basic and advanced maneuvers in low altitude environment.

2.9.14.2 General

A FRS Low Altitude Tactics Instructor (FRSLATI) shall instruct all events.

2D MAW or 3D MAW LAT approved course shall be used.

2.9.14.3 Ground/Academic Training

Readings

Air NTTP 3-22.3-AV8B, Chapter 4, LAT.

NAVMC DIR 3500.14, Aviation Training and Readiness Program Manual, Chapter 3, LAT Rules of Conduct.

Lectures

ACAD-0127, LAT Stage Brief
ACAD-0128, MAWTS-1 LAT ASP I-IV

Receive the following AV-8B courseware lectures:
ACAD-0129, 3D Maneuvering
ACAD-0130, Mission Crosscheck Time

Exams. ACAD-0131, LAT Stage exam.

SLAT-1420 1.0 * B S RNAWST

Goal. Introduce basic LAT procedures and rules of conduct.

Requirement. Perform low altitude checks, Mission Cross-Check Time (MCT), level turns, 50-percent rule, dive recovery rules, small descent rule, step down recovery, terminate, knock-it-off/climb-to-cope, ridgeline crossing and unloaded rolls. Using RNAWST RADAR mode, complete required APG-65 ground checks and set-up. Complete TACADMIN to include RADAR checks. Review G-awareness maneuver, FENCE checks, 1 CL, and 1 STOL flap VNSL.

Performance Standard. PUI shall execute all procedures and maneuvers IAW the VMAT-203 FSG.

Prerequisite. TACFORM-1324

SLAT-1421 1.0 * B S RNAWST

Goal. Review basic and introduce advanced LAT procedures.

Requirement. Perform Straight Oblique Jink (SOJ), Vertical Jink (VJ), Turning Oblique Jink (TOJ), Reverse Oblique Jink (ROJ), 10-degree rule, and unloaded rolls. Review G-awareness maneuver, low altitude checks, FENCE checks, MCT, 50-percent rule, dive recovery rules, small descent rule, step down recovery, 1 auto flap VNSL, 1 decel-VL, and 1 press-up. Using RNAWST RADAR mode, complete required APG-65 ground checks and set-up. Complete TACADMIN to include RADAR checks. Review air-to-air RADAR modes and HOTAS.

Performance Standard. PUI shall execute all procedures and maneuvers IAW the VMAT-203 FSG.

Prerequisite. SLAT-1420

SLAT-1422 1.0 * B S RNAWST

Goal. Introduce surface-to-air threat countertactics at low altitude.

Requirement. Perform chaff/notch/assess, level-S, guns jink, MAC, and hot/cold weave, terrain masking and E-pole tactics at low altitude. Review ALSA communications, preemptive and reactive expendable gameplans, and ALE-47 and ALR-67 usage and employment. Using RNAWST RADAR mode, complete required APG-65 ground checks and set-up. Complete TACADMIN to include RADAR checks. Review air-to-air RADAR modes and HOTAS.

Performance Standard. PUI shall execute all procedures and maneuvers IAW the VMAT-203 FSG.

Prerequisite. SLAT-1420, STCT-1351

LAT-1423 1.0 * B D A 1 TAV-8B

Goal. Introduce basic and advanced LAT procedures.

Requirement. Perform low altitude checks, MCT, level turns, SOJ, TOJ, ROJ, VJ, 10-degree rule, 50-percent rule, KIO procedures, ridgeline crossing, small descent rule, dive recovery rule, step down recovery, terminate procedures, and 1 decel-VL.

Performance Standard. PUI shall execute all procedures and maneuvers IAW the VMAT-203 FSG.

Prerequisite. SLAT-1421

Range Requirement. MOA, RSTD, LAT.

LAT-1424 1.0 * B D A 2 AV-8B

Goal. Practice basic and advanced LAT procedures.

Requirement. Perform low altitude checks, MCT, level turns, SOJ, TOJ, ROJ, VJ, 10-degree rule, 50-percent rule, KIO procedures, small descent rule, dive recovery rule, step down recovery, terminate procedures, and 1 RVL.

Performance Standard. PUI shall execute all procedures and maneuvers IAW the VMAT-203 FSG.

Prerequisite. LAT-1423

Range Requirement. MOA, RSTD, LAT.

LAT-1425 1.0 * B D A 2 AV-8B

Goal. Introduce surface-to-air threat countertactics at low altitude.

Requirement. As a chased aircraft, perform ALSA communications and chaff/notch/assess, , level-S, guns jink, hot/cold weave, and E-pole tactics at low altitude for range-known threats. Perform preemptive and reactive expendable gameplans. Review ALE--47 and ALR-67 setup and employment. Review 1 RVL.

Performance Standard. PUI shall execute all procedures and maneuvers IAW the VMAT-203 FSG.

Prerequisite. SLAT-1422, LAT-1424, TCT-1352

Range Requirement. LAT, TCTS, Hi Fi EW.

External Syllabus Support. TCTS/EW debrief facility.

2.9.15 Target Area Tactics (MECH)

2.9.15.1 Purpose. Develop proficiency in target area tactics, section tactical formation, contract adherence, and communication. Introduce PGM employment.

2.9.15.2 General

Scored ranges will be used to the maximum extent possible. If unavailable, performance criteria will be IAW the MAWTS-1 Planning, Briefing, and Debriefing Guide.
A FRS Target Area Tactics (TATI) is required for all events.
A FRS LATI is required for MECH-1438.

2.9.15.3 Ground/Academic Training

Readings

AV-8B NATIP (NTRP 3-22.4-AV8B):
Section 4.2, Guided Bomb Units (GBUs).

Air NTTP 3-22.3-AV8B:
Chapter 6, A/S Fundamentals
Chapter 7, A/S Employment

Air NTTP 3-22.1-AV8B, Chapter 2, A/S Mission Planning

Lectures

ACAD-0132, MECH Stage Brief
ACAD-0133, Laser-Guided Weapons (LGW) (MAWTS-1 ASP)

Receive the following AV-8B courseware lectures

ACAD-0134, Target Acquisition/Detection/ID
ACAD-0135, Attack Profiles

ACAD-0136, Laser-Guided Training Rounds
ACAD-0137, JDAM
ACAD-0138, Standard Target Area Tactics
ACAD-0139, Air-to-Surface (A/S) Planning & Timeline Management
ACAD-0140, Reactive Weaponeering
ACAD-0141, JMEM / JAWS
ACAD-0142, AGM-65E Maverick
ACAD-0143, Cluster Weapons & Fuzing

Chalk Talks/Practical Application
ACAD-0144, Transition Profiles Planning Lab
ACAD -0145, PGM Planning Lab

Exams. ACAD-0146, Target Area Tactics Ground School exam

SMECH-1430 1.0 * B S RNAWST

Goal. Introduce cruise climb, ramp-down, loft profiles, reactive weaponeering, and heavyweight aircraft handling.

Requirement. Introduce transition profiles. Complete 2 cruise climb, 2 ramp-down, and 1 loft delivery on a scored range using GPS or ARBS HAT. Introduce reactive weaponeering. Utilize WARP to generate weaponeering data including reactive weaponeering. Introduce heavyweight ordnance departure and handling. Using RNAWST RADAR mode, complete required APG-65 ground checks. Complete air-to-surface and air-to-air TACADMIN. Review air-to-air RADAR modes and HOTAS. Conduct 1 rejoin with at least 10NM separation.

Performance Standard. PUI shall execute all procedures and maneuvers IAW the VMAT-203 FSG.

Prerequisite. Ground/academic training complete, AS-1409, ACAD-0141.

Ordnance. 6 Mk-82 LD on ITERS.

SMECH-1431 1.0 * B,R S RNAWST

Goal. Introduce buddy LGB and LMAV employment.

Requirement. Introduce laser-guided weapons. Introduce LGB and LMAV weapons programming and set-up. Perform 3 buddy LGB deliveries using continuous and delayed lase techniques, 1 buddy LGB dive, and 2 LMAV attacks. Practice heavyweight aircraft departure and handling. Using RNAWST RADAR mode, complete required APG-65 ground checks. Complete air-to-surface and air-to-air TACADMIN. Review air-to-air RADAR modes and HOTAS. Perform 1 RADAR trail departure. Review 1 CL.

Performance Standard. PUI shall execute all procedures and maneuvers IAW the VMAT-203 FSG. Refresh pilot shall review additional procedures IAW VMAT-203 FSG.

Prerequisite. Complete MECH stage ground/academic training, SMECH-1430.

Ordnance. 4 GBU-12 on ITERS, 2 AGM-65E, Expendables.

SMECH-1432 1.0 * B S RNAWST

Goal. Introduce absolute JDAM deliveries.

Requirement. Introduce JDAM weapons programming. Perform 3 absolute JDAM attacks. Introduce terminal parameters programming. Use SDAT/TFER page to transfer target coordinates to target points. Using RNAWST RADAR mode, complete required APG-65 ground checks. Complete

air-to-surface and air-to-air TACADMIN. Review air-to-air RADAR modes and HOTAS. Perform 1 RADAR trail departure. Complete JDAM pre-flight planning using JMPS Weapon Data Manager and AV-8B Target Assignment tools. Weaponeer DSU-33 fuzes. Review 1 STOL flap FNSL, and 1 decel-VL.

Performance Standard. PUI shall execute all procedures and maneuvers IAW the VMAT-203 FSG.

Prerequisite. SMECH-1431

Ordnance. 2 GBU-38, 2 GBU-32 w/DSU-33.

MECH-1433 1.0 * B D A 1 TAV-8B

Goal. Introduce cruise climb, ramp-down, and loft profiles.

Requirement. Perform multiple 30-degree deliveries: 2 ramp entry to a 30-degree dive delivery & 2 cruise climb profiles. Perform 2 loft profiles. Review WARP, reactive weaponeering, and 1 decel-VL.

Performance Standard. PUI shall execute all procedures and maneuvers IAW the VMAT-203 FSG.

Prerequisite. SMECH-1430, LAT-1425

Ordnance. 6 Mk-76.

Range Requirement. TGT, WISS.

MECH-1434 1.0 * B,R D A 2 TAV-8B

Goal. Introduce section target area tactics at medium altitude.

Requirement. Perform 5 attacks to 30-degree or 45-degree dive deliveries: 2 same side attacks, 2 swept attacks, and 1 split attack. Review WARP and 1 decel-VL.

Performance Standard. PUI shall execute all procedures and maneuvers IAW the VMAT-203 FSG. Refresh pilot shall review procedures IAW VMAT-203 FSG.

Prerequisite. MECH-1433

Ordnance. 6 Mk-76.

Range Requirement. TGT, WISS.

MECH-1435 1.0 * B D A 2 AV-8B

Goal. Review section target area tactics at medium altitude.

Requirement. Perform 5 attacks to 30-degree or 45-degree dive deliveries: 2 same side attacks, 2 swept attacks, and 1 split attack. Review WARP and 1 RVL.

Performance Standard. PUI shall execute all procedures and maneuvers IAW the VMAT-203 FSG.

Prerequisite. MECH-1434

Ordnance. 6 Mk-76, 10 Flares.

Range Requirement. TGT, WISS, EXP.

SMECH-1436 1.0 * B,R S RNAWST

Goal. Introduce low altitude pop attacks.

Requirement. Complete 5 low-altitude pop attacks. Perform level deliveries at low altitude. Complete required APG-65 ground checks. Complete air to surface and air to air TACADMIN. Review air-to-air RADAR modes and HOTAS. Perform 1 RADAR trail departure. Perform 1 RADAR join from outside of 10nm separation. Review WARP, 1 CL, and 1 AVNSL.

Performance Standard. PUI shall execute all procedures and maneuvers IAW the VMAT-203 FSG. Refresh pilot shall review procedures IAW VMAT-203 FSG.

Prerequisite. MECH-1434, LAT-1425

Ordnance. 4 Mk-82 H/L SEL, 2 CBU-99 or 2 Mk-77, Expendables.

Range Requirement. TGT, WISS, EXP.

MECH-1437 1.0 * B D A 1 TAV-8B

Goal. Introduce low altitude pop attacks.

Requirement. Perform multiple low pops to 10-degree delivery. Review WARP and 1 decel-VL.

Performance Standard. PUI shall execute all procedures and maneuvers IAW the VMAT-203 FSG.

Prerequisite. SMECH-1436, LAT-1425

Ordnance. 6 Mk-76, 10 Flares.

Range Requirement. TGT, WISS, EXP.

MECH-1438 1.0 * B D A 2 AV-8B

Goal. Introduce section target area tactics at low altitude.

Requirement. Perform 2 same-side attack and 2 split attacks to 10 degree deliveries. Review low-altitude checks, mission cross-check time & LAT ROC. Review 1 RVL.

Performance Standard. PUI shall execute all procedures and maneuvers IAW the VMAT-203 FSG.

Prerequisite. SMECH-1436, LAT-1425

Ordnance. 6 Mk-76, 10 Flares.

Range Requirement. TGT, WISS, EXP.

MECH-1439 1.0 * B D A 2 AV-8B

Goal. Introduce buddy LGW and absolute JDAM deliveries.

Requirement. Perform 1 absolute JDAM attacks. Perform 1 buddy LGB delivery, 1 buddy LGB dive, and 1 LMAV attack. Review JDAM terminal parameters programming and SDAT/TFER page use. Review JDAM weapons programming & JDAM pre-flight planning using JMPS Weapon Data Manager and AV-8B Target Assignment tools. Review LGB and weapons programming and set-up, and 1 RVL.

Performance Standard. PUI shall execute all procedures and maneuvers IAW the VMAT-203 FSG.

Prerequisite. SMECH-1432

Ordnance. 1 GBU-38/1 GBU-12/1 LGTR, 1 CAGM-65, 10 Flares.

Range Requirement. TGT, HE, JDAM, LSR.

2.9.16 Close Air Support (CAS)

2.9.16.1 Purpose. Introduce CAS at medium and low altitude.

2.9.16.2 General

Scored ranges will be used to the maximum extent possible.
If unavailable, performance criteria will be IAW Air MAWTS-1 Planning, Briefing, and Debriefing Guide.
A FRS Close Air Support Instructor (CASI) is required for all events.
Ground FACs or FAC(A) should be used when external support is available.

2.9.16.3 Ground/Academic Training

Readings

Joint Publication 3-09.3, Joint Tactics, Techniques, and Procedures for Close Air Support
Executive Summary
Chapter I, Introduction, Organization and Fundamentals
Chapter III, Planning and Requesting
Close Air Support Planning Considerations
Integrating Close Air Support with Surface Fire Support
Requesting Close Air Support
Chapter IV, Preparation
Chapter V, Execution
Appendix C, Sample Close Air Support Aircrew Mission Planning Guide
Appendix D, Risk-Estimate Distances
AV-8B NATIP (NTRP 3-22.4-AV8B), 2.11.3, The CAS Display
Air NTTP 3-22.3-AV8B, Chapter 8, Close Air Support.

Lectures
ACAD-0147, CAS Stage Brief

Receive the following AV-8B courseware lectures

ACAD-0148, OAS Overview
ACAD-0149, Joint TTP for Close Air Support (CAS)
ACAD-0150, CAS Execution

Chalk Talks/Practical Application. ACAS-0151, CAS Planning Lab

Exams. ACAD-0152, CAS Ground School exam

SCAS-1440 0.5 * B S RNAWST

Goal. Introduce CAS page programming.

Requirement. Introduce CAS page programming, 9-line data entry, and MASAW-PT procedures.

Performance Standard. PUI shall execute all procedures and maneuvers IAW the VMAT-203 FSG.

Prerequisite. CAS Academics/ground school complete, MECH-1438, ACAD-0147.

SCAS-1441 1.0 * B,R S RNAWST

Goal. Introduce CAS at medium altitude.

Requirement. Perform CAS attacks at medium altitude utilizing Type 1 terminal attack control. Review the 9-line CAS briefing format and attack preparation checklist. Review WARP and reactive weaponeering. In simulator RNAWST mode, review air-to-air RADAR modes and HOTAS. Using the RADAR, perform 1 tanker join from outside of 20nm separation.

Performance Standard. PUI shall execute all procedures and maneuvers IAW the VMAT-203 FSG. Refresh pilot shall review additional procedures IAW VMAT-203 FSG.

Prerequisite. SCAS-1440

Ordnance. 6 Mk-82 LD.

SCAS-1442 1.0 * B S RNAWST

Goal. Perform CAS attacks at medium altitude. Type 2/3 control shall be in effect.

Requirement. Review 2 CAS attacks at medium altitude utilizing Type 2 and 3 control. Review the 9-line CAS briefing format, attack preparation checklist, WARP, PGM weaponeering, 1 RVL, and 1 decel-VL. In simulator RNAWST mode, review air-to-air RADAR modes and HOTAS. Perform 1 RADAR join from outside of 10nm separation.

Performance Standard. PUI shall execute all procedures and maneuvers IAW the VMAT-203 FSG.

Prerequisite. SCAS-1441

Ordnance. 2 GBU-12, 2 GBU-38.

SCAS-1443 1.0 * B S RNAWST

Goal. Introduce CAS at low altitude.

Requirement. Perform CAS attacks at low altitude utilizing Type 1 control. Review the 9-line CAS briefing format, attack preparation checklist, WARP, and reactive weaponeering. In simulator RNAWST mode, complete required APG-65 ground checks, air-to-surface and air-to-air TACADMIN. Review RADAR modes and HOTAS. Perform RADAR trail departure.

Performance Standard. PUI shall execute all procedures and maneuvers IAW the VMAT-203 FSG.

Prerequisite. SCAS-1442

Ordnance. 6 Mk-82 HD.

CAS-1444 1.0 * B D A 1 TAV-8B

Goal. Introduce CAS at medium altitude.

Requirement. Perform 2 CAS attacks at medium altitude utilizing Type 1 terminal attack control. Review the 9-line CAS briefing format and attack preparation checklist. Review WARP, reactive weaponeering, and 1 decel-VL.

Performance Standard. PUI shall execute all procedures and maneuvers IAW the VMAT-203 FSG.

Prerequisite. SCAS-1441

Ordnance. 6 Mk-76. Support aircraft allocated 3 5in rockets.

Range Requirement. TGT.

External Syllabus Support. FAC, FAC(A), or simulated FAC(A) with marking capability.

CAS-1445 1.0 * B D A 1 TAV-8B

Goal. Introduce Type 2 control.

Requirement. 4 CAS attacks utilizing Type 2 control and simulated PGM profiles. Review 1 decel-VL.

Performance Standard. PUI shall execute all procedures and maneuvers IAW the VMAT-203 FSG.

Prerequisite. SCAS-1442

Ordnance. 1 LGTR, sim GBU-12 and sim GBU-38.

Range Requirement. TGT.

External Syllabus Support. FAC, FAC(A), or simulated FAC(A) with marking capability.

CAS-1446 1.0 * B D A 2 AV-8B

Goal. Review CAS at medium altitude.

Requirement. Review 2 CAS attacks at medium altitude utilizing type 1 control. Review the 9-line CAS briefing format, attack preparation checklist, WARP, reactive weaponeering, and 1 RVL.

Performance Standard. PUI shall execute all procedures and maneuvers IAW the VMAT-203 FSG.

Prerequisite. CAS-1444

Ordnance. 6 Mk-76, 20 Flares. Support aircraft allocated 3 5in rockets.

Range Requirement. TGT, EXP.

External Syllabus Support. FAC, FAC(A), or simulated FAC(A) with marking capability.

CAS-1447 1.0 * B D A 2 AV-8B

Goal. Introduce CAS at low altitude.

Requirement. Review 2 CAS attacks at low altitude under Type 1 terminal attack control. Review the 9-line CAS briefing format, attack preparation checklist, WARP, reactive weaponeering, and 1 RVL.

Performance Standard. PUI shall execute all procedures and maneuvers IAW the VMAT-203 FSG.

Prerequisite. SCAS-1443, CAS-1446

Ordnance. 6 Mk-76, 20 Flares. Support aircraft allocated 3 5in rockets.

Range Requirement. TGT, EXP.

External Syllabus Support. FAC, FAC(A), or simulated FAC(A) with marking capability.

2.9.17 Air-to-Surface Sensor Fundamentals (SEN)

2.9.17.1 Purpose. Introduce TPOD employment & integration with day and night weapons deliveries.

2.9.17.2 General

Scored ranges will be used to the maximum extent possible.
If unavailable, performance criteria will be IAW MAWTS-1 Briefing and Debriefing Guide.
A FRS Air-to-Surface Sensor Fundamentals Stage Instructor is required for all events.
SEN-1467, SEN-1468, and SEN-71 should each be completed using aircraft as the training device, but may be completed in the simulator.

2.9.17.3 Ground/Academic Training

Readings

AV-8B NATIP (NTRP 3-22.4-AV8B), 4.4.2, LITENING Targeting Pod.

Air NTTP 3-22.3-AV8B:

Chapter 3, TACADMIN
Chapter 5, Night Systems
Chapter 6, Air-to-Surface Fundamentals
Chapter 7, Air-to-Surface Employment
Appendix B, JDAM LAR Depictions

Lectures
ACAD-0220, Air-to-Surface Sensor Fundamentals Stage Brief
ACAD-0222, TPOD Optimization (MAWTS-1 ASP)
ACAD-0223, JDAM Employment (MAWTS-1 ASP)
ACAD-0224, Dual Mode Weapons (MAWTS-1 ASP)

Receive the following AV-8B courseware lectures
ACAD-0221, Introduction to LITENING Advanced Targeting Pod.

Chalk Talks/Practical Application
ACAD-0225, TPOD Employment Chalk Talk

Exams. ACAD-0226, Air-to-Surface Sensor Fundamentals ground school exam.

SSEN-1460 0.5 * B S RNAWST

Goal. Introduce TPOD controls and displays.

Requirement. Utilize TPOD controls and displays.

Performance Standard. PUI shall execute all procedures and maneuvers IAW the VMAT-203 FSG.

Prerequisite. SEN Stage Brief, MECH-1439.

Ordnance. TPOD.

SSEN-1461 1.5 * B,R S RNAWST

Goal. Introduce Self-Lase LGB and LMAV Deliveries

Requirement. Complete required TPOD and APG-65 ground checks. Complete air-to-surface and air-to-air TACADMIN (i.e. RADAR checks, LCAL, laser checks). Review TPOD HOTAS. Perform 3 Self-Lase LGB attacks and 1 Buddy Lase using continuous and delayed lase techniques. Conduct at least one dive LGB profile. Perform 2 LMAV attacks. Review Paveway Mission Planning Tool. Perform RADAR Sea Surface Search (SEA) to a Fixed Target Track (FTT). 1 tanker rendezvous using the RADAR. Review 1 decel/VL, pressup.

Performance Standard. PUI shall execute all procedures and maneuvers IAW the VMAT-203 FSG. Refresh pilot shall review additional procedures, including dual-mode weapons IAW VMAT-203 FSG and requires 1.5 hours.

Prerequisite. SSEN-1460

Ordnance. 4 GBU-12 on ITERS, 1 GBU-16, 1 LMAV, TPOD (centerline), Expendables.

SSEN-1462 1.5 * B S RNAWST

Goal. Introduce relative JDAM and Laser JDAM deliveries and review A/S radar employment.

Requirement. Complete required TPOD and APG-65 ground checks. Complete air to surface and air to air TACADMIN (I.E. RADAR checks, LCAL, laser checks). Review TPOD and RADAR AS modes and HOTAS. Review RADAR Expand Map techniques. Designate targets with the APG-65 using expand mapping & GMTT & hand off to a TPOD track. Perform 4 relative JDAM and Laser JDAM attacks and 2 multiple-release relative JDAM attacks against static targets. Review terminal parameter programming and JDAM planning with JPMS Weapon Data Manager & AV-8B Target Assignment. Review 1 decel-VL, 1 pressup.

Performance Standard. PUI shall execute all procedures and maneuvers IAW the VMAT-203 FSG.

Prerequisite. SSEN-1461

Ordnance. 6 GBU-38 on DITERS, TPOD station 5, Expendables.

SSEN-1463 1.0 * B S RNAWST

Goal. Introduce GP ordnance deliveries with the TPOD.

Requirement. Complete required TPOD and APG-65 ground checks. Perform RADAR trail departure. Complete air-to-surface and air-to-air TACADMIN (I.E. RADAR checks, LCAL, laser checks). Conduct a minimum of 4 dive deliveries using TPOD and laser HAT. Profiles should include level-entry to dive and ramp-down. Conduct RADAR off-target HOTAS. Perform RADAR Sea Surface Search (SEA) to a Fixed Target Track (FTT). Review expendable programming, WARP and 1 CL.

Performance Standard. PUI shall execute all procedures and maneuvers IAW the VMAT-203 FSG.

Prerequisite. SSEN-1462

Ordnance. 6 Mk-82 LD, TPOD.

SSEN-1464 1.0 * B,R,MR S RNAWST

Goal. Introduce computed deliveries from medium and low altitude with the TPOD.

Requirement. Complete required TPOD and APG-65 ground checks. Perform RADAR trail departure. Complete air-to-surface and air-to-air TACADMIN (I.E. RADAR checks, LCAL, laser checks). Conduct a minimum of 6 dive deliveries from various dive profiles on a scored range using the TPOD & laser as the HAT source. Conduct RADAR off-target HOTAS. Perform 1 RADAR join from outside of 10nm separation. Review expendable programming, WARP, and 1 decel-VL.

Performance Standard. PUI shall execute all procedures and maneuvers IAW the VMAT-203 FSG.

Prerequisite. SSEN-1463

Ordnance. 6 Mk-82 H/L SEL on ITERS, TPOD, Expendables.

SSEN-1465 1.0 * B,R,MR S RNAWST

Goal. Introduce GAU-12 & rocket deliveries with the TPOD.

Requirement. Complete required TPOD and APG-65 ground checks. Perform RADAR trail departure. Complete air-to-surface and air-to-air TACADMIN (I.E. RADAR checks, LCAL, laser checks). Conduct a minimum of 8 deliveries with a combination of GAU-12 and rockets from various dive profiles on a scored range using both TPOD and RADAR HAT. Profiles should include ramp-down, pop-up, and level-entry to dive (10-20 degrees). Review forward-firing weapons preflight, and malfunctions. Perform 1 RADAR join from outside of 10nm separation.

Performance Standard. PUI shall execute all procedures and maneuvers IAW the VMAT-203 FSG.

Prerequisite. SSEN-1464

Ordnance. TPOD, 300 rounds 25MM, 4 X 5" rockets, 7 x 2.75" rockets, Expendables.

SEN-1466 1.3 * B D A 2 AV-8B

Goal. Introduce TPOD employment.

Requirement. Complete required TPOD ground checks. Perform TPOD TACADMIN (CAL, laser checks). Review TPOD HOTAS and optimization. Conduct multiple targeting runs using the TPOD to create a system designation. Generate coordinates using the TPOD. Correlate SPIs between aircraft using laser handoff and TPOD LST. Review 1 auto flap VNSL and 1 decel-VL.

Performance Standard. PUI shall execute all procedures and maneuvers IAW the VMAT-203 FSG.

Prerequisite. SSEN-1463

Ordnance. 1 TPOD.

Range Requirement. LSR.

SEN-1467 1.3 * B D A/S 2 AV-8B

Goal. Introduce self-lase LGB and LMAV deliveries.

Requirement. Review required TPOD ground checks and TPOD HOTAS. Conduct multiple (actual and simulated) attacks using self, buddy, or ground-based lasing. Employ both continuous and delayed lase techniques. Conduct at least one dive LGB profile and 1 LMAV delivery. Review Paveway Mission Planning Tool. Review 1 CL and 1 decel-VL.

Performance Standard. PUI shall execute all procedures and maneuvers IAW the VMAT-203 FSG.

Prerequisite. SSEN-1461, SEN-1466

Ordnance. 1 TPOD, 2 GBU-12/2 GBU-12 inert/2 GBU-16/2 GBU-16 inert/2 LGTR, 1 CAGM-65E/1 AGM-65^{E}, 20 Chaff, 40 Flares. May be completed with simulated ordnance.

Range Requirement. TGT, LSR, RSTD.

SEN-1468 1.3 * B D A/S 2 AV-8B

Goal. Introduce relative JDAM and Laser JDAM deliveries.

Requirement. Conduct 4 level JDAM and Laser JDAM deliveries. Complete 1 absolute delivery, 2 relative deliveries, and 1 multi-relative delivery with terminal parameters enabled. Review TPOD ground checks, air-to-surface TACADMIN (CAL, laser checks), and TPOD HOTAS. Review terminal parameter programming and JDAM planning with JMPS Weapon Data Manager & AV-8B Target Assignment. Review 1 auto flap VNSL and 1 decel-VL.

Performance Standard. PUI shall execute all procedures and maneuvers IAW the VMAT-203 FSG.

Prerequisite. SSEN-1462, SEN-1466

Ordnance. 1 TPOD, 1 GBU-32/1 GBU-32 inert/1 GBU-38/1 GBU-38 inert. May be completed with simulated ordnance.

Range Requirement. TGT, LSR, RSTD.

SEN-1469 1.3 * B D A 2 AV-8B

Goal. Introduce target area tactics using medium and high altitude standoff delivery profiles.

Requirement. Conduct multiple LGB or JDAM deliveries using standoff delivery profiles. Review TPOD ground checks, air-to-surface TACADMIN (CAL, laser checks), and TPOD HOTAS. Review terminal parameter programming and JDAM planning with JMPS Weapon Data Manager & AV-8B Target Assignment. Review 1 CL and 1 decel-VL.

Performance Standard. PUI shall execute all procedures and maneuvers IAW the VMAT-203 FSG.

Prerequisite. SEN-1467, SEN-1468

Ordnance. 1 TPOD.

Range Requirement. LSR.

SEN-1470 1.3 * B D A 2 AV-8B

Goal. Introduce level-entry and ramp-down GP ordnance deliveries with the TPOD.

Requirement. Conduct a minimum of 4 dive deliveries using TPOD and laser HAT. Profiles should include level-entry to dive (20-45 degrees) and ramp-down. Review TPOD ground checks, air-to-surface TACADMIN (CAL, laser checks), and TPOD HOTAS. Review 1 auto flap VNSL and 1 decel-VL

Performance Standard. PUI shall execute all procedures and maneuvers IAW the VMAT-203 FSG.

Prerequisite. SEN-1468

Ordnance. 1 TPOD, 6 Mk-76/4 Mk-82/4 BDU-45, 20 Chaff, 60 Flares.

Range Requirement. TGT, LSR, RSTD.

SEN-1471 1.3 * B,R,MR D A/S 2 AV-8B

Goal. Review BCWD from medium and low altitude with the TPOD.

Requirement. On a scored range, execute 4 (20-45) degree deliveries and 2 10-degree deliveries using TPOD as the source of the system designation and TPOD HAT. Review TPOD ground checks, air-to-surface

TACADMIN (CAL, laser checks), and TPOD HOTAS. Review 1 CL and 1 decel-VL

Performance Standard. PUI shall execute all procedures and maneuvers IAW the VMAT-203 FSG. Refresh pilot shall review procedures IAW VMAT-203 FSG.

Prerequisite. SEN-1470

Ordnance. 1 TPOD, 6 Mk-76/4 Mk-82/4 BDU-45, 20 Chaff, 60 Flares.

Range Requirement. TGT, LSR, RSTD.

SEN-1472 1.3 B D A 2 AV-8B

Goal. Introduce medium and low altitude GAU-12 and rocket deliveries with the TPOD.

Requirement. Conduct multiple deliveries with a combination of GAU-12 and rockets from various dive profiles on a scored range using TPOD HAT. Profiles should include ramp-down, pop-up, and level entry to dive (10-20 degrees). Review TPOD ground checks, air-to-surface TACADMIN (CAL, laser checks), and TPOD HOTAS. Review 1 auto flap VNSL and 1 decel-VL

Performance Standard. PUI shall execute all procedures and maneuvers IAW the VMAT-203 FSG.

Prerequisite. SEN-1471

Ordnance. 1 TPOD, 300 rounds 25mm, 7 2.75” rockets/4 5” rockets, 20 Chaff, 60 Flares. May be completed with simulated ordnance.

Range Requirement. TGT, LSR, RSTD, STRAFE.

SSEN-1473 1.0 * B NS S RNAWST

Goal. Introduce NS tactical attack profiles.

Requirement. Introduce target area tactics at night. Perform at least 2 ramp down profiles to GP ordnance release and multiple PGM profiles. Emphasize optimizing and fuzing sensor/systems for target detection, acquisition and identification. Introduce IR marker employment using the simulator NVG visuals feature. Perform RADAR trail departure. Perform 1 RADAR join from outside of 20nm separation. Execute VFR NORDO recovery using the RADAR to clear the aircraft’s flight path. Review air to surface and air to air TACADMIN (I.E. RADAR checks, LCAL, laser checks), 1 FNSL, 1 SVNSL, 1 RVL, decel-VL.

Performance Standard. PUI shall execute all procedures and maneuvers IAW the VMAT-203 FSG.

Prerequisite. NS-1606, SEN-1470

Ordnance. 1 TPOD (centerline), 2 Mk-82 LD w/DSU-33, 1 GBU-16, 2 GBU-32/38, Expendables.

SEN-1474 1.3 * B NS A 2 AV-8B

Goal. Review FAM/FORM procedures at night. Introduce night TPOD employment. Review NVD use, normal procedures, and aircraft systems management at night.

Requirement. Review cockpit setup, TPOD FLIR calibration and setup, and NATOPS ground procedures at night. In flight, focus on sensor management of the night attack suite and TPOD FLIR, including SWFOV and

NAV modes, and IR marker. Review all aircraft lighting configurations and formations. Execute 1 break-up and rendezvous. Recovery shall include a GCA, FNSL, STOL flap VNSL, and RVL.

Performance Standard. PUI shall execute all procedures and maneuvers IAW the VMAT-203 FSG.

Prerequisite. SSEN-1473, SEN-1470

Ordnance. 1 TPOD.

Range Requirement. LSR.

SEN-1475 1.3 * B NS A 2 AV-8B

Goal. Introduce PGM attack profiles at night.

Requirement. Execute 1 self-lase, 1 buddy lase, and 1 JDAM attack. Emphasize air-to-surface timelines, contract adherence, and sensor/system optimization for target detection, acquisition, and identification. Review 1 FNSL and 1 decel-VL.

Performance Standard. PUI shall execute all procedures and maneuvers IAW the VMAT-203 FSG.

Prerequisite. SEN-1472, SEN-1474

Ordnance. 1 TPOD, 2 LGTR/2 GBU-12/2 GBU-12 inert/2 GBU-16/2GBU-16 inert/1 GBU-32/1 GBU-32 inert/1 GBU-38/1 GBU-38 inert, 10 Chaff, 20 Flares. May be completed with simulated ordnance.

Range Requirement. TGT, LSR, RSTD.

2.9.18 Air Interdiction (AI)

2.9.18.1 Purpose. Introduce systems management during ingress to target attack.

2.9.18.2 General. A Fleet Replacement Squadron Instructor (FRSI) shall supervise all events.

2.9.18.3 Ground/Academic Training

Readings
Air NTTP 3-22.1-AV8B, Chapter 4, Air Interdiction
MAWTS-1 Strike Planning Guide

Lectures
ACAD-0153, Air Interdiction Stage Brief

Receive the following AV-8B courseware lectures
ACAD-0154, AI Planning

Chalk Talks/Practical Application. ACAD-0155, AI Planning Lab

SAI-1450 1.5 * B S RNAWST

Goal. Introduce air interdiction.

Requirement. Perform ingress to target attack. In RNAWST RADAR mode, perform APG-65 set-up & review air-to-air RADAR modes and HOTAS. Preflight preparation should include JMEMS-derived weaponeering, threat reaction gameplan, TOT, and accurate JMPS-derived fuel planning.

Performance Standard. PUI shall execute all procedures and maneuvers IAW the VMAT-203 FSG.

Prerequisite. CAS-1447, SEN-1475, AA-1510, NS-1606, ACAD-0148. AI ground/academics training complete.

AI-1451 1.0 * B D A 2 AV-8B

Goal. Review air interdiction.

Requirement. Perform ingress to target attack. Preflight preparation should include JMEMS-derived weaponeering, threat reaction gameplan, TOT, and accurate JMPS-derived fuel planning. Review 1 decel-VL.

Performance Standard. PUI shall execute all procedures and maneuvers IAW the VMAT-203 FSG.

Prerequisite. SAI-1450

Ordnance. TCTS Pod, 2 BDU-45, 10 Flares, 20 Chaff.

Range Requirement. TGT, RSTD, MTR, EXP.

2.9.19 V/STOL Consolidation (VCON)

2.9.19.1 Purpose. V/STOL consolidation flights are to maintain/regain proficiency of all takeoff and landing procedures after Threat Countertactics, Air-to-Surface, and Air-to-Air ground/academic training.

2.9.19.2 General. A qualified FRS Landing Site Instructor (LSI-5703) shall supervise all solos.

VCON-1220 1.3 * B D A 1 AV-8B

Goal. V/STOL consolidation.

Requirement. Review STOL flap STO, TACAN or PAR approach, 1 STOL flap FNSL, 1 CL, 1 auto flap VNSL, 1 STOL flap VNSL, roll-and-go landing, 1 RVL, VTO-accel, 1 decel-VL, and 1 press-up.

Performance Standard. PUI shall execute all procedures and maneuvers IAW the VMAT-203 FSG.

Prerequisite. FAM-1129

SVCON-1221 1.0 * B S RNAWST

Goal. Review emergency procedures.

Requirement. Perform compound emergencies.

Performance Standard. PUI shall execute all procedures and maneuvers IAW the VMAT-203 FSG.

Prerequisite. FAM-1129

VCON-1222 1.3 * B D A 1 AV-8B

Goal. V/STOL consolidation.

Requirement. Review STOL flap STO, TACAN or PAR approach, 1 STOL flap FNSL, 1 CL, 1 auto flap VNSL, 1 STOL flap VNSL, 1 roll-and-go landing, 1 RVL, VTO-accel, 1 decel-VL, and 1 press-up.

Performance Standard. PUI shall execute all procedures and maneuvers IAW the VMAT-203 FSG.

Prerequisite. FAM-1129, VCON-1220

VCON-1223 1.3 * B (N) A 1 AV-8B

Goal. V/STOL consolidation.

Requirement. Review STOL flap STO, PAR, VFR overhead, 1 STOL flap FNSL, 1 CL, 1 auto flap VNSL, 1 STOL flap VNSL, roll-and-go landing, 1 RVL, VTO-accel, 1 decel-VL, and 1 press-up.

Performance Standard. PUI shall execute all procedures and maneuvers IAW the VMAT-203 FSG.

Prerequisite. FAM-1129, VCON-1222, 1606 if flown at night.

2.9.20 Air-to-Air (AA)

2.9.20.1 Purpose. Introduce Basic Fighter Maneuvers (BFM), Section Engaged Maneuvering, forward-quarter All-Weather Intercepts, and air-to-air weapons employment.

2.9.20.2 General

An FRS Air-to-Air Instructor (AAI)is required for all events.
All training will be conducted IAW Air Combat Maneuvering Training Rules (ACMTR).
Every sortie brief shall include applicable ACMTR, detail, aircraft handling characteristics, pertinent aircraft limitations, and departure avoidance techniques.

2.9.20.3 Ground/Academic Training
Readings

AV-8B NATOPS Manual (A1-AV8BB-NFM-000)
Chapter 4, Operating Limitations
Chapter 11, Flight Characteristics

AV-8B NATIP (NTRP 3-22.4-AV8B)
Chapter 6, Air-to-Air Weapon Delivery
Chapter 7, Aircraft Performance Data
Appendix A, Aircraft and Stores Limitations

Air NTTP 3-22.1-AV8B
Chapter 6, A/A Fundamentals
Chapter 7, A/A Mission Planning
Chapter 8, A/A Employment

Air NTTP 3-22.3-AV8B, Appendix A, BFM/ACM Training

NATOPS General Flight and Operating Instructions (OPNAVINST 3710.7), Chapter 5, Flight Rules

NAVMC DIR 3500.14, Aviation Training and Readiness Program Manual, Chapter 4, Aviation Training Rules of Conduct

Lectures
ACAD-0160, Air-to-Air Stage Brief

Receive the following AV-8B courseware lectures
ACAD-0161, Departure Avoidance review
ACAD-0162, Air Combat Maneuvering (ACM) Safety
ACAD-0163, Air-to-Air Drills and Procedures
ACAD-0164, AIM-9 Sidewinder
ACAD-0165, Combat Gunnery
ACAD-0166, Shot Validation
ACAD-0167, Combat Thrust Vector Control (CTVC)
ACAD-0168, Threat Aircraft
ACAD-0169, 1V1 Basic Fighter Maneuvers (BFM)
ACAD-0170, Section Engaged Maneuvering.

Chalk Talks/Practical Application
ACAD-0171, 2v1 Section Engaged Maneuvering

Exams. ACAD-0172, AA Ground School exam.

SAA-1500 1.5 * B S RNAWST

Goal. Introduce air-to-air weapons programming and basic functions. Introduce aircraft Thrust Vector Control (TVC). . Practice high and slow speed departure recovery.

Requirement. Introduce AIM-9 weapons setup and HOTAS functionality. Perform Radar/Missile/RWR checks. Perform TVC straight and level, TVC-assisted turn, TVC slow speed/high AOA drills, TVC Hover Stop Push Over (HSPO), flop, Hover Stop Wing Over (HSWO), TVC spiral drill, AIM-9 boresight, and heat-to-guns drill. Review high and slow speed departure recovery. Introduce radar ACM modes and their BFM utilization. Review 1 stern conversion AWI with AIM-9 tone analysis and weapons employment.

Performance Standard. PUI shall execute all procedures and maneuvers IAW the VMAT-203 FSG.

Prerequisite. Complete AA stage ground/academic training, SRAD-1361, TACFORM-1324.

AA-1501 1.0 * B D A 2 AV-8B

Goal. Introduce BFM procedures and drills, aircraft handling, and TVC.

Requirement. Perform AIM-9 preflight, range estimation drill, TVC straight and level, TVC-assisted turns, TVC-assisted slow speed/high AOA drills, deck transition (positional, energy rate), separation/bug drills, redefine rate fight drills, TVC flop, HSPO, and HSWO. Review G-awareness maneuver, break turn, and 1 STOL flap FNSL.

Performance Standard. PUI shall execute all procedures and maneuvers IAW the VMAT-203 FSG.

Prerequisite. SAA-1500

Ordnance. CATM-9.

Range Requirement. AA.

AA-1502 1.0 * B D A 2 AV-8B

Goal. Introduce 1V1 offensive BFM.

Requirement. Introduce heat-to-guns drill, guns weave, and flat scissors drill. Perform 2 6000-foot and 2 3000-foot perch offensive engagements. Include instruction of turn circle entry, attack window timing, offensive break turn, control zone entry/management, misaligned turn circle maneuvering, offensive rate fight, and ditch counter. Review 1 decel-VL.

Performance Standard. PUI shall execute all procedures and maneuvers IAW the VMAT-203 FSG.

Prerequisite. AA-1501

Ordnance. CATM-9, 30 Flares. TCTS pod desired.

Range Requirement. AA, TCTS, EXP.

External Syllabus Support. TCTS debrief facility.

AA-1503 1.0 * B D A 2 AV-8B

Goal. Review 1V1 offensive BFM.

Requirement. Introduce rolling scissors drill and 9000-foot perch offensive engagement. Review 2 6000-foot and 1 3000-foot perch offensive engagements. Include instruction of turn circle entry, attack window timing, offensive break turn, control zone entry/management, misaligned turn circle maneuvering, offensive rate fight, and ditch counter. Review snapshot guns weave drills and 1 STOL flap VNSL.

Performance Standard. PUI shall execute all procedures and maneuvers IAW the VMAT-203 FSG.

Prerequisite. AA-1502

Ordnance. CATM-9, 30 Flares. TCTS pod desired.

Range Requirement. AA, TCTS, EXP.

External Syllabus Support. TCTS debrief facility.

AA-1504 1.0 * B D A 2 AV-8B

Goal. Introduce 1V1 defensive BFM.

Requirement. Perform 2 6000-foot and 2 3000-foot perch defensive engagements. Include instruction of defensive break turn, preemptive and reactive expendable employment, maintaining sight techniques, executing lost sight game plan, sensor nose recognition, ditch maneuver, overshoot recognition and counters, defensive rate fighting, and guns defense. Review rolling scissors, heat-to-guns drills, and 1 decel-VL.

Performance Standard. PUI shall execute all procedures and maneuvers IAW the VMAT-203 FSG.

Prerequisite. AA-1503

Ordnance. CATM-9, 30 Flares. TCTS pod desired.

Range Requirement. AA, TCTS, EXP.

External Syllabus Support. TCTS debrief facility.

AA-1505 1.0 * B D A 2 AV-8B

Goal. Review 1V1 defensive BFM.

Requirement. Introduce 9000-foot perch defensive engagement. Review 2 6000-foot and 1 3000-foot perch defensive engagements. Include instruction of defensive break turn, preemptive and reactive expendable employment, maintaining sight techniques, executing lost sight game plan, sensor nose recognition, ditch maneuver, overshoot recognition and counters, defensive rate fighting, and guns defense. Review heat-to-guns drill, and 1 RVL.

Performance Standard. PUI shall execute all procedures and maneuvers IAW the VMAT-203 FSG.

Prerequisite. AA-1504

Ordnance. CATM-9, 30 Flares. TCTS pod desired.

Range Requirement. AA, TCTS, EXP.

External Syllabus Support. TCTS debrief facility.

AA-1506 1.0 * B D A 2 AV-8B

Goal. Introduce 1V1 high aspect BFM.

Requirement. Perform 3 high aspect engagements from a butterfly setup. Introduce merge control and 2-circle out-of-plane, 1-circle in-plane, and 1-circle out-of-plane flows. Review 1 9000-foot offensive and 1 3000-foot defensive perches, snapshot guns weave drill, and 1 decel-VL.

Performance Standard. PUI shall execute all procedures and maneuvers IAW the VMAT-203 FSG.

Prerequisite. AA-1505

Ordnance. CATM-9, 30 Flares. TCTS pod desired.

Range Requirement. AA, TCTS, EXP.

External Syllabus Support. TCTS debrief facility.

AA-1507 1.0 * B D A 2 AV-8B

Goal. Review 1V1 high aspect BFM.

Requirement. Review 3 high aspect engagements from a butterfly setup. Review merge control and 2-circle out-of-plane, 1-circle in-plane, and 1-circle out-of-plane flows. Review 1 6000-foot offensive and 1 6000-foot defensive perches (to include proper ditch follow and ditch mechanics), heat-to-guns drill, and 1 STOL flap FNSL.

Performance Standard. PUI shall execute all procedures and maneuvers IAW the VMAT-203 FSG.

Prerequisite. AA-1506

Ordnance. CATM-9, 30 Flares. TCTS pod desired.

Range Requirement. AA, TCTS, EXP.

External Syllabus Support. TCTS debrief facility.

AA-1508 1.3 * B D A 2+ AV-8B

Goal. Introduce 2 V 1 section engaged maneuvering.

Requirement. Perform 3 WVR engagements: 2 forward hemisphere engagements (1 forward quarter and 1 abeam setup) and 1 rear quarter engagement (inside IR-II+ WEZ). Instruction shall include engaged and supporting fighter contracts, gameplan execution, VID considerations, disengagement procedures to include appropriate SRR mechanics, ACM training rules application, SA-enhancing communications along with applicable ALSA communications, and air-to-air threat countertactics. Review 1 STOL flap VNSL.

Performance Standard. Adhere to ACM training rules. Execute briefed contracts and gameplans. Execute briefed air-to-air threat countertactics gameplan. Correct use of HOTAS commanded ACM modes. No shots until PHID is consummated. One hundred percent valid shots. Time-to-kill less than 90 seconds. TOPGUN Kill criteria applies.

Prerequisite. AA-1507

Ordnance. CATM-9, 30 Flares. TCTS pod desired.

Range Requirement. AA, TCTS, EXP.

External Syllabus Support. 1 Adversary, TCTS debrief facility.

SAA-1509 1.0 * B S RNAWST

Goal. Introduce forward-quarter and stern-conversion AWI against a non-maneuvering adversary.

Requirement. Execute 3 forward quarter single-side offset (SSO) and two stern conversion intercepts against a single non-maneuvering adversary. Instruction shall be focused on adjusting fighter geometry, airspeed, and altitude when evaluating target Mach, altitude, closure, and aspect cues. Review GCI/AIC integration and PHID criteria. Execute 3 AIM-9M-8 engagements.

Performance Standard. Execute procedures IAW Air NTTP. For SSO, intercept geometry set to arrive WVR of target with less than 30-degree TA and with look-up. For stern conversion, arrive 1-2nm in trail. Adhere to RADAR timeline, contracts, and criteria. Arrive WVR of target with less than 30-degree TA and with look-up.

Prerequisite. SAA-1500

Ordnance. 2 AIM-9M-8, Expendables.

SAA-1510 1.0 * B,R S RNAWST

Goal. Review forward-quarter AWI against an air-to-air threat.

Requirement. Review 4 forward quarter SSO intercepts against a single group, Category II adversary on a strike profile, both aware and unaware. Adversary shall be at 500 feet for one engagement, 30,000 feet for one engagement, and above mach 1.0 for one engagement. Instruction shall be focused on adjusting fighter geometry, airspeed, and altitude when evaluating target Mach, altitude, closure, and aspect cues. Adversary group formations should include two-ship abeam, lead-trail, and echelon presentations, conducted from simulator position freeze. Both hostile and bogey presentations will be presented and student must demonstrate the ability to correlate from a bullseye. Execute 4 AIM-9M-8 engagements.

Performance Standard. Execute SSO procedures IAW Air NTTP. Adhere to air-to-air timeline, contracts, and criteria. Accurate adversary formation analysis and sort IAW brief. Arrive WVR of target with less than 30-degree TA with look-up when applicable. If hostile adversary, fighter should employ weapons pre-merge. If VID required, fighter will make PHID at merge.

Prerequisite. SAA-1509

Ordnance. 2 AIM-9M-8, Expendables.

2.9.21 Night Systems (NS)

2.9.22.1 Purpose. Introduce Night Vision Devices (NVDs) and night systems formation using NVDs.

2.9.22.2 General

All flights shall be led by a designated FRS Night Systems Familiarization Instructor (NSFI) who must be an Night Systems Instructor (NSI).

For NS-1606, an FRS Landing Site Instructor (LSI-5704) shall supervise all landings.

2.9.22.3 Ground/Academic Training

Readings

MAWTS-1 NVD Manual
AV-8B NATIP (NTRP 3-22.4-AV8B): Section 2.12, NAVFLIR
Air NTTP 3-22.3-AV8B, Chapter 5, Night Systems.

Lectures
ACAD-0180, NS Stage Brief.

Receive the following AV-8B courseware lectures
ACAD-0181, Night Flying Environment and Physiology
ACAD-0182, Infrared Theory
ACAD-0183, Navigation FLIR
ACAD-0184, Night Flying Procedures
ACAD-0185, Aided Night Flying Procedures

Chalk Talks/Practical Application. ACAD-0186, NITE Lab.

Exams. ACAD-0187, NS Ground School exam.

SNS-1600	1.0	*	B	N	S	RNAWST

Goal. Introduce night V/STOL procedures.

Requirement. Perform unaided STOL flap STO, 2 STOL flap FNSL, 2 STOL flap VNSL, 2 RVL, VTO-accel, 1 decel-VL, 1 press-up, and touch-and-go and roll-and-go landings.

Performance Standard. PUI shall execute all procedures and maneuvers IAW the VMAT-203 FSG.

Prerequisite. Complete NS stage ground/academic training, TACFORM-1324.

SNS-1601	1.0	*	B	NS	S	RNAWST

Goal. Introduce night V/STOL procedures with NVDs.

Requirement. Perform night flight using NVDs. Perform ground don/doff procedures, familiarization, and aided STOL flap STO, 3 STOL flap FNSL, 3 RVL, , 2 CL, 2 decel-VL, and press-up. In RNAWST RADAR mode, perform APG-65 set-up & review air-to-air RADAR modes and HOTAS. Perform radar trail departure.

Performance Standard. PUI shall execute all procedures and maneuvers IAW the VMAT-203 FSG.

Prerequisite. SNS-1600.

NS-1602	1.3	*	B	N	A	1 TAV-8B

Goal. Introduce night V/STOL procedures.

Requirement. Perform unaided STOL flap STO. Perform TACAN approach, 2 STOL flap FNSL, 2 STOL flap VNSL, 2 RVL, touch-and-go and roll-and-go landings, VTO-accel, 1 decel-VL, and 1 press-up.

Performance Standard. PUI shall execute all procedures and maneuvers IAW the VMAT-203 FSG.

Prerequisite. SNS-1601

Range Requirement. MOA, RSTD.

NS-1603	1.3	*	B	N	A	2 TAV-8B

Goal. Introduce night administrative formation.

Requirement. Perform unaided stream STO, parade formation, cross-under, lead change, running rendezvous, and break-up and rendezvous.

Perform PAR as a wingman. Review unaided STOL flap STO, 2 STOL flap FNSL, 2 RVL, and 2 decel-VL.

Performance Standard. PUI shall execute all procedures and maneuvers IAW the VMAT-203 FSG.

Prerequisite. NS-1602

Range Requirement. MOA, RSTD.

NS-1604 1.3 * B NS A 1 TAV-8B

Goal. Night system V/STOL consolidation.

Requirement. Perform night flight using NVDs. Perform familiarization, TACAN approach, aided STOL flap STO, 2 STOL flap FNSL, 2 STOL flap VNSL, 2 RVL, and 2 press-ups.

Performance Standard. PUI shall execute all procedures and maneuvers IAW the VMAT-203 FSG.

Prerequisite. NS-1602

Range Requirement. MOA, RSTD.

NS-1605 1.3 * B NS A 2 TAV-8B

Goal. Introduce NS formation.

Requirement. Perform night formation flight using NVDs. Perform ground don/doff procedures. Perform aided stream STO. Demonstrate lighting packages and perform formations including parade, deployed echelon, running rendezvous, and break-up and rendezvous. Perform PAR as a wingman to low approach. Review aided V/STOL (if airfield conditions and local regulations permit) to include STOL flap STO, 2 STOL flap FNSL, and 2 RVL.

Performance Standard. PUI shall execute all procedures and maneuvers IAW the VMAT-203 FSG.

Prerequisite. NS-1603, NS-1604

Range Requirement. MOA, RSTD.

NS-1606 1.3 * B NS A 1 AV-8B

Goal. Night systems solo. Review night systems procedures and V/STOL.

Requirement. Perform night aided STOL flap STO, VTO-accel, 2 STOL flap FNSL, 2 STOL flap VNSL, 1 RVL, touch-and-go, roll-and-go, 1 decel-VL, and 1 press-up.

Performance Standard. PUI shall execute all procedures and maneuvers IAW the VMAT-203 FSG.

Prerequisite. NS-1605

2.10 CORE SKILL PHASE

2.10.1 Core Skill Training

2.10.1.1 Purpose. This stage develops a wingman who is proficient in all fundamental skills required to employ the AV-8B. This stage focuses on air-to-surface and air-to-air skill development in:

System management and sensor employment.
Weapon employment.
Threat countertactics.

Section and division tactical fundamentals.
Operating under day and night conditions.

2.10.1.2 General
Initial POI events are tailored to a wingman's role.
Passing grade on written examinations is 80 percent.
Training objectives are provided for all stages with the exception of FAM, AAR and AA.
All training objectives must be met for initial sorties.
Training objectives are at the discretion of the instructor for refresh and maintain sorties.

2.10.2 Familiarization (FAM)

2.10.2.1 Purpose. Maintain proficiency in normal and emergency procedures, navigation, and instrument flight procedures.

2.10.2.2 General. Flight with NVDs is authorized if current and proficient in the Night Systems Core Skill.

2.10.2.3 Ground/Academic Training

Readings

AV-8B NATOPS Manual (A1-AV8BB-NFM-000)
Review Chapter 2, Systems
Review Chapter 4, Operating Limitations
Review Chapter 7, Shore-Based Procedures
Review Chapter 12, General Emergencies
Review Chapter 13, Ground Emergencies
Review Chapter 14, Takeoff Emergencies
Review Chapter 15, In-Flight Emergencies
Review Chapter 16, Landing Emergencies
Review Chapter 17, Emergency Egress
Review Chapter 18, Immediate Action Items

Air NTTP 3-22.3-AV8B:
Review Chapter 2, Mission Planning, Briefing, and Debriefing Standards
Review Chapter 3, Tactical Administration
Review Wing and MAG Standard Operating Procedures
Review applicable range regulations and course rules

SFAM-2100 1.0 * B D S RNAWST

Goal. Review normal and instrument procedures.

Requirement

Plan: Using JMPS and applicable publications, develop a plan that supports an instrument sortie in the local area. A DD-175 for the flight route shall be provided by the PUI.

Brief: Brief will focus on introducing local area procedures and reviewing instrument procedures. Review cockpit HOTAS and administrative use of the RADAR.

Execution: Review normal procedures from start to shutdown.

Practice: Instrument procedures to include departure, enroute, and terminal approach procedures. At a minimum conduct one precision and one non-precision approach.

Review: Cockpit HOTAS and displays for the RADAR aircraft.

Debrief: Adherence to procedures and parameters. Utilize DAQ video to instruct PUI on its usage and for debrief points.

Performance Standard. Demonstrate familiarity with aircraft system setup, HOTAS and MPCD menus associated with the II+, and RADAR usage. Demonstrate proficient and expeditious conduct of preflight, start, taxi, takeoff, enroute, descent, and landing checklists. Demonstrate familiarity with local procedures.

Prerequisite. Complete ground/academic training.

SFAM-2101 1.0 30 B,R,M (NS) S RNAWST

Goal. Review emergency procedures.

Requirement

Plan: Develop a plan for a local area range familiarization flight.

Brief: Brief will be given by PUI and cover applicable flight administration. A detailed discussion on emergency procedures and CRM will be conducted.

Execution: Review emergency procedures and checklists. Review takeoffs and landings with simulated emergencies during shore operations. The sortie may be conducted utilizing shipboard procedures as dictated by operational requirements. Review CRM associated with these emergencies.

Debrief: Review adherence to procedures and parameters. Utilize DAQ video, if available, for debrief points.

Performance Standard. Execute all normal and emergency procedures IAW NATOPS.

Prerequisite. SFAM-2100, (NS-2702 if aided).

FAM-2102 1.3 60 B,R,M (NS) A 1+AV-8B

Goal. Review familiarization, navigation, and/or instrument flight.

Requirement

Plan: Develop a plan that supports a familiarization, navigation and/or instrument flight.

Brief: Brief will cover applicable admin and procedures for the flight. For navigation flights a detailed route review, to include structure and obstacles, shall be conducted. Emphasis shall be on sensor usage including the RADAR.

Execution: Review normal procedures and checklists, instrument flight procedures, and/or navigation procedures. Incorporate NAVFLIR and RADAR usage into sortie.

Debrief: Conduct HUD tape debrief of all landings.

Review. Adherence to procedures and parameters.

Performance Standard. Execute all normal and emergency procedures IAW NATOPS, OPNAVINST 3710, and applicable directives.

Prerequisite. SFAM-2101, (NS-2702 if aided).

2.10.3 Intercepts (INT)

2.10.3.1 Purpose. Review and maintain proficiency utilizing the APG-65 RADAR and conducting intercepts.

2.10.3.2 General

All training shall be conducted IAW NAVMC DIR 3500.14, Aviation Training and Readiness Program Manual, and ACM Rules of Conduct.

A Division Lead, WTI or AV-8B ACTI shall instruct all initial training events.

2.10.3.3 Ground/Academic Training

Readings

Air NTTP 3-22.1-AV8B:
Review Chapter 6, Air-to-Air Fundamentals.
Review Chapter 7, Air-to-Air Mission Planning.
Review Chapter 8, Air-to-Air Employment.

NTRP 3-22.4-AV8B:
Review Chapter 2.10, RADAR.

NAVMC DIR 3500.14, Aviation Training and Readiness Program Manual:
Review Chapter 4, ACM Rules of Conduct.

TOPGUN Manual:
Review Intercept Control

Lectures

Review the following AV-8B courseware lectures:
ACAD-2039, ACM Safety and A/A Systems.
ACAD-2040, Aircraft Performance.
ACAD-2048, AV-8B Departure Avoidance.
ACAD-2049, AV-8B RADAR Controls and Displays.
ACAD-2050, AV-8B Basic Intercept Geometry 1 & 2.
ACAD-2051, Air-to-Air Search Techniques.

Receive the following AV-8B courseware lectures:
ACAD-2054, Air Intercept Control.
ACAD-2055, APG-65 Utilization (MAWTS-1 ASP).

SINT-2200	1.0	*	B	D	S	RNAWST

Goal. Review forward quarter and stern conversion intercepts.

Requirement

Plan: Develop plan for an All Weather Intercept (AWI) sortie that includes GCI and a Bullseye.

Brief: Will include a review of AWI forward and rear quarter intercept timeline. RADAR optimization, setup, BFM modes and HOTAS shall be reviewed. Departure resistance and intercept safety shall be covered.

Execution: Conduct a RADAR trail departure. Execute 4 forward quarter AWIs to arrive in the beam, and two stern conversion intercepts against a single non-maneuvering contact. Forward quarter intercepts shall be against a contact at tactical airspeeds. The stern conversion intercept shall simulate a tanker rendezvous. Instruction shall be focused on RADAR mechanics, and geometry to include managing aspect, airspeed, and altitude when evaluating target Mach, altitude, closure, and aspect cues. Review GCI/AIC integration. Weapon employments will not be executed.

Debrief: Utilize DAQ video if available. Review aircraft parameters, radar mechanics and intercept geometry.

Performance Standard. Execute procedures IAW Air NTTP. For AWI forward quarter intercepts arrive in the beam +/- 10 degrees within 1-2nm. For AWI stern conversions arrive in trail within 1-2nm. Adhere to RADAR timeline, contracts, and criteria.

Training Objectives:
Arrive in beam +/- 10 deg within 1-2nm for forward quarter AWI.
Arrive in trail within 1-2nm for stern conversions AWI.
Properly evaluate target parameters and arrive WVR with 0-100 KCAS Vc of closure and a minimum of 1000 feet of vertical separation.

Prerequisite. Complete ground/academic training. FAM-2101.

Ordnance. 2xAIM-9M-8, 2xAIM-120

SINT-2201 1.0 * B D S RNAWST

Goal. Introduce forward quarter and stern conversion intercepts against a maneuvering contact. Introduce short range radar mechanics and ACM modes of the radar.

Requirement

Plan: Develop plan for an AWI sortie that includes GCI and a Bullseye.

Brief: Will cover evaluating target maneuver and managing geometry to arrive at desired WVR position. Short range radar mechanics focused on the use of ACM modes will be introduced.

Execution: Conduct a RADAR trail departure. Conduct 2 forward quarter AWIs against a single maneuvering contact at tactical airspeeds. The intent is to simulate joining on another aircraft in the flight. Conduct 1 stern conversion AWI against a tanker in a 15nm track. Conduct 3 short range forward quarter intercepts against a single maneuvering contact at 10nm, simulating joining on another aircraft in the flight. One intercept shall use the Low SA set of the RADAR and the other two shall use ACM modes. Conduct one off target rendezvous utilizing WACQ, from a simulated dive delivery. Weapon employments will not be executed.

Debrief: Utilize DAQ video if available. Review aircraft parameters, radar mechanics and intercept geometry.

Performance Standard. Execute procedures IAW Air NTTP. For AWI forward quarter intercepts arrive in the beam +/- 10 degrees within 1-2nm. For AWI stern conversions arrive in trail within 1-2nm. Gain RADAR SA on short range and off target maneuvers and effect an intercept and join. Adhere to RADAR timeline, contracts, and criteria.

Training Objectives:
Arrive in beam +/- 10 deg within 1-2nm for AWI forward quarter intercepts.
Arrive in trail within 1-2nm for AWI stern conversions.
Arrive WVR and join on contact for short range and off target rendezvous.

Prerequisite. SINT-2200

Ordnance. 2xAIM-9M-8, 2xAIM-120

INT-2202 1.3 90 B,R,M (NS) A 1+ AV-8BII+

Goal. Review 1v1 intercepts against a single contact.

Requirement

Plan: Develop plan for an All Weather Intercept (AWI) sortie that includes GCI and a Bullseye.

Brief: Will include a review of AWI forward and rear quarter intercept timeline against a maneuvering and non-maneuvering contact. RADAR optimization, setup, BFM modes and HOTAS shall be reviewed. Departure resistance and intercept safety shall be covered.

Execution: Conduct a RADAR trail departure. Conduct 1 forward quarter AWI against a single non-maneuvering contact at tactical airspeeds and 1 forward quarter AWI against a maneuvering contact, simulating joining on another aircraft in the flight. Conduct 1 AWI stern conversion against a contact simulating a tanker in a 15nm track. Conduct 1 short range forward quarter intercept against a single maneuvering contact at 10nm, simulating joining on another aircraft in the flight. Weapon employments will not be executed.

Debrief: TCTS debrief should be used for initial sorties. Review RADAR tape for radar mechanics and intercept geometry. Review aircraft parameters.

Performance Standard. Execute procedures IAW Air NTTP. For AWI forward quarter intercepts arrive in the beam +/- 10 degrees within 1-2nm. For AWI stern conversions arrive in trail within 1-2nm. Gain RADAR SA on short range setup and effect an intercept and join. Adhere to RADAR timeline, contracts, and criteria.

Training Objectives:
Arrive in beam +/- 10 deg within 1-2nm for AWI forward quarter intercepts.
Arrive in trail within 1-2nm for AWI stern conversions.
Arrive WVR and join on contact for short range setup.

Prerequisite. SINT-2201, (NS-2702 if aided).

Ordnance. CATM-9, TCTS Pod

Range Requirement. RSTD, MOA.

External Syllabus Support. AIC/GCI, TCTS facility.

2.10.4 Threat Countertactics (TCT)

2.10.4.1 Purpose. Review Surface-to-Air threat countertactics. Introduce Air-to-Air threat countertactics.

2.10.4.2 General

A WTO (preferably a WTI) shall instruct initial STCT-2300 and TCT-2302 training.

A Division Lead, WTI or ACTI shall instruct the initial STCT 2301.

All flights should be flown on an EW range with TCTS coverage.

2.10.4.3 Ground/Academic Training

Readings

Air NTTP 3-22.1-AV8B:
Chapter 3, Threat Countertactics
Appendix A, E-Pole Determination
Chapter 8, Air-to-Air Employment

AV-8B NATIP (NTRP 3-22.2-AV8B):

ALE-39/47
ALR-67
ALQ-164
CY-20XX User's Manual.
ALSA Communication Brevity.

Lectures
ACAD-2000, Expendable Decoys
ACAD-2001, ALE-39 Countermeasures Dispensing System
ACAD-2002, ALR-67 RADAR Warning Receiver
ACAD-2003, ALQ-164 Defensive Electronic Countermeasures
ACAD-2004, Threat Countertactics (MAWTS-1 Common Courseware)
ACAD-2005, Non-RF Surface-to-Air Missiles (MAWTS-1 Generic Courseware)
ACAD-2006, RF Surface-to-Air Missiles (MAWTS-1 Generic Courseware)
ACAD-2007, Air Defense Artillery (ADA) Systems.
ACAD-2008, Threat Briefing (Semi-Active RF Threats)

Chalk Talks/Practical Application. ALAT-2014, Surface-to-air threat countertactic gameplans against range-known and range-unknown threats with a LATI, preferably a WTI.

STCT-2300 1.0 * B,R D S RNAWST

Goal. Review Surface-to-Air threat countertactics.

Requirement

Plan: Develop a plan for a medium altitude TCT sortie that includes a range known strategic SAM, a range unknown tactical SAM and ADA.

Brief: Will include an in-depth discussion of the threat layout, capabilities and indications as well as the TCT gameplan to address threats. Conduct a review of TCT mechanics and ALQ setup.

Execution: Conduct a tanker rendezvous using the RADAR. Perform preemptive and reactive threat countertactics to include lean, notch, level-S, hot and cold weaves, and deck transition against range-known and range-unknown RF SAM threats. Perform preemptive and reactive medium altitude ADA threat countertactics.

Debrief: Utilize DAQ video if available. Review adherence to game plan, and correct execution of maneuvers.

Performance Standard. Execute IAW Air NTTP. Demonstrate proficient setup and use of ALQ, ALE, and ALR. Execute briefed jettison gameplan. Communication IAW ALSA Communication Brevity and Air NTTP.

Training Objectives:
Maneuvers and expendable usage IAW ANTTP.
Correct analysis of threat and execution of TCT gameplan.
Communication IAW ALSA and ANTTP.

Prerequisite. Complete ground/academic training, FAM-2101.

Ordnance. TPOD, 2 GBU-12, 2 Mk-82 LD, ALQ-164, Expendables.

STCT-2301 1.5 * B,R D S RNAWST

Goal. Introduce Air-to-Air threat countertactics.

Requirement

Plan: Develop a plan for an air-to-air TCT sortie that includes IR-2, IR-3 and SAR-1 threats.

Brief: Brief will include an in-depth discussion of the threat capabilities and indications, as well as the TCT gameplan to address threats. Introduce TCT mechanics and system optimization for Air-to-Air TCT. Brief shall address TCT with both an air-to-air mindset and an air-to-surface mindset.

Execution: Conduct a tanker rendezvous using the RADAR. Perform air-to-air threat coutertactics to include preemptive IR gameplans against both IR-2 and IR-3, SAR-1 timeline adherence, notch, abort, staggerback and delouse.

Debrief: Utilize DAQ video if available. Review adherence to game plan, and correct execution of maneuvers.

Performance Standard. Execute IAW Air NTTP. Demonstrate proficient setup and use of ALE, and ALR. Execute briefed Communication IAW ALSA Communication Brevity and Air NTTP.

Training Objectives:
Maneuvers and expendable usage IAW ANTTP.
Correct analysis of threat and execution of SAR-1 timeline.
Communication IAW ALSA and ANTTP.

Prerequisite. INT-2202, STCT-2300

Ordnance. 2xAIM-9-8, 2xAIM-120, 1xALQ-164, Expendables.

TCT-2302 1.3 180 B,R,M (NS) A 2 AV-8B

Goal. Review section surface-to-air threat countertactics.

Requirement

Plan: Develop a plan for a medium altitude TCT sortie that includes a range known and range unknown SAM and ADA.

Brief: Will include an in-depth discussion of the threat layout, capabilities and indications as well as the TCT gameplan to address threats. Conduct a review of TCT mechanics and ALQ setup. Review deconfliction gameplan.

Execution: Conduct surface-to-air TCT in a section. Perform preemptive and reactive threat countertactics to include lean, notch, level-S, and hot and cold weaves, against range-known and range-unknown RF SAM threats. Perform preemptive and reactive medium altitude ADA threat countertactics.

Debrief: TCTS debrief should be used for initial sorties. HUD tape debrief should be incorporated. Review adherence to game plan, and correct execution of maneuvers.

Performance Standard. Execute IAW Air NTTP. Demonstrate proficient setup and use of ALQ, ALE, and ALR. Communication IAW ALSA Communication Brevity and Air NTTP.

Training Objectives:
Maneuver and expendable usage IAW ANTTP.
Correct analysis of threat and execution of TCT gameplan.
Communication IAW ALSA and ANTTP.

Prerequisite. STCT-2301, (NS-2702 if aided)

Ordnance. TPOD, TCTS Pod, ALQ-164, 30 Chaff, 30 Flares.

Range Requirement. RSTD.

External Syllabus Support. TCTS facility.

2.10.5 Air-to-Air Refueling (AAR)

2.10.5.1 Purpose. Complete night AAR qualification.

2.10.5.2 General

Currency requirements IAW ATP-56(B).
Initial AAR qualifications shall be conducted IAW ATP-56(B).
AAR training may be executed in conjunction with ferry missions or as part of a tactical sortie, provided all prerequisites are met.
Section lead shall instruct all initial training events.
This stage assumes completion of the day AAR qualification in the FRS within the previous 365 days. If that refly window is exceeded, the fleet will be responsible for completing the 1000 level day AAR sortie requirements.

2.10.5.3 Ground/Academic Training

Readings
AV-8B NATOPS Manual (A1-AV8BB-NFM-000)
Review Chapter 9, Paragraph 9.2, Air Refueling.
Review ATP-56(B), Parts I and II.

Lectures
ACAD-2009, AV-8B Aerial Refueling Lecture

AAR-2400	1.3	365	B,R,M	NS	A	1+	AV-8B

Goal. Introduce night AAR.

Requirement

Plan: Develop a plan for a night aerial refueling sortie.

Brief: Address tanker join and positions as well as specific tanker procedures. Review tanker emergencies.

Execution: Perform all AAR procedures at night (aided and/or unaided). Perform 1 tanker rendezvous and establish observation and astern positions. Execute 4 successful engagements on refueling drogue with 1 engagement under simulated NORDO conditions with an emergency breakaway. Perform tanker departure. This event shall be flown in section or division for an initial or refresher qualification.

Debrief: Conduct HUD debrief. Review adherence to procedures.

Performance Standard. Execute all procedures IAW ATP-56(B) and AV-8B NATOPS.

Prerequisite. Complete ground/academic training, AAR-1340, FAM-2102, (NS-2702 if aided).

Range Requirement. MOA.

External Syllabus Support. Compatible tanker IAW ATP-56(B).

2.10.6 Low Altitude Tactics (LAT)

2.10.6.1 Purpose. Complete LAT qualification.

2.10.6.2 General

All training shall be conducted IAW NAVMC DIR 3500.14, Aviation Training and Readiness Program Manual, Chapter 3, LAT Rules of Conduct.

All mission planning and flight briefs shall include BAM/BASH data and current route obstruction considerations (ECHUM).

Completion of this stage constitutes LAT qualification.

A LATI shall instruct all initial training events.

2.10.6.3 Ground/Academic Training

Readings

Air NTTP 3-22.3-AV8B Standards.
Chapter 2, Mission Planning, Briefing, and Debriefing
Chapter 3, Tactical Administration
Chapter 4, Low Altitude Tactics

Air NTTP 3-22.1-AV8B, Chapter 3, Threat Countertactics

NAVMC DIR 3500.14, Aviation Training and Readiness Program Manual, Review Chapter 3, LAT Training Rules of Conduct

Lectures

Receive the following MAWTS-1 courseware lectures presented by a LATI:
ACAD-2010, TACAIR LAT, Part 1
ACAD-2011, TACAIR LAT, Part 2
ACAD-2012, TACAIR LAT, Part 3
ACAD-2013, TACAIR LAT, Part 4

Exams. ACAD-2015, LAT stage exam.

SLAT-2500 1.0 180 B,R,M D S RNAWST

Goal. Review advanced LAT and threat countertactics at low altitude.

Requirement

Plan: Develop a plan for an advanced LAT and TCT sortie that includes a range known and range unknown SAM and ADA threat in a mountainous database.

Brief: Will include a review of basic and advanced LAT maneuvers. Emphasis will be placed on adherence to the 10-degree rule, 50-percent rule, and dive recovery rules. Review low altitude TCT and TCT transitions from medium to low altitude.

Execution: Practice straight and level, turns, ridgeline crossings, terrain masking, and climb-to-cope. Practice vertical jinks, SOJ, TOJ, and ROJ. Conduct low altitude surface-to-air TCT at comfort level. Perform preemptive and reactive threat countertactics to include lean, notch, level-S, and hot and cold weaves, against range-known and range-unknown RF SAM threats. Perform preemptive and reactive low altitude AAA threat countertactics. Perform one medium altitude to low altitude deck transition.

Debrief: Utilize DAQ video if available. Review adherence to procedures and LAT ROC. Review aircraft parameters to include altitude, velocity vector and airspeed control.

Performance Standard. Maintain a minimum of 300-foot clearance of all obstructions. Execute procedures IAW Air NTTP. Adhere to surface-to-

air threat countertactics gameplan. Adhere to LAT ROC. Execute briefed air-to-surface timeline. Proficient TCT and MCT.

Training Objectives:
Maneuvers and expendable usage IAW ANTTP.
Correct analysis of threat and execution of TCT gameplan.
Communication IAW ALSA and ANTTP.

Prerequisite. Complete ground/academic training, STCT-2300.

Ordnance. ALQ-164, Expendables.

LAT-2501 1.3 365 B,R,M D A 2 AV-8B

Goal. Review section LAT at comfort level.

Requirement

Plan: Develop a plan to conduct a section LAT flight at comfort level.

Brief: Will include a review of basic and advanced LAT maneuvers. Emphasis will be placed on adherence to the 10-degree rule, 50-percent rule, dive recovery rules.

Execution: Conduct a section LAT flight.

Debrief: Conduct HUD debrief. Review adherence to procedures and LAT ROC. Review aircraft parameters to include altitude, velocity vector and airspeed control.

Performance Standard. Maintain a minimum 300-foot clearance of all obstructions. Execute all procedures IAW Air NTTP. Adhere to LAT ROC. Correct ALSA Communication Brevity. Proficient cockpit management including TCT and MCT.

Prerequisite. LAT-2500

Ordnance
Desired: 4 MK-82, 30 Chaff, 30 Flares
Acceptable substitutes: 4 BDU-45/2 MK-83/2 MK-83I

Range Requirement. RSTD, EXP.

LAT-2502 1.3 365 B,R,M D A 2 AV-8B

Goal. Introduce low altitude threat countertactics in section at comfort level.

Requirement

Plan: Develop a plan for a low altitude TCT sortie that includes a range known and range unknown SAM and ADA.

Brief: Brief will include an in-depth discussion of the threat layout, capabilities and indications as well as the TCT gameplan to address threats. Conduct a review of TCT mechanics. Review deconfliction gameplan. Emphasize threat recognition, identification and assessment, decision points based on threat matrix, and reactions versus threat engagement timelines. Address LAT ROC adherence and safety.

Execution: Conduct low altitude surface-to-air TCT in a section at comfort level. Perform preemptive and reactive threat countertactics to include lean, notch, level-S, and hot and cold weaves, against range-known and range-unknown RF SAM threats. Perform preemptive and reactive low altitude ADA threat countertactics. Perform one medium altitude to low altitude deck transition.

Debrief: TCTS debrief should be used for initial sorties. HUD tape debrief should be incorporated. Review adherence to game plan, and correct execution of maneuvers.

Performance Standard. Execute procedures IAW Air NTTP. Adhere to surface-to-air threat countertactics gameplan. Adhere to LAT ROC. Execute briefed air-to-surface timeline. Proficient TCT and MCT.

Training Objectives:
Maneuver and expendable usage IAW ANTTP.
Correct analysis of threat and execution of TCT gameplan.
Communication IAW ALSA and ANTTP.

Prerequisite. LAT-2501

Ordnance. TPOD, TCTS Pod, ALQ-164, 30 Chaff, 30 Flares.

Range Requirement. RSTD, EXP.

External Syllabus Support. TCTS facility.

2.10.7 Air-to-Surface (AS)

2.10.7.1 Purpose. Review surface-to-air threat countertactics. Review air-to-surface sensors and timelines, the employment of free-fall, forward-firing, and precision guided munitions from medium and low altitude, and section and division target area tactics.

2.10.7.2 General. A WTO shall instruct all events. SAS-2604 shall be instructed by a WTO that has completed CFF-4700.

2.10.7.3 Ground/Academic Training

Readings

AV-8B NATIP (NTRP 3-22.4-AV8B):
Review Chapter 4, External Stores.
Review Chapter 5, Air-to-Ground Weapon Delivery Munitions.

AV-8B NATIP (NTRP 3-22.2-AV8B), Chapter 3, Precision-Guided

Air NTTP 3-22.3-AV8B

Review Chapter 6, Air-to-Surface Fundamentals
Review Chapter 7, Air-to-Surface Employment.

Air NTTP 3-22.1-AV8B, Review Chapter 2, Air-to-Surface Mission Planning

Lectures
Review the following AV-8B courseware lectures:
ACAD-2016, Height Above Target
ACAD-2017, GP Bombs
ACAD-2018, GP Bomb Fuzing
ACAD-2019, 25mm Gun
ACAD-2020, Rockets
ACAD-2021, Forward-Firing Ordnance and Weaponeering (MAWTS-1 ASP Lecture)
ACAD-2022, Laser-Guided Bombs and Laser-Guided Training rounds
ACAD-2023, Attack Profiles
ACAD-2024, Standard Target Area Tactics Management
ACAD-2025, Air-to-Surface (A/S) Planning & Timeline

Receive the following AV-8B courseware lectures from a WTO or WTI
ACAD-2026, Cluster Weapons and Fuzing
ACAD-2027, Joint Direct Attack Munition

ACAD-2028, LASER-Guided Weapons
ACAD-2029, Division Target Area Tactics (presented by a division lead)
ACAD-2030, Call for Fire (presented by FAC(A) or prior GFAC)

Chalk Talks/Practical Application
ACAD-2031, Wingman Contracts and Responsibilities
ACAD-2032, JMEMS Air-to-Surface Weaponeering System (JAWS) Lab including Paveway Mission Planning Tool and SLIC planning tool for safe escape
ACAD-2033, Sensor Footprint Lab.

SAS-2600 1.5 * B,R D S RNAWST

Goal. Review computed deliveries and forward firing ordnance from medium and low altitude.

Requirement

Plan: Develop a plan to conduct ramp, level entry to dive and pop-up free fall, GAU-12 and rocket attacks on a raked range.

Brief: Emphasize optimizing sensor/systems for target detection, acquisition, and identification. Review TPOD utilization as the HAT source, and cascade gameplan. Review visual acquisition gameplan for pop-up attacks.

Execution: Conduct a minimum of 8 free fall and forward firing ramp, level entry to dive, and pop-up profiles. No less than 3 shall be forward firing ordnance. For ramp and level entry to dive HAT source should be the TPOD. For pop-up attacks the HAT source should be AGR. Execute at least one off target rendezvous flight lead using short range RADAR mechanics.

Debrief: Utilize DAQ video if available.

Review: Aircraft parameters, system optimization and all ordnance hits. Adherence to air-to-surface timeline.

Performance Standard. Execute IAW Air NTTP. Correct weaponeering utilizing JAWS, WARP, SLIC, and NATIP. Proper use of TPOD to designate targets. Comply with Tactical Abort Parameters. Execute briefed air-to-surface timeline. Valid weapons release IAW MAWTS-1 Planning, Briefing, and Debriefing Guide.

Training Objectives

Execute air-to-surface timeline IAW ANTTP (MWSS complete prior to IP inbound, geometry and timing correct, communications correct, COAS correct).

Optimized weapon, system and sensor for delivery.

Valid weapons delivery to achieve impact within CEP of the weapon.

Prerequisite. Complete ground/academic training, SINT-2202, TCT-2302.

Ordnance. TPOD, 4 MK-82, 8 5” Rockets, 300 25mm, Expendables.

SAS-2601 1.5 * B,R D S RNAWST

Goal. Review PGM deliveries against stationary targets.

Requirement

Plan: Develop a plan to conduct level JDAM, LGB and dual-mode weapon profiles, and LMAV ramp profiles against tactical targets.

Brief: Emphasize optimizing sensor/systems for target detection, acquisition, and identification. Review weapon set-up and support optimization.

Execution: Conduct a tanker rendezvous using the RADAR and at least one off target rendezvous with lead using short range RADAR mechanics. Conduct a minimum of 4 level PGM profiles and 2 ramp LMAV profile.

Debrief: Utilize DAQ video if available. Review aircraft parameters, system optimization and all ordnance hits.

Review. Adherence to air-to-surface timeline.

Performance Standard. Execute IAW Air NTTP. Correct weaponeering utilizing JAWS, WARP, SLIC, and NATIP. Proper use of TPOD and systems to optimize and support weapon. Comply with Tactical Abort pameters. Execute briefed air-to-surface timeline. Valid weapons release IAW MAWTS-1 Planning, Briefing, and Debriefing Guide.

Training Objectives:

Execute air-to-surface timeline IAW ANTTP (MWSS complete prior to IP inbound, geometry and timing correct, communications correct, COAS correct).

Optimized weapon, system and sensor for delivery.

Valid weapons delivery to achieve impact within CEP of the weapon.

Prerequisite. Complete ground/academic training, SINT-2202, TCT-2302.

Ordnance. TPOD, 1 GBU-54 or 1 GBU-12F/B, 1 GBU-32, 1 GBU-12, 1 AGM-65E, Expendables.

SAS-2602 1.5 * B D S RNAWST

Goal. Introduce weapon deliveries against moving targets.

Requirement.

Plan: Develop a plan to conduct LGB, dual-mode weapon, LMAV and gun attacks against moving targets.

Brief: Emphasize optimizing sensor/systems for target detection, acquisition, and identification. Introduce laser hand-offs IP inbound from the cover aircraft maintaining track. Introduce moving target support for PGM and LMAV fast moving target (FMT) as both the shooter and designator. Introduce gun attacks against a moving target.

Execution: Conduct a RADAR trail departure. Conduct a minimum of 2 level PGM, 1 LMAV FMT as the shooter, 1 LMAV FMT as the designator and 2 gun attacks against moving targets.

Debrief: Utilize DAQ video if available. Review aircraft parameters, system optimization and all ordnance hits. Review adherence to air-to-surface timeline.

Performance Standard. Execute IAW Air NTTP. Correct weaponeering utilizing JAWS, WARP, SLIC, and NATIP. Proper use of TPOD and systems to optimize and support weapon. Comply with Tactical Abort Parameters. Execute briefed air-to-surface timeline. Valid weapons release IAW MAWTS-1 Planning, Briefing, and Debriefing Guide.

Training Objectives

Execute air-to-surface timeline IAW ANTTP (MWSS complete prior to IP inbound, geometry and timing correct, communications correct, COAS correct).

Optimized weapon, system and sensor for delivery.

Valid weapons delivery to achieve impact within CEP of the weapon.

Prerequisite. SAS-2600, SAS-2601

Ordnance. TPOD, 1 GBU-54 or 1 GBU-12F/B, 1 GBU-12, 1 AGM-65E, 300 25mm, Expendables.

SAS-2603 1.0 * B D S RNAWST

Goal. Introduce advanced PGM employment.

Requirement

Plan: Develop a plan to conduct LGB, and dual-mode weapon attacks against advanced target sets and in adverse weather.

Brief: Emphasize optimizing sensor/systems for target detection, acquisition, and identification. Introduce employment against urban canyon and podium target sets. Introduce stacked attacks and multi-release JDAM or dual-mode weapon profiles.

Execution: Conduct 1 attack on a podium target and 1 attack on a target in an urban canyon. Conduct stacked attacks as both shooter and designator. Conduct 1 multi-release JDAM or dual-mode weapon attack. Conduct 1 JDAM loft attack.

Debrief: Utilize DAQ video if available. Review aircraft parameters, system optimization and all ordnance hits. Review adherence to air-to-surface timeline.

Performance Standard. Execute IAW Air NTTP. Correct weaponeering utilizing JAWS, WARP, SLIC, and NATIP. Proper use of TPOD and systems to optimize and support weapon. Comply with Tactical Abort Parameters. Execute briefed air-to-surface timeline. Valid weapons release IAW MAWTS-1 Planning, Briefing, and Debriefing Guide.

Training Objectives

Execute air-to-surface timeline IAW ANTTP (MWSS complete prior to IP inbound, geometry and timing correct, communications correct, COAS correct).

Optimized weapon, system and sensor for delivery.

Valid weapons delivery to achieve impact within CEP of the weapon.

Prerequisite. Complete ground/academic training, SAS-2602.

Ordnance. TPOD, 2 GBU-54 or GBU-12F/B, 1 GBU-12, , Expendables.

SAS-2604 1.0 * B (NS) S RNAWST

Goal. Introduce 81mm mortar and 155mm artillery call for fire.

Requirement

Plan: Develop a plan to conduct a CFF flight with both 81mm mortars and 155mm artillery.

Brief: Introduce CFF procedures to include SEAD, immediate suppression, adjust fire and adjust fire LASER missions. Emphasis

should be placed on communication, deconfliction and system/sensor optimization.

Execution: Conduct a minimum of 4 controls with a combination of SEAD, immediate suppression, adjust fire, and adjust fire LASER missions.

Debrief: Utilize DAQ video if available. Review aircraft parameters, system optimization and all ordnance hits. Review adherence to air-to-surface timeline.

Performance Standard. Execute IAW JFIRE NTTP 3-09.2. Simulated JTAC shall have mark and control of fires but will not have a forward observer in direct support. Pilot shall derive target coordinates and pass to firing agency via call for fire format. Receive and record message to observer. Adjustments should result in accurate corrections with effects on target.

Training Objectives

Communicate CFF IAW JFIRE.

Adjustments result in effects on target.

Aircraft in position and sensors optimized to observe and adjust fires.

Prerequisite. Complete ground/academic training, SINT-2202.

Ordnance. TPOD, expendables.

AS-2605	1.3	180	B,R,M	(NS)	A	2+	AV-8B

Goal. Review medium altitude target area tactics, forward firing ordnance and computed deliveries.

Requirement

Plan: Develop a plan to conduct a medium altitude target areas tactics sortie utilizing the TPOD as the HAT source.

Brief: Emphasize optimizing sensor/systems for target detection, acquisition, and identification. Review TPOD utilization as the HAT source and cascade gameplan. Review medium altitude target area tactics.

Execution: Conduct a minimum of 4 section medium altitude target attacks with free-fall and forward firing ordnance using the TPOD as the HAT source.

Debrief: Conduct HUD and TPOD video debrief. Review aircraft parameters, system optimization and all ordnance hits. Review adherence to air-to-surface timeline.

Performance Standard. Execute IAW Air NTTP. Correct weaponeering utilizing JAWS, WARP, SLIC, and NATIP. Proper use of TPOD and systems to optimize weapon. Comply with Tactical Abort Parameters. Execute briefed air-to-surface timeline. Valid weapons release IAW MAWTS-1 Planning, Briefing, and Debriefing Guide.

Training Objectives

Execute air-to-surface timeline IAW ANTTP (MWSS complete prior to IP inbound, geometry and timing correct, communications correct, COAS correct).

Optimized weapon, system and sensor for delivery.

Valid weapons delivery to achieve impact within CEP of the weapon.

Prerequisite. SAS-2600, (NS-2702 if aided).

Ordnance. Desired: TPOD, 4 MK-82, 100 25MM, 30 Flares

Acceptable substitutes: 4 BDU-45/2 MK-83/2 MK-83I/6 MK-76, 4 5" HE/4 5" Inert/7 2.75" HE/7 2.75" Inert

Range Requirement. RSTD, EXP, STRAFE, HE.

AS-2606 1.3 365 B,R,M (NS) A 2+ AV-8B

Goal. Review low altitude target area tactics, and forward firing ordnance deliveries.

Requirement

Plan: Develop a plan to conduct a low altitude target area tactics sortie utilizing pop-up attacks.

Brief: Emphasize optimizing sensor/systems for target detection, acquisition, and identification. Emphasis should be placed on visual acquisition of the target in the pop and dive. Review low altitude target area tactics.

Execution: Conduct a minimum of 4 low altitude target area attacks utilizing free-fall and forward firing ordnance.

Debrief: Conduct HUD and TPOD video debrief. Review aircraft parameters, system optimization and all ordnance hits. Review adherence to air-to-surface timeline.

Performance Standard. Execute IAW Air NTTP. Correct weaponeering utilizing JAWS, WARP, SLIC, and NATIP. Proper use of systems to optimize weapon. Comply with Tactical Abort Parameters. Execute briefed air-to-surface timeline. Valid weapons release IAW MAWTS-1 Planning, Briefing, and Debriefing Guide.

Training Objectives

Execute air-to-surface timeline IAW ANTTP (MWSS complete prior to IP inbound, geometry and timing correct, communications correct, COAS correct).

Optimized weapon, system and sensor for delivery.

Valid weapons delivery to achieve impact within CEP of the weapon.

Prerequisite. SAS-2600 (2702 if flown at night, 2501 if flown below 300').

Ordnance. Desired: TPOD, 4 MK-82 HD, 100 25MM, 30 Flares

Acceptable substitutes: 4 MK-82 LD/4 BDU-45 HD/4 BDU-45 LD/2 MK-83 HD/2 MK-83 LD/2 MK-83I HD/2 MK-83I LD/6 MK-76, 4 5" HE/4 5" Inert/7 2.75" HE/7 2.75" Inert

Range Requirement. RSTD, EXP, STRAFE, HE.

AS-2607 1.3 90 B,R,M (NS) A 2+ AV-8B

Goal. Review target area tactics using medium altitude standoff delivery profiles.

Requirement

Plan: Develop a plan to conduct level JDAM, LGB and dual-mode weapon profiles, and LMAV ramp profiles.

Brief: Emphasize optimizing sensor/systems for target detection, acquisition, and identification. Review weapon set-up and support optimization.

Execution: Conduct a minimum of 3 level PGM profiles and 1 ramp or fast moving target LMAV profile.

Debrief: Conduct HUD and TPOD video debrief. Review aircraft parameters, system optimization and all ordnance hits. Review adherence to air-to-surface timeline.

Performance Standard. Execute IAW Air NTTP. Correct weaponeering utilizing JAWS, WARP, SLIC, and NATIP. Proper use of TPOD and systems to optimize and support weapon. Comply with Tactical Abort Parameters. Execute briefed air-to-surface timeline. Valid weapons release IAW MAWTS-1 Planning, Briefing, and Debriefing Guide.

Training Objectives

Execute air-to-surface timeline IAW ANTTP (MWSS complete prior to IP inbound, geometry and timing correct, communications correct, COAS correct).

Optimized weapon, system and sensor for delivery.

Valid weapons delivery to achieve impact within CEP of the weapon.

Prerequisite. SAS-2603, (2702 if night).

Ordnance. Desired: TPOD, CATM-65E, 1 GBU-54, 1 GBU-12, 10 Chaff, 20 Flares.

Acceptable substitutes: 1 GBU-54I/1 GBU-38/1 GBU-38I/1 GBU-32/1 GBU-32I/1 GBU-12F/B/1 GBU-12F/BI, 1 GBU-12I/1 GBU-16/1 GBU-16I/1 LGTR.

Range Requirement. RSTD, EXP, HE.

2.10.8 Night Systems (NS)

2.10.8.1 Purpose. Complete NSQ qualification.

2.10.8.2 General

All training shall be conducted IAW NAVMC DIR 3500.14, Aviation Training and Readiness Program Manual, and NS Rules of Conduct.

Completion of this stage constitutes NS Qualification.

A NSI shall instruct all initial training events.

2.10.8.3 Ground/Academic Training

Readings

AV-8B NATOPS, Review Chapter 15, In-Flight Emergencies, Electrical Malfunctions.

Air NTTP 3-22.3-AV8B, Review Chapter 5, Night Systems.

MAWTS-1 NVD Manual.

NAVMC 3500.14, Aviation Training and Readiness Program Manual, Review Chapter 3, Night Systems Rules of Conduct.

Lectures

Review the following AV-8B courseware lectures:
ACAD-2034, Infrared Theory.
ACAD-2035, NAVFLIR.

Receive the following AV-8B courseware lecture:
ACAD-2036, LUU-2 Parachute Flares.

Chalk Talks/Practical Application
ACAD-2037, NITE Lab.
ACAD-2038, MAWTS Night Systems Mishap Anthology given by an NSI.

SNS-2700 1.5 * B,R NS S RNWST

Goal. Introduce NS tactical attack profiles.

Requirement

Plan: Develop a plan to conduct ramp GP attacks and PGM attacks at night on tactical targets.

Brief: Emphasize optimizing sensor/systems for target detection, acquisition, and identification. Brief will include a discussion of night dive delivery safety considerations. Emphasize environmental effects and Mission Crosscheck Time (MCT).

Execution: Conduct a minimum of 2 ramp free-fall attacks, 2 forward firing ordnance attacks, and 2 PGM attacks. Conduct one off target rendezvous with lead using the RADAR. Review NS procedures and landings.

Debrief: Utilize DAQ video if available. Review aircraft parameters, system optimization and all ordnance hits. Review adherence to air-to-surface timeline.

Performance Standard. Execute IAW Air NTTP. Correct weaponeering utilizing JAWS, WARP, SLIC, and NATIP. Proper use of TPOD to designate targets. Comply with Tactical Abort Parameters. Execute briefed air-to-surface timeline. Valid weapons release IAW MAWTS-1 Planning, Briefing, and Debriefing Guide.

Training Objectives:

Execute briefed air-to-surface timeline.

Optimized weapon, system and sensor for delivery.

Weapon supported to achieve impact within CEP of the weapon.

Prerequisite. Complete ground/academic training, AS stage complete.

Ordnance. TPOD, 1 GBU-54, 1 GBU-12, 2 MK-82, 300 25mm, Expendables.

NS-2701 1.3 * B NS A 2 AV-8B

Goal. Introduce computed deliveries from medium and low altitude at night.

Requirement

Plan: Develop a plan to conduct multiple medium (20 or 30 degree) and low (10 degree) LCIP and LAUT deliveries on a scored raked range at night.

Brief: Emphasize optimizing sensor/systems for target detection, acquisition, and identification. Brief will include a discussion of night dive delivery safety considerations. Emphasize environmental effects and MCT.

Execution: Conduct 4 medium altitude deliveries and 2 low altitude deliveries on a scored raked range.

Performance Standard. Execute IAW Air NTTP. Correct weaponeering utilizing JMPS CUPC, JAWS, SLIC, and NATIP. Execute briefed air-to-surface timeline. Proper use of TPOD to generate target coordinates.

Comply with Tactical Abort Parameters. alid weapons release IAW MAWTS-1 Planning, Briefing, and Debriefing Guide. Weapon impacts within CEP.

Training Objectives

Execute air-to-surface timeline IAW ANTTP (MWSS complete prior to IP inbound, geometry and timing correct, communications correct, COAS correct).

Optimized weapon, system and sensor for delivery.

Valid weapons delivery to achieve impact within CEP of the weapon.

Prerequisite. SNS-2700

Ordnance: Desired; TPOD, 6 MK-76, 30 Flares

Acceptable substitutes; 4 MK-82/4 BDU-45/4 MK-83/4 MK-83 Inert

Range Requirement. RSTD, EXP.

NS-2702 1.3 180 B,R,M NS A 2 AV-8B

Goal. Introduce section target area tactics at night.

Requirement

Plan: Develop a plan to conduct section ramp GP attacks and PGM attacks at night.

Brief: Emphasize optimizing sensor/systems for target detection, acquisition, and identification. Brief will include a discussion of night dive delivery safety considerations. Emphasize environmental effects and MCT.

Execution: Conduct 2 ramp free-fall or forward firing ordnance deliveries, and 2 PGM attacks.

Debrief: Conduct HUD and TPOD video debrief. Review aircraft parameters, system optimization and all ordnance hits. Review adherence to air-to-surface timeline.

Performance Standard. Execute IAW Air NTTP. Correct weaponeering utilizing JAWS, WARP, SLIC, and NATIP. Proper use of TPOD to designate targets. Comply with Tactical Abort Parameters. Execute briefed air-to-surface timeline. Valid weapons release IAW MAWTS-1 Planning, Briefing, and Debriefing Guide.

Training Objectives

Execute air-to-surface timeline IAW ANTTP (MWSS complete prior to IP inbound, geometry and timing correct, communications correct, COAS correct).

Optimized weapon, system and sensor for delivery.

Valid weapons delivery to achieve impact within CEP of the weapon.

Prerequisite. NS-2701

Ordnance. Desired: TPOD, 1 GBU-38, 1 GBU-12, 1 MK-82, 100 25MM, 60 Flares

Acceptable substitutes: 1 GBU-38I/GBU-32/GBU-32I/GBU-54/GBU-54I/1 GBU-12F/B/1 GBU-12F/BI, 1 GBU-12I/GBU-16/GBU-16I/LGTR, 1 BDU-45/MK-83/MK-83I/2 MK-76, 4 5” HE/5” Inert

Range Requirement. RSTD, EXP, STRAFE, HE.

2.10.9 Air-to-Air (AA)

2.10.9.1 Purpose. Conduct ACM qualification.

2.10.9.2 General

All training shall be conducted IAW NAVMC DIR 3500.14, Aviation Training and Readiness Program Manual, ACM Rules of Conduct.
An AV-8B ACTI or VFMT-401 ATI shall instruct all initial Basic Fighter Maneuver (BFM) events (2800-2804) and 2805, 2807, 2811, 2812.
An ACTI, Division Lead, or VMFT-401 ATI shall instruct 2806, 2808, 2809 and 2810.
Adversaries may be similar or dissimilar, provided instructor requirements are met.
Completion of all 2800 level events constitutes an ACM qualification.

2.10.9.3 Ground/Academic Training

Readings

Air NTTP 3-22.1-AV8B
Review Chapter 6 Air-to-Air Fundamentals.
Air-to-Air Employment.
Review Appendix B, Standard Expendable Loads.

Air NTTP 3-22.3-AV8B, Review Appendix A, BFM/ACM Training

NTRP 3-22.4-AV8B
Review Chapter 2.10, RADAR.
Review Chapter 6, Air-to-Air Weapon Delivery.
Review Chapter 7.1, E-M Diagrams.

NAVMC DIR 3500.14, Aviation Training and Readiness Program Manual
Review Chapter 4, ACM Rules of Conduct.

TOPGUN Manual
Review Rule-of-Thumb.
Review Threat Aircraft.
Review Threat RADAR Missiles.
Review Threat IR Missiles.
Review Combat Gunnery.
Review Intercept Control.
Review AIM-120.

Review AV-8 NATIP (NTRP 3-22.2-AV8B), AIM-9M-8 and AIM-120.

Lectures

Review the following AV-8B courseware lectures:
ACAD-2039, ACM Safety and A/A Systems.
ACAD-2040, Aircraft Performance.
ACAD-2041, Combat Gunnery.
ACAD-2042, Combat Thrust Vector Control.
ACAD-2043, AIM-9 and AIM-120
ACAD-2044, GAU-12.
ACAD-2045, ALR-67, RWR.
ACAD-2046, ALE-39/47, CMDS.
ACAD-2047, ALQ-164, DECM.
ACAD-2048, AV-8B Departure Avoidance.
ACAD-2049, AV-8B RADAR Controls and Displays.
ACAD-2050, AV-8B Basic Intercept Geometry 1 & 2.
ACAD-2051, Air-to-Air Search Techniques.

Receive the following AV-8B courseware lectures:
ACAD-2052, 1V1 Basic Fighter Maneuvers.
ACAD-2053, 2V1 Basic Fighter Maneuvers.
ACAD-2054, Air Intercept Control.
ACAD-2055, APG-65 Utilization (MAWTS-1 ASP).

Chalk Talks/Practical Application

Review the following AV-8B courseware lectures:
ACAD-2056, TCTS Debrief Lab
ACAD-2057, Air-to-air timeline with SAR-1 threat chalktalk

SAA-2800 1.0 * B,R D S RNAWST

Goal. Review TVC procedures and air-to-air TACADMIN.

Requirement

Plan: Complete 1 high speed departure recovery, 1 slow speed departure recovery, 1 ACM mode/Air-to-Air weapons HOTAS drill and 1 other ACM mode/Air-to-Air weapons drill or 1 Heat to Guns Drill, 2 turn rate drills, 2 break turns (at least one with a deck transition), 1 TVC-assisted turn drill, 1 HSPO, 1 HSWO, and 1 flop.

Brief: Instruction shall include TVC utilization and departure prevention, ACM training rules application, AIM-9M-8 and AIM-120 weapon set-up and TACADMIN checks, HOTAS commanded ACM modes, weapons employment, and scan techniques. Review performance numbers and apply maneuvering characteristics chart and EM diagram to maneuvers.

Execution: Perform ACM drills IAW planning guidance. Execute departure recovery procedures IAW NATOPS. Execute drills and procedures IAW Air NTTP. Recognize AIM-9M-8, AIM-120,and GAU-12 WEZ. For the ACM mode/Air-to-Air weapons drills, a co-speed bandit will be placed in front of the PUI. The PUI will obtain a RADAR lock utilizing WACQ, VACQ, and BACQ, then take an AIM-120 shot, an AIM-9 shot, then close for a tracking GAU-12 shot.

Debrief: Utilize Simulator DAQ video if available. Review aircraft parameters (airspeed/AOA/Altitude) for each maneuver while relating to maneuvering characteristics chart and EM diagram. Validate weapons employments. Review both the Radar and HUD for systems management.

Prerequisite. Complete ground/academic training, INT-2202, TCT-2301.

Ordnance. 2 AIM-9M-8, 2 AIM-120, Expendables.

AA-2801 1.3 180 B,R,M D A 2 AV-8B

Goal. Review TVC procedures and air-to-air TACADMIN.

Requirement

Plan: Complete 2 heat-to-guns drills, 1 zero airspeed departure recovery, 1 slow speed/high AOA drill, 2 turn rate drills, 2 break turns (1 with a deck transition), 1 TVC-assisted turn drill, 1 HSPO, and 1 flop. Instruction shall include TVC utilization, ACM training rules application, and scan techniques.

Brief: Execute IAW MAWTS-1 brief/debriefing guide. Instruction shall include TVC utilization, departure prevention, ACM training rules application, and scan techniques.

Execution: Perform ACM drills IAW planning guidance. Adhere to ACM training rules. Execute departure recovery procedures IAW NATOPS.

Execute drills and procedures IAW Air NTTP. On HTG PUI employs valid weapons, maneuvers OOP greater than 15 degrees, and employs a tracking guns shot inside 2400'/0.4NM.

Debrief: Execute IAW the MAWTS-1 brief/debrief guide.

Prerequisite. SAA-2800

Ordnance
Desired: 1 CATM-9, 1 TCTS Pod, 30 Flares.
Required: 1 CATM-9, 30 Flares.

Range Requirement. RSTD, EXP, TCTS.

External syllabus support. TCTS facility.

AA-2802 1.3 * B D A 1+ AV-8B

Goal. Review 1 V 1 offensive BFM.

Requirement

Plan: Review 1 heat-to-guns drill; 1 snapshot drill; and 1 x 9,000-foot, 1 x 6,000-foot, and 1 x 3,000-foot offensive perch engagements. Instruction shall include ACM training rules application, energy management and assessment, turn circle entry recognition, WEZ recognition, and deck awareness.

Brief: Execute IAW the MAWTS-1 brief/debriefing guide. Instruction shall include ACM training rules application, energy management and assessment, turn circle entry recognition, WEZ recognition, deck awareness, and departure prevention.

Execution: Execute drills and perch sets IAW planning guidance. Adhere to ACM training rules. Execute drills and procedures IAW Air NTTP. On HTG PUI employs valid weapons, maneuvers OOP greater than 15 degrees, and employs a tracking guns shot inside 2400'/0.4NM. On 9K set PUI executes a proper attack window entry (not late, within briefed performance tolerances) and maintains an offensive position for 60 seconds. On 6K set PUI executes a proper attack window entry. IP will execute a ditch maneuver on the 6K set, PUI executes a proper ditch follow and maintains an offensive position through the maneuver. Fuel and time permitting, instructor will demonstrate a deck transition. On 3K set PUI executes a proper attack window entry and avoids being neutralized. Recognize AIM-9M-8, AIM-120, and GAU-12 WEZ. Correct ALSA Communication Brevity. Correct use of HOTAS commanded ACM modes. Takes at least 1 post offensive break turn shot during perch sets, otherwise incomplete.

Debrief: Execute IAW the MAWTS-1 brief/debrief guide. Beginning with TACADMIN, aircrew will review tapes to evaluate timing and performance (turn rate, AOA management, airspeed, g, etc) in order to evaluate PUIs energy management during each maneuver. Introduce shot validation and validate all shots; debrief any missed shot opportunities. Whiteboard or TCTS will be used to define geometry (range, angle, and closure) during the maneuvers.

Prerequisite. AA-2801

Ordnance
Desired: 1 CATM-9, 1 TCTS Pod, 30 Chaff, 30 Flares.
Required: 1 CATM-9, 30 flares.

Range Requirement. RSTD, EXP, TCTS.

External syllabus support. TCTS facility.

AA-2803 1.3 * B D A 1+ AV-8B

Goal. Review 1 V 1 defensive BFM.

Requirement

Plan: Review 1 rolling scissors drill and 1 x 9,000-foot, 1 x 6,000-foot, and 1 x 3,000-foot defensive perch engagements (with 1 perch set ending in a horizontal scissors). Instruction shall include ACM training rules application, energy management and assessment, deck awareness, and denying adversary WEZ entry. Attempt to neutralize adversary and/or disengage successfully while utilizing air-to-air threat counter tactics. PUI must conduct a ditch and a deck transition.

Brief: Execute IAW MAWTS-1 brief/debriefing guide. Instruction shall include ACM training rules application, energy management and assessment, deck awareness, and denying adversary WEZ entry. Departure prevention shall be briefed with specific attention paid to the break turn and the ditch. Attempt to neutralize adversary and/or disengage successfully while utilizing air-to-air threat counter tactics.

Execution: Perform drills and perch sets IAW planning guidance. Adhere to ACM training rules. Execute drills and procedures IAW Air NTTP. On 9K set PUI executes a proper DBT with expendables and prevents attacker from obtaining a WEZ for 60 seconds. On 6K set PUI executes a proper DBT with expendables, then executes proper ditch mechanics. On 3K set IP will demonstrate an overshoot, PUI recognizes high track crossing angle and LOS rates and neutralizes with a reversal into the horizontal or rolling scissors.

Debrief: Execute IAW the MAWTS-1 brief/debrief guide. Beginning with TACADMIN, aircrew will review tapes to evaluate timing and performance (turn rate, AOA management, airspeed, g, etc) in order to evaluate PUIs energy management during each maneuver. Review shot validation and validate all shots; debrief any missed shot opportunities. Whiteboard or TCTS will be used to define geometry (range, angle, and closure) during the maneuvers.

Prerequisite. AA-2802

Ordnance
Desired: 1 CATM-9, 1 TCTS Pod, 30 Chaff, 30 Flares.
Required: 1 CATM-9, 30 flares.

Range Requirement. RSTD, EXP, TCTS.

External syllabus support. TCTS facility.

AA-2804 1.3 180 B,R,M D A 1+ AV-8B

Goal. Review 1 V 1 high aspect BFM against a Category II+ adversary.

Requirement

Plan: Review 1 snapshot drill, 1 heat-to-guns drill, and a minimum of 3 high aspect engagements: 2 butterfly and 1 abeam. Adversary gameplan will be stipulated in the brief. Focus for this sortie is on decision making for 1-circle and 2-circle game plans.

Brief: Execute IAW MAWTS-1 brief/debrief guide. Instruction shall include ACM training rules application, energy management and assessment, gameplans, pre-merge considerations, weapons employment, deck awareness, and air-to-air threat counter tactics. Departure prevention shall be briefed.

Execution: Perform drills and neutral engagements IAW planning guidance. Execute gameplan IAW Air ANTTP. PUI maintains sight and flies appropriate performance numbers for 1 circle or 2 circle gameplan. PUI utilizes out of plane maneuvers (at least 15 degrees) while executing gameplan.

Debrief: Execute IAW the MAWTS-1 brief/debrief guide. PUI will conduct shot validation and validate all shots while instructor queues the tapes; debrief missed shot opportunities. Debrief will focus on aircraft performance(relate to EM diagram) to assess which fighters were managing their energy according to the briefed gameplan. Whiteboard or TCTS debrief to assess actual geometry between fighters.

Prerequisite. AA-2803

Ordnance
Desired: 1 CATM-9, 1 TCTS Pod, 30 Chaff, 30 Flares.
Required: 1 CATM-9, 30 flares.

Range Requirement. RSTD, EXP, TCTS.

External syllabus support. TCTS facility.

SAA-2805 1.0 * B D S MTT/RNAWST

Goal. Introduce air-to-air timeline and baseline tactic.

Requirement

Plan: Perform 6 single side offset intercepts against a single, sortable, unaware group with PHID satisfied. Threat aircraft will fly a striker profile (pre-planned turns only). PUI will start airborne and conduct TACADMIN. Employ weapons BVR in accordance with the SAR-1 timeline. One presentation should meet TOPGUN very high/very fast flyer criteria, and one shall have bandits below 1000' AGL. PUI attempts a sort, but will shoot out of STT.

Brief: Execute IAW the MAWTS-1 brief/debrief guide. Instruction shall include intercept geometry, RADAR mechanics, and AIM-120/AIM-9M employment. Review timeline from CAP to SRR through the merge; then mission rehearse, to include comm, for each line. The structure of the sortie is missionized line training. This means the PUI makes only mission required comm, does not have to adhere to training rules, and will be reconfigured and set up at the CAP for each line. This is an effort to reduce PUIs workload and allow them to focus on executing the baseline tactic.

Execution: Perform 6 intercepts IAW planning guidance. Execute procedures IAW ANTTP. Valid A/A weapons deliveries. For at least one of the 4 medium altitude intercepts, PUI executes commit checks, maintains geometry that allows for a merge, shoots on timeline, cranks in correct direction, executes BVR/WVR transition with proper A/A weapon selected and shoots all the way to a tally 1 at the merge; otherwise, incomplete.

Debrief: Execute IAW the MAWTS-1 brief/debrief guide. Utilize simulator DAQ video if available. Validate all shots, debrief missed shot opportunities, intercept geometry, communications, radar mechanics, and threat countertactics.

Prerequisite. INT-2202, TCT-2301, TCT-2302

Ordnance. 2 AIM-9M-8, 2 AIM-120, SEL as appropriate.

External syllabus support. GCI desired if available.

SAA-2806 1.0 * B D S RNAWST

Goal. Review air-to-air timeline and baseline tactic and ensure PUI can sort and execute both VIDs while employing as a section.

Requirement

Plan: Linked simulator, PUI as wingman. Perform 5 intercepts against a single, sortable, unaware group. Conduct a planned and a reactive VID. Conduct 3 SSO intercepts. ACTI may fly as the lead with a section lead or CSI operating the bandits at the console, provided DAQ video is available. DAQ or "ACTI at the console" debrief is required; otherwise, incomplete. Sortie construct will be partial task trainer/line training with briefed training rules. Exercise control is shooter controlled bandit assisted kill removal (introduce).

Brief: Execute IAW MAWTS-1 brief/debrief guide. Instruction shall include intercept geometry, RADAR mechanics, and AIM-120/AIM-9M employment.

Execution: Perform 5 intercepts IAW planning guidance. Execute procedures IAW ANTTP. For VIDs, lead is the eyeball and the PUI is the shooter. For planned VID, PUI executes pump and bracket correctly to generate briefed separation. PUI gains RADAR SA to threat group and takes valid shots while maintaining SA to flight lead. PUI obtains a valid sort on at least 3 of the 5 intercepts. PUI shoots on timeline and cranks in appropriate direction. PUI arrives at merge with radar or visual SA and proper weapon selected.

Debrief: Execute IAW the MAWTS-1 brief/debrief guide. Utilize simulator DAQ video if available. Validate all shots, debrief missed shot opportunities, intercept geometry, communications, radar mechanics, and threat countertactics.

Prerequisite. SAA-2805

Ordnance. 2 AIM-9M-8, 2 AIM-120, SEL as appropriate.

External syllabus support. GCI desired if available.

SAA-2807 1.0 * B D S RNAWST

Goal. Intro actions at MDR during baseline air-to-air tactic against a SAR-1 threat.

Requirement

Plan: Perform 4 single side offset intercepts against a single, sortable, aware group with PHID satisfied. Employ weapons BVR in accordance with the SAR-1 timeline. Execute notch defense at MDR on 2 intercepts (1 maintain the spike to deck, 1 drop spike once in notch and press). Execute a drag defense on 2 intercepts (1 section delouse and 1 staggerback). Instruction shall include intercept geometry, RADAR

mechanics, AIM-120/AIM-9M employment, actions at MDR, notch mechanics, cold ops checks and delouse/staggerback procedures. Sortie construct will be missionized line training without training rules.

Brief: Execute IAW the MAWTS-1 brief/debrief guide. Instruction shall include intercept geometry, RADAR mechanics, AIM-120/AIM-9M employment, actions at MDR, notch mechanics, cold ops checks and delouse/staggerback procedures. Reinforce scan at key decision points.

Execution: Perform intercepts and air-to-air threat counter tactics IAW planning guidance. Execute procedures IAW ANTTP. When executing notch defense, PUI aggressively maneuvers to the notch with expendables at MDR. PUI properly refines heading to maintain the notch. On one NTD line, PUI will maintain the spike while in the notch and defend to the deck, on the other, PUI will drop the spike while in the notch and press (bandits will target the flight lead) and execute short range radar mechanics to target the threat group. On the delouse line, bandit will lean on the flight lead while the PUI aggressively turns in to target the threat group, utilizing proper reattack RADAR mechanics. On the staggerback line, PUI will be targeted and should execute correct TCT at the appropriate range.

Debrief: Execute IAW the MAWTS-1 brief/debrief guide. Utilize simulator DAQ video if available. Validate all shots, debrief missed shot opportunities, intercept geometry, communications, radar mechanics, and threat countertactics.

Prerequisite. SAA-2806

Ordnance. 2 AIM-9M-8, 2 AIM-120, SEL as appropriate.

External syllabus support. GCI desired if available.

SAA-2808 1.0 * B,R D S RNAWST

Goal. Review baseline air-to-air tactic and TCT against a SAR-1 threat while in section.

Requirement

Plan: Perform 4 single side offset intercepts and BVR weapons employments against a single group with PHID satisfied. Presentations shall include aware and unaware bandits, with PUI executing NTD tactics on 1 intercept and a drag defense on 1 intercept. Sortie shall be flown linked with an ACM qualified section lead (with the PUI as wingman). Sortie will be treated as an actual training sortie in the jet, with all ACM training rules in effect. Sortie construct is a continuous vul. Shooter Controlled Kill Removal / Bandit Assist will be introduced. Exercise control is RTO kill removal (introduce).

Brief: Execute IAW the MAWTS-1 brief/debrief guide. Instruction shall include intercept geometry, RADAR mechanics, AIM-120/AIM-9M employment, actions at MDR, BVR to WVR transition, and cold ops checks.

Execution: Perform intercepts IAW planning guidance. Execute procedures IAW ANTTP. PUI executes proper meld and sort mechanics, and shoots on timeline IAW briefed contracts. PUI cranks in appropriate direction. PUI executes notch or drag defense at MDR, and correctly refines notch heading if appropriate.

Debrief: Execute IAW the MAWTS-1 brief/debrief guide. Utilize simulator DAQ video if available. Validate all shots, debrief missed

shot opportunities, intercept geometry, communications, radar mechanics, and threat countertactics.

Prerequisite. SAA-2807

Ordnance. 2 AIM-9M-8, 2 AIM-120, SEL as appropriate

External syllabus support. GCI desired if available.

SAA-2809 1.0 * B D S RNAWST

Goal. Introduce short-range RADAR mechanics.

Requirement

Plan: Linked simulator. From a Tap-The-CAP setup, Perform 3 forward quarter intercepts against a pop-up single group, aware, IR-2 Category II adversary within 20 nm. At least one of the forward quarter intercepts will originate from the beam, requiring sweep geometry. Perform 1 rear quarter engagement against a pop-up single group, aware, IR-2+ Category II+ adversary within 15 nm. If simulator and aircrew availability support, this sortie should be flown linked to the max extent practical. This sortie is in preparation for the 2v1 syllabus flight and should set the foundation for section engaged maneuvering. The sortie construct may be line training or continuous vul. Exercise control is shooter controlled bandit assist.

Brief: Execute IAW the MAWTS-1 brief/debrief guide. Instruction shall include low SA RADAR set mechanics, ACM modes, Bracket (visual and RADAR) geometry, sweep geometry, and recommit criteria. Review GCI/AIC integration. Review AIM-9M-8, AIM-120 employment and threat counter tactics. Review training rules, roles, and comm. Reinforce immediate actions once SA to the threat group occurs (RADAR, GCI/AIC, RWR, visual).

Execution: Perform 4 short-range intercepts IAW planning guidance. Utilize short-range radar mechanics, RWR, and GCI to gain SA to threat groups. Set proper geometry (i.e. bracket or sweep) depending on threat location. PUI turns aggressively into threat sector with appropriate RADAR mode. Achieves RADAR SA and shoots prior to merge. At merge establishes roles and executes gameplan.

Debrief: Execute IAW the MAWTS-1 brief/debrief guide. Utilize simulator DAQ video if available. Validate all shots, debrief missed shot opportunities, intercept geometry, communications, radar mechanics, and threat countertactics.

Prerequisite. SAA-2808, AA-2804

Ordnance. 2 AIM-9M-8, 2 AIM-120, SEL as appropriate.

External syllabus support. GCI desired if available.

AA-2810 1.3 * B D A 1+ AV-8B

Goal. Intro 1v1 baseline air to air tactic.

Requirement

Plan: Perform 4 single side offset intercepts and BVR weapons employments against a single group with PHID satisfied. Presentations shall include aware and unaware bandits, with PUI executing NTD tactics on 3 intercepts (1 level notch, 1 high to low notch, and 1 drag defense simulating a section delouse/staggerback). One of the intercepts will

result in engaged maneuvering with an appropriate "continue" call from the flight lead.

Brief: Execute IAW the MAWTS-1 brief/debrief guide. Instruction shall include intercept geometry, RADAR mechanics, AIM-120/AIM-9M employment, actions at MDR, BVR to WVR transition, and cold ops checks.

Execution: Perform 4 intercepts IAW planning guidance. Execute procedures IAW the Air NTTP. On line 1 bandit will be unaware. PUI shoots on timeline, cranks in correct direction, and makes proper timeout call. On line 2, fighter will be at the top of the block, 1000 feet below the bandit (at the bottom of their block). Bandit will target the PUI post shot range. PUI shoots on timeline, cranks level in correct direction, and maneuvers to the notch with expendables at MDR. PUI makes appropriate refinements to notch heading in order to maintain the notch. On line 3, fighter will be at the top of the block, approx 5000' above the bandit. Bandit will target the PUI prior to shot range. PUI shoots on timeline, cranks and descends in correct direction, and maneuvers to the notch with expendables at MDR. PUI makes appropriate refinements to notch heading in order to maintain the notch. PUI will pitch back in (bandit will drop lock) NLT 5nm. PUI aggressively turns toward threat group and utilizes short range RADAR mech to regain SA and target threat group. On line 4, bandit will target PUI, and PUI will execute a drag defense at MDR. PUI executes an aggressive out maneuver and performs cold ops checks. While PUI flows cold, bandit will lean on a notional wingman, allowing the PUI to utilize reattack RADAR mech and execute a simulated section delouse. PUI takes valid AIM-120 and AIM-9 shots. PUI executes proper notch/out mechanics as appropriate.

Debrief: Execute IAW the MAWTS-1 brief/debrief guide. Utilize TCTS debriefing facility. Instructor will demonstrate shot validation using shot validation cards. Validate all shots, debrief missed shot opportunities, intercept geometry, communications, radar mechanics, and threat countertactics.

Prerequisite. SAA-2809

Ordnance
Desired: 1 CATM-9, 2 CATM-120, 1 TCTS Pod, 30 Chaff, 30 Flares.
Required: 1 CATM-9, 1 TCTS Pod, 30 flares.

Range Requirement. RSTD, EXP, TCTS, AA.

External syllabus support. GCI desired if available.

AA-2811 1.3 * B D A 2+ AV-8B

Goal. Introduce 2v1 short range intercepts to section engaged maneuvering.

Requirement

Plan: From a tap-the-cap setup, perform 3 intercepts between 10 nm and 20 nm against an IR-2+ Category II-III adversary: 1 forward quarter entry, 1 beam entry, and 1 rear quarter entry (i.e., delouse). PHID via VID is required on all lines except the rear quarter. Pre-merge kills allowed only on the rear quarter entry. GCI utilization is encouraged, but only contacts inside 13nm will be called.

Brief: Execute IAW the MAWTS-1 brief/debrief guide. Instruction shall include SRR mechanics, RADAR and visual bracket geometry, sweep

geometry, post-merge gameplans, engaged and supporting fighter contracts, ACM training rules application, applicable ALSA communications, and air-to-air threat counter tactics.

Execution: Perform 3 short range intercepts IAW planning guidance. Execute procedures IAW Air ANTTP. Utilize short-range RADAR mech, GCI, and RWR to gain SA to, and target threat groups. PUI turns aggressively towards the threat with appropriate RADAR set. Arrive at merge with WID and VID. Adhere to contracts and gameplans. Establishes and adheres to roles. TTK < 90 seconds post merge. Valid A/A weapons deliveries. Execute appropriate air-to-air TCT gameplan.

Debrief: Execute IAW the MAWTS-1 brief/debrief guide. TCTS debrief should be utilized if available, otherwise whiteboard debrief required. Review tapes for gameplan adherence, aircraft performance, validate all shots, debrief missed shot opportunities, intercept geometry, communications, radar mechanics, and threat countertactics.

Prerequisite. AA-2810

Ordnance
Desired: 1 CATM-9, 2 CATM-120, 1 TCTS Pod, 30 Chaff, 30 Flares.
Required: 1 CATM-9, 1 TCTS Pod, 30 flares.

Range Requirement. RSTD, EXP, TCTS, AA.

External Syllabus Support. TCTS facility, GCI/AIC, 1 Adversary (Dissimilar Preferred).

AA-2812	1.3	180	B,R,M	D	A	2+	AV-8B

Goal. Introduce section baseline air-to-air tactic against a single group.

Requirement

Plan: Perform a minimum of 3 forward quarter intercepts against a single group, both aware and unaware, SAR-1-capable adversary. Adversaries shall be both maneuvering and non-maneuvering, showing awareness at various ranges, at altitudes ranging from 5,000 to 30,000 feet and speeds greater than 0.8IMN. One profile will require a VID, the rest will be hostile-at-the-commit scenarios. Actions at MDR, MAR, and MNR shall be briefed and executed. At least one line will require one of the fighters to notch. Section engaged maneuvering is encouraged, but not required.

Brief: Execute IAW the MAWTS-1 brief/debrief guide. Instruction shall include air-to-air timeline, GCI/AIC integration, contracts, criteria, and air-to-air threat tactics. Review AIM-120 and AIM-9 employment. ACTI should demonstrate a bandit and GCI brief to the PUI.

Execution: Perform 3 intercepts IAW planning guidance. Execute intercept procedures IAW Air ANTTP. Adhere to air-to-air timeline, contracts, and criteria. Line 1 bandits will be unaware strikers, fighters will conduct a pre-planned VID with the PUI as shooter. PUI generates appropriate separation, gains RADAR SA to group, and takes valid BVR shots once eyeball makes hostile declaration. Line 2 bandits will be unaware strikers in a single sortable group declared hostile at the commit. Line 3 bandits will fly a sweeper profile in a single sortable group with a direct confrontation mindset. If bandits have enough fuel for line 4, bandits will fly a sweeper profile in a single sortable group, hostile at the commit, and demonstrate AIM-120

awareness. PUI executes proper meld/sort mech on at least 50% of the lines. PUI shoots on timeline on at least 50% of the lines. PUI executes TCT Gameplan IAW brief and ANTTP.

Debrief: Execute IAW the MAWTS-1 brief/debrief guide. TCTS debrief should be utilized to the max extent practical. If TCTS debrief unavailable, a whiteboard debrief shall be conducted. ACTI will conduct a fighter scrub, mass debrief with bandits (phone debrief if required with PUI monitoring) and fighter debrief validating all shots, missed shot opportunities, intercept geometry, communications, radar mechanics, and threat countertactics.

Prerequisite. AA-2810

Ordnance
Desired: 1 CATM-9, 2 CATM-120, 1 TCTS Pod, 30 Chaff, 30 Flares.
Required: 1 CATM-9, 1 TCTS Pod, 30 flares.

Range Requirement. RSTD, AA, EXP.

External Syllabus Support. TCTS facility, GCI/AIC, 2xSAR-1 capable radar-equipped adversaries. Dissimilar preferred.

2.10.10 Aviation Career Progression Model (ACPM)

2.10.10.1 Purpose. To enhance professional understanding of Marine Aviation and the MAGTF and to ensure that 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.

2.10.10.2 General. ACPM academic training requirements will be embedded in all tactical T/M/S T&R manuals within the progressive training phases to include the 2000, 3000, and 6000 phases of training. These training requirements will be tracked and managed in M-SHARP. Commanding officers shall ensure that the requisite ACPM training requirements have been met prior to designating flight leaders.

ACPM Core Skill Training Events

ACPM-8200, MACCS Agencies, Functions and Control of Aircraft and Missiles
ACPM-8201, MWCS Brief
ACPM-8202, ACA & 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, JTAR/ASR Introduction and Practical Application
ACPM-8242, Site Command Primer
ACPM-8250, Theater Air Ground System (TAGS)

2.11 MISSION SKILL PHASE

2.11.1 Mission Skill Training

2.11.1.1 Purpose. Develop proficiency in OAS from expeditionary shore-based sites.

2.11.1.2 General. Initial POI events shall be tailored to a wingman's role.

2.11.2 Close Air Support (CAS)

2.11.2.1 Purpose. Develop proficiency in CAS execution during day and night, low and medium altitudes, at all threat levels.

2.11.2.2 General. A FAC(A), WTI, or FAC qualified WTO shall instruct all initial day events. NSI shall instruct all initial night events.

2.11.2.3 Ground/Academic Training

Readings
Review Joint Publication 3-09.3, Joint Tactics, Techniques, and Procedures for Close Air Support.
AV-8B NATIP (NTRP 3-22.4-AV8B), Review Section 2.11.3, CAS Display.
Air NTTP 3-22.3 AV-8B, Review Chapter 8, Close Air Support.
Tactical Air Control Party (TACP) Tactical Standard Operation Procedures, MAWTS-1.

Lectures
Receive the following AV-8B courseware from a WTO:
ACAD-3001, CAS Execution, MAWTS-1 ASP.

Review the following AV-8B courseware lectures:
ACAD-3000, ATHS/Digital CAS
ACAD-3002, CAS Standardization, MAWTS-1 ASP
ACAD-2021, Forward Firing Ordnance, MAWTS-1 ASP

SCAS-3100	1.0	*	B,R	D	S	RNAWST

Goal. Review medium altitude Close Air Support (CAS) with General Purpose (GP) and Forward Firing (FF) ordnance.

Requirement

Plan: Use Squadron S-2, Pilot Training Officer (PTO), and FAC(A) to develop ROE, SPINS, ground scheme of maneuver (SOM), and threats. Develop a plan to locate, ID, and kill enemy targets IAW the ground SOM and achieve commander's intent. Have a survive game plan to defeat the threat system while meeting allowable risk standards. Ensure JMPS plan is IAW ANTTP Chapter 8; goal is for an organized cockpit that supports efficient systems management. Generate target area imagery, sensor profiles, EOTDA data, and cockpit maps that enable mission success.

Brief: Execute IAW MAWTS-1 brief/debriefing guide. Tailor brief around the TACP TACSOP CAS execution template, focusing on system management, communications, correlation, and specific attack templates. Mission Rehearse the CAS execution template, covering Type I, II, III attacks using GP and FF ordnance.

Execution: Conduct two type I, one type II, and one type III attacks utilizing GP and FF ordnance. Execute tactics IAW with JCAS and ANTTP. Locate the correct target. Achieve desired level of destruction IAW ROE via a valid weapons release on time (+/-20 sec). Survive against the threat IAW allowable risk.

Debrief: Debrief using the simulator debriefing stations. Debrief will be conducted IAW MAWTS-1 brief/debrief guide.

Prerequisite. Complete ground/academic training, air-to-surface stage.

Ordnance. 1 TPOD, 2 x MK-82 HD/LD, 300 x 25 MM, 4 x 5" Rockets, Expendables.

External Syllabus Support. JTAC at console or FAC(A) in linked simulator desired.

SCAS-3101 1.0 * B D S RNAWST

Goal. Review medium altitude CAS with precision guided munitions (PGM).

Requirement

Plan: Use Squadron S-2, Pilot Training Officer (PTO), and FAC(A) to develop ROE, SPINS, ground scheme of maneuver (SOM), and threats. Develop a plan to locate, ID, and kill enemy targets IAW the ground SOM, achieve commander's intent with the correct weapon to target match. Have a survive game plan to defeat the threat system while meeting allowable risk standards. Ensure JMPS plan is IAW ANTTP Chapter 8; goal is for an organized cockpit that supports efficient systems management. Generate target area imagery, sensor profiles, EOTDA data, and cockpit maps that enable mission success.

Brief: Execute IAW MAWTS-1 brief/debriefing guide. Tailor brief around the TACP TACSOP CAS execution template, focusing on system management, communications, correlation, and specific attack templates. Mission rehearsal should emphasize systems management, target PID, target coordinate generation accuracy, PGM employment, threat countertactics, and standardized communications.

Execution: Conduct at least four type II attacks employing LASER guided weapons (LGW), inertial aided munitions (IAM), and dual mode weapons. Execute at least one type I LGW dive attack. Perform one moving target LASER Maverick employment. Execute tactics IAW with JCAS and ANTTP. Locate the correct target. Achieve desired level of destruction IAW ROE via a valid weapons release on time (+/-20 sec). Survive against the threat IAW allowable risk.

Debrief: Debrief using the simulator debriefing stations. Debrief will be conducted IAW MAWTS-1 brief/debrief guide.

Prerequisite. SCAS-3100

Ordnance. 1 TPOD, 1 x GBU-12, 1 x GBU-38, 1 x GBU-54, 1 x AGM-65E, Expendables.

External Syllabus Support. JTAC at console or FAC(A) in linked simulator desired.

SCAS-3102 1.0 * B,R (NS) S RNAWST

Goal. Introduce medium altitude CAS in an urban environment.

Requirement

Plan: Use Squadron S-2, Pilot Training Officer (PTO), and FAC(A) to develop ROE, SPINS, gridded reference graphic (GRG), ground scheme of maneuver (SOM), and threats. Develop a plan to locate, ID, and kill enemy targets IAW the ground SOM, achieve commander's intent with the correct weapon to target match. Have a survive game plan to defeat the threat system while meeting allowable risk standards. Ensure JMPS plan is IAW ANTTP Chapter 8; goal is for an organized cockpit the at supports efficient systems management. Generate target area imagery, sensor profiles, EOTDA data, weaponeering with consideration for collateral damage estimate (CDE) and risk estimation distances (RED), and cockpit maps that enable mission success.

Brief: Execute IAW MAWTS-1 brief/debriefing guide. Tailor brief around the TACP TACSOP CAS execution template, focusing on system management, communications, correlation, and specific attack templates. Mission rehearsal should emphasize systems management, target PID, collateral damage and danger close considerations, GRG usage, target coordinate generation accuracy, PGM employment, threat countertactics, and standardized communications.

Execution: Conduct two type II and one type I attacks. Execute at least one type I LGW dive attack. Achieve desired level of destruction IAW ROE via a valid weapons release on time (+/-20 sec). Survive against the threat IAW allowable risk.

Debrief: Debrief using the simulator debriefing stations. Debrief will be conducted IAW MAWTS-1 brief/debrief guide.

Prerequisite. SCAS-3101

Ordnance. 1 TPOD, 2 x GBU-12, 1 x GBU-38, 1 x GBU-54, 300 x 25MM, Expendables.

External Syllabus Support. JTAC at console or FAC(A) in linked simulator desired.

SCAS-3103 1.0 * B,R D S RNAWST

Goal. Introduce low altitude CAS with GP and FF ordnance.

Requirement

Plan: Use Squadron S-2, Pilot Training Officer (PTO), and FAC(A) to develop ROE, SPINS, gridded reference graphic (GRG), ground scheme of maneuver (SOM), and threats. Develop a plan to locate, ID, and kill enemy targets IAW the ground SOM, achieve commander's intent with the correct weapon to target match. Have a survive game plan to defeat the threat system while meeting allowable risk standards. Ensure JMPS plan is IAW ANTTP Chapter 8; goal is for an organized cockpit the at supports efficient systems management. Generate target area imagery, weaponeering for low altitude employment, and conduct low altitude analysis of the objective area with a 1:50,000 for the brief.

Brief: Execute IAW MAWTS-1 brief/debriefing guide. Tailor brief around the TACP TACSOP CAS execution template, focusing on system management, communications, correlation, and specific attack templates focused on the low altitude environment. Mission rehearsal should emphasize systems management, terrain clearance tasking, and mission critical tasking, holding, attack transition, and egress.

Execution: Conduct two attacks from the low altitude environment. Maintain terrain clearance tasking IAW the ANTTP and execute all mission critical tasks. Achieve desired level of destruction IAW ROE via a valid weapons release on time (+/-20 sec). Survive against the threat IAW allowable risk.

Debrief: Debrief using the simulator debriefing stations. Debrief will be conducted IAW MAWTS-1 brief/debrief guide.

Prerequisite. LAT-2502, SCAS-3101

Ordnance. 2 x MK-82 HD, 4 x 5" Rockets, 1 x CBU-99/100, 300 x 25MM, Expendables.

External Syllabus Support. JTAC at console or FAC(A) in linked simulator desired.

SCAS-3104 1.0 * B,R NS S RNAWST

Goal. Introduce medium altitude night CAS with GP, FF, and PGM ordnance.

Requirement

Plan: Utilize Squadron S-2, Pilot Training Officer (PTO), and FAC(A) to develop ROE, SPINS, ground scheme of maneuver (SOM), and threats. Develop a plan to locate, ID, and kill enemy targets IAW the ground SOM, achieve commander's intent with the correct weapon to target match. Have a survive game plan to defeat the threat system while meeting allowable risk standards. Ensure JMPS plan is IAW ANTTP Chapter 8; goal is for an organized cockpit that supports efficient systems management at night. Generate target area imagery, sensor profiles, EOTDA data, and cockpit maps that enable mission success for the given weather conditions.

Brief: Execute IAW MAWTS-1 brief/debriefing guide. Tailor brief around the TACP TACSOP CAS execution template, focus on system management, communications, correlation, and specific attack templates. Mission rehearsal should introduce night considerations for systems management, target PID, target coordinate generation accuracy, PGM employment, threat countertactics, and standardized communications.

Execution: Conduct two type I, two type II, and one type III attack. One attack must use the IR marker for target correlation.

Performance Standard. Execute all tactics IAW with JCAS and ANTTP. Locate the correct target. Achieve desired level of destruction IAW ROE via a valid weapons release on time (+/-30 sec). Survive against the threat IAW allowable risk.

Debrief: The sortie will be debriefed using simulator DAQ. Debrief will be conducted IAW MAWTS-1 brief/debrief guide.

Prerequisite. NS-2702, SCAS-3101

Ordnance. 1 TPOD, 2 MK-82, 1 GBU-12/16, 1 GBU-38/32/54, 300 25MM, Expendables.

External Syllabus Support. JTAC at console or FAC(A) in linked simulator desired.

CAS-3105 1.3 180 B,R,M D A 2 AV-8B

Goal. Review medium altitude CAS with GP and FF ordnance.

Requirement

Plan: Utilize Squadron S-2, Pilot Training Officer (PTO), and FAC(A) to develop ROE, SPINS, ground scheme of maneuver (SOM), and threats. Develop a plan to locate, ID, and kill enemy targets IAW the ground SOM and achieve commander's intent. Have a survive game plan to defeat the threat system while meeting allowable risk standards. Ensure JMPS plan is IAW ANTTP Chapter 8; goal is for an organized cockpit that supports efficient systems management. Generate target area imagery, sensor profiles, EOTDA data, and cockpit maps that enable mission success.

Brief: Execute IAW MAWTS-1 brief/debriefing guide. Tailor brief around the TACP TACSOP CAS execution template, focus on system management, communications, correlation, and specific attack templates. Mission Rehearse the CAS execution template, covering Type I, II, III attacks using GP and FF ordnance.

Execution: Conduct a minimum of two attacks, initial sortie shall employ GP and FF ordnance. Initial sortie should employ rockets.

Performance Standard. Execute tactics IAW with JCAS and ANTTP. Locate the correct target. Achieve desired level of destruction IAW ROE via a valid weapons release on time (+/-20 sec). Survive against the threat IAW allowable risk.

Debrief: The sortie will be debriefed using aircraft and TPOD recording devices and TCTS feeds if available. Debrief will be conducted IAW MAWTS-1 brief/debrief guide.

Prerequisite. SCAS-3102

Ordnance
Desired: 1 TPOD, 2 MK-82, 4 5” HE Rockets, 300 25mm, 30 Flares. Acceptable substitutes: 6 Mk-76/4 Mk-82/4 BDU-45/2 Mk-83/2 Mk-83 inert/2 CBU-99/2 Mk-77, 7 2.75" Rockets,10 Chaff, 20 Flares.

Range Requirement. RSTD, STRAFE, HE, EXP.

External Syllabus Support. JTAC or FAC(A).

CAS-3106	1.3	*	B,R		D	A	2 AV-8B

Goal. Review medium altitude CAS with precision guided munitions (PGM).

Requirement

Plan: Utilize Squadron S-2, Pilot Training Officer (PTO), and FAC(A) to develop ROE, SPINS, ground scheme of maneuver (SOM), and threats. Develop a plan to locate, ID, and kill enemy targets IAW the ground SOM, achieve commander’s intent with the correct weapon to target match. Have a survive game plan to defeat the threat system while meeting allowable risk standards. Ensure JMPS plan is IAW ANTTP Chapter 8; goal is for an organized cockpit that supports efficient systems management. Generate target area imagery, sensor profiles, EOTDA data, and cockpit maps that enable mission success.

Brief: Execute IAW MAWTS-1 brief/debriefing guide. Tailor brief around the TACP TACSOP CAS execution template, focus on system management, communications, correlation, and specific attack templates. Mission rehearsal should emphasize systems management, target PID, target coordinate generation accuracy, PGM employment, threat countertactics, and standardized communications.

Execution: Conduct a minimum of two attacks employing LASER guided weapons (LGW), inertial aided munitions (IAM), or dual mode weapons.

Performance Standard. Execute tactics IAW with JCAS and ANTTP. Locate the correct target. Achieve desired level of destruction IAW ROE via a valid weapons release on time (+/-20 sec). Survive against the threat IAW allowable risk.

Debrief: The sortie will be debriefed using aircraft and TPOD recording devices and TCTS feeds if available. Debrief will be conducted IAW MAWTS-1 brief/debrief guide.

Prerequisite. CAS-3102

Ordnance
Desired: 1 TPOD, 1 GBU-12, 1 x GBU-38, 1 x CATM-65E, 30 Flares. Acceptable substitutes: GBU-32/GBU-32 inert/GBU-38/GBU-38 inert/GBU-12/GBU-12 inert/GBU-16/GBU-16 inert/LGTR, 10 Chaff, 20 Flares.

Range Requirement. RSTD, HE, EXP.

External Syllabus Support. JTAC or FAC(A).

CAS-3107 1.3 365 B,R,M D A 2 AV-8B

Goal. Introduce low altitude day CAS with GP and FF ordnance.

Requirement

Plan: Utilize Squadron S-2, Pilot Training Officer (PTO), and FAC(A) to develop ROE, SPINS, gridded reference graphic (GRG), ground scheme of maneuver (SOM), and threats. Develop a plan to locate, ID, and kill enemy targets IAW the ground SOM, achieve commander's intent with the correct weapon to target match. Have a survive game plan to defeat the threat system while meeting allowable risk standards. Ensure JMPS plan is IAW ANTTP Chapter 8; goal is for an organized cockpit that supports efficient systems management. Generate target area imagery, weaponeering for low altitude employment, and conduct low altitude analysis of the objective area with a 1:50,000 map.

Brief: Execute IAW MAWTS-1 brief/debriefing guide. Tailor brief around the TACP TACSOP CAS execution template, focus on system management, communications, correlation, and specific attack templates focused on the low altitude environment. Mission rehearsal should emphasize systems management, terrain clearance tasking, and mission critical tasking, holding, attack transition, and egress.

Execution: Conduct a minimum of two attacks from the low altitude environment, may conduct sortie at 500' due to range restrictions, currency, or local SOP.

Performance Standard. Maintain terrain clearance tasking IAW the ANTTP and execute all mission critical tasks. Achieve desired level of destruction IAW ROE via a valid weapons release on time (+/-20 sec). Survive against the threat IAW allowable risk.

Debrief: The sortie will be debriefed using aircraft and TPOD recording devices and TCTS feeds if available. Debrief will be conducted IAW MAWTS-1 brief/debrief guide.

Prerequisite. SCAS-3103, CAS-3105

Ordnance
Desired: 2 MK-82 HD, 4 5" HE Rockets, 300 25MM, 30 Flares. Acceptable substitutes: 6 Mk-76/4 MK 82/4 BDU-45/2 Mk-83/2 Mk-83 inert/2 CBU-99/100, 7 2.75" Rockets

Range Requirement. RSTD, HE, EXP, STRAFE.

External Syllabus Support. JTAC or FAC(A).

CAS-3108 1.3 * B (NS) A 2 AV-8B

Goal. Introduce medium altitude CAS in an urban environment.

Requirement

Plan: Utilize Squadron S-2, Pilot Training Officer (PTO), and FAC(A) to develop ROE, SPINS, gridded reference graphic (GRG), ground scheme of maneuver (SOM), and threats. Develop a plan to locate, ID, and kill enemy targets IAW the ground SOM, achieve commander's intent with the correct weapon to target match. Have a survive game plan to defeat the threat system while meeting allowable risk standards. Ensure JMPS plan is IAW ANTTP Chapter 8; goal is for an organized cockpit the at supports efficient systems management. Generate target area imagery, sensor profiles, EOTDA data, weaponeering with consideration for collateral damage estimate (CDE) and risk estimation distances (RED), and cockpit maps that enable mission success.

Brief: Execute IAW MAWTS-1 brief/debriefing guide. Tailor brief around the TACP TACSOP CAS execution template, focus on system management, communications, correlation, and specific attack templates. Mission rehearsal should emphasize systems management, target PID, collateral damage and danger close considerations, GRG usage, target coordinate generation accuracy, PGM employment, threat countertactics, and standardized communications. Focus on target correlation and the requirement for precise fires in the urban environment.

Execution: Conduct two attacks against targets in the urban environment.

Performance Standard. Achieve desired level of destruction IAW ROE via a valid weapons release on time (+/-20 sec). Survive against the threat IAW allowable risk.

Debrief: The sortie will be debriefed using aircraft and TPOD recording devices and TCTS feeds if available. Debrief will be conducted IAW MAWTS-1 brief/debrief guide.

Prerequisite. CAS-3105, 3106, (If flown at night CAS-3104)

Ordnance
Desired: 1 TPOD, 1 LGTR, 1 GBU-38I, 300 25MM, 30 Flares. Simulated ordnance is authorized for this sortie.
Acceptable substitutes: Inert GBU 32/Inert GBU 38/Inert GBU 12/Inert GBU 16/Inert BDU 45/Inert 5" Rockets/Inert 7 2.75" Rockets.

Range Requirement. RSTD, HE, EXP, STRAFE, LSR.

External Syllabus Support. RSTD, HE, EXP, STRAFE.

CAS-3109 1.3 180 B,R,M NS A 2 AV-8B

Goal. Introduce medium altitude night CAS with GP and FF ordnance.

Requirement

Plan: Utilize Squadron S-2, Pilot Training Officer (PTO), and FAC(A) to develop ROE, SPINS, ground scheme of maneuver (SOM), and threats. Develop a plan to locate, ID, and kill enemy targets IAW the ground SOM, achieve commander's intent with the correct weapon to target match. Have a survive game plan to defeat the threat system while meeting allowable risk standards. Ensure JMPS plan is IAW ANTTP Chapter 8; goal is for an organized cockpit that supports efficient systems management at night. Generate target area imagery, sensor

profiles, EOTDA data, and cockpit maps that enable mission success for the given weather conditions.

Brief: Execute IAW MAWTS-1 brief/debriefing guide. Tailor brief around the TACP TACSOP CAS execution template, focus on system management, communications, correlation, and specific attack templates. Mission rehearsal should introduce night systems considerations for systems management, target PID, target coordinate generation accuracy, PGM employment, threat countertactics, and standardized communications.

Execution: Conduct a minimum of two attacks, initial sortie shall execute a GP and FF ordnance employment. Initial sortie should employ the gun. One attack must use the IR marker for target correlation.

Performance Standard. Execute tactics IAW with JCAS and ANTTP. Locate the correct target. Achieve desired level of destruction IAW ROE via a valid weapons release on time (+/-20 sec). Survive against the threat IAW allowable risk.

Debrief: The sortie will be debriefed using aircraft and TPOD recording devices and TCTS feeds if available. Debrief will be conducted IAW MAWTS-1 brief/debrief guide.

Prerequisite. SCAS-3104, CAS-3105, AS-2702

Ordnance
Desired: 1 TPOD, 2 MK-82, 300 25mm, 30 Flares.
Acceptable substitutes: 6 Mk-76/4 Mk-82/4 BDU-45/2 Mk-83/2 Mk-83 inert/2 CBU-99/2 Mk-77, 7 2.75" Rockets, 4 5” HE Rockets, 10 Chaff, 20 Flares.

Range Requirement. RSTD, HE, EXP, STRAFE.

External Syllabus Support. JTAC or FAC(A).

CAS-3110 1.3 * B,R NS A 2 AV-8B

Goal. Review medium altitude night CAS with precision guided munitions (PGM).

Requirement

Plan: Use Squadron S-2, Pilot Training Officer (PTO), and FAC(A) to develop ROE, SPINS, ground scheme of maneuver (SOM), and threats. Develop a plan to locate, ID, and kill enemy targets IAW the ground SOM, achieve commander’s intent with the correct weapon to target match. Have a survive game plan to defeat the threat system while meeting allowable risk standards. Ensure JMPS plan is IAW ANTTP Chapter 8; goal is for an organized cockpit that supports efficient systems management. Generate target area imagery, sensor profiles, EOTDA data, and cockpit maps that enable mission success.

Brief: Execute IAW MAWTS-1 brief/debriefing guide. Tailor brief around the TACP TACSOP CAS execution template, focusing on system management, communications, correlation, and specific attack templates. Mission rehearsal should emphasize systems management, target PID, target coordinate generation accuracy, PGM employment, threat countertactics, and standardized communications.

Execution: Conduct two type II attacks employing LASER guided weapons (LGW), inertial aided munitions (IAM), and dual mode weapons. Execute tactics IAW with JCAS and ANTTP. Locate the correct target. Achieve

desired level of destruction IAW ROE via a valid weapons release on time (+/-20 sec). Survive against the threat IAW allowable risk.

Debrief: The sortie will be debriefed using aircraft and TPOD recording devices and TCTS feeds if available. Debrief will be conducted IAW MAWTS-1 brief/debrief guide.

Prerequisite. SCAS-3104, CAS-3106, AS-2702

Ordnance
Desired: 1 TPOD, 1 x GBU-12/16, 1 x GBU-38/32/54, 1 x CATM-65E, 10 Chaff, 20 Flares.
Acceptable Substitutes: 1 TPOD, 2 GBU-32/2 GBU-32 inert/2 GBU-38/2 GBU-38 inert/2 GBU-12/2 GBU-12 inert/2 GBU-16/2 GBU-16 inert/2 LGTR

Range Requirement. RSTD, HE, EXP, STRAFE, LSR.

External Syllabus Support. JTAC or FAC(A).

2.11.3 Armed Reconnaissance (AR)

2.11.3.1 Purpose. Develop proficiency in AR execution during day and night missions at medium altitude in a low to medium threat environment.

2.11.3.2 General. A minimum of a section lead shall instruct all events. A division lead will instruct AR-3204. WTOs should instruct all initial coded events.

2.11.3.3 Ground/Academic Training

Readings. Air NTTP 3-22.3 AV-8B, Chapter 10, Armed Reconnaissance.

Lectures. Receive the following AV-8B courseware lectures:
ACAD-3003, Armed Reconnaissance
ACAD-3004, Armed Reconnaissance Procedures
ACAD-3005, AV-8B SCAR MAWTS-1 ASP

SAR-3200	1.0	*	B	D	S	RNAWST

Goal. Conduct day medium altitude AR.

Requirement

Plan: Use Squadron S-2 to develop Target Precedence List (TPL), ROE, SPINS, and threats. Develop a plan to locate, ID, and kill enemy targets IAW TPL. Have a survive gameplan to defeat the threat system while meeting allowable risk standards. Ensure JMPS plan facilitates search and kill gameplan. Generate target area imagery, sensor profiles, EOTDA data, and cockpit maps that enable mission success.

Brief: Execute IAW MAWTS-1 brief/debriefing guide. Tailor brief to target audience and ensure brief meets assigned training/mission objectives. Mission Rehearse most likely scenarios based on mission, weather, weapons, and threats. Wingman will brief tactical SAM and 3rd Generation MANPAD threat as assigned by IP.

Execution: Conduct at least two attacks IAW TPL target sets. AR must locate targets, pass section attack brief, and facilitate target attacks within briefed allowable risk. RSEAD will be coordinated as required. Communicate IFREP to a simulated or actual MACCS.

Debrief: The sortie will be debriefed using simulator DAQ. Debrief will be conducted IAW MAWTS-1 brief/debrief guide.

Performance Standard. Search and locate TPL targets IAW plan and brief. Conduct at least two successful attacks on TPL target sets. Conduct IFREP to a MACCS agency.

Prerequisite. Air to surface stage complete.

Ordnance. 1TPOD, 1xLJDAM/DMLGW, 1xGBU-12 each A/C, 300 Rds 25MM SAPHEI-T

AR-3201 1.3 * B D A 2 AV-8B

Goal. Conduct medium altitude AR with GP munitions.

Requirement

Plan: Use Squadron S-2 to develop Target Precedence List (TPL), ROE, SPINS, and threats. Develop a plan to locate, ID, and kill enemy targets IAW TPL. Have a survive gameplan to defeat the threat system while meeting allowable risk standards. Ensure JMPS plan facilitates search and kill gameplan. Generate target area imagery, sensor profiles, EOTDA data, and cockpit maps that enable mission success.

Brief: Execute IAW MAWTS-1 brief/debriefing guide. Tailor brief to target audience and ensure brief meets assigned training/mission objectives. Mission Rehearse most likely scenarios based on mission, weather, weapons, and threats. Wingman will brief tactical SAM and 3rd Generation MANPAD threat as assigned by IP.

Execution: Conduct at least two attacks IAW TPL target sets. AR must locate targets, pass section attack brief, and facilitate target attacks within briefed allowable risk. RSEAD will be coordinated as required. Communicate IFREP to a simulated or actual MACCS.

Debrief: The sortie will be debriefed using aircraft and TPOD recording devices and TCTS feeds if available. Debrief will be conducted IAW MAWTS-1 brief/debrief guide.

Performance Standard. Search and locate TPL targets IAW plan and brief. Conduct at least two successful attacks on TPL target sets. Conduct IFREP to a MACCS agency.

Prerequisite. SAR-3200

Ordnance
Desired: 1TPOD, 2xMK-82, 300 Rds 25MM. 10 Chaff, 20 Flares.
Acceptable substitutes: 1 TPOD, 6 Mk-76/4 Mk-82/4 BDU-45/2 Mk-83/2 Mk-83 inert/2 CBU-99/2 Mk-77, 7 2.75" Rockets/4 5" Rockets, 300 25mm.

Range Requirement. RSTD, HE, EXP, STRAFE.

AR-3202 1.3 180 B,R,M D A 2 AV-8B

Goal. Conduct medium altitude AR with PGM.

Requirement

Plan: Use Squadron S-2 to develop Target Precedence List (TPL), ROE, SPINS, and threats. Develop a plan to locate, ID, and kill enemy targets IAW TPL. Have a survive gameplan to defeat the threat system while meeting allowable risk standards. Ensure JMPS plan facilitates search and kill gameplan. Generate target area imagery, sensor profiles, EOTDA data, and cockpit maps that enable mission success.

Brief: Execute IAW MAWTS-1 brief/debriefing guide. Tailor brief to target audience and ensure brief meets assigned training/mission objectives. Mission Rehearse most likely scenarios based on mission, weather, weapons, and threats. Wingman will brief tactical SAM and 3rd Generation MANPAD threat as assigned by IP.

Execution: Conduct at least two attacks IAW TPL target sets. AR must locate targets, pass section attack brief, and facilitate target attacks within briefed allowable risk. RSEAD will be coordinated as required. Communicate IFREP to a simulated or actual MACCS.

Debrief: The sortie will be debriefed using aircraft and TPOD recording devices and TCTS feeds if available. Debrief will be conducted IAW MAWTS-1 brief/debrief guide.

Performance Standard. Search and locate TPL targets IAW plan and brief. Conduct at least two successful attacks on TPL target sets. Conduct IFREP to a MACCS agency.

Prerequisite. SAR-3200

Ordnance
Desired: 1TPOD, 1xJDAM/LJDAM/DMLGW, 1xGBU-12, 10 Chaff, 20 Flares each a/c.
Acceptable substitutes: 1 TPOD, 2 GBU-12/2 GBU-12 inert/1 GBU-16/1 GBU-16 inert/2 LGTR/2 GBU-32/2 GBU-32 inert/2 GBU-38/2 GBU-38 inert/2 LJDAM/2 DMLGB.

Range Requirement. RSTD, HE, EXP, STRAFE, LSR.

AR-3203	1.3	180	B,R,M		NS	A	2 AV-8B

Goal. Conduct night medium altitude AR with PGMs or GP ordnance.

Requirement

Plan: Use Squadron S-2 to develop Target Precedence List (TPL), ROE, SPINS, and threats. Develop a plan to locate, ID, and kill enemy targets IAW TPL. Have a survive gameplan to defeat the threat system while meeting allowable risk standards. Ensure JMPS plan facilitates search and kill gameplan. Generate target area imagery, sensor profiles, EOTDA data, and cockpit maps that enable mission success.

Brief: Execute IAW MAWTS-1 brief/debriefing guide. Tailor brief to target audience and ensure brief meets assigned training/mission objectives. Mission Rehearse most likely scenarios based on mission, weather, weapons, and threats. Brief NS considerations for finding and striking TPL targets. Wingman will brief tactical SAM and 3rd Generation MANPAD threat as assigned by IP.

Execution: Conduct at least two attacks IAW TPL target sets. AR must locate targets, pass section attack brief, and facilitate target attacks within briefed allowable risk. RSEAD will be coordinated as required. Communicate IFREP to a simulated or actual MACCS.

Debrief: The sortie will be debriefed using aircraft and TPOD recording devices and TCTS feeds if available. Debrief will be conducted IAW MAWTS-1 brief/debrief guide.

Performance Standard. Search and locate TPL targets IAW plan and brief. Conduct at least two successful attacks on TPL target sets. Conduct IFREP to a MACCS agency.

Prerequisite. NS-2702, AR-3201~GP, AR-3202~PGM

Ordnance
Desired: 1TPOD, 2xMK-82, 1xJDAM/DMLGB/LJDAM 1xGBU-12, 10 Chaff, 20 Flares each a/c.
Acceptable substitutes: 1 TPOD, 6 Mk-76/4 Mk-82/4 BDU-45/2 Mk-83/2 Mk-83 inert/2 GBU-12/2 GBU-12 inert/1 GBU-16/1 GBU-16 inert/2 LGTR/2 GBU-32/2 GBU-32 inert/2 GBU-38/2 GBU-38 inert/2 CBU-99/2 Mk-77/2 DMLGB/1 LJDAM/ 7 2.75" Rockets/4 5" Rockets, 300 25mm, 4 LUU-2/4 LUU-19,10 Chaff, 20 Flares.

Range Requirement. RSTD, HE, EXP, STRAFE, LSR.

AR-3204 1.3 * B (NS) A 4 AV-8B

Goal. Conduct day or night division medium altitude AR with PGMs or GP ordnance.

Requirement

Plan: Use Squadron S-2 to develop Target Precedence List (TPL), ROE, SPINS, and threats. Develop a plan to locate, ID, and kill enemy targets IAW TPL. Have a survive gameplan to defeat the threat system while meeting allowable risk standards. Ensure JMPS plan facilitates search and kill gameplan. Generate target area imagery, sensor profiles, EOTDA data, and cockpit maps that enable mission success.

Brief: Execute IAW MAWTS-1 brief/debriefing guide. Tailor brief to target audience and ensure brief meets assigned training/mission objectives. Mission Rehearse most likely scenarios based on mission, weather, weapons, and threats. Brief separated and attached division tactics. Wingman will brief tactical SAM and 3rd Generation MANPAD threat as assigned by IP.

Execution: Conduct at least two attacks IAW TPL target sets. AR must locate targets, pass division attack brief, and facilitate target attacks within briefed allowable risk. RSEAD will be coordinated as required. At least one attack must be as an integrated division. Communicate IFREP to a simulated or actual MACCS.

Debrief: The sortie will be debriefed using aircraft and TPOD recording devices and TCTS feeds if available. Debrief will be conducted IAW MAWTS-1 brief/debrief guide.

Performance Standard. Search and locate TPL targets IAW plan and brief. Conduct at least two successful attacks on TPL target sets. Conduct IFREP to a MACCS agency. Depart and recover as a division. At least one attack shall be executed as a integrated division.

Prerequisite. AR-3201, AR-3202, AR-3203~NS

Ordnance
Desired: 1TPOD, 2xMK-82, 1xJDAM/DMLGB/LJDAM 1xGBU-12, 10 Chaff, 20 Flares each a/c.
Acceptable substitutes: 1 TPOD, 6 Mk-76/4 Mk-82/4 BDU-45/2 Mk-83/2 Mk-83 inert/2 GBU-12/2 GBU-12 inert/1 GBU-16/1 GBU-16 inert/2 LGTR/2 GBU-32/2 GBU-32 inert/2 GBU-38/2 GBU-38 inert/2 CBU-99/2 Mk-77/2 DMLGB/2 LJDAM/ 7 2.75" Rockets/4 5" Rockets, 300 25mm, 4 LUU-2/4 LUU-19.

Range Requirement. RSTD, HE, EXP, STRAFE, LSR.

2.11.4 Strike Coordination and Reconnaissance (SCAR)

2.11.4.1 Purpose. Develop proficiency in SCAR execution during day and night missions at medium altitude in a low to medium threat environment.

2.11.4.2 General. A minimum of a section lead shall instruct all events. Initial 3302 shall be led by an NSI. A WTO should instruct initial coded events.

2.11.4.3 Ground/Academic Training

Readings
Air NTTP 3-22.3-AV8B, Chapter 11.
ALSA MTTP, SCAR

Lecture
AV-8B SCAR (MAWTS-1 AV-8B ASP)

SSCAR-3300 1.0 * B D S/L RNAWST

Goal. Introduce day SCAR in a simulator.

Plan: Use Squadron S-2 to Develop Target Precedence List (TPL), ROE, SPINS, and threats. Develop a plan to locate, ID, and kill enemy targets IAW TPL. Have a survive gameplan to defeat the threat system while meeting allowable risk standards. Ensure JMPS plan facilitates search and kill gameplan. Generate target area imagery, sensor profiles, EOTDA data, and cockpit maps that enable mission success.

Brief: Execute IAW MAWTS-1 brief/debriefing guide. Tailor brief to target audience and ensure brief meets assigned training/mission objectives. Mission Rehearse most likely scenarios based on mission, weather, weapons, and threats. PUI will brief tactical SAM and 3rd Gen MANPAD threat as assigned by instructor.

Execution: Conduct at least two attacks IAW TPL target sets. At least one integrated attack between multiple striker sections is desired. SCAR must locate targets, pass SCAR attack brief, and facilitate target attacks within briefed allowable risk. RSEAD will coordinate as required.

Debrief: The sortie will be debriefed using simulator DAQ. Debrief will be conducted IAW MAWTS-1 brief/debrief guide.

Performance Standard. Search and locate TPL targets IAW plan and brief. Conduct at least two successful attacks on TPL target sets. Conduct a SCAR BHO with a striker asset. Conduct IFREP to a MACCS agency. At least one integrated attack between multiple striker sections is required. SCAR shall locate targets, pass SCAR attack brief, and facilitate target attacks within briefed allowable risk. RSEAD shall be coordinated against a threat.

Prerequisite. AR-3201, AR-3202

Ordnance. TPOD, 2xLJDAM, 1xGBU-12, 1xLMAV each a/c and SEL as required. Strikers will arrive with a mix of PGM and free fall or forward firing ordnance.

External Syllabus Support. Initial Simulator shall be linked. Follow-on simulators should be linked. ADVTE linked simulator should be used if available.

SCAR-3301 1.3 365 B,R D A 2 AV-8B

Goal. Conduct day SCAR

Requirement

Plan: Use Squadron S-2 to Develop Target Precedence List (TPL), ROE, SPINS, and threats. Develop a plan to locate, ID, and kill enemy targets IAW TPL. Have a survive gameplan to defeat the threat system while meeting allowable risk standards. Ensure JMPS plan facilitates search and kill gameplan. Generate target area imagery, sensor profiles, EOTDA data, and cockpit maps that enable mission success.

Brief: Execute IAW MAWTS-1 brief/debriefing guide. Tailor brief to target audience and ensure brief meets assigned training/mission objectives. Mission Rehearse most likely scenarios based on mission, weather, weapons, and threats. Wingman will brief tactical SAM and 3rd Generation MANPAD threat as assigned by IP.

Execution: Conduct at least two attacks IAW TPL target sets. At least one integrated attack between multiple striker sections is desired. SCAR must locate targets, pass SCAR attack brief, and facilitate target attacks within briefed allowable risk. RSEAD will coordinate as required.

Debrief: The sortie will be debriefed using aircraft and TPOD recording devices and TCTS feeds if available. Debrief will be conducted IAW MAWTS-1 brief/debrief guide.

Performance Standard. Search and locate TPL targets IAW plan and brief. Conduct at least two successful attacks on TPL target sets. Conduct a SCAR BHO with a striker asset. Conduct IFREP to a MACCS agency. At least one integrated attack with striker section is required. SCAR shall locate targets, pass SCAR attack brief, and facilitate target attacks within briefed allowable risk. RSEAD should be coordinated against a threat.

Prerequisite. SSCAR-3300

Ordnance
Desired: TPOD, 2xMK-82, 1xJDAM, 1xGBU-12, 10 Chaff, 20 Flares each a/c. Acceptable substitutes: TPOD, 6 Mk-76/4 Mk-82/4 BDU-45/2 Mk-83/2 Mk-83 inert/2 GBU-12/2 GBU-12 inert/1 GBU-16/1 GBU-16 inert/2 LGTR/2GBU-32/2 GBU-32 inert/2 GBU-38/2 GBU-38 inert/2 CBU-99/2 Mk-77, 7 2.75" Rockets/4 5" Rockets, 300 25mm.

Range Requirement. RSTD, HE, EXP.

External External Syllabus Support. Minimum of one section AR assets.

SCAR-3302 1.3 180 B,R,M NS A 2 AV-8B

Goal. Conduct NS SCAR.

Requirement

Plan: Use Squadron S-2 to Develop Target Precedence List (TPL), ROE, SPINS, and threats. Develop a plan to locate, ID, and kill enemy targets IAW TPL. Have a survive gameplan to defeat the threat system while meeting allowable risk standards. Ensure JMPS plan facilitates search and kill gameplan. Generate target area imagery, sensor profiles, EOTDA data, and cockpit maps that enable mission success.

Brief: Execute IAW MAWTS-1 brief/debriefing guide. Tailor brief to target audience and ensure brief meets assigned training/mission

objectives. Mission Rehearse most likely scenarios based on mission, weather, weapons, and threats. Wingman will brief tactical SAM and 3rd Generation MANPAD threat as assigned by IP.

Execution: Conduct at least two attacks IAW TPL target sets. At least one integrated attack between multiple striker sections is desired. SCAR must locate targets, pass SCAR attack brief, and facilitate target attacks within briefed allowable risk. RSEAD will coordinate as required.

Debrief: The sortie will be debriefed using aircraft and TPOD recording devices and TCTS feeds if available. Debrief will be conducted IAW MAWTS-1 brief/debrief guide.

Performance Standard. Search and locate TPL targets IAW plan and brief. Conduct at least two successful attacks on TPL target sets. Conduct a SCAR BHO with a striker asset. Conduct IFREP to a MACCS agency. At least one integrated attack with striker section is required. SCAR shall locate targets, pass SCAR attack brief, and facilitate target attacks within briefed allowable risk. RSEAD should be coordinated against a threat.

Prerequisite. SCAR-3301, AR-3203

Ordnance
Desired: 1TPOD, 2xMK-82, 1xJDAM, 1xGBU-12, 10 Chaff, 20 Flares each a/c.
Acceptable substitutes. 1 TPOD, 6 Mk-76/4 Mk-82/4 BDU-45/2 Mk-83/2 Mk-83 inert/2 GBU-12/2 GBU-12 inert/1 GBU-16/1 GBU-16 inert/2 LGTR/2, GBU-32/2 GBU-32 inert/2 GBU-38/2 GBU-38 inert/2 CBU-99/2 Mk-77, 7 2.75" Rockets/4 5" Rockets, 300 25mm, 4 LUU-2/4 LUU-19, 10 Chaff, 20 Flares.

Range Requirement. RSTD, HE, EXP, LSR.

External Syllabus Support. One section AR assets.

2.11.5 Armed Interdiction (AI)

2.11.5.1 Purpose. Develop proficiency in AI execution during day and night missions at medium and low altitude in a medium threat surface-to-air environment.

2.11.5.2 General. A section leader, preferably a WTO, shall instruct all events.

2.11.5.3 Ground/Academic Training

Readings
AIR NTTP 3-22.1-AV8B:
Chapter 4, Air Interdiction.
Chapter 5, Suppression of Enemy Air Defenses.

MAWTS-1 Strike Planning Guide

Lectures. Receive the following AV-8B courseware lecture:
ACAD-3006, AI Planning and Execution (MAWTS-1 ASP)

SAI-3400 1.0 * B S RNAWST

Goal. Review medium altitude AI.

Requirement.

Plan: Squadron WTI/PTO tasks Intel to create a relevant scenario to strike a stationary target that is defended by a surface-to-air threat and a potential air-to-air threat. Threat scenario will include range known strategic and range unknown tactical SAMS and ADA, a potential SAR-1 air threat, and a defined TOT. PUI will develop a plan which includes a detailed air-to-surface and threat countertactics gameplan. JMEMs of the target, to ensure desired Pd is required.

Brief: Review route, no-go criteria, air-to-surface timeline, sensor optimization and TCT gameplan. The focus of the brief should be the mission rehearsal.

Execution: Conduct one AI ingress, attack and egress.

Debrief: Utilize Simulator DAQ video if available. Validate all weapons releases. Review all decision points. Compare briefed tactics to executed tactics for validation or lessons learned. Review HUD, Map, and Radar for appropriate systems management.

Performance Standard. Execute tactics IAW Air NTTP. Locate correct target and achieve briefed (JWS derived) level of destruction criteria via a valid weapons release within +/- 15 seconds of TOT. Execute briefed threat countertactics IAW allowable risk. Weapon impact within +/- 15 seconds of TOT. Communicate an accurate IFREP to the MACCS.

Prerequisite. Complete ground/academic training, air-to-surface stage complete, ACMQ.

Ordnance. 2 GBU-38, ALQ-164, 2 AIM-9, (2 AIM-120), Expendables.

SAI-3401 1.0 * B D S/L 2-RNAWST

Goal. Introduce low altitude AI.

Requirement

Plan: Linked simulator. Squadron WTI/PTO tasks Intel to create a relevant scenario to strike a stationary target that is defended by a surface-to-air threat. Scenario will drive a low altitude gameplan through either weather or threat mitigation. Threat scenario will include range know strategic and range unknown tactical SAMS and ADA, as well as a defined TOT. PUI will develop a plan which includes a detailed threat countertactics gameplan and air-to-surface timeline to a pop-up attack. JMEMs of the target, to ensure desired Pd is required.

Brief: Review route, no-go criteria, air-to-surface timeline, sensor optimization and TCT gameplan. Review LAT ROC and MCT and TCT. The focus of the brief should be the mission rehearsal.

Execution: Conduct one low altitude AI ingress, attack and egress at comfort level.

Debrief: Utilize Simulator DAQ video if available. Validate all weapons releases. Review all decision points. Compare briefed tactics to executed tactics for validation or lessons learned. Review HUD, Map, and Radar for appropriate systems management.

Execution. Conduct a low altitude AI as a section or division with an RF SAM threat.

Performance Standard. Execute tactics IAW Air NTTP. Locate correct target and achieve briefed (JWS derived) level of destruction criteria

via a valid weapons release within +/- 15 seconds of TOT. Execute briefed threat countertactics IAW allowable risk. Weapon impact within +/- 15 seconds of TOT. Communicate an accurate IFREP to the MACCS. Maintain a minimum of 300-foot clearance (100 feet during MAC) of all obstructions. Adhere to LAT ROC. Proficient cockpit management including TCT and MCT.

Prerequisite. LAT-2502, SAI-3400

Ordnance. 4 MK-82 HD, ALQ-164, Expendables.

Range Requirement. Reference Range Support Matrix.

AI-3402 1.3 180 B,R,M D A 2 AV-8B

Goal. Review section medium altitude AI.

Requirement.

Plan: Squadron WTI/PTO tasks Intel to create a relevant scenario to strike a stationary target that is defended by a surface-to-air threat. Threat scenario will include range know strategic and range unknown tactical SAMS and ADA, as well as a defined TOT. PUI will develop a plan which includes a detailed air-to-surface and threat countertactics gameplan. JMEMs of the target, to ensure desired Pd is required.

Brief: Review route, no-go criteria, air-to-surface timeline, sensor optimization and TCT gameplan. The focus of the brief should be the mission rehearsal.

Execution: Conduct one AI ingress, attack and egress.

Debrief: Validate all weapons releases. Review all decision points. Mass debrief as required; TCTS debrief desired, whiteboard required if not available. Compare briefed tactics to executed tactics for validation or lessons learned. Review HUD/Radar/TPOD for appropriate systems management. Review comm.

Performance Standard. Execute tactics IAW Air NTTP. Locate correct target and achieve briefed (JWS derived) level of destruction criteria via a valid weapons release within +/- 15 seconds of TOT. Execute briefed threat countertactics IAW allowable risk. Weapon impact within +/- 15 seconds of TOT. Communicate an accurate IFREP to the MACCS.

Prerequisite. SAI-3400

Ordnance
Desired: 1 TPOD, 2 GBU-38, ALQ-164, TCTS pod, 60 Chaff and 30 Flares. Acceptable substitutes: 2 GBU-38 inert/2 GBU-32/ 2 GBU-32 inert/1 GBU-12/1 GBU-12 Inert/1 GBU-16/1 GBU-16 Inert/1 LGTR

Range Requirement. RSTD, HE, EXP, LSR.

External syllabus support. TCTS facility, SAM threat emitters.

AI-3403 1.3 180 B,R,M NS A 2 AV-8B

Goal. Introduce section night medium altitude AI.

Requirement

Plan: Squadron WTI/PTO tasks Intel to create a relevant scenario to strike a stationary target that is defended by a surface-to-air threat. Threat scenario will include range know strategic and range unknown

tactical SAMS and ADA, as well as a defined TOT. PUI will develop a plan which includes a detailed air-to-surface and threat countertactics gameplan. JMEMs of the target, to ensure desired Pd is required.

Brief: Review route, no-go criteria, air-to-surface timeline, sensor optimization and TCT gameplan. The focus of the brief should be the mission rehearsal.

Execution: Conduct one AI ingress, attack and egress at night.

Debrief: Validate all weapons releases. Review all decision points. Mass debrief as required; TCTS debrief desired, whiteboard required if not available. Compare briefed tactics to executed tactics for validation or lessons learned. Review HUD/Radar/TPOD for appropriate systems management. Review comm.

Performance Standard. Execute tactics IAW Air NTTP. Locate correct target and achieve briefed (JWS derived) level of destruction criteria via a valid weapons release within +/- 15 seconds of TOT. Execute briefed threat countertactics IAW allowable risk. Weapon impact within +/- 15 seconds of TOT. Communicate an accurate IFREP to the MACCS.

Prerequisite. AI-3402, NS-2702

Ordnance
Desired: 1 TPOD, 2 GBU-38, ALQ-164, TCTS pod, 60 Chaff and 30 Flares
Acceptable substitutes: 2 GBU-38 inert/2 GBU-32/ 2 GBU-32 inert/1 GBU-12/1 GBU-12 Inert/1 GBU-16/1 GBU-16 Inert/1 LGTR

Range Requirement. RSTD, HE, EXP, LSR.

External syllabus support. TCTS facility, SAM threat emitters.

AI-3404 1.3 365 B,R,M D A 2+ AV-8B

Goal. Introduce low altitude AI.

Requirement

Plan: Squadron WTI/PTO tasks Intel to create a relevant scenario to strike a stationary target that is defended by a surface-to-air threat. Scenario will drive a low altitude gameplan through either weather or threat mitigation. Threat scenario will include range know strategic and range unknown tactical SAMS and ADA, as well as a defined TOT. PUI will develop a plan which includes a detailed threat countertactics gameplan and air-to-surface timeline to a pop-up attack. JMEMs of the target, to ensure desired Pd is required.

Brief: Review route, no-go criteria, air-to-surface timeline, sensor optimization and TCT gameplan. Review LAT ROC and MCT and TCT. The focus of the brief should be the mission rehearsal.

Execution: Conduct one low altitude AI ingress, attack and egress at comfort level. Sortie should be flown in LAT but can be flown at 500’ if range restrictions or BASH dictate.

Debrief: Validate all weapons releases. Review all decision points. Mass debrief as required; TCTS debrief desired, whiteboard required if not available. Compare briefed tactics to executed tactics for validation or lessons learned. Review HUD/Radar/TPOD for appropriate systems management. Review comm.

Performance Standard. Execute tactics IAW Air NTTP. Locate correct target and achieve briefed (JWS derived) level of destruction criteria

via a valid weapons release within +/- 15 seconds of TOT. Execute briefed threat countertactics IAW allowable risk. Weapon impact within +/- 15 seconds of TOT. Communicate an accurate IFREP to the MACCS. Maintain a minimum of 300-foot clearance of all obstructions. Adhere to LAT ROC. Proficient cockpit management including TCT and MCT.

Prerequisite. SAI-3401, AI-3402

Ordnance
Desired: 4 MK-82 HD, ALQ-164, TCTS pod, 60 Chaff and 30 Flares. Acceptable substitutes: 4 BDU-45 HD/2 MK-83 HD/2 MK-83 Inert HD/4 MK-82 LD/4 BDU-45 LD/2 MK-83 LD/2 MK-83 Inert LD/6 MK-76/2 MK-77.

Range Requirement. RSTD, HE, EXP, LSR.

External syllabus support. TCTS facility, SAM threat emitters.

AI-3405 1.3 * B,R (NS) A 4 AV-8B

Goal. Introduce division AI.

Requirement

Plan: Squadron WTI/PTO tasks Intel to create a relevant scenario to strike a stationary target that is defended by a surface-to-air threat and a potential air-to-air threat. Threat scenario will include range know strategic and range unknown tactical SAMS and ADA, a potential SAR-1 air threat, and a defined TOT. PUI will develop a plan which includes a detailed air-to-surface and threat countertactics gameplan. JMEMs of the target, to ensure desired Pd is required.

Brief: Review route, no-go criteria, air-to-surface timeline, sensor optimization and TCT gameplan. The focus of the brief should be the mission rehearsal.

Execution: Conduct one low or medium altitude division AI ingress, attack and egress.

Debrief: Validate all weapons releases. Review all decision points. Mass debrief as required; TCTS debrief desired, whiteboard required if not available. Compare briefed tactics to executed tactics for validation or lessons learned. Review HUD/Radar/TPOD for appropriate systems management. Review comm.

Performance Standard. Execute tactics IAW Air NTTP. Locate correct target and achieve briefed (JWS derived) level of destruction criteria via a valid weapons release within +/- 15 seconds of TOT. Execute briefed threat countertactics IAW allowable risk. Weapon impact within +/- 15 seconds of TOT. Communicate an accurate IFREP to the MACCS.

Prerequisite. AI-3402, AI-3403 if flown at night, AI-3404 if flown as a low altitude ingress.

Ordnance
Desired: 1 TPOD, 2 GBU-32, ALQ-164, TCTS pod, 60 Chaff and 30 Flares. Acceptable substitutes: 2 GBU-32 inert/2 GBU-38/ 2 GBU-38 inert/1 GBU-12/1 GBU-12 Inert/1 GBU-16/1 GBU-16 Inert/1 LGTR/4 MK-82/4 BDU-45 HD/2 MK-83 HD/2 MK-83 Inert HD/4 MK-82 LD/4 BDU-45 LD/2 MK-83 LD/2 MK-83 Inert LD/6 MK-76/2 MK-77.

Range Requirement. RSTD, HE, EXP, LSR.

External syllabus support. TCTS facility, SAM threat emitters.

2.11.6 Expeditionary Shore-Based Operations (EXP)

2.11.6.1 Purpose. Maintain proficiency in operations at airfields away from home field and/or in theatre.

2.11.6.2 General. Flight with NVDs is authorized if current and proficient in the Night Systems Core Skill.

EXP-3500 1.3 180 B,R,M (NS) A 1 AV-8B

Goal. Review expeditionary shore-based operations.

Requirement. Review procedures specific to CONUS airfields other than local fields. Review special procedures for airfields outside CONUS including any unique flight filing requirements.

Prerequisite. FAM-2102

2.11.7 ACPM Mission Skill Training Events

ACPM-8300, Air Defense
ACPM-8310, Forward Arming Refueling Point (FARP) Operations
ACPM-8311, Marine Corps Tactical Fuel Systems
ACPM-8320, Joint Structure & 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 & Airspace Within the MAGTF
ACPM-8350, Phasing Control Ashore
ACPM-8351, TACRON Organizations and Functions

2.12 CORE PLUS PHASE

2.12.1 Core Plus Training

2.12.1.1 Purpose. Train for large scale integrated missions having unique mission tasking and introduce skills or missions having a low probability of execution or are theatre specific.

2.12.1.2 General. Instructor supervision requirements are stipulated specifically for each stage.

2.12.2 Day Field Carrier Landing Practice (DAY) (FCLP (D))

2.12.2.1 Purpose. Review FCLP(D) qualification.

2.12.2.2 General

An LSO shall instruct all events IAW V/STOL / LSO NATOPS.
All events shall be conducted at a simulated L-Class ship equipped with an optical landing system.
Perform takeoffs and landings as required by V/STOL / LSO NATOPS.
Completion of this stage constitutes FCLP(D) qualification.

2.12.2.3 Ground/Academic Training

Readings
Review V/STOL Shipboard and LSO NATOPS Manual.
Review LHA/LHD/MCS NATOPS Manual.

Lectures. Receive the following AV-8B courseware lectures:

ACAD-2060, V/STOL / LSO NATOPS, Part 1.
ACAD-2061, V/STOL / LSO NATOPS, Part 2.
ACAD-2062, LHA/LHD/MCS NATOPS.
ACAD-2063, DAY FCLP.

SFCLP-4100 1.0 * B,R D S RNAWST

Goal. Review day FCLP.

Requirement. Review day FCLP normal and emergency procedures to a simulated L-Class ship.

Performance Standard. Execute all procedures IAW AV-8B NATOPS, V/STOL / LSO NATOPS, Shipboard Operating Bulletin, and LHA/LHD NATOPS.

Prerequisite. Complete ground/academic training, FAM-2102.

Range Requirement. Reference Range Support Matrix.

External syllabus support. LSO

FCLP-4101 2.0 365 B,R,M D A 1 AV-8B

Goal. Review day FCLP.

Requirement. Review day FCLP normal and emergency procedures to a simulated L-Class ship.

Performance Standard. Execute all procedures IAW AV-8B NATOPS, V/STOL / LSO NATOPS, Shipboard Operating Bulletin, and LHA/LHD NATOPS.

Prerequisite. SFCLP-4100

Range Requirement. Reference Range Support Matrix.

External syllabus support. LSO, FCLP facility

2.12.3 Night Field Carrier Landing Practice (NIGHT) (FCLP (N))

2.12.3.1 Purpose. Complete FCLP(N) qualification.

2.12.3.2 General

An LSO shall instruct all events IAW V/STOL / LSO NATOPS.
All events shall be conducted at a simulated L-Class ship equipped with an optical landing system.
Perform takeoffs and landings as required by V/STOL / LSO NATOPS.
Completion of this stage constitutes FCLP(N) qualification.

2.12.3.3 Ground/Academic Training

Lectures. Receive the following AV-8B courseware lectures:
ACAD-4004, Night FCLP, Unaided
ACAD-4005, Night FCLP, Aided.

SFCLP-4102 1.0 * B,R N* S RNAWST

Goal. Introduce night unaided FCLP.

Requirement. Perform night (unaided) FCLP normal and emergency procedures to a simulated L-Class ship. Perform Case 3 recoveries.

Performance Standard. Execute all procedures IAW AV-8B NATOPS, V/STOL / LSO NATOPS, Shipboard Operating Bulletin, and LHA/LHD NATOPS.

Prerequisite. Complete ground/academic training, SFCLP-4100.

Range Requirement. Reference Range Support Matrix.

External syllabus support. LSO,

FCLP-4103 2.0 365 B,R,M N* A 1 AV-8B

Goal. Introduce night unaided FCLP.

Requirement. Perform night (unaided) FCLP normal and emergency procedures to a simulated L-Class ship. Perform Case 3 recoveries.

Performance Standard. Execute all procedures IAW AV-8B NATOPS, V/STOL / LSO NATOPS, Shipboard Operating Bulletin, and LHA/LHD NATOPS.

Prerequisite. FCLP 4101, SFCLP-4102

Range Requirement. Reference Range Support Matrix.

External syllabus support. LSO, FCLP facility

SFCLP-4104 1.0 * B,R NS S RNAWST

Goal. Introduce night aided FCLP.

Requirement. Perform night (aided) FCLP normal and emergency procedures to a simulated L-Class ship. Perform Case 1 and Case 3 recoveries.

Performance Standard. Execute all procedures IAW AV-8B NATOPS, V/STOL / LSO NATOPS, Shipboard Operating Bulletin, and LHA/LHD NATOPS.

Prerequisite. SFCLP-4102, NS-2702

Range Requirement. Reference Range Support Matrix.

External syllabus support. LSO

FCLP-4105 2.0 365 B,R,M NS A 1 AV-8B

Goal. Introduce night aided FCLP.

Requirement. Perform night (aided) FCLP normal and emergency procedures to a simulated L-Class ship. Perform Case 1 and Case 3 recoveries.

Performance Standard. Execute all procedures IAW AV-8B NATOPS, V/STOL / LSO NATOPS, Shipboard Operating Bulletin, and LHA/LHD NATOPS.

Prerequisite. SFCLP-4103, FCLP-4104

Range Requirement. Reference Range Support Matrix.

External syllabus support. LSO, NVD-compatible FCLP facility.

2.12.4 Day Carrier Qualification (DAY) (CQ (D))

2.12.4.1 Purpose. Complete CQ(D) qualification.

2.12.4.2 General
An LSO shall instruct all events IAW V/STOL / LSO NATOPS. Perform takeoffs and landings as required by V/STOL / LSO NATOPS. Completion of this stage constitutes CQ(D) qualification.

2.12.4.3 Ground/Academic Training. Receive the following AV-8B courseware lecture: ACAD-4006, Day CQ.

SCQ-4130 1.0 * B,R D S RNAWST

Goal. Perform day CQ.

Requirement. Perform day CQ normal and emergency procedures to a simulated L-Class ship. Introduce Case I, II, and III recoveries. Execute LH-1, LH-2, and LH-3 approaches using CCA, TACAN, and ICLS on final.

Performance Standard. Execute all procedures IAW AV-8B NATOPS, V/STOL / LSO NATOPS, Shipboard Operating Bulletin, and LHA/LHD NATOPS.

Prerequisite. Complete ground/academic training, SFCLP-4100.

Range Requirement. Reference Range Support Matrix.

External syllabus support. LSO

CQ-4131	3.0	365	B,R,M	D	A	1	AV-8B

Goal. Complete day CQ qualification.

Requirement. Perform day CQ normal procedures to an L-Class ship. Perform required landings per V/STOL Shipboard and LSO NATOPS.

Performance Standard. Execute all procedures IAW AV-8B NATOPS, V/STOL Shipboard and LSO NATOPS, Shipboard Operating Bulletin, and LHA/LHD NATOPS.

Prerequisite. SCQ-4130, FCLP-4101

Range Requirement. Reference Range Support Matrix.

External syllabus support. LSO, CQ capable shipping.

CQ-4132	1.3	365	B,R,M	(N)	A	1	AV-8B

Goal. Review shipboard instrument recoveries for Stage 3 shipboard training.

Requirement. Perform normal instrument recovery procedures to an L-Class ship. Perform a minimum of 2 CCA and 2 TACAN approaches and 1 ICLS approach using a minimum of 1 each of LH-1, LH-2, and LH-3. Approaches may be performed to a low approach or shipboard landing.

Performance Standard. Execute all procedures IAW AV-8B NATOPS, V/STOL Shipboard and LSO NATOPS, Shipboard Operating Bulletin, and LHA/LHD NATOPS.

Prerequisite. CQ-4131, CQ-4134 if unaided, CQ-4136 if aided.

Range Requirement. Reference Range Support Matrix.

External syllabus support. LSO, CQ capable shipping.

2.12.5 Night Carrier Qualification (NIGHT) (CQ(N))

2.12.5.1 Purpose. Complete CQ(N) qualification.

2.12.5.2 General

An LSO shall instruct all events IAW V/STOL / LSO NATOPS. Perform takeoffs and landings as required by V/STOL / LSO NATOPS. Completion of this stage constitutes CQ(N) qualification.

2.12.5.3 Ground/Academic Training. Review the following AV-8B courseware lecture: ACAD-4007, Night CQ.

SCQ-4133	1.0	*	B,R	N*	S		RNAWST

Goal. Perform night unaided CQ.

Requirement. Perform night (unaided) CQ normal and emergency procedures to a simulated L-Class ship. Perform Case 3 recoveries. Perform CCA and ICLS approaches.

Performance Standard. Execute all procedures IAW AV-8B NATOPS, V/STOL / LSO NATOPS, Shipboard Operating Bulletin, and LHA/LHD NATOPS.

Prerequisite. Complete ground/academic training. SFCLP-4104.

Range Requirement. Reference Range Support Matrix.

External syllabus support. LSO.

SCQ-4134 1.0 * B,R NS S RNAWST

Goal. Perform night aided CQ Case 1 and Case 3.

Requirement. Perform night (aided) CQ normal and emergency procedures to a simulated L-Class ship.

Performance Standard. Execute all procedures IAW AV-8B NATOPS, V/STOL / LSO NATOPS, Shipboard Operating Bulletin, and LHA/LHD NATOPS.

Prerequisite. SCQ-4133

Range Requirement. Reference Range Support Matrix.

External syllabus support. LSO.

CQ-4135 2.0 365 B,R,M N A 1 AV-8B

Goal. Perform night aided and unaided CQ from an instrument approach.

Requirement. Perform night (unaided) CQ normal procedures to an L-Class ship and night (aided) CQ normal procedures from an instrument approach to an L-Class ship IAW V/STOL Shipboard / LSO NATOPS.

Performance Standard. Execute all procedures IAW AV-8B NATOPS, V/STOL / LSO NATOPS, Shipboard Operating Bulletin, and LHA/LHD NATOPS.

Prerequisite. FCLP-4105, CQ-4132, SCQ-4134

Range Requirement. Reference Range Support Matrix.

External syllabus support. LSO, CQ capable shipping.

CQ-4136 2.0 365 B,R,M NS A 1 AV-8B

Goal. Perform night aided Case 1 CQ.

Requirement. Perform aided CQ normal procedures to an L-Class ship and night from the case 1 pattern to an L-Class ship IAW V/STOL Shipboard / LSO NATOPS.

Performance Standard. Execute all procedures IAW AV-8B NATOPS, V/STOL / LSO NATOPS, Shipboard Operating Bulletin, and LHA/LHD NATOPS.

Prerequisite. FCLP-4105, CQ-4132, SCQ-4134

Range Requirement. Reference Range Support Matrix.

External syllabus support. LSO, CQ capable shipping.

2.12.6 Forward Operating Base Operations (FOB)

2.12.6.1 Purpose. Complete FOB qualification (ISO Shore-Based Expeditionary Restricted-RESTR).

2.12.6.2 General

An LSS shall instruct all events.
Completion of this stage constitutes FOB(N) qualification.

2.12.6.3 Ground/Academic Training

Readings. Review the following:
NAVAIR 00-80-T-115, Expeditionary Airfields.
Marine Corps Air Stations NATOPS Manual.

Lectures. Review the following AV-8B courseware lecture:
ACAD-4008, Forward Base operations.

SFOB-4160 1.0 * B,R D S RNAWST

Goal. Practice day FOB operations.

Requirement. Perform V/STOL to an air facility. Instruction shall include FOD avoidance procedures, emergencies including RPM rollback on STO, abort and ejection decisions, water failure during approach, and flap failure STO. A minimum of 6 takeoffs and landings is required for completion.

Performance Standard. Execute all procedures IAW NATOPS. Achieve an average pass grade of 2.5.

Prerequisite. Complete ground/academic training, FAM-2102

Range Requirement. Reference Range Support Matrix.

External syllabus support. LSS

FOB-4161 2.0 365 B,R,M D A 1 AV-8B

Goal. Practice day FOB operations.

Requirement. Perform V/STOL to an actual or simulated air facility (100 feet by 3,000 feet maximum landing area). Instruction shall emphasize FOD avoidance procedures, line-up control and accurate touchdown point, and ground speed. A minimum of 4 takeoffs and landings is required for completion.

Performance Standard. Execute all procedures IAW NATOPS. Achieve an average pass grade of 2.5.

Prerequisite. SFOB-4160

Range Requirement. Reference Range Support Matrix.

External Syllabus Support. LSS; Air Facility or Road.

SFOB-4162 1.0 * B,R NS S RNAWST

Goal. Practice FOB operations at night.

Requirement. Perform V/STOL to an air facility at night. Instruction shall include landing area lighting, FOD avoidance procedures, and emergency procedures. A minimum of 6 takeoffs and landings is required for completion.

Performance Standard. Execute all procedures IAW NATOPS and Air NTTP. Achieve an average pass grade of 2.5.

Prerequisite. NS-2702, SFOB-4160

Range Requirement. Reference Range Support Matrix.

External Syllabus Support. LSS.

FOB-4163 2.0 365 B,R,M NS A 1 AV-8B

Goal. Practice FOB operations at night.

Requirement. Perform V/STOL to an actual or simulated air facility (100 feet by 3,000 feet maximum landing area). Instruction shall emphasize FOD avoidance procedures, line-up control and accurate touch down point, and ground speed. A minimum of 4 takeoffs and landings is required for completion.

Performance Standard. Execute all procedures IAW NATOPS and Air NTTP. Achieve an average pass grade of 2.5.

Prerequisite. SFOB-4161,4162

Range Requirement. Reference Range Support Matrix.

External Syllabus Support. LSS; Air Facility or Road.

2.12.7 Multi-sensor Imagery Reconnaissance (MIR)

2.12.7.1 Purpose. Develop proficiency in executing MIR.

2.12.7.2 General. A section lead shall instruct all events.

2.12.7.3 Ground/Academic Training. Receive the following ACPM lectures:

ACPM-8641, MAGTF Theater & National ISR Employment
ACAD-4017, Intrepid Tiger II (MAWTS-1 ASP)

Review squadron or MAG TPOD video library from contingency operations focusing on IED and suspicious activity detection.

MIR-4200 1.3 365 B,R,M (NS) A 2 AV-8B

Goal. Perform MIR.

Requirement. Conduct MIR. Planning and briefing shall include detailed mission tasking; detailed waypoint plan to support intelligence objectives; detailed sensor footprint and supporting flight profile; sensor FOV/Zoom plan, optics/polarity plan, and RADAR mapping plan; and data collection and communication requirements. Debrief with tasking unit including 8mm tape review and capture.

Performance Standard. Execute all mission tasking IAW Air NTTP.

Prerequisite. ~~A~~S stage complete. Complete ground/academic training. (NS-2702 if flown at night).

Ordnance. 1 TPOD.

Range Requirement. Reference Range Support Matrix.

2.12.8 Electronic Warfare (EW)

2.12.8.1 Purpose. Develop proficiency in EW.

2.12.8.2 General. A section lead shall instruct all events. A WTO should instruct all events.

2.12.8.3 Ground/Academic Training

Receive the following lectures:
ACAD-4017, Intrepid Tiger II (MAWTS-1 ASP)

Receive cockpit ALQ-231 FAM

EW-4250 1.3 * B,R (NS) A 2 AV-8B

Goal. Perform EW.

Requirement. Conduct EA. Planning and briefing shall include detailed EA considerations, kneeboard card review, Electronic Attack Request Form (EARF), JTAT considerations, orbit and EA profile management techniques. Review pre-flight, BIT, and HOTAS procedures.

Performance Standard. Execute all mission tasking IAW Air NTTP and AV-8B NTRP. Execute 1 low band mission, 1 high band mission, and a network mission.

Prerequisite. ~~A~~S stage complete. Complete ground/academic training. (NS-2702 if flown at night).

Ordnance. ALQ-231.

Range Requirement. Reference Range Support Matrix.

External Syllabus Support. EW mission.

2.12.9 Advanced Low Altitude Tactics (ADV LAT)

2.12.9.1 Purpose. Complete NSQ LAT qualification.

2.12.9.2 General

All training shall be conducted IAW NAVMC DIR 3500.14, Aviation Training and Readiness Program Manual, Chapter 3, Rules of Conduct.

All mission planning and flight briefs shall include BAM/BASH data and current route obstructions and consideration (ECHUM).

Prerequisites for NS LAT training are NS QUAL and LAT QUAL.

An NSLATI shall instruct all initial flight events and ground/academic training.

2.12.9.3 Ground/Academic Training. Receive the following MAWTS-1 Common Courseware lecture: ACAD-4009, NS LAT Considerations.

SADV LAT-4300 1.0 * B NS S RNAWST

Goal. Introduce basic and advanced NS LAT.

Requirement. Perform basic and advanced LAT maneuvers on a closed LAT circuit at night in a mountainous database. Demonstrate low angle, high illumination NVD problems. Practice straight and level flight, level turns, ridgeline crossings, terrain masking, and climb-to-cope. Practice 1 transition to LAT, 2 SOJ, 2 TOJ, 2 ROJ, 2 guns jink, and 2 break turns. Instruction shall emphasize TCT and MCT; efficient scan techniques that enable aerodynamic, vector, and altitude control; and adherence to the 10-degree rule, the 50- percent rule, and dive recovery rules.

Performance Standard. Maintain a minimum of 300-foot clearance of all obstructions. Execute all procedures IAW Air NTTP. Adhere to LAT ROC. Demonstrate proficient cockpit management including TCT and MCT.

Prerequisite. Complete ground/academic training. LAT-2502, NS-2702.

Ordnance. ALQ-164, Expendables.

Range Requirement. Reference Range Support Matrix.

SADV LAT-4301 1.0 180 B,R,M NS S RNAWST

Goal. Review basic and advanced NS LAT. Introduce target attacks and threat countertactics in the LAT environment.

Requirement. Review all basic and advanced LAT maneuvers and threat countertactics at night. Perform 2 attacks at low altitude. Instruction shall emphasize sensor management, deconfliction, mutual support, standardized communications, threat recognition, identification and assessment, decision points on a threat matrix, and reactions versus a threat engagement timeline.

Performance Standard. Maintain a minimum of 300-foot clearance of all obstructions. Execute all procedures IAW Air NTTP. Adhere to LAT ROC. Execute briefed air-to-surface timeline. Adhere to surface-to-air threat countertactics gameplan. Valid weapon release IAW MAWTS-1 Planning, Briefing, and Debriefing Guide. Demonstrate proficient cockpit management including TCT and MCT.

Prerequisite. SLAT-4300

Ordnance. ALQ-164, Expendables.

Range Requirement. Reference Range Support Matrix.

ADV LAT-4302 1.3 * B NS A 2 AV-8B

Goal. Introduce basic NS LAT.

Requirement. As a chased aircraft, perform basic LAT procedures at night on closed LAT circuit. Practice straight and level flight, level turns, sustained and hard turns, ridgeline crossings, terrain masking, and climb-to-cope. Instruction shall emphasize TCT and MCT and efficient scan techniques that enable aerodynamic, vector, and altitude control.

Performance Standard. Maintain a minimum of 300-foot clearance of all obstructions. Execute all procedures IAW Air NTTP. Adhere to LAT ROC. Demonstrate proficient cockpit management including TCT and MCT.

Prerequisite. SLAT-4301.

Ordnance. ALQ-164, Expendables.

Range Requirement. RSTD, EXP.

ADV LAT-4303 1.3 180 B,R,M NS A 2 AV-8B

Goal. Introduce advanced NS LAT.

Requirement. As a chased aircraft, perform all basic and advanced LAT procedures, including 1 target attack (with simulated ordnance) at night on a closed LAT circuit. Instruction shall emphasize TCT and MCT, sensor management, threat recognition, identification and assessment, decision points on a threat matrix, and reactions versus threat engagement timeline.

Performance Standard. Maintain a minimum of 300-foot clearance of all obstructions. Execute all procedures IAW Air NTTP. Adhere to LAT ROC. Execute briefed air-to-surface timeline. Adhere to surface-to-air threat countertactics gameplan. Valid weapon release IAW MAWTS-1 Planning, Briefing, and Debriefing Guide. Demonstrate proficient cockpit management including TCT and MCT.

Prerequisite. LAT-4302.

Ordnance. 1 ALQ-164, TCTS, 20 Chaff, 40 Flares.

Range Requirement. RSTD, EXP.

External Syllabus Support. EW emitters, TCTS facility.

ADV LAT-4304 1.3 * B,R NS A 2 AV-8B

Goal. Introduce NS LAT as a wingman.

Requirement. As a wingman, perform basic and advanced LAT in section planned LAT circuit. Instruction shall emphasize MCT, position keeping, mutual support, deconfliction, and roles/responsibilities.

Performance Standard. Maintain a minimum of 300-foot clearance of all obstructions. Maintain formation parameters IAW Air NTTP. Execute all procedures IAW Air NTTP. Adhere to LAT ROC. Demonstrate proficient cockpit management including TCT and MCT.

Prerequisite. LAT-4303.

Ordnance. ALQ-164, Expendables.

Range Requirement. RSTD, EXP.

ADV LAT-4305 1.3 180 B,R,M NS A 2 AV-8B

Goal. Introduce target area tactics at low altitude at night.

Requirement. As a lead, and then as a wingman, execute 2 target attacks at low altitude. Practice section threat countertactics at low altitude. Instruction shall emphasize TCT and MCT, attack geometry, mutual support, and standardized communications.

Performance Standard. Maintain a minimum of 300-foot clearance of all obstructions. Execute all procedures IAW Air NTTP. Adhere to LAT ROC. Execute briefed air-to-surface timeline. Adhere to surface-to-air threat countertactics gameplan. Valid weapon release IAW MAWTS-1 Planning, Briefing, and Debriefing Guide. Demonstrate proficient cockpit management including TCT and MCT.

Prerequisite. LAT-4304.

Ordnance
Desired: 1 ALQ-164, 4 Mk-82, 20 Chaff, 40 Flares.
Acceptable Substitutes: 4 BDU-45/2 Mk-83/2 Mk-83 inert, 6xMK-76.

Range Requirement. RSTD, EXP, HE.

2.12.10 Active Air Defense (AAD)

2.12.10.1 Purpose. Conduct Air Defense.

2.12.10.2 General

All training shall be conducted IAW NAVMC DIR 3500.14, Aviation Training and Readiness Program Manual ACM Rules of Conduct.

An AV-8B ACTI or VFMT-401 ATI shall instruct all initial training events. Adversaries may be similar or dissimilar, provided instructor requirements are met.

2.12.10.3 Ground/Academic Training

Receive the following AV-8B courseware lecture

ACAD-4013, Combat Section Tactics.

Chalk Talks/Practical Application
ACAD-4014, AV-8B Intercept Mechanics (MAWTS-1 ASP)
ACAD-4015, Air-to-Air Timelines

SAR-1 Threat
Bogey Declaration
Hostile Declaration

IR-2/3 Threat
Bogey Declaration
Hostile Declaration

ACAD-4016, DARG Considerations

SAAD-4400 1.0 * B D S/L RNAWST

Goal. Introduce two-group and decoy and decoy tactics.

Requirement

Plan: Linked simulator. From a CAP, perform 4 intercepts against 2 group presentations of maneuvering, SAR-1 capable adversary. One adversary section will have an AA loadout and one section will be AG with at least a defensive IR-2 loadout. Presentations shall include range inside and outside defensive flow range, and azimuth inside defensive flow range. At least one line will have the adversaries cross. The sweeper section will demonstrate the following profiles, at a minimum, during the sortie: be above 35,000 MSL, airspeed above 1.1 Mach, hot all the way, mutual crank, defensive maneuver SR+5. The striker section will demonstrate the following profiles, at a minimum, during the sortie: descend below Radar Coverage (nominally 5,000' AGL), lean away from sweepers, conduct a deception maneuver at 35nm. Sortie will be conducted as line training, shooter controlled, bandit assist. ROE should provide for a hostile declaration NLT than sort range.

Brief: Conduct a GCI, fighter, and red air brief. GCI brief may be concurrent with fighter brief. If the sortie is for a section lead, section lead shall give the red air brief to the instructor (bandit tasking). Review admin, tacadmin, and blue and red timelines. Mission rehearse each of the lines thoroughly. If CAP to Meld is the same for more than one line, do not repeat those portions unless required for success. Ensure decision points and threat countertactics are thoroughly covered.

Execution: Must conduct four intercepts IAW planning guidance. Achieve Radar SA and have shots into both groups for a range and an azimuth line, otherwise incomplete. Demonstrate an ability to target the section into two groups. Demonstrate proficiency of the basic air-to-air timeline. Demonstrate the ability to sort and communicate shot contracts prior to shot range. Perform a notch press, otherwise incomplete. Dual codes not authorized; a wingman and a section lead may not both get the initial SAAD-4400 code. The minimum qualification for wingman or section lead is a SAAD-4400 complete wingman and section lead.

Debrief: Validate shots. Review each line on the DAQ. Use printouts from the console to reinforce geometry at the initial picture and timeout into each group.

Prerequisite. Academics, AA stage complete (ACMQ).

Ordnance. 2 AIM-120, 2 AIM-9, 180 Expendables.

External Syllabus Support. GCI.

SAAD-4401 1.0 * B,R D S/L RNAWST

Goal. Introduction to DARG.

Requirement

Plan: Linked simulator. In a missionized simulator, from USS Boat, defend an asset or area for 40 minutes. Incorporate all AA planning factors delineated in the ANTTP Air-to-Air Planning Chapter, to include, but not limited to: allowable risk, radar horizons, DEZ, JEZ, MEZ, loadout, and threat capabilities. Incorporate GCI. Ship based defense (i.e., Sea Sparrow) must be incorporated. SM-2 type capabilities may be incorporated, but fighters must be driven to commit. Conduct 4 engagements against sortable and non-sortable groups. Conduct one deck launch intercept as a section. One engagement must be a VID. The sortie should entail increasing complexity with a maximum of 2 coordinated groups. The picture may incorporate white and red players. Groups will not split. The threat will be a maximum of SAR-1 and may use medium and low altitude air-to-surface tactics. ROE shall be incorporated.

Brief: Conduct a GCI, fighter, and red air brief. GCI brief may be concurrent with fighter brief. Review admin, tacadmin, and blue and red timelines. Mission rehearse the MLCOAs. If CAP to Meld is the same for more than one scenario, do not repeat those portions unless required for success. Ensure decision points and threat countertactics are thoroughly covered. Section delouse and staggerback must be briefed.

Execution: Must conduct 4 engagements, one of which is a VID. Must target all factor groups. No blue losses due to non-adherence to briefed TCT ranges or poor airmanship (i.e., a 2g abort).

Debrief: Validate shots. Review each line on the DAQ. Use printouts from the console to reinforce geometry at the initial picture and timeout into each group.

Prerequisite. SAAD-4400

Ordnance. 2 AIM-120, 2 AIM-9, 180 Expendables.

External Syllabus Support. GCI.

AAD-4402 1.3 180 B,R,M D A 2+ AV-8B

Goal. Conduct DARG.

Requirement

Plan: In a missionized sortie, as a section or division, defend an asset or area for 30 minutes. Incorporate all AA planning factors delineated in the ANTTP Air-to-Air Planning Chapter, to include, but not limited to: allowable risk, radar horizons, DEZ, JEZ, MEZ, loadout, and threat capabilities. Incorporate GCI. Ship based defense (i.e., Sea Sparrow) must be incorporated. SM-2 type capabilities may be incorporated, but fighters must be driven to commit. The enemy will comprise sweepers and strikers where the sweeper will have a SAR-1

capability and the strikers will have a minimum of IR-3 capability. EA capabilities should be incorporated. The defense will be in conjunction with the ship conducting a higher mission that defines the vulnerability window; i.e. NEO, troop/SOF/Recon insert, humanitarian aid, straits transit. The threat's goal is to attack the ship or high value airborne assets. The plan should incorporate the following scenarios: VID, sortable and non-sortable groups, two group presentations, high, medium, and low presentations with decoy and AMRAAM aware maneuvers. The picture may incorporate white and red players. Groups may be briefed to not split until WVR. ROE shall be incorporated, but not prohibitive. A blue and red RTO shall be used for exercise control. The plan must provide an overall gameplan to exploit threat vulnerabilities (bid for success) and the derivative tactics. S-2 shall be incorporated into the plan.

Brief: S-2 shall be incorporated into the brief portion of the event by either conducting an in-brief to planning or briefing the red threat during the sortie brief. Conduct a GCI, fighter, and red air brief. GCI brief may be concurrent with fighter brief. Review admin, tacadmin, and blue and red timelines. Mission rehearse the MLCOAs. If CAP to Meld is the same for more than one scenario, do not repeat those portions unless required for success. Ensure decision points and threat countertactics are thoroughly covered. Section delouse and staggerback must be briefed.

Execution: Must conduct three engagements, one of which is a VID. An engagement will equate to committing on a group. Target and achieve SA to all factor groups (visual or RADAR). No blue losses due to non-adherence to briefed TCT ranges or poor airmanship (i.e., a 2g abort). Workable RADAR, otherwise incomplete.

Debrief: Fighter scrub, Mass Debrief, and Fighter Debrief. Debrief at TCTS facility desired. If not available, whiteboard debrief required.

Prerequisite. SAAD-4401.

Ordnance
Desired: 2 CATM-120, 1(2) AIM-9, TCTS Pod, Tanks, 30 Flares, 30 Chaff.
Required: 1 AIM-9, 1 TCTS POD, Expendables.

Range Requirement. RSTD, EXP.

External Syllabus Support. TCTS range, GCI/AIC, RADAR-equipped adversary (Dissimilar preferred, 2 minimum).

2.12.11 Offensive Anti-Air Warfare (OAAW)

2.12.11.1 Purpose. Develop proficiency in OAAW execution during day and night missions in a medium threat environment.

2.12.11.2 General. An ACTI or ACMFL shall lead all events. Wingman must be ACM qualified.

SOAAW-4500 1.0 * B,R (NS) S/L 2xRNAWST

Goal. Plan and execute a section AI with RF threat and low-probability air threat; SEAD required.

Requirement

Plan: Linked simulator. Squadron WTI/PTO tasks Intel to create relevant scenario that requires detailed AG planning and threat countertactics gameplan to include a low probability air threat. PUI,

with wingman or flight lead (per stage), develops detailed AG timeline and routing to meet mission success. Integrate SEAD into gameplan; either EW, HARM, or WTI/PTO derived scenario. Combat scenario, no training rules required.

Brief: Assume all members are well acquainted with the overall plan. Review admin, required TACADMIN, and focus on mission rehearsal of the most likely course of action to include SEAD integration and the two most likely contingencies. Brief and plan must include how the section is going to handle the low-probability air threat. Target area diagram with detailed AG timeline required.

Execution: Conducts required TACADMIN that results in no switchology, systems, or configuration errors. As a wingman, executes formation, systems, and communication in accordance with the brief. Wingman has effective and valid weapons release and executes threat countertactics aggressively and IAW brief. Flight lead does the same, and makes decisions at the appropriate point (briefed).

Debrief: Utilize Simulator DAQ video if available. Validate all weapons releases. Review all decision points. Compare briefed tactics to executed tactics for validation or lessons learned. Review HUD, Map, and Radar for appropriate systems management.

Prerequisite. 3000 Phase complete.

Ordnance. 2 AIM-9M-8, PUI derived ordnance load, & Expendables.

External syllabus support. Linked simulator is required; SOAAW-4500 complete wingman or section lead required. No dual (section lead & wingman) completion authorized (one of the aircrew in the simulator must be SOAAW-4500 complete). GCI desired if available. Division Lead, ACTI, or WTI shall be the instructor at the console. Division Lead, ACTI, or WTI may be the flight lead or wingman with a section lead at the console if the DAQ is operable and used for the debrief.

OAAW-4501 1.3 * B (NS) A 2 AV-8B

Goal. Plan and execute a section AI with RF threat and low-probability air threat; SEAD required.

Requirement

Plan: Squadron WTI/PTO tasks Intel to create relevant scenario that requires detailed AG planning, detailed threat countertactics gameplan to include a low probability air threat, and SEAD support. PUI, with wingman or flight lead (per stage), develops detailed AG timeline and routing to meet mission success. Integrate SEAD into gameplan; either EW, HARM, or WTI/PTO derived scenario. SEAD is desired to be actual aircraft/systems, but may be degraded to simulation by TMS aircrew, or least favorable case, by the RTO. Emitters must be used on either OAAW-4501 or OAAW-4502, otherwise incomplete. Shooter controlled bandit assist kill removal or RTO assisted kill removal may be used. RTO for AG threat, AA threat or simulation, and scenario management is required.

Brief: Threat Surface-to-Air (required) and AA (if required) briefed by flight lead. Focus on mission rehearsal of the most likely course of action to include SEAD integration and the two most likely contingencies. Ensure decision points and expected decisions are briefed. Brief and plan must include how the section is going to

handle the low-probability air threat. Target area diagram with detailed AG timeline required.

Execution: Conducts required TACADMIN that results in no switchology, systems, or configuration errors. As a wingman, executes formation, systems, and communication in accordance with the brief. Wingman has effective and valid weapons release and executes threat countertactics aggressively and IAW brief. Flight lead does the same, and makes decisions at the appropriate point (briefed).

Debrief: Validate all weapons releases. Review all decision points. Mass debrief as required; TCTS debrief desired, whiteboard required if not available. Compare briefed tactics to executed tactics for validation or lessons learned. Review HUD/Radar for appropriate systems management. Review comm.

Prerequisite. SOAAW-4500

Ordnance
Desired: Any AG Ordnance, 1 CATM-9, 1 TCTS Pod, 30 Flares.
Required: 1 CATM-9, 30 Flares. Ordnance is required for either OAAW-4501 or 4502.

Range Requirement. RSTD, EXP, AA.

External syllabus support. GCI. 1xSEAD platform (EA-6B, F/A-18, F-16, etc) and 1xSAR-1 Capable Bandit desired but not required. Division Lead, ACTI, or WTI shall be the instructor. Blue RTO minimum if flying against live bandit(s).

OAAW-4502 1.3 180 B,R,M D A 3+ AV-8B

Goal. Plan and conduct a section or division AI with SEAD against a SA and AA threat.

Requirement

Plan: Squadron WTI/PTO tasks Intel to create relevant scenario that requires detailed AG planning, detailed threat countertactics gameplan to include an air threat, and SEAD support. PUI, with wingman or flight lead (per stage), develops detailed AG timeline and routing to meet mission success. The intent is for a division level planning effort lead by the division lead. Integrate SEAD into gameplan; either EW, HARM, or WTI/PTO derived scenario. SEAD is desired to be actual aircraft/systems, but may be degraded to simulation by TMS aircrew, or least favorable case, by the RTO. Emitters must be used on either OAAW-4501 or OAAW-4502, otherwise incomplete. RTO kill removal is required. Multiple codes are authorized during the sortie if required instructors are available (two wingman with two division leads, WTIs, ACTIs). AA threat shall be at least SAR-1 sweepers and must influence the fighters pre or post employment. External air fighters or strikers may be incorporated.

Brief: Threat brief, GCI brief, RTO brief, Tactical Brief. Division lead should apportion different parts of the brief to flight members. Tactical brief should be a mission rehearsal. Required briefing items include division deconfliction, departure avoidance, and training rules. Target area diagram with detailed AG timeline is required.

Execution: Conducts required TACADMIN that results in no switchology, systems, or configuration errors. As a wingman, executes formation, systems, and communication in accordance with the brief. Wingmen have

effective and valid weapons releases and executes threat countertactics aggressively and IAW brief. Flight lead does the same, and makes decisions at the appropriate point (briefed).

Debrief: Validate all weapons releases. Review all decision points. Mass debrief; TCTS debrief desired, whiteboard required if not available. Compare briefed tactics to executed tactics for validation or lessons learned. Conduct fighter debrief. Review HUD/Radar for appropriate systems management. Review comm.

Prerequisite. OAAW-4501.

Ordnance
Desired: Any AG Ordnance, 1 CATM-9, 1 TCTS Pod, 30 Flares.
Required: 1 CATM-9, 30 Flares. Ordnance is required for either OAAW-4501 or 4502.

Range Requirement. RSTD, EXP, AA.

External syllabus support. 1xSEAD platform (EA-6B, F/A-18, F-16, etc) and 2x SAR-1 capable bandits, GCI, and blue and red RTOs. Dissimilar bandits preferred. Division Lead, ACTI, or WTI shall be in the flight per non-qualified wingman or section lead.

2.12.12 Aerial Escort (AE)

2.12.12.1 Purpose. Conduct Assault Support Escort (ASE) in an objective area without an air threat and an objective area with an air threat. Completion of this stage as a flight lead makes the PUI an Escort Flight Lead.

2.12.12.2 General. A Division Lead shall instruct all events.

The first two events of this stage are designed to teach the PUI how to conduct ASE in a MEU scenario into an objective area where Air Superiority is established. The two events shall focus on conducting OAS during the insert of friendly forces, their actions on the objective, and their extract from the objective.

The third and fourth events are designed to teach the PUI how to conduct ASE in a MEU scenario into an objective area where Air Superiority is not established. The two events shall focus on conducting OAAW during the insert of friendly forces, their actions on the objective, and their extract from the objective.

Specific emphasis should be placed on the coordination with the Assault Flight Lead (AFL) and Mission Commander (MC) that is required during the planning phase to determine the AV-8B's role in the mission.

2.12.12.3 Ground/Academic Training

Readings. Air NTTP 3-22.3, Chapter 12, Escort

Lectures. AWTS-1 Common Courseware lecture:
ACAD-4010, AV-8B Escort Flight Lead (MAWTS-1 ASP)

SAE-4600	1.0	365	B,R		(NS)	S	RNAWST

Goal. Conduct an ASE mission in an objective area with Air Superiority.

Requirement. Perform ASE. Should be a linked simulator. Planning and briefing shall include mission tasking; attached, detached, and/or combined escort gameplans; execution checklist integration; communication plan; assault routing; surface-to-air threat engagement gameplans; actions at the landing zone; Initial Terminal Guidance (ITG); and fires coordination, ROE, and AMC and EFL roles/responsibilities. Scenario must include a simulated surface-to-air threat.

Performance Standard. Execute all tasking (CAS, AR, FAC(A)) IAW Air NTTP. Maintain awareness of the assault package and status of execution checklist. Adhere to ROE and briefed fires coordination gameplan.

Prerequisite. 3000 Phase complete. Complete ground/academic training.

Ordnance. 1 TPOD, 2 GBU-12, 300 25mm, 20 Chaff, 60 Flares.

AE-4601 1.3 * B (NS) A 2+ AV-8B

Goal. Conduct an ASE mission in an objective area with Air Superiority.

Requirement. Perform ASE. Planning and briefing shall include mission tasking; attached, detached, and/or combined escort gameplans; execution checklist integration; communication plan; assault routing; surface-to-air threat engagement gameplans; actions at the landing zone; Initial Terminal Guidance (ITG); and fires coordination, ROE, and AMC and EFL roles/responsibilities. Scenario must include either an actual or simulated surface-to-air threat.

Performance Standard. Execute all tasking (CAS, AR, FAC(A)) IAW Air NTTP. Maintain awareness of the assault package and status of the execution checklist. Adhere to ROE and briefed fires coordination gameplan.

Prerequisite. SAE-4600, (FAC(A)-4811 if acting as FAC(A).

Ordnance
Desired: 1 TPOD, 2 GBU-12, 300 25mm, 20 Chaff, 60 Flares.
Acceptable substitute: 2 GBU-16/2 GBU-32/2 GBU-38/2 GBU-54.

Range Requirement. RSTD, EXP, HE, LSR.

External Syllabus Support. Assault Support assets.

SAE-4602 1.0 365 B,R,M (NS) S RNAWST

Goal. Conduct an ASE mission without Air Superiority.

Requirement. Perform ASE. Planning and briefing shall include mission tasking; attached, detached, and/or combined escort gameplans; execution checklist integration; communication plan; assault routing; surface-to-air threat engagement gameplans; actions at the landing zone; and fires coordination, ROE, and AMC and EFL roles/responsibilities. Scenario must include an air-to-air threat.

Performance Standard. Execute all tasking IAW Air NTTP. Maintain awareness of the assault package and status of execution checklist. Adhere to ROE and briefed fires coordination gameplan.

Prerequisite. 3000 Phase complete. AAD-4401

Ordnance. 1 TPOD, 2 AIM-120, 2 AIM-9, 300 25mm, 180 expendables.

External Syllabus Support. GCI/AIC.

AE-4603 1.3 * B (NS) A 2+ AV-8B

Goal. Conduct an ASE mission without Air Superiority.

Requirement. Perform ASE. Planning and briefing shall include mission tasking; attached, detached, and/or combined escort gameplans; execution checklist integration; communication plan; assault routing; surface-to-air threat engagement gameplans; actions at the landing zone; and fires coordination, ROE, and AMC and EFL roles/responsibilities. Scenario must include an air-to-air threat.

Performance Standard. Execute all tasking (OAAW) IAW Air NTTP. Maintain awareness of the assault package and status of execution checklist. Adhere to ROE and briefed fires coordination gameplan.

Prerequisite. SAE-4602

Ordnance
Desired: 2 CATM-120, 1(2) AIM-9, TCTS Pod, Tanks, 30 Flares, 30 Chaff.
Required: 1 AIM-9, 1 TCTS POD, Expendables.

Range Requirement. RSTD, AA, EXP.

External Syllabus Support. TCTS range, GCI/AIC, Assault Support assets. RADAR-equipped adversary (Dissimilar preferred, 2 minimum).

2.12.13 Call For Fire

2.12.13.1 Purpose. Complete Call For Fire qualification.

2.12.13.2 General. A FAC(A) or FAC(A)I shall instruct the CFF-4700 flight event.

CFF-4700 1.3 * B (NS) A 2 AV-8B

Goal. Introduce mortar/artillery airspot.

Requirement

Plan: Use Squadron S-2, Pilot Training Officer (PTO), and FAC(A) to develop ROE, SPINS, gridded reference graphic (GRG), ground scheme of maneuver (SOM), and threats. Develop a plan to locate, ID, and kill the enemy.

Brief: Conducted by FAC(A) or FAC(A)I. Focus on Call for fire control templates, aircraft positioning, sensor optimization.

Execution: On a tactical range, perform visual/sensor reconnaissance of 3 separate targets and generate target coordinates with aircraft systems. Plot targets on gridded imagery/chart and prepare call-for-fire briefs. Emphasize accurate call-for-fire communications and adjustment procedures. Execute 1 LASER adjust fire, 1 traditional (grid) adjust fire, 1 immediate suppression, 1 SEAD mission, and 1 high threat SEAD mission. For the high threat SEAD mission, emphasize high threat airspot and positioning to provide redundant mark and accurate corrections for IDFS. The simulated weather for the high threat SEAD mission is overcast at 8,000 feet MSL. Both SEAD missions must include marking and suppressing targets.

Performance Standard. Execute appropriate search, detection, and PID profiles. Proper communication format with the firing unit. Provide timely and accurate corrections to the firing unit. Complete an immediate suppression CFF within 60 seconds of receiving the mission from the FAC/FO. Correct ALSA Communication Brevity.

Prerequisite. AS-2604

Ordnance. 1 TPOD, 20 Chaff, 40 Flares.

Range Requirement. RSTD, EXP.

External Syllabus Support. Indirect fire support assets must consist of either 155mm artillery, 81mm mortars or 120mm expeditionary fire support system. Indirect fire support asset requires a minimum of 10 HE rds, 2 WP rds, and 8 Illum rds.

2.12.14 Forward Air Controller (Airborne) [FAC(A)]

2.12.14.1 Purpose. Complete FAC(A) qualification.

2.12.14.2 General

The JCAS AP MOA (referred to as the JFAC[A] MOA) provides the minimum standard for certification and qualification as a FAC(A). Meeting the T&R syllabus requirements for FAC(A) will meet the JFAC(A) MOA requirements. The JFAC(A) MOA can be found on the SIPRNET at http://jfaca.mawts-1.usmc.smil.mil.

Prior to beginning this stage, an AV-8B pilot shall, at a minimum, be a division lead and WTO.

Upon completion of FAC(A)-4811, with JFAC(A) MOA requirements met, the commanding officer may issue a T&R FAC(A) qualification and a JFAC(A) MOA FAC(A) certification.

Unqualified pilots will fly SFAC(A)-4800 through FAC(A)-4811 with a MAWTS-1 certified FAC(A)I designated by the commanding officer. The FAC(A)I will fly in the escort aircraft. Any USMC F/A-18 FAC(A)I aircraft may be used to fulfill this requirement. The FAC(A)I may simulate the GFAC/JTAC if one is not available. Attempts should be made to incorporate GGAC/JTAC support on every FAC(A) event to enhance realistic training.

A non-qualified FAC(A) pilot must have a FAC(A)I in the section and may not control CAS aircraft delivering actual ordnance closer than the most conservative of the following: minimum safe distance, 1,000 meters, or range regulations. A FAC(A)-qualified pilot may not employ CAS aircraft delivering actual ordnance closer than the most conservative of minimum safe distance or range regulations.

FAC(A)-4800 through FAC(A)-4807 are work-up events designed to teach FAC(A) principles with heavy instruction from the FAC(A)I. The FAC(A)I may brief any sortie; however, the intent is for the FAC(A) under instruction to develop planning, briefing, and debriefing skills throughout the 4800-4807 syllabus. All simulator events may be linked with the linked simulator aircrew acting as CAS striker aircraft.

SFAC(A)-4808 through FAC(A)-4811 are exercises in integrating the fire support assets previously controlled separately. The intent is to expose prospective FAC(A) pilots to the unique challenges posed by each asset when integrated with fixed-wing CAS. Each sortie in the aircraft must integrate fixed wing CAS attacks with at least one separate and dissimilar fire support asset. If FAC(A)-4810 integrates IDFS assets, FAC(A)-4811 should integrate RW/UAS CAS, and vice versa. If RW/UAS assets

are integrated, emphasis is on combined or sectored sequential attacks. If IDFS is integrated, emphasis is on altitude or lateral deconfliction of fires effects using standard SEAD templates. At a minimum, IDFS must be integrated into one of these two final sorties.

Due to the high task-loading nature of the FAC(A) mission, pilots who achieved their initial FAC(A) qualification in any other TMS will complete the entire qualification syllabus in an AV-8B prior to being FAC(A) qualified in an AV-8B squadron.

Failure to meet JFAC(A) MOA proficiency or currency requirements or loss of proficiency (delinquent refly factor) for all associated FAC(A) qualification events (per paragraph 500.1.b) constitutes loss of the FAC(A) qualification.

Pilots who have lost the FAC(A) qualification due to failure to meet JFAC(A) MOA proficiency or 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 qualified FAC(A). At a minimum, such pilots must complete the number and category (appropriate night, control type, ordnance, etc.) of controls the individual failed to accomplish during the appropriate currency or proficiency period (currency - 2 controls in 90 days; proficiency - 6 controls in a 6-month period; 4 of these 6 controls must be Type 1, 1 control must be at night, and at least 1 must control an asset that expends ordnance).

Pilots 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 18 consecutive months per the JFAC(A) MOA, shall regain qualification by completing the appropriate Refresher FAC(A) syllabus under the supervision of a FAC(A)I and conducting a minimum of 6 controls (4 of these 6 controls must be Type 1, 1 control must be at night, and at least 1 must control an asset that expends ordnance).

The intent of the T&R refly intervals is to meet the JFAC(A) MOA minimum requirements for currency/proficiency controls:

JFAC(A) MOA REQUIREMENTS				
Interval	**Controls**	**Type 1**	**Night**	**Ordnance**
90 days	2	*	*	*
180 days	6	4	1	1
Initial Certification	12	8	1	4
*No specified requirements in these areas for this interval				

Escort aircraft that are not flown by a FAC(A)I conducting instruction during a FAC(A) work-up will log an ESC-4851. Escort aircraft that are flown by a FAC(A)I conducting instruction during a FAC(A)/FAC(A)I work-up will log the appropriate FAC(A) code and log the FAC(A) controls. AV-8B FAC(A)s should fly as part of a section with an assigned escort. Escort aircraft shall not fulfill the external support requirement of a fixed-wing CAS element for any FAC(A) qualification work-up sortie.

2.12.14.3 Ground/Academic Training. All PFAC(A) are required to receive the JFAC(A) Common lectures and the AV-8B specific FAC(A) Employment lectures

prior to beginning SFAC(A) 4800. All required JFAC(A) Common Lectures are located on the MAWTS-1 SIPR website: mawts1.usmc.smil.mil. Lectures must be taught by a current FAC(A)I. Recommended that PFAC(A) attend FAC(A) ground school hosted by MATSS. Reference JFAC(A) MOA for detailed information on additional FAC(A) required training.

Readings

Review Joint Publication 3-09.3, Joint Tactics, Techniques, and Procedures for Close Air Support.

AV-8B NATIP (NTRP 3-22.4-AV8B), Review Section 2.11.3, CAS Display.

Air NTTP 3-22.3 AV-8B, Review Chapter 9, Forward Air Controller (Airborne).

Tactical Air Control Party Tactical Standard Operation Procedures (TACP TACSOP), MAWTS-1.

MCRP 3-16B Multiservice Tactics Techniques and Procedures for Joint Application of Firepower (JFIRE).

Lectures

Receive the following AV-8B courseware lecture from an AV-8B FAC(A)I:

AV-8B FAC(A) Employment

Review the following AV-8B courseware lectures:
ACAD-3002, CAS Standardization, MAWTS-1 ASP.

SFAC(A)-4800 1.5 * B D S RNAWST

Goal. Type 1, 2, and 3 control procedures in a day, low threat environment.

Requirement

Plan: FAC(A)I led. Use Squadron S-2, Pilot Training Officer (PTO), and FAC(A)I to develop ROE, SPINS, ground scheme of maneuver (SOM), and threats. Develop a plan to locate, ID, and kill enemy targets IAW the ground SOM, achieve commander's intent with the correct weapon to target match. Have a survive game plan to defeat the threat system while meeting allowable risk standards. Ensure JMPS plan is IAW ANTTP Chapter 9; goal is for an organized cockpit that supports efficient systems management. Generate target area imagery, FAC(A) mission cards, and cockpit maps that enable mission success.

Brief: FAC(A)I led. Execute IAW MAWTS-1 brief/debriefing guide. Tailor brief around the AV-8B FAC(A) employment principles and TACP TACSOP CAS execution template, focusing on system management, communications, correlation, and specific attack templates. Mission rehearsal should emphasize Type 1,2 and 3 FAC(A) control templates, systems management, target PID, target coordinate generation accuracy, PGM employment, threat countertactics, and standardized communications.

Execution: Execute Type 1, 2, and 3 FAC(A) control IAW JPub 3-09.3. Accurate target coordinate and 9-line generation. Emphasize C3 integration, target area flow, and timing; sensor management; and CRM. Execute 2 Type 1, 2 Type 2 and 1 Type 3 controls. The FAC(A)I shall simulate C3 agencies, TACP and CAS aircraft. Proper coordination and approval for CAS attacks. Effective FAC(A) aircraft position to provide marking and control with consideration of threat and friendly positions. Correct ALSA Communication Brevity.

Debrief: The sortie will be debriefed using simulator recording devices. Debrief will be conducted IAW MAWTS-1 brief/debrief guide.

Prerequisite. Complete with ground/academic training IAW JFAC(A) MOA. Must be a Division Leader / WTO.

Ordnance. TPOD, 2.75" or 4" Rockets, Mk-82, Expendables.

SFAC(A)-4801 1.5 * B NS S RNAWST

Goal. Type 1, 2, and 3 control procedures in a night, low threat environment.

Requirement

Plan: FAC(A)I led. Use Squadron S-2, Pilot Training Officer (PTO), and FAC(A)I to develop ROE, SPINS, ground scheme of maneuver (SOM), and threats. Develop a plan to locate, ID, and kill enemy targets IAW the ground SOM, achieve commander's intent with the correct weapon to target match. Have a survive game plan to defeat the threat system while meeting allowable risk standards. Ensure JMPS plan is IAW ANTTP Chapter 9; goal is for an organized cockpit that supports efficient systems management. Generate target area imagery, FAC(A) mission cards, and cockpit maps that enable mission success.

Brief: FAC(A)I led. Execute IAW MAWTS-1 brief/debriefing guide. Tailor brief around the TACP TACSOP CAS execution template, focusing on system management, communications, correlation, and specific attack templates. Mission rehearsal should emphasize Type 1,2 and 3 FAC(A) control templates, systems management, target PID, target coordinate generation accuracy, PGM employment, threat countertactics, and standardized communications.

Execution: Execute Type 1, 2, and 3 control IAW JPub 3-09.3. Accurate target coordinate and 9-line generation. Emphasize C3 integration, target area flow, and timing; sensor management; and CRM. Execute 2 Type 1, 2 Type 2 and 1 Type 3 controls. The FAC(A)I shall simulate C3 agencies, TACP and CAS aircraft. Proper coordination and approval for CAS attacks. Effective FAC(A) aircraft position to provide marking and control with consideration of threat and friendly positions. Correct ALSA Communication Brevity. Execute Type 1, 2, and 3 terminal attack control IAW JPub 3-09.3. Proper communication format with the firing unit. Accurate target coordinate and 9-line generation. Proper coordination and approval for CAS attacks. Effective FAC(A) aircraft position to provide marking and control with consideration of threat and friendly positions. Correct ALSA Communication Brevity.

Debrief: The sortie will be debriefed using simulator recording devices. Debrief will be conducted IAW MAWTS-1 brief/debrief guide.

Prerequisite. SFAC(A)-4800.

Ordnance. TPOD, 4 5" Rockets, Mk-82, Expendables.

SFAC(A)-4802 1.5 * B D S RNAWST

Goal. Introduce Type 1, 2, and 3 control procedures in a daylight, urban environment.

Requirement

Plan: FAC(A)I led. Use Squadron S-2, Pilot Training Officer (PTO), and FAC(A)I to develop ROE, SPINS, ground scheme of maneuver (SOM), and

threats. Develop a plan to locate, ID, and kill enemy targets IAW the ground SOM, achieve commander's intent with the correct weapon to target match. Have a survive game plan to defeat the threat system while meeting allowable risk standards. Ensure JMPS plan is IAW ANTTP Chapter 9; goal is for an organized cockpit that supports efficient systems management. Generate target area imagery, FAC(A) cards, and cockpit maps that enable mission success.

Brief: FAC(A)I led. Execute IAW MAWTS-1 brief/debriefing guide. Tailor brief around the AV-8B FAC(A) employment template and TACP TACSOP CAS execution template, focusing on urban FAC(A)/CAS considerations, system management, communications, correlation, and specific attack templates. Mission rehearsal should emphasize Type 1,2 and 3 FAC(A) control templates, systems management, 9-line creation, reading and readbacks, target PID, target coordinate generation accuracy, PGM employment, threat countertactics, and standardized communications.

Execution. In an urban environment, perform visual/sensor reconnaissance of 3 separate targets and generate target coordinates with aircraft systems. Plot each target on Gridded Reference Graphic (GRG). Perform authentication procedures. Perform 1 Type 1, 4 Type 2, and 1 Type 3 controls of aircraft. Provide GRG-based talk-ons and corrections. Provide BHA. The FAC(A)I shall simulate C3 agencies, TACP, and CAS aircraft. Execute appropriate search, detection, and PID profiles. Execute Type 1, 2, and 3 terminal attack control IAW JPub 3-09.3. Accurate target coordinate and 9-line generation and readbacks. Accurate talk-ons. Proper coordination and approval for CAS attacks. Effective FAC(A) aircraft position to provide marking and control with consideration of threat and friendly positions. Correct ALSA Communication Brevity.

Debrief: The sortie will be debriefed using simulator recording devices. Debrief will be conducted IAW MAWTS-1 brief/debrief guide.

Prerequisite. SFAC(A)-4801

Ordnance. TPOD, 4 5.00" WP Rockets and 2 Mk-82,Expendables.

SFAC(A)-4803 1.5 180 B,R,M NS S/L RNAWST

Goal. Introduce Type 1, 2, and 3 control procedures in a night, urban environment.

Requirement

Plan: FAC(A)I led. Linked simulator. Use Squadron S-2, Pilot Training Officer (PTO), and FAC(A)I to develop ROE, SPINS, ground scheme of maneuver (SOM), and threats. Develop a plan to locate, ID, and kill enemy targets IAW the ground SOM, achieve commander's intent with the correct weapon to target match. Have a survive game plan to defeat the threat system while meeting allowable risk standards. Ensure JMPS plan is IAW ANTTP Chapter 9; goal is for an organized cockpit that supports efficient systems management. Generate target area imagery, sensor profiles, EOTDA data, and cockpit maps that enable mission success.

Brief: FAC(A)I led. Execute IAW MAWTS-1 brief/debriefing guide. Tailor brief around the TACP TACSOP CAS execution template, focusing on system management, communications, correlation, and specific attack templates. Mission rehearsal should emphasize Type 1,2 and 3 FAC(A) control templates, systems management, target PID, target coordinate

generation accuracy, PGM employment, threat countertactics, and standardized communications.

Execution: In a linked, night, urban environment, perform visual/sensor reconnaissance of 3 separate targets and generate target coordinates with aircraft systems. Plot each target on Gridded Reference Graphic (GRG). Perform authentication procedures. Perform 1 Type 1, 4 Type 2, and 1 Type 3 controls of aircraft. Deliver or coordinate marking rounds as required. Provide GRG-based talk-ons and corrections. Provide BHA. Execute appropriate search, detection, and PID profiles. Execute Type 1, 2, and 3 terminal attack control IAW JPub 3-09.3. Accurate target coordinate and 9-Line generation. Accurate talk-ons. Proper coordination and approval for CAS attacks. Effective FAC(A) aircraft position to provide marking and control with consideration of threat and friendly positions. Correct ALSA Communication Brevity. The linked aircraft should fill the role of a CAS striker.

Debrief: The sortie will be debriefed using simulator recording devices. Debrief will be conducted IAW MAWTS-1 brief/debrief guide.

Prerequisite. SFAC(A)-4902

Ordnance. TPOD, 2 GBU-12, 2 GBU-54, 300x25mm, Expendables.

FAC(A)-4804	1.3	180	B,R,M	D	A	2 AV-8B

Goal. Introduce Type 1 and 2 control procedures of fixed-wing CAS assets in a low threat environment.

Requirement

Plan: FAC(A)I led. Use Squadron S-2, Pilot Training Officer (PTO), and FAC(A)I to develop ROE, SPINS, ground scheme of maneuver (SOM), and threats. Develop a plan to locate, ID, and kill enemy targets IAW the ground SOM, achieve commander's intent with the correct weapon to target match. Have a survive game plan to defeat the threat system while meeting allowable risk standards. Ensure JMPS plan is IAW ANTTP Chapter 9; goal is for an organized cockpit that supports efficient systems management. Generate target area imagery, sensor profiles, EOTDA data, and cockpit maps that enable mission success.

Brief: FAC(A)I led. Execute IAW MAWTS-1 brief/debriefing guide. Tailor brief around the AV-8B FAC(A) employment templates and TACP TACSOP CAS execution template, focusing on system management, communications, correlation, and specific attack templates. Mission rehearsal should emphasize Type 1 and 2 FAC(A) control templates, systems management, target PID, target coordinate generation accuracy, PGM employment, threat countertactics, and standardized communications.

Execution: On a tactical range, perform visual/sensor reconnaissance of 3 separate targets and generate target coordinates with aircraft systems. Plot each target on gridded imagery/chart. Perform authentication procedures. Perform 2 Type 1 and 2 Type 2 controls of fixed-wing aircraft utilizing level and roll-in delivery profiles. Deliver or coordinate LASER mark on target and guide 1 LGW to impact. Provide BHA. If a range that permits Type 2 control is not available, Type 2 control may be evaluated with simulated deliveries. Execute appropriate search, detection, and PID profiles. Execute Type 1 and 2 terminal attack control IAW JPub 3-09.3. Accurate target coordinate and 9-line generation. Proper coordination and approval for CAS attacks.

Effective FAC(A) aircraft position to provide marking and control with consideration of threat and friendly positions. Successfully provides LASER guidance for CAS strikers during a LGW attack. Correct ALSA Communication Brevity.

Debrief: The sortie will be debriefed using aircraft and TPOD recording devices and TCTS feeds if available. Debrief will be conducted IAW MAWTS-1 brief/debrief guide.

Prerequisite. SFAC(A)-4803

Ordnance
Desired: 1 TPOD, 2 Mk-82, 4 5.00" WP Rockets, 20 Chaff, 40 Flares. Acceptable substitute: Mk-82, Mk-83, Mk-76, 7 2.75" HE/RP/WP/Inert Rockets, 4 5.00" HE/WP/RP/Inert Rockets, 300 25mm.

Range Requirement. RSTD, HE, EXP, LSR.

External Syllabus Support. One or 2 FW CAS elements with free-fall and/or forward firing ordnance and LASER Guided Weapons. Ground FAC/JTAC.

FAC(A)-4805 1.3 90 B,R,M (NS) A 2 AV-8B

Goal. Introduce Type 1 and 3 control procedures of fixed-wing CAS assets with GP ordnance in a low threat environment.

Requirement. On a tactical range, perform visual/sensor reconnaissance of 3 separate targets and generate target coordinates with aircraft systems. Plot each target on gridded imagery/chart. Perform authentication procedures. Perform 3 Type 1 and 1 Type 3 controls of fixed wing aircraft with GP ordnance. Deliver or coordinate marking rounds with at least 1 mark via aircraft ordnance. Provide talk-ons and corrections. Provide BHA.

Plan: FAC(A)I led. Use Squadron S-2, Pilot Training Officer (PTO), and FAC(A)I to develop ROE, SPINS, ground scheme of maneuver (SOM), and threats. Develop a plan to locate, ID, and kill enemy targets IAW the ground SOM, achieve commander's intent with the correct weapon to target match. Have a survive game plan to defeat the threat system while meeting allowable risk standards. Ensure JMPS plan is IAW ANTTP Chapter 9; goal is for an organized cockpit that supports efficient systems management. Generate target area imagery, sensor profiles, EOTDA data, and cockpit maps that enable mission success.

Brief: FAC(A)I led. Execute IAW MAWTS-1 brief/debriefing guide. Tailor brief around the TACP TACSOP CAS execution template, focusing on system management, communications, correlation, and specific attack templates. Mission rehearsal should emphasize Type 1,2 and 3 FAC(A) control templates, systems management, target PID, target coordinate generation accuracy, PGM employment, threat countertactics, and standardized communications.

Execution. Perform 2 Type 1 and 1 Type 3 controls of fixed-wing aircraft utilizing level and roll-in delivery profiles. Deliver or coordinate LASER mark on target and guide 1 LGW to impact. Provide BHA. If a range that permits Type 2 control is not available, Type 2 control may be evaluated with simulated deliveries. Execute appropriate search, detection, and PID profiles. Execute appropriate search, detection, and PID profiles. Execute Type 1 and 3 terminal attack control IAW JPub 3-09.3. Accurate target coordinate and 9-line generation. Marks target

within 300 meters. Accurate talk-ons and corrections from the mark. Proper coordination and approval for CAS attacks. Effective FAC(A) aircraft position to provide marking and control with consideration of threat and friendly positions. Correct ALSA Communication Brevity.

Debrief: The sortie will be debriefed using aircraft and TPOD recording devices and TCTS feeds if available. Debrief will be conducted IAW MAWTS-1 brief/debrief guide.

Prerequisite. SFAC(A)-4803

Ordnance
Desired: 1 TPOD, 2 Mk-82, 1 GBU-12, 20 Chaff, 40 Flares.
Acceptable: Mk-82, Mk-83, Mk-76, 7 2.75" RP/WP/HE/Inert rockets, 4 5.00" RP/WP/HE/Inert rockets, 300 25mm.

Range Requirement. RSTD, HE, EXP, LSR.

External Syllabus Support. One or 2 FW CAS elements with live or inert GP ordnance and/or forward-firing ordnance and laser guided weapons. Ground FAC/JTAC.

FAC(A)-4806 1.3 365 B,R,M (NS) A 2 AV-8B

Goal. Introduce Type 2, and 3 control procedures of rotary wing CAS assets in a low threat environment.

Requirement

Plan: FAC(A)I led. Use Squadron S-2, Pilot Training Officer (PTO), and FAC(A)I to develop ROE, SPINS, ground scheme of maneuver (SOM), and threats. Develop a plan to locate, ID, and kill enemy targets IAW the ground SOM, achieve commander's intent with the correct weapon to target match. Have a survive game plan to defeat the threat system while meeting allowable risk standards. Ensure JMPS plan is IAW ANTTP Chapter 9; goal is for an organized cockpit that supports efficient systems management. Generate target area imagery, sensor profiles, EOTDA data, and cockpit maps that enable mission success.

Brief: FAC(A)I led. Execute IAW MAWTS-1 brief/debriefing guide. Tailor brief around the TACP TACSOP CAS execution template, focusing on system management, communications, correlation, and specific attack templates. Mission rehearsal should emphasize Type 1,2 and 3 FAC(A) control templates, systems management, target PID, target coordinate generation accuracy, PGM employment, threat countertactics, and standardized communications.

Execution: On a tactical range, perform visual/sensor reconnaissance of 3 separate targets and generate target coordinates with aircraft systems. Plot each target on gridded imagery/chart. Perform authentication procedures. Perform 2 Type 2, and 1 Type 3 controls of rotary wing aircraft. Deliver marking rounds or talk-on (rockets, guns, TOW) or provide LASER designation (Hellfire). For Type 1 controls of rockets or guns, emphasize providing corrections, ensuring compliance with limit-of-advance and providing threat lookout for rotary wing assets in the target area. Two (actual or simulated) TOW and/or Hellfire controls are required for completion. One of the Type 2 controls must have the FAC(A) lasing the actual or simulated AGM-114 Hellfire. Execute appropriate search, detection, and PID profiles. Execute Type 2, and 3 terminal attack control IAW JPub 3-09.3. Accurate target coordinate and 9-line generation. Marks target within

300 meters. Accurate talk-ons and corrections from the mark. Proper coordination and approval for CAS attacks. Effective FAC(A) aircraft position to provide marking and control with consideration of threat and friendly positions. Correct ALSA Communication Brevity.

Debrief: The sortie will be debriefed using aircraft and TPOD recording devices and TCTS feeds if available. Debrief will be conducted IAW MAWTS-1 brief/debrief guide.

Prerequisite. SFAC(A)-4803

Ordnance
Desired: 1 TPOD, 2 Mk-82, 1 GBU-12, 20 Chaff, 40 Flares.
Acceptable: Mk-76, Mk-83, BDU-45, LGTR, HE/Inert GBU-38, HE/Inert GBU-54, 300 25mm.

Range Requirement. RSTD, HE, EXP, LSR.

External Syllabus Support. One or two RW CAS elements with live/captive Hellfire, and rockets and guns. Ground FAC/JTAC.

FAC(A)-4807	1.3	180	B,R,M	NS	A	2 AV-8B

Goal. Introduce Type 1 and 2 control procedures at night in a low threat environment.

Requirement

Plan: Use Squadron S-2, Pilot Training Officer (PTO), and FAC(A)I to develop ROE, SPINS, ground scheme of maneuver (SOM), and threats. Develop a plan to locate, ID, and kill enemy targets IAW the ground SOM, achieve commander's intent with the correct weapon to target match. Have a survive game plan to defeat the threat system while meeting allowable risk standards. Ensure JMPS plan is IAW ANTTP Chapter 9; goal is for an organized cockpit that supports efficient systems management. Generate target area imagery, sensor profiles, EOTDA data, and cockpit maps that enable mission success.

Brief: Execute IAW MAWTS-1 brief/debriefing guide. Tailor brief around the TACP TACSOP CAS execution template, focusing on system management, communications, correlation, and specific attack templates. Mission rehearsal should emphasize Type 1,2 and 3 FAC(A) control templates, systems management, target PID, target coordinate generation accuracy, PGM employment, threat countertactics, and standardized communications.

Execution: On a tactical range, perform visual/sensor reconnaissance of 3 separate targets and generate target coordinates with aircraft systems. Plot each target on gridded imagery/chart. Perform authentication procedures. Control 2 Type 1 and 2 Type 2 attacks by fixed-wing aircraft. Deliver or coordinate marks. At least 1 Type 1 control must use an IR pointer. At least 1 Type 1 control must be supported by air-delivered illumination. Provide BHA. If a range that permits Type 2 control is not available, Type 2 control may be evaluated with simulated deliveries. Execute appropriate search, detection, and PID profiles. Execute Type 1 and 2 control IAW JPub 3-09.3. Accurate target coordinate and 9-line generation. Proper coordination and approval for CAS attacks. Effective FAC(A) aircraft position to provide marking and control with consideration of threat and friendly positions. Correct ALSA Communication Brevity.

Debrief: The sortie will be debriefed using aircraft and TPOD recording devices and TCTS feeds if available. Debrief will be conducted IAW MAWTS-1 brief/debrief guide.

Prerequisite. FAC(A)-4804 through FAC(A)-4806, CFF-4700

Ordnance
Desired: 1 TPOD, 1 GBU-12, 1 GBU-38, 1 Mk-82, 10 Chaff,20 Flares.
Acceptable: Mk-82, HE/Inert Mk-83, BDU-45, LGTR, 300 25mm.

Range Requirement. RSTD, HE, EXP, LSR.

External Syllabus Support. One or 2 FW CAS elements with live or inert laser-guided weapons, free-fall and/or forward-firing ordnance and a ground FAC/JTAC.

SFAC(A)-4808	1.5	*	B	D	S	RNAWST

Goal. Introduce multiple asset integration procedures in a day, high threat environment.

Requirement

Plan: Use Squadron S-2, Pilot Training Officer (PTO), and FAC(A)I to develop ROE, SPINS, ground scheme of maneuver (SOM), and threats. Develop a plan to locate, ID, and kill enemy targets IAW the ground SOM, achieve commander's intent with the correct weapon to target match. Have a survive game plan to defeat the threat system while meeting allowable risk standards. Ensure JMPS plan is IAW ANTTP Chapter 9; goal is for an organized cockpit that supports efficient systems management. Generate target area imagery, sensor profiles, EOTDA data, and cockpit maps that enable mission success.

Brief: Execute IAW MAWTS-1 brief/debriefing guide. Tailor brief around the TACP TACSOP CAS execution template, focusing on system management, communications, correlation, and specific attack templates. Mission rehearsal should emphasize Type 1 high threat FAC(A) control templates, systems management, target PID, target coordinate generation accuracy, PGM employment, threat countertactics, and standardized communications.

Execution: Execute Type 1 control IAW JPub 3-09.3. Accurate target coordinate and 9-line generation. Proper communication format with the firing unit. Proper coordination and approval for IDF and CAS attacks. Effective FAC(A) aircraft position to provide marking and control with consideration of threat and friendly positions. Correct ALSA Communication Brevity. Perform Type 1 high threat controls while integrating multiple assets. Emphasize C3 integration, target area flow and integration; sensor management; and Crew Resource Management. Execute 4 Type 1 controls of fixed-wing aircraft. A SEAD CFF mission shall be given for each TOT. The FAC(A)I shall simulate C3 agencies, TACP, indirect fire assets, and CAS aircraft. Weather is overcast at 8,000 feet.

Debrief: The sortie will be debriefed using simulator recording devices. Debrief will be conducted IAW MAWTS-1 brief/debrief guide.

Prerequisite. FAC(A)-4807

Ordnance: TPOD, 2 Mk-82, 5.00" WP Rockets, Expendables.

SFAC(A)-4809	1.5	*	B	NS	S	RNAWST

Goal. Introduce multiple asset integration procedures in a night, medium threat environment.

Requirement

Plan: Use Squadron S-2, Pilot Training Officer (PTO), and FAC(A)I to develop ROE, SPINS, ground scheme of maneuver (SOM), and threats. Develop a plan to locate, ID, and kill enemy targets IAW the ground SOM, achieve commander's intent with the correct weapon to target match. Have a survive game plan to defeat the threat system while meeting allowable risk standards. Ensure JMPS plan is IAW ANTTP Chapter 9; goal is for an organized cockpit that supports efficient systems management. Generate target area imagery, sensor profiles, EOTDA data, and cockpit maps that enable mission success.

Brief: Execute IAW MAWTS-1 brief/debriefing guide. Tailor brief around the TACP TACSOP CAS execution template, focusing on system management, communications, correlation, and specific attack templates. Mission rehearsal should emphasize Type 1 high threat FAC(A) control templates, systems management, target PID, target coordinate generation accuracy, PGM employment, threat countertactics, and standardized communications.

Execution: Perform visual/sensor reconnaissance of 3 separate targets and generate target coordinates with aircraft systems. Plot each target on gridded imagery/chart. Perform authentication procedures. Integrate 2 attacks combining fixed-wing CAS assets, rotary wing CAS assets, and IDFS. Provide BHA. Execute appropriate search, detection, and PID profiles. Execute Type 1 and 2 control IAW JPub 3-09.3. Accurate target coordinate and 9-line generation. Proper coordination and approval for CAS attacks. Effective FAC(A) aircraft position to provide marking and control with consideration of threat and friendly positions. Correct ALSA Communication Brevity.

Debrief: The sortie will be debriefed using simulator recording devices. Debrief will be conducted IAW MAWTS-1 brief/debrief guide.

Prerequisite. FAC(A)-4808

Ordnance. 1 TPOD, 2 GBU-54, 2 GBU-12, 300x25mm, Expendables.

FAC(A)-4810 1.3 365 B,R,M D A 2 AV-8B

Goal. Introduce multiple asset integration procedures in a day, medium threat environment.

Requirement

Plan: Use Squadron S-2, Pilot Training Officer (PTO), and FAC(A)I to develop ROE, SPINS, ground scheme of maneuver (SOM), and threats. Develop a plan to locate, ID, and kill enemy targets IAW the ground SOM, achieve commander's intent with the correct weapon to target match. Have a survive game plan to defeat the threat system while meeting allowable risk standards. Ensure JMPS plan is IAW ANTTP Chapter 9; goal is for an organized cockpit that supports efficient systems management. Generate target area imagery, FAC(A) mission cards and cockpit maps that enable mission success.

Brief: Execute IAW MAWTS-1 brief/debriefing guide. Tailor brief around the AV-8B FAC(A) employment templates and TACP TACSOP CAS execution template, focusing on system management, communications, correlation, and specific attack templates. Mission rehearsal should

emphasize Type 1,2 and 3 FAC(A) control templates, systems management, target PID, target coordinate generation accuracy, PGM employment, threat countertactics, and standardized communications.

Execution: Multiple asset integration. On a tactical range, perform visual/sensor reconnaissance of 3 separate targets and generate target coordinates with aircraft systems. Plot each target on gridded imagery/chart. Perform authentication procedures. Control 2 Type 1 and 2 Type 2 controlled attacks by fixed-wing aircraft employing medium threat tactics. Deliver or coordinate marks. Each 9-line attack for fixed-wing CAS aircraft must be integrated with at least 1 additional fire support asset. Provide BHA. Execute appropriate search, detection, and PID profiles. Execute Type 1 and 2 control templates IAW JPub 3-09.3. Accurate target coordinate and 9-line generation. Proper coordination and approval for CAS attacks. Effective FAC(A) aircraft position to provide marking and control with consideration of threat and friendly positions. Correct ALSA Communication Brevity.

Debrief: The sortie will be debriefed using aircraft and TPOD recording devices and TCTS feeds if available. Debrief will be conducted IAW MAWTS-1 brief/debrief guide. When available, CAS strikers should be included in sortie debrief.

Prerequisite. SFAC(A)-4809

Ordnance
Desired: 1 TPOD, 2 Mk-82, 5.00” WP Rockets, 20 Chaff, 60 Flares.
Acceptable: HE/Inert Mk-83, 7 2.75” HE/RP/WP/Inert rockets, LGTR, GBU-12, GBU-38, GBU-54, 300 25mm.

Range Requirement. RSTD, HE, EXP, LSR.

External Syllabus Support. One FW CAS element with free-fall or forward firing ordnance, 1 additional Fire support asset (RW CAS/UAS CAS/IDFS) and a ground FAC/JTAC. If IDFS is to be used 10 HE rds, 4 WP rds for marking or suppression required.

FAC(A)-4811	1.3	365	B,R,M	NS	A	2 AV-8B

Goal. Introduce asset integration procedures in a night, medium threat environment.

Requirement

Plan: Use Squadron S-2, Pilot Training Officer (PTO), and FAC(A)I to develop ROE, SPINS, ground scheme of maneuver (SOM), and threats. Develop a plan to locate, ID, and kill enemy targets IAW the ground SOM, achieve commander’s intent with the correct weapon to target match. Have a survive game plan to defeat the threat system while meeting allowable risk standards. Ensure JMPS plan is IAW ANTTP Chapter 9; goal is for an organized cockpit that supports efficient systems management. Generate target area imagery, sensor profiles, EOTDA data, and cockpit maps that enable mission success.

Brief: Execute IAW MAWTS-1 brief/debriefing guide. Tailor brief around the TACP TACSOP CAS execution template, focusing on system management, communications, correlation, and specific attack templates. Mission rehearsal should emphasize Type 1 high threat FAC(A) control templates, systems management, target PID, target coordinate generation accuracy, PGM employment, threat countertactics, and standardized communications.

Execution: Multiple asset integration at night. On a tactical range, perform visual/sensor reconnaissance of 3 separate targets and generate target coordinates with aircraft systems. Plot each target on gridded imagery/chart. Perform authentication procedures. Control 2 Type 1 and 2 Type 2 attacks by fixed-wing aircraft employing medium threat tactics. Provide BHA. If a range that permits Type 2 control is not available, Type 2 control may be evaluated with simulated deliveries. Each 9-line attack for fixed-wing CAS aircraft must be integrated with at least 1 additional fire support assets. Executes appropriate search, detection, and PID profiles Execute Type 1 and 2 terminal attack control IAW JPub 3-09.3. Accurate target coordinate and 9-line generation. Proper coordination and approval for CAS attacks. Effective FAC(A) aircraft position to provide marking and control with consideration of threat and friendly positions. Correct ALSA Communication Brevity. Provide BHA.

Debrief: The sortie will be debriefed using aircraft and TPOD recording devices and TCTS feeds if available. Debrief will be conducted IAW MAWTS-1 brief/debrief guide. When available, CAS strikers should be included in sortie debrief.

Prerequisite. FAC(A)-4810.

Ordnance
Desired: 1 TPOD, 2 GBU-12, 1 GBU-38, 10 Chaff, 20 Flares.
Acceptable: LGTR, GBU-54, Mk-82, HE/Inert Mk-83, 300 25mm.

Range Requirement. RSTD, HE, EXP, LSR.

External Syllabus Support. One FW CAS element with Laser guided weapons and/or IAMs, 1 additional fire support asset (RW CAS/UAS CAS/IDFS) and a ground FAC/JTAC. If IDFS is to be used 10 HE rds, 4 WP rds for marking or suppression required.

FAC(A)-4851 1.3 365 B,R,M (NS) A 2 AV-8B

Goal. Conduct Aerial Escort (AE) by introducing FAC(A) escort.

Requirement. Escort a FAC(A).

Plan: Support FAC(A) mission objectives throughout planning process.

Brief: FAC(A) led.

Execution: Perform assigned tasking. Provide support to FAC(A) to include communication with MACCS, CAS platform deconfliction, and coordinating marks via SEAD CFF. Maintain situational awareness of FAC(A) and ground units.

Prerequisite. Section Lead. Must have completed CFF-4700 before being tasked to coordinate IDFS marks via SEAD CFF.

Ordnance
Desired: 1 TPOD, 6xMk-76, 1 LGTR, 20 Chaff, 40 Flares.
Acceptable: Mk-82, Mk-83, GBU-12, GBU-38, GBU-54, 300 25mm.

Range Requirement. RSTD, HE, EXP, LSR.

External Syllabus Support. FAC(A)led CAS flight.

2.12.15 Large Force Exercise (LFE)

2.12.15.1 Purpose. Develop proficiency integrating in an LFE under daylight or night conditions.

2.12.15.2 General

The LFE shall include at least four of the following assets: strike element, sweep element, SEAD element, EA/ES assets, AAR assets, and command and control assets.

The LFE shall include a surface-to-air and/or air-to-air threat.

A WTI or Mission Commander shall instruct all events.

LFE-4900 1.3 365 B,R,M D A 4+ AV-8B

Goal. Execute a day LFE.

Requirement. Complete a day LFE.

Performance Standard. Execute all mission tasking IAW Air NTTP. Adhere to all applicable Rules of Conduct and Training Rules. Adhere to air-to-surface and/or air-to-air timelines. Adhere to surface-to-air and/or air-to-air threat countertactics gameplans. 100 percent valid air-to-surface and/or air-to-air weapon releases. Correct ALSA Communication Brevity.

Prerequisite. Applicable 3000 Phase complete. With adversary air threat participating, shall be led by ACTI or Division Lead and wingmen shall be ACM QUAL.

Ordnance. Per applicable MCT T&R code being executed.

Range Requirement. Reference Range Support Matrix.

External Syllabus Support. Per Scenario.

LFE-4901 1.3 365 B,R,M NS A 4+ AV-8B

Goal. Execute a night LFE.

Requirement. Complete a night LFE.

Performance Standard. Execute all mission tasking IAW Air NTTP. Adhere to all applicable Rules of Conduct and Training Rules. Adhere to air-to-surface and/or air-to-air timelines. Adhere to surface-to-air and/or air-to-air threat countertactics gameplans. 100 percent valid air-to-surface and/or air-to-air weapon releases. Correct ALSA Communication Brevity.

Prerequisite. NS-2605, AS stage complete. With adversary air threat participating, event shall be led by ACTI or ACMFL and wingmen shall be ACM QUAL.

Ordnance. Per applicable MCT T&R code being executed.

Range Requirement. Reference Range Support Matrix.

External Syllabus Support. Per Scenario.

2.13 INSTRUCTOR TRAINING PHASE

2.13.1 MAWTS-1 Certifications

2.13.1.1 Purpose. Enumerate MAWTS-1 instructor training syllabi.

2.13.1.2 General. All certification sorties will be conducted in accordance with the MAWTS-1 Course Catalog. The commanding officer of MAWTS-1 must approve any deviations.

2.13.1.3 Ground/Academic Training. Refer to the MAWTS-1 Course Catalog.

SWTO-5100	1.0	*	B	E		S/L	RNAWST

Goal. WTO certification simulator.

Requirement. See MAWTS-1 Course Catalog.

SWTO-5101	1.5	*	B	E	D	S	RNAWST

Goal. WTO certification simulator.

Requirement. See MAWTS-1 Course Catalog.

SWTO-5102	1.5	*	B	E	D	S	RNAWST

Goal. WTO certification simulator.

Requirement. See MAWTS-1 Course Catalog.

SWTO-5103	1.0	*	B	E	D	S	RNAWST

Goal. WTO certification simulator.

Requirement. See MAWTS-1 Course Catalog.

WTO-5104	1.3	*	B	E	D	A	2 AV-8B

Goal. WTO certification sortie.

Requirement. See MAWTS-1 Course Catalog.

WTO-5105	1.3	*	B	E	D	A	2 AV-8B

Goal. WTO certification sortie.

Requirement. See MAWTS-1 Course Catalog.

SLATI-5200	1.5	*	B	E	D	S/L	RNAWST

Goal. LATI certification simulator.

Requirement. See MAWTS-1 Course Catalog.

SLATI-5201	1.5	*	B	E	D	S	RNAWST

Goal. LATI certification simulator.

Requirement. See MAWTS-1 Course Catalog.

LATI-5202	1.3	*	B	E	D	A	2 AV-8B

Goal. LATI certification sortie.

Requirement. See MAWTS-1 Course Catalog.

LATI-5203	1.3	*	B	E	D	A	2 AV-8B

Goal. LATI certification sortie.

Requirement. See MAWTS-1 Course Catalog.

LATI-5204	1.3	*	B	E	D	A	2 AV-8B

Goal. LATI certification sortie.

Requirement. See MAWTS-1 Course Catalog.

SNSI-5300	1.0	*	B	E	NS	S/L	RNAWST

Goal. NSI certification simulator.

Requirement. See MAWTS-1 Course Catalog.

SNSI-5301	1.0	*	B	E	NS	S	RNAWST

Goal. NSI certification simulator.

Requirement. See MAWTS-1 Course Catalog.

NSI-5302	1.3	*	B	E	NS	A	2 AV-8B

Goal. NSI certification sortie.

Requirement. See MAWTS-1 Course Catalog.

NSI-5303	1.3	*	B	E	NS	A	2 AV-8B

Goal. NSI certification sortie.

Requirement. See MAWTS-1 Course Catalog.

SNSLATI-5400	1.0	*	B	E	NS	S/L	RNAWST

Goal. NS LATI certification simulator.

Requirement. See MAWTS-1 Course Catalog.

SNSLATI-5401	1.0	*	B	E	NS	S	RNAWST

Goal. NS LATI certification simulator.

Requirement. See MAWTS-1 Course Catalog.

NSLATI-5402	1.3	*	B	E	NS	A	2 AV-8B

Goal. NS LATI certification sortie.

Requirement. See MAWTS-1 Course Catalog.

SACTI-5500	2.0	*	B	E	D	S	RNAWST

Goal. ACTI certification simulator.

Requirement. See MAWTS-1 Course Catalog.

SACTI-5501	2.0	*	B	E	D	S/L	RNAWST

Goal. ACTI certification sortie.

Requirement. See MAWTS-1 Course Catalog.

ACTI-5502	1.3	*	B	E	D	A	2 AV-8B

Goal. ACTI certification sortie.

Requirement. See MAWTS-1 Course Catalog.

ACTI-5503	1.3	*	B	E	D	A	2 AV-8B

Goal. ACTI certification sortie.

Requirement. See MAWTS-1 Course Catalog.

ACTI-5504 1.3 * B E D A 2 AV-8B

Goal. ACTI certification sortie.

Requirement. See MAWTS-1 Course Catalog.

SFAC(A)I-5600 2.0 * B E D S/L RNAWST

Goal. FAC(A)I certification simulator.

Requirement. See MAWTS-1 Course Catalog.

SFAC(A)I-5601 2.0 * B E NS S/L RNAWST

Goal. FAC(A)I certification simulator.

Requirement. See MAWTS-1 Course Catalog.

FAC(A)I-5602 1.3 * B E D A 2 AV-8B

Goal. FAC(A)I certification sortie.

Requirement. See MAWTS-1 Course Catalog.

FAC(A)I-5603 1.3 * B E D A 2 AV-8B

Goal. FAC(A)I certification sortie.

Requirement. See MAWTS-1 Course Catalog.

FAC(A)I-5604 1.3 * B E NS A 2 AV-8B

Goal. FAC(A)I certification sortie.

Requirement. See MAWTS-1 Course Catalog.

SFAC(A)I-5605 1.5 * B E D S RNAWST

Goal. VMAT-203 IUT FAC(A)I sortie.

Requirement. See VMAT-203 IUT syllabus.

2.13.2 VMAT-203 Instructor Under Training (IUT) Syllabus

2.13.2.1 Purpose. Enumerate FRS instructor training syllabi.

2.13.2.2 General. All training shall be conducted in accordance with the FRS IUT FSG. The VMAT-203 Commanding Officer must approve any deviations.

2.13.2.3 Ground/Academic Training. Refer to the FRS IUT FSG.

2.13.3 Landing Site Instructor (LSI) Training. LSI 5700-5701 training shall be accomplished prior to flight with students in the aircraft. The LSI syllabus requirements are detailed in the IUT FSG. FRS LSIs are only required to be facility qualified. They are not required to be road qualified.

LSI-5700 1.3 * B E D A 1 AV-8B

Goal. Observe LSI control of FAM solo flight.

Requirement. IAW VMAT-203 IUT FSG.

LSI-5701 1.3 * B E D A 1 AV-8B

Goal. Introduction to LSI control of FAM solo flight.

Requirement. IAW VMAT-203 IUT FSG.

LSI-5702 1.3 * B E N* A 1 AV-8B

Goal. Review LSI control introducing night LSI procedures.

Requirement. IAW VMAT-203 IUT FSG.

LSI-5703 1.2 * B E D A 1 AV-8B

Goal. Review LSI control and introduce FBO operations from an approved EAF site.

Requirement. IAW VMAT-203 IUT FSG.

LSI-5704 2.0 * B E D A 1 AV-8B

Goal. Review LSO control per LSO NATOPS for FCLP operations.

Requirement. IAW VMAT-203 IUT FSG.

2.13.4 Fleet Replacement Squadron Instructor (FRSI) Training

2.13.4.1 Prerequisite: Qualified FRS instructor prerequisites.

SIUT-5800 1.5 * B E D S RNAWST

Goal. Practice normal procedures.

Requirement. IAW VMAT-203 IUT FSG.

SIUT-5801 1.5 * B E D S RNAWST

Goal. Review normal and emergency procedures.

Requirement. IAW VMAT-203 IUT FSG.

IUT-5802 1.3 * B E D A 1 TAV-8B

Goal. Introduce normal procedures from the rear seat of the TAV-8B.

Requirement. IAW VMAT-203 IUT FSG.

IUT-5803 1.3 * B E D A 1 TAV-8B

Goal. Review normal procedures from the rear seat of the TAV-8B.

Requirement. IAW VMAT-203 IUT FSG.

SIUT-5804 1.5 * B E D S RNAWST

Goal. Introduce simulator instructional techniques.

Requirement. IAW VMAT-203 IUT FSG.

IUT-5805 1.3 * B E D A 2 TAV-8B

Goal. Introduce basic and tactical formation as lead.

Requirement. IAW VMAT-203 IUT FSG.

IUT-5806 1.3 * B E D A 4 TAV-8B

Goal. Introduce division formation.

Requirement. IAW VMAT-203 IUT FSG.

IUT-5807 1.3 * B E D A 4 TAV-8B

Goal. Review division formation as lead.

Requirement. IAW VMAT-203 IUT FSG.

2.13.5 Aerial Refueling Stage Instructor Pilot (AARI)

2.13.5.1 Prerequisite: Fleet Replacement Squadron Instructor (FRSI)

IUT-5808 1.3 * B E D A 1 TAV-8B/1 AV-8B

Goal. Monitor an aerial refueling sortie.

Requirement. IAW VMAT-203 IUT FSG.

2.13.6 Threat Countertactics Stage Instructor Pilot (TCTI)

2.13.6.1 Prerequisite: Late Stage Familiarization Instructor and WTO, or LATI, or ACTI.

SIUT-5809 1.5 * B E D S RNAWST

Goal. Review threat countertactics.

Requirement. IAW VMAT-203 IUT FSG.

IUT-5810 1.1 * B E D A 1 AV-8B/1 TAV-8B

Goal. Introduce threat countertactics chase.

Requirement. IAW VMAT-203 IUT FSG.

2.13.7 Air-to-Surface Stage Instructor Pilot (ASI)

2.13.7.1 Prerequisite: Fleet Replacement Squadron Instructor (FRSI) and Weapons Training Officer (WTO).

SIUT-5811 1.5 * B E D S RNAWST

Goal. Review high and low angle dive deliveries.

Requirement. IAW VMAT-203 IUT FSG.

SIUT-5812 1.5 * B E D S RNAWST

Goal. Review transition profiles.

Requirement. IAW VMAT-203 IUT FSG.

IUT-5813 1.1 * B E D A 1 TAV-8B

Goal. Review high and low angle dive deliveries.

Requirement. IAW VMAT-203 IUT FSG

2.13.8 Target Area Tactics (MECH) Stage Instructor Pilot (TATI)

2.13.8.1 Prerequisite: Fleet Replacement Squadron Instructor (FRSI) and Weapons Training Officer (WTO).

IUT-5814 1.1 * B E D A 2 AV-8B

Goal. Review target area tactics.

Requirement. IAW VMAT-203 IUT FSG.

IUT-5815 1.1 * B E D A 2 AV-8B

Goal. Review TPOD attacks as lead.

Requirement. IAW VMAT-203 IUT FSG

2.13.9 CAS Stage Instructor Pilot (CASI)

2.13.9.1 Prerequisite: Fleet Replacement Squadron Instructor (FRSI) and Weapons Training Officer (WTO).

SIUT-5816 1.5 * B E D S RNAWST

Goal. Monitor medium altitude CAS simulator.

Requirement. IAW VMAT-203 IUT FSG.

IUT-5817 1.1 * B E D A 1 TAV-8B

Goal. Review CAS as SCAR.

Requirement. IAW VMAT-203 IUT FSG.

IUT-5818 1.1 * B E D A 2 TAV-8B/1 AV-8B

Goal. Monitor low altitude CAS sortie from rear seat.

Requirement. IAW VMAT-203 IUT FSG

2.13.10 Late Stage Familiarization Stage Instructor Pilot (LFAMI)

2.13.10.1 Prerequisite: Close Air Support Instructor (CASI)

IUT-5819 1.3 * B E D A 1 TAV-8B

Goal. Introduce FAM stage maneuvers.

Requirement. IAW VMAT-203 IUT FSG.

IUT-5820 1.3 * B E D A 1 TAV-8B

Goal. Practice FAM stage maneuvers.

Requirement. IAW VMAT-203 IUT FSG.

SIUT-5821 1.5 * B E D S RNAWST

Goal. Review FAM stage maneuvers and dangerous errors.

Requirement. IAW VMAT-203 IUT FSG.

SIUT-5822 1.5 * B E D S RNAWST

Goal. Monitor Late Stage FAM (instrument) simulator.

Requirement. IAW VMAT-203 IUT FSG.

IUT-5823 1.3 * B E D A 1 TAV-8B

Goal. Review instrument procedures in the FAM stage.

Requirement. IAW VMAT-203 IUT FSG.

2.13.11 Early Stage Familiarization Stage Instructor (EFAMI)

2.13.11.1 Prerequisite: Late Stage Familiarization Instructor (LFAMI)

SIUT-5824 1.5 * B E D S RNAWST

Goal. Monitor early stage FAM simulator.

Requirement. IAW VMAT-203 IUT FSG.

SIUT-5825 1.5 * B E D S RNAWST

Goal. Review FAM stage maneuvers and dangerous errors.

Requirement. IAW VMAT-203 IUT FSG

2.13.12 Night Systems Familiarization Instructor Pilot (NSFI)

2.13.12.1 Prerequisite: LSI-5704, Night Systems Instructor (NSI) and Late Stage Familiarization Instructor.

IUT-5826 1.3 * B E NS A 1 TAV-8B

Goal. Introduce Night Systems stage maneuvers.

Requirement. IAW VMAT-203 IUT FSG.

IUT-5827 1.3 * B E NS A 2 TAV-8B

Goal. Monitor Night Systems formation maneuvers.

Requirement. IAW VMAT-203 IUT FSG.

IUT-5828 1.3 * B E NS A 2 TAV-8B

Goal. Introduce Night Systems formation maneuvers.

Requirement. IAW VMAT-203 IUT FSG.

2.13.13 Advanced Aircraft Handling Instructor Pilot (AAHI)

2.13.13.1 Prerequisite: Late Stage Familiarization Instructor and Weapons Training Officer (WTO), or LATI, or ACTI.

SIUT-5829 1.5 * B E D S RNAWST

Goal. Monitor advanced aircraft handling simulator.

Requirement. IAW VMAT-203 IUT FSG.

IUT-5830 1.1 * B E D A 2 TAV-8B/1 AV-8B

Goal. Introduce advanced aircraft handling chase.

Requirement. IAW VMAT-203 IUT FSG.

IUT-5831 1.1 * B E D A 1 TAV-8B

Goal. Review advanced aircraft handling maneuvers.

Requirement. IAW VMAT-203 IUT FSG.

2.13.14 Air-to-Air Stage Instructor Pilot (AAI)

2.13.14.1 Prerequisite: Air Combat Tactics Instructor (ACTI)

SIUT-5832 1.5 * B E D S RNAWST

Goal. Monitor TVC simulator.

Requirement. IAW VMAT-203 IUT FSG.

IUT-5833 1.1 * B E D A 2 AV-8B

Goal. Review TVC and BFM maneuvers.

Requirement. IAW VMAT-203 IUT FSG.

IUT-5834 1.1 * B E D A 1 TAV-8B/1 AV-8B

Goal. Chase TVC maneuvers.

Requirement. IAW VMAT-203 IUT FSG.

IUT-5835 1.1 * B E D A 2 AV-8B

Goal. Review 1V1 BFM.

Requirement. IAW VMAT-203 IUT FSG.

2.13.15 FRS Low Altitude Tactics Instructor Pilot (FRSLATI)

2.13.15.1 Prerequisite: Low Altitude Tactics Instructor (LATI).

SIUT-5836 1.5 * B E D S RNAWST

Goal. Review Basic and Advanced LAT maneuvers.

Requirement. IAW VMAT-203 IUT FSG.

SIUT-5837 1.5 * B E D S RNAWST

Goal. Review low altitude threat reaction.

Requirement. IAW VMAT-203 IUT FSG.

IUT-5838 1.3 * B E D A 1 TAV-8B

Goal. Review Basic and Advanced LAT maneuvers.

Requirement. IAW VMAT-203 IUT FSG.

IUT-5839 1.3 * B E D A 2 AV-8B

Goal. Review low altitude threat reaction.

Requirement. IAW VMAT-203 IUT FSG

2.13.16 Forward Operating Based Operations Stage Instructor Pilot (FOBI)

2.13.16.1 Prerequisite: LSI-5705 and Main Base LSS

SIUT-5840 1.5 * B E D S RNAWST

Goal. Monitor FBO simulator.

Requirement. IAW VMAT-203 IUT FSG

2.13.17 NATOPS Check Instructor Pilot

2.13.17.1 Prerequisite: Fleet Replacement Squadron Instructor (FRSI).

SIUT-5841 1.5 * B E D S RNAWST

Goal. Fly NATOPS check with program/model manager.

Requirement. IAW VMAT-203 IUT FSG.

2.13.18 Navigation Stage Instructor Pilot (NAVI)

2.13.18.1 Prerequisite: Fleet Replacement Squadron Instructor (FRSI).

SIUT-5842	1.5	*	B	E	D	S	RNAWST

Goal. Monitor SNAV-1331 simulator.

Requirement. IAW VMAT-203 IUT FSG.

2.13.19 Radar Fundamentals Stage Instructor Pilot (RADI)

2.13.19.1 Prerequisite: Fleet Replacement Squadron Instructor (FRSI).

SIUT-5843	1.5	*	B	E	D	S	RNAWST

Goal. Monitor SRAD-1361 to review console operation and AS and AA radar TTPs.

Requirement. IAW VMAT-203 IUT FSG.

2.13.20 Air-to-Surface Sensor Fundamentals Stage Instructor Pilot (SENI)

2.13.20.1 Prerequisite: MECH Stage Instructor (MECHI), Night Systems Familiarization Instructor (NSFI) required to instruct night events.

SIUT-5844	1.5	*	B	E	(NS)	S	RNAWST

Goal. Review all GP and PGM attacks with a TPOD, conducted at night for NSFIs.

Requirement. IAW VMAT-203 IUT FSG.

2.13.21 FRS Bandit Qualification (FRSBQ)

2.13.21.1 Prerequisite: AA Proficient Fleet Replacement Squadron Instructor (FRSI).

IUT-5845	1.1	*	B	E	D	A	3 AV-8B

Goal. Fly bandit profiles for a 2v1 WVR SEM sortie.

Requirement. IAW VMAT-203 IUT FSG.

2.13.22 Flight Lead Standardization Evaluator (FLSE)

2.13.22.1 Purpose. To designate fleet instructors capable of evaluating and standardizing all prospective AV-8B flight leaders. Once designated, FLSE aircrew should evaluate flight leadership events only in squadrons other than the one assigned. In cases where no external support is available, FLSEs may evaluate events in their own squadron, only after coordinating with Model Manager or MAW Program Coordinator. FLSE aircrew assigned as MAG/Wing staff may evaluate events in any unit approved by the FLSE Model Manager. The MAWTS-1 AV-8B Division is the FLSE Model Manager and will delegate FLSE responsibilities as appropriate.

2.13.22.2 General. See MAWTS-1 AV-8B Course Catalog Appendix A for specific FLSE information.

SFLSE-5900	1.5	*	B	E	(NS)	S	RNAWST

Goal. Conduct an objective evaluation of the FLSEs knowledge of and adherence to AV-8B fleet air-to-surface standard operating procedures including mission planning, briefing, crew resource management, performance criteria, bomb hit analysis, and debriefing.

Requirements. See MAWTS-1 AV-8B Course Catalog.

Performance Standards. See MAWTS-1 AV-8B Course Catalog.

Brief. See MAWTS-1 AV-8B Course Catalog.

Execution. See MAWTS-1 AV-8B Course Catalog.

Debrief. See MAWTS-1 AV-8B Course Catalog.

Prerequisite. See MAWTS-1 AV-8B Course Catalog.

Ordnance. See MAWTS-1 AV-8B Course Catalog

SFLSE-5901 1.5 * B E (NS) S RNAWST

Goal. Conduct an objective evaluation of the FLSEs knowledge of and adherence to AV-8B fleet air-to-air standard operating procedures in defense of the Amphibious Task Force (DARG) against a maximum of two groups of adversaries.

Requirements. See MAWTS-1 AV-8B Course Catalog.

Performance Standards. See MAWTS-1 AV-8B Course Catalog.

Brief. See MAWTS-1 AV-8B Course Catalog.

Execution. See MAWTS-1 AV-8B Course Catalog.

Debrief. See MAWTS-1 AV-8B Course Catalog.

Prerequisite. See MAWTS-1 AV-8B Course Catalog.

Ordnance. See MAWTS-1 AV-8B Course Catalog.

2.14 REQUIREMENTS, CERTIFICATIONS, QUALIFICATIONS, DESIGNATIONS (RCQD) PHASE

2.14.1 NATOPS/Core Skill Introduction Evaluation (NTPS)

2.14.1.1 Purpose. To evaluate the pilot's knowledge of aircraft systems, performance limitations, and both normal and emergency procedures.

2.14.1.2 General

NATOPS evaluators/instructors shall conduct the NATOPS evaluation in accordance with OPNAVINST 3710.7 series and other applicable directives, instructions, and orders.

The NATOPS evaluator shall utilize the NATOPS model manager-generated NATOPS Aviation Training Form (ATF) and the evaluation metrics established for the accomplishment and performance of the standardized criterion to determine whether the pilot successfully completed the sortie. A letter designating the pilot as NATOPS qualified shall be placed in the NATOPS jacket upon successful completion.

NATOPS evaluees shall complete and have a graded open book examination, a graded closed book examination, and an oral examination prior to commencement of the actual NATOPS evaluation event.

PUI shall complete all Core Skill Introduction stages prior to NATOPS/Core Skill Introduction Evaluation.

A designated AV-8B NATOPS check pilot will observe and certify that the PUI is NATOPS qualified per AV-8B NATOPS Manual, Chapter 10.

2.14.1.3 Ground/Academic Training

Readings. Review AV-8B NATOPS Manual (A1-AV8BB-NFM-000).

Exams
ANTPS-6000, Open Book AV-8B NATOPS exam.
ANTPS-6001, Closed Book AV-8B NATOPS exam.
ANTPS-6002, Ground Evaluation IAW AV-8B NATOPS Manual.

ANTPS-6000 1.5 365 B,R,MR,SS,M Open Book NATOPS Evaluation

Goal. The open book examination shall consist of, but not be limited to, the NATOPS question bank. The purpose of the open book examination portion of the written examination is to evaluate the pilot's knowledge of the appropriate publications and the aircraft.

Performance Standard. Achieve a minimum grade of qualified onthe open book examination.

ANTPS-6001 1.0 365 B,R,MR,SS,M Closed Book NATOPS Evaluation

Goal. The closed book examination shall be limited to the NATOPS question bank. The purpose of the closed book examination portion of the written examination is to evaluate the pilot's knowledge concerning normal/emergency procedures and aircraft limitations.

Performance Standard. Achieve a minimum grade of qualified on the closed book examination.

ANTPS-6002 1.0 365 B,R,MR,SS,M Oral NATOPS Evaluation

Goal. The oral examination shall consist of, but not be limited to, the NATOPS question bank. The instructors/ evaluators may draw upon their experiences to propose questions concerning normal/emergency procedures, aircraft limitations, and performance.

Performance Standard. Achieve a minimum grade of qualified on the oral examination.

NTPS-6101 1.5 365 B,R,MR,SS,M E D S/A RNAWST

Goal. Conduct an objective evaluation of the pilot's knowledge of mission planning, briefing, normal operating procedures, crew resource management, aircraft systems, performance criteria, emergency procedures, and debriefing.

Requirement. PUI will conduct flight brief. Sortie IAW one of the selected scenarios in Appendix A. Perform all takeoffs and landings. Instructor will select emergencies.

Performance Standards. Execute all procedures IAW AV-8B NATOPS, Air NTTP, and applicable SOPs.

Prerequisite. NATOPS ground/academic training.

NTPS-6103 0.0 365 B,R,MR,SS,M E (NS) S/A RNAWST

Goal. Complete CRM training evaluation.

Requirement. Satisfactory completion of CRM training.

Performance Standard. Per syllabus description.

2.14.2 Instrument (INST)

2.14.2.1 Purpose. NATOPS instrument evaluation POI designed to evaluate the pilot's knowledge of and adherence to NATOPS instrument procedures.

2.14.2.2 General

NATOPS instrument evaluation events shall consist of those items delineated in OPNAVINST 3710.7 series (NATOPS), NAVAIR 00-80T-112 (NATOPS Instrument Flight Manual), and FAR/AIM.

NATOPS instrument POI should not solely focus on the assessment of the individual, but should also include an educational element.

The NATOPS instrument evaluator shall utilize the NATOPS model manager-generated NATOPS instrument Aviation Training Form (ATF)(see Appendix A of T&R Program Manual) and the evaluation metrics required for the accomplishment and performance of the standardized criterion to determine whether the aviator completed the sortie. A letter designating the pilot as NATOPS instrument qualified shall be placed in the NATOPS jacket upon successful completion.

NATOPS instrument evaluees shall ensure that annual instrument minimums are in accordance with OPNAVINST 3710.7 series prior to commencement of event.

A designated AV-8B NATOPS instrument check pilot will observe and certify that the PUI is qualified per OPNAVINST 3710.7 series.

2.14.2.3 Ground/Academic Training

Readings. Review OPNAVINST 3710.7 series.

Lecture. AINST 6004, Instrument Ground School.

Exams. AINST-6005, Annual Instrument Ground School exam.

AINST-6004 8.0 365 B,R,MR,SS,M Instrument Ground School (IGS)

Goal. The Instrument Ground School shall be an approved Commander Naval Air Forces (CNAF)-approved syllabus.

Performance Standard. Achieve a minimum grade of qualified on the instrument ground examination.

AINST-6005 1.0 365 B,R,MR,SS,M Instrument Ground School (IGS) Exam

Goal. The Instrument Ground School Exam shall be an approved Commander Naval Air Forces (CNAF)-approved syllabus.

Performance Standard. Achieve a minimum grade of qualified on the instrument ground examination.

SINST-6102 1.0 365 B,R,MR,SS,M E (NS) S/A RNAWST

Goal. Conduct an objective evaluation of the aviator's knowledge of and adherence to OPNAV instrument regulations, mission planning, briefing, crew resource management, performance criteria, emergency procedures in IMC conditions, approaches, SIDs, and debriefing.

Requirement. IAW gradesheet in Appendix A. Scenario IAW MAG SOPs.

Performance Standard. Execute all procedures IAW AV-8B NATOPS and OPNAVINST 3710.

Prerequisites. AINST-6004, AINST-6005.

2.14.3 Section Leader Standardization And Designation Sorties

2.14.3.1 Section Leader

2.14.3.2 Purpose. Prepare and evaluate a prospective flight lead's ability to plan, brief, and lead a combat mission as a section lead.

2.14.3.3 General

A Section Lead Build shall conduct the following designation syllabus in order to develop flight leadership. A Section Leader work-up syllabus shall be completed and at a minimum shall mirror the designation sorties and requirements. Completion of this syllabus meets the requirements for being designated a Section Leader. At the discretion of the squadron commanding officer, a letter designating the pilot a Section Leader shall be placed in the NATOPS jacket and APR.

The designation syllabus shall be supervised by a division lead or a syllabus-specified instructor.

The modified Refresher POI will be tailored by the commanding officer based on experience level and time out of cockpit. For aircrew that require Core Skill Introduction Refresher training per the T&R Program Manual, the minimum re-designation requirement for flight leader positions is successful completion of the R-coded flight leader POI events. It is assumed that the Refresher pilot has the prerequisite academic knowledge base and familiarity with SOPs to conduct the designation syllabus.

If a networked simulator is available, SSL-6202 shall be flown as a networked sortie with the section lead build flying in the lead position. The focus of the networked event should include required section departures and recoveries, and emergency procedure considerations.

The MAG standardized section lead exam will be owned and controlled by the respective MATSS FLSE representative.

Once designated as a Section Lead by the commanding officer, the Section Lead can act as a flight lead for any 2000 or 3000 Phase event that does not require additional qualifications or certifications for the flight lead, such as an ACTI requirement for initial 2000 BFM sorties. A section lead may lead flights within the 4000 Phase syllabus in which he has been trained appropriately. For example, a section lead my execute OAAW 4502 only if he has previously completed this sortie under instruction as a flight lead.

2.14.3.4 Prerequisites

200 hours in model, 400 hours total.

2000 level and 3000 level complete.

Receive a passing grade (80%) on the MAG standardized section lead build exam that covers 2000 to 3000 Phase academics.

2.14.3.5 Requirements. A section lead build shall complete the following items during the course of the Section Leader designation syllabus:

Three events in the syllabus shall be conducted at night.

Conduct the following departures:

Section stream STO
Section CTO
Section RADAR trail
Section SID.

Conduct the following recoveries:
Section VFR overhead
Section VFR straight-in.
Section PAR/TACAN to actual or simulated circling minimums. PUI will configure the section for landing with the intent to land both aircraft upon break-out of actual/simulated IMC conditions.

Simulated NORDO recovery.

Simulated hung ordnance recovery.

One tanker join shall be executed in the simulator.

At a minimum, three events shall carry ordnance.

One event will be flown in conjunction with RF/IR emitters on a TCTS or EW range.

One simulator event shall be flown as a networked sortie with the section lead build as the flight lead when a networked simulator is available.

The following shall be flown with an FLSE external to the squadron:

SSL-6201 and any one of the flights.

The designation syllabus does not have to be flown in order. The last event in the phase will serve as the check flight. The check flight shall be one of the following events: SL-6203, 6204, 6205, 6206.

2.14.3.6 Ground/Academic Training

Unclassified Readings

AV-8B NATOPS:
Chapter 6, Flight Preparation.
Chapter 21, Extreme Weather Operation.
Chapter 31, Crew Resource Management (CRM).

Air NTTP 3-22.3-AV8B:
Chapter 2, Mission Planning, Briefing, and Debrief Standards.
Chapter 3, Tactical Administration.
Chapter 6, A/S Fundamentals.
Chapter 7, A/S Employment.
Chapter 8, CAS.
Chapter 11, SCAR.

Classified Readings

Air NTTP 3-22.1-AV8B:
Chapter 2, A/S Mission Planning.
Chapter 4, Air Interdiction.
Chapter 5, Threat Countertactics.

Lectures. Delivered by a WTI.

ASL-6009, Flight Briefing and Debriefing.

ASL-6010, AV-8B T&R Manual and Training Management.

ACPM

AACPM-8630, Tactical Air Command Center (TACC).
AACPM-8660, Joint Ops Intro.

Exams. ASL-6011, Standardized Section Lead Build exam.

Tracking. The following matrix will be used to track academic and administrative training.

SELF-PACED READINGS		DATE COMP
AV-8B NATOPS Manual Chapter 6, Flight Preparation		
AV-8B NATOPS Manual Chapter 21, Extreme Weather Operation		
AV-8B NATOPS Manual Chapter 31, Aircrew Coordination		
Air NTTP 3-22.3-AV8B Chapter 2, Mission Planning, Briefing, and Debriefing		
Air NTTP 3-22.3-AV8B Chapter 3, Tactical Administration		
Air NTTP 3-22.1-AV8B Chapter 3, Threat Countertactics		
Air NTTP 3-22.3-AV8B Chapter 6, Air-to-Surface Fundamentals		
Air NTTP 3-22.1-AV8B Chapter 2, Air-to-Surface Mission Planning		
Air NTTP 3-22.3-AV8B Chapter 7, Air-to-Surface Employment		
Air NTTP 3-22.3-AV8B Chapter 8, Close Air Support		
Air NTTP 3-22.1-AV8B Chapter 4, Air Interdiction		
Air NTTP 3-22.3-AV8B Chapter 11, SCAR		
REQUIRED LECTURES RECEIVED	**DATE COMP**	**INSTRUCTOR**
Flight Briefing and Debriefing		
AV-8B T&R Manual and Training Management		
ADMINISTRATIVE FLIGHT LEADERSHIP REQMTS	**DATE COMP**	**INSTRUCTOR**
NIGHT EVENT 1		
NIGHT EVENT 2		
SECTION STREAM STO		
SECTION CTO		
SECTION RADAR TRAIL		
SECTION SID		
SECTION VFR OVERHEAD		
SECTION VFR STRAIGHT-IN		
SECTION PAR/TACAN		
SIMULATED NORDO RECOVERY		
SIMULATED HUNG ORDNANCE RECOVERY		
ADMINISTRATIVE FLIGHT LEADERSHIP REQMTS	**DATE COMP**	**INSTRUCTOR**
TPOD EVENT 1		
TPOD EVENT 2		
TPOD EVENT 3		
ORDNANCE EVENT 1		
ORDNANCE EVENT 2		
ORDNANCE EVENT 3		
RF/IR EMITTER ON A TCTS OR EW RANGE		
SSL-6201 FLOWN WITH FLSE		

SSL-6200 1.5 * B E NS S RNAWST

Goal. Conduct night medium altitude CAS in an urban environment.

Requirement

Plan: Use Squadron S-2, WTI/PTO, and/or FAC(A) to develop ROE, SPINS, gridded reference graphic (GRG), ground scheme of maneuver (SOM), and threats. Develop a plan to locate, ID, and kill enemy targets IAW the ground SOM, achieve commander's intent with the correct weapon to target match. Have a game plan to defeat the threat system while

meeting allowable risk standards. Ensure JMPS plan is IAW ANTTP Chapter 8; goal is for an organized cockpit the at supports efficient systems management. Generate target area imagery, sensor profiles, EOTDA data, weaponeering with consideration for collateral damage estimate (CDE) and risk estimation distances (RED), and cockpit maps that enable mission success.

Brief: Execute IAW MAWTS-1 brief/debriefing guide. Tailor brief around the TACP TACSOP CAS execution template, focusing on system management, communications, correlation, and specific attack templates. Mission rehearsal should emphasize systems management, target PID, collateral damage and danger close considerations, GRG usage, target coordinate generation accuracy, PGM employment, threat countertactics, and standardized communications.

Execution: Conduct three attacks. Achieve desired level of destruction IAW ROE via a valid weapons release on time (+/-15 sec). Survive against the threat IAW allowable risk.

Debrief: The sortie will be debriefed using aircraft and TPOD recording devices and TCTS feeds if available. Debrief will be conducted IAW MAWTS-1 brief/debrief guide.

Performance Standard. Execute tactics IAW Air NTTP. Locate correct target and achieve briefed (JMEMs derived) level of destruction criteria via a valid weapons release within +/- 15 seconds of TOT. Execute briefed surface-to-air and air-to-air countertactics IAW allowable risk. Weapon impact within +/- 15 seconds of TOT. Communicate an accurate IFREP to the MACCS.

Prerequisite. 3000 Phase complete.

Ordnance. Desired: TPOD, 1 x GBU-16, 2 x GBU-38/32/54, 300 x 25MM, Expendables.

SSL-6201 1.5 * B E D S RNAWST

Goal. Conduct low altitude day CAS with GP and FF ordnance in adverse weather.

Requirement

Plan: Use Squadron S-2, WTI/PTO, and FAC(A) to develop ROE, SPINS, gridded reference graphic (GRG), ground scheme of maneuver (SOM), and threats. Develop a plan to penetrate and operate under a 4K overcast layer, locate, ID, and kill enemy targets IAW the ground SOM, achieve commander's intent with the correct weapon to target match. Have a game plan to defeat the threat system while meeting allowable risk standards. Ensure JMPS plan is IAW ANTTP; goal is for an organized cockpit the that supports efficient systems management. Generate target area imagery, weaponeering for low altitude employment, and conduct low altitude analysis of the objective area with a 1:50,000 for briefing.

Brief: Execute IAW MAWTS-1 brief/debriefing guide. Tailor brief around the TACP TACSOP CAS execution template, focusing on system management, communications, correlation, and specific attack templates focused on the low altitude environment. Mission rehearsal should emphasize systems management, terrain clearance tasking, and mission critical tasking, holding, attack transition, and egress.

Execution: Conduct at least two attacks from the low altitude environment. Maintain terrain clearance tasking IAW the ANTTP and execute all mission critical tasks. Achieve desired level of destruction IAW ROE via a valid weapons release on time (+/-15 sec). Survive against the threat IAW allowable risk.

Debrief: The sortie will be debriefed using aircraft and TPOD recording devices and TCTS feeds if available. Debrief will be conducted IAW MAWTS-1 brief/debrief guide.

Performance Standard. Execute tactics IAW Air NTTP. Locate correct target and achieve briefed level of destruction criteria via a valid weapons release within +/- 15 seconds of TOT. Execute briefed surface-to-air countertactics IAW allowable risk. Weapon impact within +/- 15 seconds of TOT. Communicate an accurate IFREP to the MACCS.

Prerequisite. SSL-6200

Ordnance. 3 x MK-82 HD, 4 x 5" Rockets, 300 x 25MM, Expendables.

SSL-6202 1.5 * B E (NS) S/L RNAWST

Goal. Conduct medium altitude AI.

Requirement

Plan: Squadron WTI/PTO tasks Intel to create a relevant scenario to strike a stationary target that is defended by a surface-to-air and air-to-air threat. Threat scenario will include range known strategic and range unknown tactical SAMS and ADA, SAR-1 air threat, as well as a defined TOT. PUI will develop a plan which includes a detailed air-to-surface and threat countertactics gameplan and JWS of the target, to ensure desired Pd is required.

Brief: Review route, no-go criteria, air-to-surface timeline, sensor optimization and TCT gameplan. The focus of the brief should be the mission rehearsal.

Execution: Conduct one AI ingress, attack, and egress.

Debrief: Utilize Simulator DAQ video if available. Validate all weapons releases. Review all decision points. Compare briefed tactics to executed tactics for validation or lessons learned. Review HUD, Map, and Radar for appropriate systems management.

Performance Standard. Execute tactics IAW Air NTTP. Locate correct target and achieve briefed (JWS derived) level of destruction criteria via a valid weapons release within +/- 15 seconds of TOT. Execute briefed surface-to-air and air-to-air countertactics IAW allowable risk. Weapon impact within +/- 15 seconds of TOT. Communicate an accurate IFREP to the MACCS.

Prerequisite. SSL-6201

Ordnance. As determined by flight lead based upon JWS planning, AIM-9/120, ALQ-164, Expendables.

SL-6203 1.3 * B E (NS) A 2 AV-8B

Goal. Conduct medium altitude AR with GP ordnance.

Requirement

Plan: Use Squadron S-2 to develop Target Precedence List (TPL), ROE, SPINS, and threats. Develop a plan to locate, ID, and kill enemy targets IAW TPL. Have a survive gameplan to defeat a mobile RF tactical SAM threat system while meeting allowable risk standards. Ensure JMPS plan facilitates search and kill gameplan. Generate target area imagery, sensor profiles, EOTDA data, and cockpit maps that enable mission success.

Brief: Execute IAW MAWTS-1 brief/debriefing guide. Tailor brief to target audience and ensure brief meets assigned training/mission objectives. Mission Rehearse most likely scenarios based on mission, weather, weapons, and threats.

Execution: Conduct at least two attacks IAW TPL target sets. AR must locate targets, pass section attack brief, and facilitate target attacks within briefed allowable risk. RSEAD will be coordinated as required. Communicate IFREP to a simulated or actual MACCS.

Debrief: The sortie will be debriefed using aircraft and TPOD recording devices and TCTS feeds if available. Debrief will be conducted IAW MAWTS-1 brief/debrief guide.

Performance Standard. Execute tactics IAW Air NTTP. Locate, catalogue, and attack targets IAW TPL and achieve briefed (JWS derived) level of destruction criteria via a valid weapons release. Execute briefed surface-to-air and air-to-air countertactics IAW allowable risk. Communicate an accurate IFREP to the MACCS.

Prerequisite. SSL-6202

Ordnance
Desired: TPOD, 4 x MK-82, 300 Rds 25MM. 10 Chaff, 20 Flares.
Acceptable substitutes: 1 TPOD, 6 Mk-76/4 Mk-82/4 BDU-45/2 Mk-83/2 Mk-83 inert/2 CBU-99/2 Mk-77, 7 2.75" Rockets/4 5" Rockets, 300 25mm, 4 LUU-2/4 LUU-19.

Range Requirement. RSTD, HE, EXP, STRAFE.

SL-6204 1.3 * B E (NS) A 2 AV-8B

Goal. Conduct SCAR with PGM and GP ordnance.

Requirement

Plan: Use Squadron S-2 to Develop Target Precedence List (TPL), ROE, SPINS, and threats. Develop a plan to locate, ID, and kill enemy targets IAW TPL. Have a gameplan to defeat a mobile RF tactical SAM threat system while meeting allowable risk standards. Ensure JMPS plan facilitates search and kill gameplan. Generate target area imagery, sensor profiles, EOTDA data, and cockpit maps that enable mission success.

Brief: Execute IAW MAWTS-1 brief/debriefing guide. Tailor brief to target audience and ensure brief meets assigned training/mission objectives. Mission Rehearse most likely scenarios based on mission, weather, weapons, and threats.

Execution: Conduct at least two attacks IAW TPL target sets. At least one integrated attack between multiple striker sections is desired. SCAR must locate targets, pass SCAR attack brief, and facilitate target attacks within briefed allowable risk. RSEAD will coordinated as required.

Debrief: The sortie will be debriefed using aircraft and TPOD recording devices and TCTS feeds if available. Debrief will be conducted IAW MAWTS-1 brief/debrief guide.

Performance Standard. Execute tactics IAW Air NTTP. De-conflict all assets and assign them appropriate tasking. Locate, catalogue, communicate and attack targets IAW TPL and achieve briefed (JMEMs derived) level of destruction criteria via a valid weapons release. Execute briefed surface-to-air and air-to-air countertactics IAW allowable risk. Communicate an accurate IFREP to the MACCS.

Prerequisite. SSL-6202

Ordnance
Desired: TPOD, 2xMK-82, 2xGBU-54, 10 Chaff, 20 Flares.
Acceptable substitutes: TPOD, 6 Mk-76/4 Mk-82/4 BDU-45/2 Mk-83/2 Mk-83 inert/2 GBU-12/2 GBU-12 inert/1 GBU-16/1 GBU-16 inert/2 LGTR/2, GBU-32/2 GBU-32 inert/2 GBU-38/2 GBU-38 inert/2 CBU-99/2 Mk-77, 7 2.75" Rockets/4 5" Rockets, 300 25mm, 4 LUU-2/4 LUU-19.

Range Requirement. RSTD, HE, EXP, LSR.

External Syllabus Support. Minimum of one section of AR assets.

SL-6205 1.3 * B E (NS) A 4 AV-8B

Goal. Conduct division medium altitude AI.

Requirement.

Plan: Squadron WTI/PTO tasks Intel to create a relevant scenario to strike a stationary target that is defended by a surface-to-air threat. Threat scenario will include range know strategic and range unknown tactical SAMS and AAA, as well as a defined TOT. PUI will develop a plan which includes a detailed air-to-surface and threat countertactics gameplan and JWS of the target, to ensure desired Pd is required.

Brief: Review route, no-go criteria, air-to-surface timeline, sensor optimization and TCT gameplan. The focus of the brief should be the mission rehearsal.

Execution: Conduct one AI ingress, attack and egress.

Debrief: Validate all weapons releases. Review all decision points. Mass debrief as required; TCTS debrief desired, whiteboard required if not available. Compare briefed tactics to executed tactics for validation or lessons learned. Review HUD/Radar/TPOD for appropriate systems management. Review comm.

Performance Standard. Execute tactics IAW Air NTTP. Achieve briefed (JWS derived) level of destruction criteria via a valid weapons release within +/- 15 seconds of TOT. Execute briefed threat countertactics IAW allowable risk. Communicate an accurate IFREP to the MACCS.

Prerequisite. SSL-6202

Ordnance
Desired: As determined by flight lead based upon JWS planning, TCTS pod, 60 Chaff and 30 Flares.
Acceptable substitutes: Simulated ordnance acceptable.

Range Requirement. AA, TCTS, RSTD, EXP.

External syllabus support. TCTS facility, SAM threat emitters.

SL-6206 1.3 * B,R E NS A 2 AV-8B

Goal. Conduct night medium altitude CAS with PGM and forward firing ordnance.

Requirement

Plan: Use Squadron S-2, WTI/PTO, and FAC(A) to develop ROE, SPINS, ground scheme of maneuver (SOM), and threats. Develop a plan to locate, ID, and kill enemy targets IAW the ground SOM, achieve commander's intent with the correct weapon to target match. Have a game plan to defeat the threat system while meeting allowable risk standards. Ensure JMPS plan is IAW ANTTP Chapter 8; goal is for an organized cockpit that supports efficient systems management. Generate target area imagery, sensor profiles, EOTDA data, and cockpit maps that enable mission success.

Brief: Execute IAW MAWTS-1 brief/debriefing guide. Tailor brief around the TACP TACSOP CAS execution template, focusing on system management, communications, correlation, and specific attack templates. Mission rehearsal should emphasize systems management, target PID, target coordinate generation accuracy, PGM employment, threat countertactics, and standardized communications.

Execution: Conduct at least 2 attacks employing LASER guided weapons (LGW), inertial aided munitions (IAM), or dual mode weapons. Execute tactics IAW with JCAS and ANTTP. Locate the correct target. Achieve desired level of destruction IAW ROE via a valid weapons release on time (+/-20 sec). Survive against the threat IAW allowable risk.

Debrief: The sortie will be debriefed using aircraft and TPOD recording devices and TCTS feeds if available. Debrief will be conducted IAW MAWTS-1 brief/debrief guide.

Performance Standard. Execute tactics IAW Air NTTP. Locate correct target and achieve briefed level of destruction criteria via a valid weapons release within +/- 20 seconds of TOT. Execute briefed surface-to-air countertactics IAW allowable risk. Weapon impact within +/- 20 seconds of TOT. Communicate an accurate IFREP to the MACCS.

Prerequisite. SSL-6202

Ordnance
Desired: TPOD, 1 x GBU-12/16, 1 x GBU-38/32/54, 300 Rds 25mm, 10 Chaff, 20 Flares.
Acceptable substitutes: 1 TPOD, 2 GBU-32/2 GBU-32 inert/2 GBU-38/2 GBU-38 inert/2 GBU-12/2 GBU-12 inert/2 GBU-16/2 GBU-16 inert/2 LGTR, Rockets, simulated forward firing ordnance. 10 Chaff, 20 Flares.

Range Requirement. RSTD, LSR, STRAFE, HE, EXP.

External Syllabus Support. JTAC or FAC(A).

SL-6207 1.3 * B E D A 2+ AV-8B

Goal. Conduct 1v1 intercepts to engaged maneuvering.

Requirement

Plan: Perform 3 single side offset intercepts and either a butterfly or abeam set against a wingman. Demonstrate the ability to safely conduct an AA-2810 with a wingman and safely manage BFM engagements. SLUT will fly the red profile and present aware and unaware lines. The

instructor wingman will execute 1 baseline tactic (no defense), 1 NTD (notch press), and 1 drag defense (simulating a section delouse/staggerback). The first two intercepts will result into engaged maneuvering with an appropriate "continue" call from the flight lead. After the third intercept, the flight shall conduct HABFM, either neutral or abeam sets. The sortie design is partial task trainer/line training. Exercise control is shooter control bandit assist.

Brief: The intended audience is an ACMQ wingman. Conduct GCI brief, if used. SL(UT) should design specific training objectives and focus on sortie construct/ flow, mechanics, and comm to meet those objectives. Instruction shall include intercept geometry, RADAR mechanics, AIM-120/AIM-9M employment, actions at MDR, BVR to WVR transition, and cold ops checks. HABFM brief will comprise PADS, departure avoidance, common errors, and a brief discussion of performance numbers relative to one and two circle fights.

Execution: Perform 3 intercepts IAW planning guidance. Execute procedures IAW the Air NTTP. Manage airspace effectively to meet training objectives. Maintain control of sortie evolution and SA to wingman. Communication is correct and timely. Fly appropriate performance numbers for the specific fight, maintains control of engagement, and survive to second merge for %50 of the engagements.

Debrief: Validate all shots and conduct fighter debrief. Debriefs wingman's (HUD and radar) maneuvers(HUD, radar) and Validates tactics using HUD and RADAR debrief in order to define lessons learned. Conduct either a TCTS or a whiteboard debrief.

Prerequisite. SSL-6202

Ordnance
Desired: 1 x CATM-9, 2 x CATM-120, 1 x TCTS Pod, 30 Chaff, 30 Flares.
Required: 1 CATM-9, 1 TCTS Pod, 30 flares.

Range Requirement. RSTD, AA, EXP.

External syllabus support. GCI Desired.

SL-6208 1.3 * B,R E D A 2+ AV-8B

Goal. Conduct 2v2 partial task against a single group, SAR-1.

Requirement

Plan: Target audience is an ACMQ wingman. The intent is for the SL (UT) to demonstrate the ability to tactically execute and control a 2v2 mission against a single group SAR-1 threat and ensure the SL (UT) can plan, brief, and execute the baseline tactic. Perform a minimum of 3 forward quarter intercepts against a single group, both aware and unaware, against a SAR-1-capable adversary. Adversaries shall be both maneuvering and non-maneuvering, showing awareness at various ranges, at altitudes ranging from 5,000 to 30,000 feet and speeds greater than 0.8IMN. One profile shall require a VID, the rest will be hostile-at-the-commit scenarios. Actions at MDR, MAR, and MNR shall be briefed and executed. At least one intercept will require one of the fighters to notch. Section engaged maneuvering is encouraged, but not required. The sortie construct may be either a partial task trainer or continuous vul. Exercise control may be either shooter controlled bandit assist or RTO assist.

Brief: Execute IAW the MAWTS-1 brief/debrief guide. SL(UT) conducts GCI, RTO (as required), Red Air, and fighter brief. SL(UT) must brief training rules, deconfliction, and departure prevention. SL(UT) constructs scenario and training objectives. The briefing board should depict the red & blue timelines, as well as a depiction of the target area (blue CAP to red CAP). Brief should review the timeline and then focus on mission rehearsing the lines or most likely COA and contingencies. TCT and cold ops checklist are mandatory briefing items.

Execution: Perform 3 intercepts IAW planning guidance. Execute intercept procedures IAW Air ANTTP. Completes TACADMIN and sets the war with recommendations from red air. Adheres to air-to-air timeline, contracts, and criteria. SL(UT) sets geometry off of the commit and gains radar SA on %75 of the time. SL(UT) shoots on time. SL (UT) arrives at the merge at least tally 1 %50 of the merges. SL(UT) executes appropriate TCT NLT MDR. SL(UT) demonstrates control of the sortie.

Debrief: Execute IAW the MAWTS-1 brief/debrief guide. Flight validates shots. SL(UT) conducts mass debrief (phone debrief is OK, but not desired). TCTS debrief should be utilized to the max extent practical. If TCTS debrief unavailable, a whiteboard debrief shall be conducted. SL(UT) conducts fighter debrief comparing briefed tactics to executed tactics and draw lessons learned. Radar tape debrief required. SL(UT) reviews sortie construct, bandit tasking, and flow for improvement.

Ordnance
Desired: 1 CATM-9, 2 CATM-120, 1 TCTS Pod, 30 Chaff, 30 Flares.
Required: 1 CATM-9, 1 TCTS Pod, 30 flares.

Range Requirement. RSTD, EXP, AA.

External Syllabus Support. TCTS, GCI/AIC, RTO (if required) 2 SAR-1 capable radar equipped adversaries. Dissimilar preferred.

2.14.4 Division Leader Standardization And Designation Sorties

2.14.4.1 Division Leader

2.14.4.2 Purpose. Prepare and evaluate a prospective flight lead's ability to plan, brief, and lead a combat mission as a division lead.

2.14.4.3 General

A Division Leader Under Training (DLUT) shall conduct the following designation syllabus in order to develop flight leadership. Completion of the DL syllabus meets the requirements for being designated a Division Leader and an RTO. The RTO syllabus is imbedded into the DLUT syllabus with the assumption that the DLUT has shadowed an RTO during a previous event. At the discretion of the squadron commanding officer, a letter designating the pilot a division leader and RTO shall be placed in the NATOPS jacket and APR. The qualified RTO is able to conduct the required RTO responsibilities for the 2000 through 4000 level syllabus, as well as SL and DL sorties. However, this RTO syllabus does not meet the requirements for large force exercises, such as a USAF Flag event or some WTI events; that RTO needs to be a seasoned and specifically selected by the PTO/OPSO/CO for those duties by exercise planners.

The Refresher POI will be tailored by the commanding officer based on experience level and time out of cockpit. It is assumed that the Refresher pilot has the prerequisite academic knowledge base and familiarity with SOPs to conduct the designation syllabus.

A Mission Commander or WTI shall instruct all events, with the exception of DL-6305, which shall be instructed by an ACTI.

2.14.4.4 Prerequisites

Section Lead, OAAW and AAD complete as a flight lead. 400 hours in model.

Complete a Division Leader work-up syllabus that, at a minimum, mirrors the designation sorties and requirements.

Must shadow an RTO event with a qualified RTO prior to beginning the DLUT build.

Receive a passing grade on the MAG standardized DLUT exam that covers division administration and tactical employment.

2.14.4.5 Requirements

DLUT shall complete the following items during the course of the Division Lead designation syllabus:

One event in syllabus shall be conducted at night.

Conduct the following departures:
Division stream STO.
Division RADAR trail.

Conduct the following recoveries:
Division overhead.
Division straight-in.

At a minimum, two events shall carry ordnance.

One event will be flown in conjunction with RF/IR emitters on a TCTS or EW range.

One event shall include AAR.

At least two events shall be conducted with four aircraft.

One event shall be flown with an FLSE external from the squadron.

The designation syllabus does not have to be flown in order. However, 6300 and 6301 builds must be completed prior to any other build flight. 6300 and 6301 designation events shall be completed prior to 6303 and 6305 designation flights. Aircrew must "see" an RTO event and "do" 6300 and 6301 prior to any build flights (listed as "build" in the prerequisite section), aircrew must complete 6300 and 6301 designation events prior to completing 6303 and 6305 designation flights (listed as "designate" in the prerequisite section). Any of the three sorties may constitute the check-ride; however, the check-ride must be the last sortie flown.

2.14.4.6 Ground/Academic Training

Readings. IAW Table below.

Exams. ADL-6012, Standardized DL exam.

Lectures:

ACPM-8640, Joint Data Network
ACPM-8641, MAGTF Theater & National ISR Employment

Tracking. The following matrix will be used to track academic and administrative training.

SELF-PACED READINGS		DATE COMP
Air NTTP 3-22.3-AV8B, Chapter 3, Tactical Admin		
Air NTTP 3-22.1-AV8B, Chapter 5, SEAD		
ADMINISTRATIVE FLIGHT LEADERSHIP REQMTS	**DATE COMP**	**INSTRUCTOR**
SHADOW RTO		
NIGHT EVENT		
DIVISION STREAM STO		
DIVISION RADAR TRAIL		
DIVISION OVERHEAD		
DIVISION STRAIGHT-IN		
ORDNANCE EVENT		
ORDNANCE EVENT		
ONE EVENT WITH RF/IR EMITTERS ON A TCTS OR EW RANGE		
AAR EVENT		
4-SHIP MINIMUM EVENT		
ONE EVENT FLOWN WITH A FLSE		

DL-6300 2.0 * B E (N) TCTS DEBRIEF

Goal. Conduct a TCTS debrief.

Requirement. Demonstrate the ability to prepare and lead a TCTS mass debrief consisting of at least air-to-air threat. Demonstrate proficiency using console.

Performance Standard. DLUT shall debrief a TCTS range event (with an airborne threat) with the standard TCTS range debrief board in accordance with the MAWTS-1 Briefing/Debriefing Guide and ANTTP. This may be a previously recorded event. Demonstrate appropriate knowledge and proficiency utilizing the TCTS console. This may be done separately or concurrently with the debrief. DLUT will have, at a minimum, two other aircrew present – one to play the red air, one to play another role as dictated by the PTO. DLUT shall use shot cards. DLUT will review the TCTS tape at least a day prior to familiarize themselves with it and make the shot cards. DLUT will conduct a roll call, identify any alibis/SOF, review the sortie's mission/training objectives, review the debrief ROE, review the weather call, and then debrief the tactical and admin portions. DLUT will state the blue gameplan and then request the red gameplan. DLUT shall review a minimum of 2 lines, review a minimum of 2 shots, identify at least 3 items to be taken to the fighter debrief, and assess overall mission success or failure. At a minimum, in order to demonstrate console proficiency, DLUT must show the IP all playback modes and know when each is the most useful (BVR, BFM, etc), demonstrate pairing, show how to ID targeted fighters, change playback colors, and use playback/time search functionality.

Prerequisite. See phase description. Review appropriate Top Gun Manual Chapters, and AV-8B ANTTP 3-22.1 Chapters 7-8.

External Syllabus Support. TCTS Debrief facility with an event saved to debrief. Two role players.

DL-6301 2.0 * B E (N) G RTO

Goal. Safely, effectively, and efficiently meet the requirements of RTO.

Requirement. Demonstrate the ability to act as a designated RTO on a sortie with an air-to-air and surface-to-air threats. DLUT/ RTOUT may conduct training during another aircrew's syllabus event or during a dedicated event.

Performance Standard. Conduct RTO responsibilities for a flight which shall have an air-to-air threat and should have surface-to-air threats. The DLUT/RTOUT effectively controls the training scenario by managing surface-to-air threats and ensuring proper air-to-air presentation. RTO receives brief from blue flight lead and briefs with red RTO. RTO demonstrates the ability to relay the type of war/weather call, copy shots, assess shots, and relay any kill/continue calls. The DLUT/RTOUT demonstrates the ability to monitor and affect Safety of Flight. The event shall be conducted with live aircraft in a TCTS range, but may have simulator SA threats. Review TCTS tape. DLUT/RTOUT shall support the debrief. DLUT/ RTOUT provides detailed notes on potential SOF and training rule violations, passes times of all passed and copied shots, surface and ground, provides sketch of key phases and as directed by flight lead, provide timeline of events, provides debrief focal points of areas flight lead should review. Supports mass debrief, as requested.

Prerequisite. See phase description. Review appropriate Top Gun Manual Chapters. Prior to acting as an RTO under-training, the DLUT shall have shadowed an RTO during a previous event. The training structure is see-do-designate. The "see" portion may be completed at any time during the aircrew's training (i.e., during SL build).

Ordnance. Per RTO scenario.

External Syllabus Support. TCTS Debrief facility, RTO required event, Red RTO, AA and SA threat.

DL-6302 1.3 * B E (NS) A 3+ AV-8B

Goal. Conduct Division medium altitude AR with PGM and GP munitions.

Requirement

Plan: Use Squadron S-2 to develop Target Precedence List (TPL), ROE, SPINS, and threats. Develop a plan to locate, ID, and kill enemy targets IAW TPL. Have a survive gameplan to defeat a mobile RF tactical SAM threat system while meeting allowable risk standards. Ensure JMPS plan facilitates search and kill gameplan. Generate target area imagery, sensor profiles, EOTDA data, and cockpit maps that enable mission success.

Brief: Execute IAW MAWTS-1 brief/debriefing guide. Tailor brief to target audience and ensure brief meets assigned training/mission objectives. Mission Rehearse most likely scenarios based on mission, weather, weapons, and threats.

Execution: Conduct at least two attacks IAW TPL target sets. AR must locate targets, pass section attack brief, and facilitate target attacks within briefed allowable risk. RSEAD will be coordinated as required. Communicate IFREP to a simulated or actual MACCS.

Debrief: The sortie will be debriefed using aircraft and TPOD recording devices and TCTS feeds if available. Debrief will be conducted IAW MAWTS-1 brief/debrief guide.

Performance Standard. Execute tactics IAW Air NTTP. Locate, catalogue, and attack targets IAW TPL and achieve briefed (JWS derived) level of destruction criteria via a valid weapons release. Execute briefed surface-to-air and air-to-air countertactics IAW allowable risk. Communicate an accurate IFREP to the MACCS.

Prerequisite. 6300, 6301 build.

Ordnance
Desired: TPOD, 2xMK-82, 300 x 25MM. 10 Chaff, 20 Flares.
Acceptable substitutes: TPOD, 6 Mk-76/4 Mk-82/4 BDU-45/2 Mk-83/2 Mk-83 inert/2 CBU-99/2 Mk-77, 7 2.75" Rockets/4 5" Rockets, 300 25mm, 4 LUU-2/4 LUU-19, 10 Chaff, 20 Flares.

Range Requirement. RSTD, HE, LSR, STRAFE, EXP.

DL-6303 1.3 * B,R E D A 3+ AV-8B

Goal. Conduct Division medium altitude AI.

Requirement

Plan: Squadron WTI/PTO tasks Intel to create a relevant scenario to strike a stationary target that is defended by a surface-to-air and air-to-air threat. Threat scenario will include range know strategic and range unknown tactical SAMS and ADA, SAR-1 air threat, as well as a defined TOT. PUI will develop a plan which includes a detailed air-to-surface and threat countertactics gameplan and JMEMs of the target, to ensure desired Pd is required.

Brief: Review route, no-go criteria, air-to-surface timeline, sensor optimization and TCT gameplan. The focus of the brief should be the mission rehearsal.

Execution: Conduct one AI ingress, attack and egress.

Debrief: Validate all weapons releases. Review all decision points. Mass debrief as required; TCTS debrief desired, whiteboard required if not available. Compare briefed tactics to executed tactics for validation or lessons learned. Review HUD/Radar/TPOD for appropriate systems management. Review comm.

Performance Standard. Execute tactics IAW Air NTTP. Locate correct target and achieve briefed (JMEMs derived) level of destruction criteria via a valid weapons release within +/- 15 seconds of TOT. Execute briefed surface-to-air and air-to-air countertactics IAW allowable risk. Weapon impact within +/- 15 seconds of TOT. Communicate an accurate IFREP to the MACCS.

Prerequisite. 6300, 6301 designate.

Ordnance
Desired: 1 TPOD, 2 GBU-38, TCTS pod, 60 Chaff and 30 Flares.
Acceptable substitutes: 2 GBU-38 inert/2 GBU-32/ 2 GBU-32 inert/1 GBU-12/1 GBU-12 Inert/1 GBU-16/1 GBU-16 Inert/1 LGTR.

Range Requirement. RSTD, HE, LSR, TCTS, EXP.

External syllabus support. TCTS facility, SAM threat emitters. RADAR-equipped adversary (Dissimilar preferred, 2 minimum).

DL-6304 1.3 * B E NS A 3+ AV-8B

Goal. Demonstrate proficiency executing division AI at night.

Requirement

Plan: Squadron WTI/PTO tasks Intel to create a relevant scenario to strike a stationary target that is defended by a surface-to-air threat. Threat scenario will include range know strategic and range unknown tactical SAMS and ADA, as well as a defined TOT. PUI will develop a plan which includes a detailed air-to-surface and threat countertactics gameplan and JWS of the target, to ensure desired Pd is required.

Brief: Review route, no-go criteria, air-to-surface timeline, sensor optimization and TCT gameplan. The focus of the brief should be the mission rehearsal.

Execution: Conduct one AI ingress, attack and egress.

Performance Standard. Plan, brief, execute, and debrief IAW Air NTTP. Correct weaponeering utilizing PMPT, JMPS CUPC, JAWS, WARP, SLIC, and NATIP. Detailed air-to-surface timeline brief. Detailed threat countertactics brief. Comply with Tactical Abort Parameters. Valid weapon release IAW MAWTS-1 Planning, Briefing, and Debriefing Guide with accurate employment validation. Capture lessons learned and tie errors in execution to planning, briefing, or basic execution.

Ordnance. 1 TPOD, 6 Mk-76/4 Mk-82/4 BDU-45/2 Mk-83/2 Mk-83 inert/2 GBU-12/2 GBU-12 inert/1 GBU-16/1 GBU-16 inert/2 LGTR/2 GBU-32/2 GBU-32 inert/2 GBU-38/2 GBU-38 inert, 1 CATM-9, 1 TCTS Pod, 1 ALQ-164, 20 Chaff, 60 Flares.

Range Requirement. RSTD, HE, LSR, TCTS, EXP.

Prerequisite. 6300, 6301 build.

External syllabus support. TCTS facility, SAM threat emitters.

SDL-6305 1.0 * B,R E D S/L 3xRNAWST

Goal. Conduct DARG as a division.

Requirement

Plan: Linked simulator. As a division, defend an asset or area for a minimum of 30 minutes. Incorporate all AA planning factors delineated in the ANTTP Air-to-Air Planning Chapter, to include, but not limited to: allowable risk, radar horizons, DEZ, JEZ, MEZ, loadout, and threat capabilities. Incorporate GCI. Ship based defense (i.e., Sea Sparrow) must be incorporated. SM-2 type capabilities may be incorporated, but fighters must be driven to commit. The enemy will comprise sweepers and strikers where the sweeper will have a SAR-1 capability and the strikers will have a minimum of IR-3 capability. Striker MLCOA (loadout, tactic) shall be planned for in detail. EA capabilities should be incorporated. The threat will have SA threats defending their airfields. The defense will be in conjunction with the ship conducting a higher mission that defines the vulnerability window; i.e. NEO, troop/SOF/Recon insert, humanitarian aid, straights transit. The threat's goal is to attack the ship or high value airborne assets. The plan should incorporate the following scenarios: VID, sortable and non-sortable groups, two group presentations, high, medium, and low presentations with decoy and AMRAAM aware maneuvers. The picture may incorporate both white and red players. Groups may be briefed to not

split until WVR. ROE shall be incorporated, but not prohibitive. It is greatly desired to conduct a deck launch intercept for one of the sections and use hot pits or FWAAR to replicate a longer on station requirement. The plan must provide an overall gameplan to exploit threat vulnerabilities (bid for success) and the derivative tactics. S-2 shall be incorporated into the plan. The sortie construct is a missionized vul window. Exercise control will be RTO kill removal: a blue RTO shall be used for exercise control, with the red RTO being notional. The floor will be briefed as the surface (per TMS individual training rules, i.e. LAT). Helicopter attack may be incorporated.

Brief: S-2 shall be incorporated into the brief portion of the event by either conducting an in-brief to planning or briefing the red threat during the sortie brief. Conduct a GCI, fighter, red air, and RTO brief. GCI brief may be concurrent with fighter brief. Review admin, TACADMIN, and blue and red timelines. Mission rehearse the MLCOAs, MDCOA, and contingencies. If CAP to Meld is the same for more than scenario, do not repeat those portions unless required for success. Ensure decision points and threat countertactics are thoroughly covered. Section delouse and staggerback must be briefed. Mandatory briefing items include training rules, departure prevention, and four-ship deconfliction.

Execution: This simulator shall be conducted utilizing the ADVTE network as a 3+ AV-8B linked simulator event. Coordination for this sortie shall be done through the respective MATSS facilities and executed under the supervision of an ACTI. GCI should be scheduled to the maximum extent possible. The specific execution standards are to target and achieve SA to all factor groups (visual or RADAR). No blue losses due to non-adherence to briefed TCT ranges or poor airmanship (i.e., a 2g abort). Workable RADAR, otherwise incomplete. Division leads must demonstrate the ability to make tactical decisions IAW the plan, target their division, and maintain control of the evolution while managing their own aircraft and systems.

Debrief: Shot validation / Fighter scrub, Mass Debrief, and Fighter Debrief. Debrief using the simulator replay capability is desired. If not available, whiteboard debrief required. Division leads should task their division at the brief to facilitate the debrief.

Performance Standard. Conduct a clear and concise mission rehearsal intensive brief that defines the gameplan and describes the derivative tactics. While airborne, DLUT makes appropriate decisions and maintains control of the evolution. During the debrief, compares execution to the briefed gameplan and assesses validity while drawing lessons learned.

Prerequisite. 6300, 6301 designate.

Ordnance. 2 AIM-120, 2 AIM-9, Tanks, 180 Expendables.

External Syllabus Support. GCI.

2.14.5 Mission Commander Standardization And Designation Sorties

2.14.5.1 Mission Commander

2.14.5.2 Purpose. Evaluate a prospective Mission Commander’s ability to plan, brief, and lead a combat mission as the Mission Commander.

2.14.5.3 General

Completion of the syllabus meets the requirements for being designated as a Mission Commander. At the discretion of the squadron commanding officer, a letter designating the pilot as a Mission Commander shall be placed in the NATOPS jacket and APR.

The Refresher POI will be tailored by the commanding officer based on experience level and time out of cockpit. It is assumed that the refresher pilot has the prerequisite academic knowledge base and familiarity with SOPs to conduct the designation syllabus.

The Mission Commander workup syllabus shall, at a minimum, mirror the Mission Commander qualification syllabus.

A Mission Commander shall instruct all events.

2.14.5.4 Prerequisites
500 hours in model
Division Leader
A Mission Commander Under Training (MCUT) shall complete either LFE-4900 or LFE-4901 as the strike element lead.

2.14.5.5 Ground/Academic Training

One event shall be flown with an FLSE external to the squadron.

Lectures. Review the following AV-8B courseware lectures:
AMC-6013, Strike Mission Commander, Part 1
AMC-6014, Strike Mission Commander, Part 2
ACPM-8620, ESG/CSG Integration.

Tracking. The following matrix will be used to track academic and administrative training.

REQUIRED LECTURES	DATE COMP	INSTRUCTOR
Strike Mission Commander, Part 1		
Strike Mission Commander, Part 2		

MC-6400 2.0 * B E A 4+ AV-8B

Goal. Lead a day or night AI LFE as the Mission Commander.

Requirement. As part of a division, lead an AI LFE. The mission shall be supported with command and control assets, SEAD, EA, ES, AAR, and OCA assets. Scenario per MC guidance. Emphasize flight leadership and tactical decision making. LFE planning should be conducted on a day prior to execution. MCUT will oversee mass brief and debrief.

Performance Standard. Planning, briefing, execution, and debrief IAW the MAWTS-1 Strike Planning Guide. Develop a sound tactical gameplan based on the scenario. Issue SPINS for all assets and oversee all subordinate flight leads. Coordinate and deconflict multiple elements. Adhere to all applicable Rules of Conduct and Training Rules. Adhere to air-to-surface and/or air-to-air timelines. Adhere to surface-to-air and/or air-to-air threat countertactics gameplans. 100 percent valid air-to-surface and/or air-to-air weapon releases. Capture lessons learned and tie errors in execution to planning, briefing, or basic execution. Execute a mass debrief using TCTS facility.

Prerequisites. See phase description.

Ordnance. As determined by mission analysis.

Range Requirement. Reference Range Support Matrix.

External Syllabus Support. Adversaries, Tanker, Blue Air, GCI/AIC.

MC-6401 2.0 * B,R E (NS) A 4 AV-8B

Goal. Lead a day or night large force SCAR package as the Mission Commander.

Requirement. SCAR Mission Commander evaluation requires the MCUT to act as the SCAR for a minimum of 2 dissimilar AR elements in a confined airspace in a medium threat scenario with active RF SAM emitters. Scenario per MC guidance. Emphasize flight leadership and tactical decision making. LFE planning should be conducted on a day prior to execution. MCUT will oversee mass brief and debrief.

Performance Standard. Planning, briefing, execution, and debrief IAW the MAWTS-1 Strike Planning Guide. Develop a sound tactical gameplan based on the scenario. Coordinate and deconflict multiple elements. Issue SPINS to all assets. Adhere to all applicable Rules of Conduct and Training Rules. Adhere to air-to-surface and/or air-to-air timelines. Adhere to surface-to-air and/or air-to-air threat countertactics gameplans. Valid air-to-surface and/or air-to-air weapon releases. Capture lessons learned and tie errors in execution to planning, briefing, or basic execution.

Prerequisites. MC-6400. ACPM-8620, ESG/CSG Integration.

Ordnance. As determined by mission analysis.

Range Requirement. Reference Range Support Matrix.

External Syllabus Support. Per Scenario.

2.14.6 Air Defense Flight Leader Standardization and Designation Sortie

2.14.6.1 Air Defense Flight Leader

2.14.6.2 Purpose. Prepare and evaluate a prospective flight leads ability to plan, brief, and execute a Division AV-8B DARG mission as the flight lead.

2.14.6.3 General

An Air Defense Flight Lead under training shall conduct the following designation syllabus in order to develop flight leadership. Completion of the ADFL-6500 code constitutes achieving the Air Defense Flight Leader (ADFL) designation. ADFLs are qualified to lead air-to-air and active air defense missions as a division. At the discretion of the squadron commanding officer, a letter designating the pilot as an ADFL shall be placed in the NATOPS jacket and APR. An ACTI shall instruct the event.

2.14.6.4 Prerequisites

Division lead, OAAW and AAD complete as a flight lead. Complete a work-up syllabus that, at a minimum, mirrors the designation sortie and requirements.

2.14.6.5 Requirements

The air defense flight lead under training must conduct a mass debrief and fighter scrub via a TACTS facility. If a TACTS facility

is not available, then a face-to-face or phone debrief with the adversaries is required.

2.14.6.6 Ground/Academic Training

A chalk talk or practical exercise of ACAD-4016, DARG considerations, shall be conducted with an ACTI.

ADFL-6500	1.3	*	B,R	E	D	A	3+	AV-8B

Goal. Conduct DARG as a division.

Requirement

Plan: In a missionized sortie, as a division, defend an asset or area for a minimum of 30 minutes. Incorporate all AA planning factors delineated in the ANTTP Air-to-Air Planning Chapter, to include, but not limited to: allowable risk, radar horizons, DEZ, JEZ, MEZ, loadout, and threat capabilities. Incorporate GCI. Ship based defense (i.e., Sea Sparrow) must be incorporated. SM-2 type capabilities may be incorporated, but fighters must be driven to commit. The enemy will comprise sweepers and strikers where the sweeper will have a SAR-1 capability and the strikers will have a minimum of IR-3 capability. Striker MLCOA (loadout, tactic) shall be planned for in detail. EA capabilities should be incorporated. The threat will have SA threats defending their airfields. The defense will be in conjunction with the ship conducting a higher mission that defines the vulnerability window; i.e. NEO, troop/SOF/Recon insert, humanitarian aid, straights transit. The threat's goal is to attack the ship or high value airborne assets. The plan should incorporate the following scenarios: VID, sortable and non-sortable groups, two group presentations, high, medium, and low presentations with decoy and AMRAAM aware maneuvers. The picture may incorporate both white and red players. Groups may be briefed to not split until WVR. ROE shall be incorporated, but not prohibitive. It is greatly desired to conduct a deck launch intercept for one of the sections and use hot pits or FWAAR to replicate a longer on station requirement. The plan must provide an overall game plan to exploit threat vulnerabilities (bid for success) and the derivative tactics. S-2 shall be incorporated into the plan. The sortie construct is a missionized vul window. Exercise control will be RTO kill removal: a blue and red RTO shall be used for exercise control. The floor will be briefed as the surface (per TMS individual training rules, i.e. LAT). Helicopter attack may be incorporated.

Brief: S-2 shall be incorporated into the brief portion of the event by either conducting an in-brief to planning or briefing the red threat during the sortie brief. Conduct a GCI, fighter, red air, and RTO brief. GCI brief may be concurrent with fighter brief. Review admin, TACADMIN, and blue and red timelines. Mission rehearse the MLCOAs, MDCOA, and contingencies. If CAP to Meld is the same for more than one scenario, do not repeat those portions unless required for success. Ensure decision points and threat countertactics are thoroughly covered. Section delouse and staggerback must be briefed. Mandatory briefing items include training rules, departure prevention, and four-ship de-confliction.

Execution: Target and achieve SA to all factor groups (visual or RADAR). No blue losses due to non-adherence to briefed TCT ranges or poor airmanship (i.e., a 2g abort). Workable RADAR, otherwise incomplete. Division leads must demonstrate the ability to make

tactical decisions IAW the plan, target their division, and maintain control of the evolution while managing their own aircraft and systems.

Debrief: Shot validation / Fighter scrub, Mass Debrief, and Fighter Debrief. Debrief at TCTS facility desired. If not available, whiteboard debrief required. Division leads should task their division at the brief to facilitate the debrief.

Performance Standard. Conduct a clear and concise mission rehearsal intensive brief that defines the gameplan and describes the derivative tactics. While airborne, DLUT makes appropriate decisions and maintains control of the evolution. During the debrief, compares execution to the briefed gameplan and assesses validity while drawing lessons learned.

Prerequisite. See phase description.

Ordnance
Desired: 2 CATM-120, 1(2) AIM-9, TCTS Pod, Tanks, 30 Flares, 30 Chaff.
Required: 1 AIM-9, 1 TCTS POD, Expendables.

Range Requirement. RSTD, HE, LSR, TCTS, EXP.

External Syllabus Support. TCTS range, GCI/AIC, RADAR-equipped adversary (Dissimilar preferred, 2 minimum).

2.14.7 Post-Maintenance Check Flight (PMCF) Pilot

2.14.7.1 PMCF Pilot

2.14.7.2 Purpose. Evaluate a pilot's ability to execute a PMCF.

2.14.7.3 General. Completion of the syllabus meets the requirements to be designated a functional check pilot. At the discretion of the squadron commanding officer, a letter designating the pilot as a functional check pilot shall be placed in the NATOPS jacket and APR.

2.14.7.4 Ground/Academic Training. Per MAG order.

SFCF-6600	1.5	*	B	E	D	S	RNAWST

Goal. Functional Check Flight (FCF) workup simulator.

Requirement. Complete an FCF profile in the simulator.

Performance Standard. Profile completion per appropriate card.

Prerequisite. Per MAG order.

FCF-6601	1.5	180	B,R,M	E	D	A	1 AV-8B

Goal. Conduct an FCF.

Requirement. Complete an FCF profile. Initial event shall be in an FMC AV-8B.

Performance Standard. Profile completion per appropriate card.

Prerequisite. Per MAG order, SFCF-6600.

2.14.8 AV-8B Air Show Demonstration Pilot (Demo Pilot)

2.14.8.1 Demo Pilot

2.14.8.2 Purpose. To evaluate a prospective demonstration pilot's ability to conduct air show demonstration.

2.14.8.3 General. Completion of the syllabus meets the requirements to be designated an AV-8B Demo Pilot. At the discretion of the squadron commanding officer, a letter designating the pilot an AV-8B Demo Pilot shall be placed in the NATOPS jacket and APR.

2.14.8.4 Prerequisite. Per MCO and MAG order.

2.14.8.5 Academic Training. Per MCO and MAG order.

SDEMO-6700 1.5 * B E D S RNAWST

Goal. Demo pilot workup simulator.

Requirement. Complete a Level III air show demonstration profile.

Performance Standard. Conducts all maneuvers correctly.

Prerequisite. Per MCO and MAG order.

DEMO-6701 0.8 365 B,R,M E D A 1 AV-8B

Goal. Demonstration flight. Initial event shall be monitored by MAG commanding officer or his designated representative.

Requirement. Complete a Level III air show demonstration profile.

Performance Standard. Conducts all maneuvers correctly.

Prerequisite. Per MCO and MAG order.

2.14.9 Tracking Codes

2.14.9.1 Purpose. Track currency in various evolutions.

2.14.9.2 General. Tracking codes may or may not constitute a flight or simulator. They are logged concurrent with another code for the purpose of identifying why a code was not completed or as a specific tracking measure (i.e., Strat tanking). FAC(A) events in the JFAC(A) MOA that are not required to complete the FAC(A) syllabus are also listed as tracking codes.

TRK-6800 0.0 365 Tracking Day AAR

Goal. Conduct day aerial refueling.

Requirement. Conduct day aerial refueling.

Performance Standard. As outlined in ATP-56(B).

Prerequisite. AAR-1340.

External Syllabus Support. Any Non-Strategic Tanker.

TRK-6801 0.0 365 Tracking Strategic Tanking

Goal. Conduct strategic tanking.

Requirement. Conduct aerial refueling from a strategic tanking platform.

Performance Standard. As outlined in ATP-56(B).

Prerequisite. AAR-1340, (AAR-2300, if at night).

External Syllabus Support. Strategic Tanker.

TRK-6802 0.0 180 Tracking ALQ-164

Goal. Employ ALQ-164.

Requirement. Tactically employ the ALQ-164.

Performance Standard. IAW the sortie performance standards.

Ordnance. 1 ALQ-164.

TRK-6803 0.0 * Tracking Air-to-Air Gunnery

Goal. Air-to-air gunnery.

Requirement. Air-to-air gunnery.

Performance Standard. IAW the sortie performance standards.

Prerequisite. ACM QUAL.

Ordnance. 300 25mm.

TRK-6804 0.0 * Tracking Adverse Weather high threat

Goal. Introduce adverse weather procedures in a high threat environment.

Requirement. On a tactical range, perform visual/sensor reconnaissance of 3 separate targets and generate target coordinates with aircraft systems. Plot each target on gridded imagery/chart. Perform authentication procedures. Control 2 Type 1 pop-up attacks and 2 Type 2 attacks by fixed-wing aircraft. Deliver or coordinate marks. Provide BHA. If a range that permits Type 2 control is not available, Type 2 control may be evaluated with simulated deliveries. Simulated weather is overcast at 8,000-feet AGL. May be flown at night if previously flown during the day.

Performance Standard. Execute appropriate search, detection, and PID profiles. Execute Type 1 and 2 terminal attack control IAW JPub 3-09.3. Accurate target coordinate and 9- line generation. Proper coordination and approval for attacks. Effective FAC(A) aircraft position to provide marking and control with consideration of threat and friendly positions.

Prerequisite. FAC(A)-4912, LAT-4205.

Ordnance. TPOD, Free-Fall or Forward-Firing Ordnance, Expendables.

Range Requirement. RSTD, LSR, HE. JCAS, JDAM, LGB.

External Syllabus Support. One or 2 FW CAS elements with live or inert free fall or forward firing or weapons and a ground FAC.

TRK-6805 0.0 * Tracking UAS/UCAV Integration

Goal. Introduce UAS/UCAV integration.

Requirement. Perform visual/sensor reconnaissance on 3 tactical targets, generating target coordinates with aircraft systems. Execute 1 LASER spot/target handoff from a UAS/UCAV. Plot targets on gridded imagery/chart and prepare an attack brief. Control 2 Type 2 and 2 Type 3 attacks by UAS/UCAV aircraft. Perform authentication procedures. Deliver or coordinate LASER mark on target and guide 1 LGW to impact. Provide BHA and coordinate with UAS/UCAV to provide BHA. If a range

that permits Type 2 control is not available, Type 2 control may be evaluated with simulated deliveries.

Performance Standard. Execute appropriate search, detection, and PID profiles. Execute Type 2 and 3 terminal attack control IAW JPub 3-09.3. Accurate target coordinate and 9-line generation. Proper coordination and approval for attacks. Effective FAC(A) aircraft position to provide marking and control with consideration of threat and friendly positions.

Prerequisite. FAC(A)-4912.

Ordnance. TPOD, Expendables.

Range Requirement. RSTD, LSR, HE. JCAS, JDAM, LGB.

External Syllabus Support. LGW Capable UAS/UCAV, GFAC/JTAC

TRK-6806 0.0 * Tracking Naval Surface Fire Support

Goal. Introduce Naval Surface Fire Support.

Requirement. Perform visual/sensor reconnaissance on 2 tactical targets, generating target coordinates with aircraft systems. Execute 2 CFF missions using NSFS grid format.

Performance Standard. Execute 2 NSFS missions using Grid format in JFIRE. Use proper NSFS CFF terminology, ensure pre-firing report is correct, and conduct RREMS for each mission

Prerequisite. FAC(A)-4912.

Ordnance. TPOD,

Range Requirement. RSTD, LSR, NSFS capable range

External Syllabus Support. NSFS capable shipping, GFAC/JTAC.

TRK-6807 1.3 * Tracking AC-130 Call for Fire

Goal. Introduce AC-130 Call For Fire.

Requirement. Perform visual/sensor reconnaissance on 3 tactical targets, generating target coordinates with aircraft systems. Plot targets on gridded imagery/chart and prepare a call-for-fire brief. Emphasize accurate call-for-fire communications and adjustment procedures. Execute 3 missions.

Performance Standard. Execute appropriate search, detection, and PID profiles. Correctly use aircraft systems for target coordinate and call-for-fire brief generation. Provide accurate verbal description during talk-on attacks. If required, mark the target within 300 meters.

Prerequisite. FAC(A)-4912.

Ordnance. TPOD, Expendables.

Range Requirement. RSTD, LSR, HE. JCAS, JDAM, LGB.

External Syllabus Support. One AC-130 and a Ground or air FAC.

TRK-6808 0.0 * Tracking PMCF A Card

Requirement. Conduct PMCF A Card flight.

TRK-6809 0.0 * Tracking PMCF B/C Card

Requirement. Conduct PMCF B/C Card flight.

TRK-6810 0.0 * Tracking ALQ-231

Goal. Employ ALQ-231.

Requirement. Tactically employ the ALQ-231.

Performance Standard. IAW the sortie performance standards.

Ordnance. 1 ALQ-231.

TRK-6900 1.0 * Tracking Day CAL Site

Goal. Day CAL site operations.

External Syllabus Support. Approved CAL Site.

TRK-6901 0.0 * Tracking NS CAL Site

Goal. Night CAL site operations.

External Syllabus Support. Approved CAL Site.

TRK-6902 0.0 * Tracking Road Operations

Goal. Road operations.

External Syllabus Support. Approved Road.

TRK-6903 0.0 * Tracking NS Road Operations

Goal. Night road operations.

External Syllabus Support. Approved Road.

2.14.10 Landing Signal Officer (LSO), Landing Site Instructor (LSI), and Landing Site Supervisor (LSS) Designation and Tracking

2.14.10.1 Purpose. To track the designation and currency of LSOs, LSIs, and LSSs.

2.14.10.2 General. This section enables squadrons to document and track via M-SHARP the designation of pilots as LSOs, LSIs, and LSSs and currency intervals between "waiving" periods. The following additional guidance applies:

A pilot must complete the 2000-level syllabus prior to beginning any work-up for LSO or LSS designation.

This manual, the T&R Program Manual, the LSO NATOPS Manual, and MAG LSI/LSS Orders define the prerequisites to start LSO/LSS/LSI Under Training syllabus and designation requirements. A pilot should be a designated section lead, but this may be waived by the commanding officer.

Currency will be retained for 12 months following the last day of an LSO/LSI/LSS control for each specific designation. If currency is lost, the LSO/LSI/LSS shall attend academic ground school and regain currency as outlined in the above documents. No minimum number of controls is required as long as proficiency is exhibited to the Training LSO/LSS. VMAT-203 LSSs are not required to be road qualified to function as an LSS in the 1000 level syllabus.

Successful completion of all appropriate work-up events and designation by the squadron commander are required prior to exercising any designation.

2.14.10.3 Ground/Academic Training. Per LSO NATOPS or MAG LSI/LSS Order.

LSO-6750 0.0 * B E Designation

Goal. Day Basic Field LSO.

Requirement. Per LSO NATOPS.

Performance Standard. Per LSO NATOPS.

Prerequisite. Per LSO NATOPS.

External Syllabus Support. FCLP Facility.

LSO-6751 0.0 * B E Designation

Goal. Night Basic Field LSO.

Requirement. Per LSO NATOPS.

Performance Standard. Per LSO NATOPS.

Prerequisite. Per LSO NATOPS.

External Syllabus Support. FCLP Facility.

LSO-6752 0.0 * B E Designation

Goal. Day Basic Ship.

Requirement. Per LSO NATOPS.

Performance Standard. Per LSO NATOPS.

Prerequisite. Per LSO NATOPS.

External Syllabus Support. L-Class Ship.

LSO-6753 0.0 * B E Designation

Goal. Night Basic Ship.

Requirement. Per LSO NATOPS.

Performance Standard. Per LSO NATOPS.

Prerequisite. Per LSO NATOPS.

External Syllabus Support. L-Class Ship.

LSO-6754 0.0 * B E Designation

Goal. Advanced Day LSO.

Requirement. Per LSO NATOPS.

Performance Standard. Per LSO NATOPS.

Prerequisite. Per LSO NATOPS.

External Syllabus Support. FCLP Facility and L-Class Ship.

LSO-6755 0.0 * B E Designation

Goal. Advanced Night LSO.

Requirement. Per LSO NATOPS.

Performance Standard. Per LSO NATOPS.

Prerequisite. Per LSO NATOPS.

External Syllabus Support. FCLP Facility and L-Class Ship.

LSO-6756 0.0 * B E Designation

Goal. Training Day LSO.

Requirement. Per LSO NATOPS.

Performance Standard. Per LSO NATOPS.

Prerequisite. Per LSO NATOPS.

External Syllabus Support. FCLP Facility and L-Class Ship.

LSO-6757 0.0 * B E Designation

Goal. Training Night LSO.

Requirement. Per LSO NATOPS.

Performance Standard. Per LSO NATOPS.

Prerequisite. Per LSO NATOPS.

External Syllabus Support. FCLP Facility and L-Class Ship.

LSI-6770 0.0 * B E Designation

Goal. Day Facility LSI.

Requirement. As outlined in directives.

Performance Standard. As outlined in directives.

Prerequisite. As outlined in directives.

External Syllabus Support. Main Facility.

LSI-6771 0.0 * B E Designation

Goal. Night Facility LSI.

Requirement. As outlined in directives.

Performance Standard. As outlined in directives.

Prerequisite. As outlined in directives.

External Syllabus Support. Main Facility.

LSS-6772 0.0 * B E Designation

Goal. Day Road LSS.

Requirement. As outlined in directives.

Performance Standard. As outlined in directives.

Prerequisite. As outlined in directives.

External Syllabus Support. Road Training Facility or Road Base.

LSS-6773 0.0 * B E Designation

Goal. Night Road LSS.

Requirement. As outlined in directives.

Performance Standard. As outlined in directives.

Prerequisite. As outlined in directives.

External Syllabus Support. Road Training Facility or Road Base.

LSS-6774 0.0 * B E Designation

Goal. Day CAL Site LSS.

Requirement. As outlined in directives.

Performance Standard. As outlined in directives.

Prerequisite. As outlined in directives.

External Syllabus Support. CAL Site.

LSS-6775 0.0 * B E Designation

Goal. Night CAL Site LSS.

Requirement. As outlined in directives.

Performance Standard. As outlined in directives.

Prerequisite. As outlined in directives.

External Syllabus Support. CAL Site.

2.14.11 LSO, LSI, and LSS Tracking

2.14.11.1 Purpose. To enable squadrons to track LSO, LSI, and LSS.

TRK-6904 0.0 Tracking

Goal. Control Day FCLP LSO.

Prerequisite. IAW V/STOL / LSO NATOPS.

External Syllabus Support. FCLP Facility.

TRK-6905 0.0 Tracking

Goal. Control Night FCLP LSO.

Prerequisite. IAW V/STOL / LSO NATOPS.

External Syllabus Support. FCLP Facility.

TRK-6906 0.0 Tracking

Goal. Control Aided Night FCLP LSO.

Prerequisite. IAW V/STOL / LSO NATOPS.

External Syllabus Support. FCLP Facility.

TRK-6907 0.0 Tracking

Goal. Control Day Ship LSO.

Prerequisite. IAW V/STOL / LSO NATOPS.

External Syllabus Support. L-Class Ship.

TRK-6908 0.0 Tracking

Goal. Control Night Ship LSO.

Prerequisite. IAW V/STOL / LSO NATOPS.

External Syllabus Support. L-Class Ship.

TRK-6909 0.0 Tracking

Goal. Control Night Aided Ship LSO.

Prerequisite. IAW V/STOL / LSO NATOPS.

External Syllabus Support. L-Class Ship.

TRK-6910 0.0 Tracking

Goal. Control Day Training LSO.

External Syllabus Support. FCLP Facility or L-Class Ship.

TRK-6911 0.0 Tracking

Goal. Control Night Training LSO.

External Syllabus Support. FCLP Facility or L-Class Ship.

TRK-6912 0.0 Tracking

Goal. Control Day LSI Facility.

Prerequisite. IAW V/STOL / LSI NATOPS.

External Syllabus Support. Main Operating Facility.

TRK-6913 0.0 Tracking

Goal. Control Night LSI Facility.

Prerequisite. IAW V/STOL / LSI NATOPS

External Syllabus Support. Main Operating Facility.

TRK-6914 0.0 Tracking

Goal. Control Day LSS Road.

Prerequisite. IAW V/STOL / LSI NATOPS.

External Syllabus Support. Road Training Site or Road Site.

TRK-6915 0.0 Tracking

Goal. Control Night LSS Road.

Prerequisite. IAW V/STOL / LSI NATOPS.

External Syllabus Support. Road Training Site or Road Site.

TRK-6916 0.0 Tracking

Goal. Control Day LSS CAL Site.

Prerequisite. IAW V/STOL / LSI NATOPS.

External Syllabus Support. CAL site.

TRK-6917 0.0 Tracking

Goal. Control Night LSS CAL Site.

Prerequisite. IAW V/STOL / LSI NATOPS.

External Syllabus Support. CAL Site.

TRK-6918 0.0 Tracking

Goal. Control Day EP and approaches as LSO.

Prerequisite. IAW V/STOL / LSI NATOPS and MAG SOP.

External Syllabus Support. CAL Site.

TRK-6919 0.0 Tracking

Goal. Control Night EP and approaches as LSO.

Prerequisite. IAW V/STOL / LSI NATOPS and MAG SOP.

External Syllabus Support. CAL Site.

2.15 T&R SYLLABUS MATRIX

SKILL	STAGE	T&R DESCRIPTION	EVENT NUMBER	ATTAIN		MAINTAIN	FRS ONLY			ACAD/GRND		SIM		FLIGHT		COND	TYPE	# A/C or Sim	NETWORK	REFLY	PREREQUISITE	CHAINING
				B	R		MR	SS	CV	#	TIME	#	TIME	#	TIME							
0000 ACAD	ACAD	FAM Stage Brief	0001	X							1.0					(N)	G			*		
	ACAD	AV-8B Eng, pt 1 & 2	0002	X							1.0					(N)	G			*		
	ACAD	Elec/Lighting Sys	0003	X							1.0					(N)	G			*		
	ACAD	Fuel Sys	0004	X							1.0					(N)	G			*		
	ACAD	Hyd Pwr/Ldg Sys	0005	X							1.0					(N)	G			*		
	ACAD	Flt Cont Sys	0006	X							1.0					(N)	G			*		
	ACAD	Life Support Sys	0007	X							1.0					(N)	G			*		
	ACAD	Hazard Indic Sys	0008	X							1.0					(N)	G			*		
	ACAD	AMPCD	0009	X							1.0					(N)	G			*		
	ACAD	Standby Flt INST	0010	X							1.0					(N)	G			*		
	ACAD	Mission Sys Comp	0011	X							1.0					(N)	G			*		
	ACAD	Up Front Cont Set	0012	X							1.0					(N)	G			*		
	ACAD	Comm/Ident Equip	0013	X							1.0					(N)	G			*		
	ACAD	Heads Up Display	0014	X							1.0					(N)	G			*		
	ACAD	INS Theory	0015	X							1.0					(N)	G			*		
	ACAD	GPS Theory	0016	X							1.0					(N)	G			*		
	ACAD	NAV Sys Pt 1	0017	X							1.0					(N)	G			*		
	ACAD	NAV Sys Pt 2	0018	X							1.0					(N)	G			*		
	ACAD	NAV Sys Pt 3	0019	X							1.0					(N)	G			*		
	ACAD	NAV Sys Pt 4	0020	X							1.0					(N)	G			*		
	ACAD	Ejection Seat	0021	X							1.0					(N)	G			*		
	ACAD	Survival Equip	0022	X							1.0					(N)	G			*		
	ACAD	Operating Limits	0023	X							1.0					(N)	G			*		
	ACAD	Video Recording Sys	0024	X							1.0					(N)	G			*		
	ACAD	Aerodynamics	0025	X							1.0					(N)	G			*		
	ACAD	AV-8B/TAV-8B Diffs	0026	X							1.0					(N)	G			*		
	ACAD	AV-8B Eng Handling	0027	X							1.0					(N)	G			*		
	ACAD	AV-8B Preflight	0028	X							1.0					(N)	G			*		
	ACAD	Normal Proc Pt 1	0029	X							1.0					(N)	G			*		
	ACAD	Normal Proc Pt 2	0030	X							1.0					(N)	G			*		
	ACAD	Normal Proc Pt 3	0031	X							1.0					(N)	G			*		

SKILL	STAGE	T&R DESCRIPTION	EVENT NUMBER	ATTAIN		MAINTAIN	FRS ONLY			ACAD/GRND		SIM		FLIGHT		COND	TYPE	# A/C or Sim	NETWORK	REFLY	PREREQUISITE	CHAINING
				B	R		MR	SS	CV	#	TIME	#	TIME	#	TIME							
	ACAD	Normal Proc Pt 4	0032	X							1.0					(N)	G			*		
	ACAD	Normal Proc Pt 5	0033	X							1.0					(N)	G			*		
	ACAD	Normal Proc Pt 6	0034	X							1.0					(N)	G			*		
	ACAD	Normal Proc Pt 7	0035	X							1.0					(N)	G			*		
	ACAD	Grd Emergencies	0036	X							1.0					(N)	G			*		
	ACAD	Takeoff Emergencies	0037	X							1.0					(N)	G			*		
	ACAD	In-Flt Emerg, Pt 1	0038	X							1.0					(N)	G			*		
	ACAD	In-Flt Emerg, Pt 2	0039	X							1.0					(N)	G			*		
	ACAD	In-Flt Emerg, Pt 3	0040	X							1.0					(N)	G			*		
	ACAD	Landing Emerg	0041	X							1.0					(N)	G			*		
	ACAD	Brief/Debrief	0042	X							1.0					(N)	G			*		
	ACAD	INST Procedures	0043	X							1.0					(N)	G			*		
	ACAD	A/C Service & Handli	0044	X							1.0					(N)	G			*		
	ACAD	AV-8B Flt Prep	0045	X							1.0					(N)	G			*		
	ACAD	Eng/Fuel Sys Trainer	0046	X							1.0					(N)	G			*		
	ACAD	Airframe Sys Trainer	0047	X							1.0					(N)	G			*		
	ACAD	Seat Brief, Survival	0048	X							1.0					(N)	G			*		
	ACAD	JMPS Intro AV-8B	0049	X							1.0					(N)	G			*		
	ACAD	VMAT-203 Flight SOP	0050	X							1.0					(N)	G			*		
	ACAD	Course Rules	0051	X							1.0					(N)	G			*		
	ACAD	NATOPS exams	0052	X							1.0					(N)	G			*		
	ACAD	FOB Stage Brief	0058	X							1.0					(N)	G			*		
	ACAD	V/STOL Concept of Op	0059	X							1.0					(N)	G			*		
	ACAD	FOB Ops	0060	X							1.0					(N)	G			*		
	ACAD	FCLP Stage Brief	0061	X							1.0					(N)	G			*		
	ACAD	FCLP	0062	X							1.0					(N)	G			*		
	ACAD	MCALF Bogue Proced	0063	X							1.0					(N)	G			*		
	ACAD	FCLP Grd Sch Exam	0064	X							1.0					(N)	G			*		
	ACAD	FORM/TACFORM Brief	0066	X							1.0					(N)	G			*		
	ACAD	Admin Form	0067	X							1.0					(N)	G			*		
	ACAD	Section TACFORM	0068	X							1.0					(N)	G			*		
	ACAD	Div TACFORM	0069	X							1.0					(N)	G			*		
	ACAD	FORM Grd Sch Exam	0070	X							1.0					(N)	G			*		
	ACAD	AAH Stage Brief	0072	X							1.0					(N)	G			*		

SKILL	STAGE	T&R DESCRIPTION	EVENT NUMBER	ATTAIN		MAINTAIN	FRS ONLY			ACAD/GRND		SIM		FLIGHT		COND	TYPE	# A/C or Sim	NETWORK	REFLY	PREREQUISITE	CHAINING
				B	R		MR	SS	CV	#	TIME	#	TIME	#	TIME							
	ACAD	A/C Performance	0073	X							1.0					(N)	G			*		
	ACAD	AV-8B Depart Avoidan	0074	X							1.0					(N)	G			*		
	ACAD	A/C Handling Exam	0075	X							1.0					(N)	G			*		
	ACAD	NAV Stage Brief	0082	X							1.0					(N)	G			*		
	ACAD	Low Level NAV	0083	X							1.0					(N)	G			*		
	ACAD	JMPS Low Level Plan	0084	X							1.0					(N)	G			*		
	ACAD	NAv Grd Sch exam	0085	X							1.0					(N)	G			*		
	ACAD	AAR Stage Brief	0087	X							1.0					(N)	G			*		
	ACAD	Aerial Refueling	0088	X							1.0					(N)	G			*		
	ACAD	AR Grd Sch Exam	0089	X							1.0					(N)	G			*		
	ACAD	TCT Stage Brief	0090	X							1.0					(N)	G			*		
	ACAD	Intro to ALE-47	0091	X							1.0					(N)	G			*		
	ACAD	AV-8B ASE (MAWTS)	0092	X							1.0					(N)	G			*		
	ACAD	Threat Analysis Lab	0093	X							1.0					(N)	G			*		
	ACAD	Non-RF S-A Missles	0094	X							1.0					(N)	G			*		
	ACAD	RF S-A Missiles	0095	X							1.0					(N)	G			*		
	ACAD	TCT (MAWTS)	0096	X							1.0					(N)	G			*		
	ACAD	TCT exam	0097	X							1.0					(N)	G			*		
	ACAD	AS Stage Brief	0102	X							1.0					(N)	G			*		
	ACAD	Intro Msn Pubs	0103	X							1.0					(N)	G			*		
	ACAD	A/G WPNS Delivery	0104	X							1.0					(N)	G			*		
	ACAD	Computed Del Theory	0105	X							1.0					(N)	G			*		
	ACAD	Suspension Equip	0106	X							1.0					(N)	G			*		
	ACAD	GP Bombs	0107	X							1.0					(N)	G			*		
	ACAD	GP Fuzing	0108	X							1.0					(N)	G			*		
	ACAD	25mm Gun	0109	X							1.0					(N)	G			*		
	ACAD	Rockets	0110	X							1.0					(N)	G			*		
	ACAD	WNP Limits & Restric	0111	X							1.0					(N)	G			*		
	ACAD	WEAPONEERING	0112	X							1.0					(N)	G			*		
	ACAD	Multi-WPNS Release	0113	X							1.0					(N)	G			*		
	ACAD	Fwd-Firing Ord	0114	X							1.0					(N)	G			*		
	ACAD	WARP	0115	X							1.0					(N)	G			*		
	ACAD	Laser Theory	0116	X							1.0					(N)	G			*		
	ACAD	ARBS	0117	X							1.0					(N)	G			*		

SKILL	STAGE	T&R DESCRIPTION	EVENT NUMBER	ATTAIN		MAINTAIN	FRS ONLY			ACAD/GRND		SIM		FLIGHT		COND	TYPE	# A/C or Sim	NETWORK	REFLY	PREREQUISITE	CHAINING
				B	R		MR	SS	CV	#	TIME	#	TIME	#	TIME							
	ACAD	Height Above Tgt	0118	X							1.0					(N)	G			*		
	ACAD	Tgt Desig Method	0119	X							1.0					(N)	G			*		
	ACAD	SMS & WPN Sys Prog	0120	X							1.0					(N)	G			*		
	ACAD	Computed WPN Del Mod	0121	X							1.0					(N)	G			*		
	ACAD	Degraded WPN Del Mod	0122	X							1.0					(N)	G			*		
	ACAD	WPN Del Proc Pt 1	0123	X							1.0					(N)	G			*		
	ACAD	WPN Del Proc Pt 2	0124	X							1.0					(N)	G			*		
	ACAD	JMPS Lab, Adv Msn Pl	0125	X							1.0					(N)	G			*		
	ACAD	A-S Grd Sch Exam	0126	X							1.0					(N)	G			*		
	ACAD	LAT Stage Brief	0127	X							1.0					(N)	G			*		
	ACAD	MAWTS-1 LAT ASP 1-IV	0128	X							1.0					(N)	G			*		
	ACAD	3D Maneuvering	0129	X							1.0					(N)	G			*		
	ACAD	Mission X-check Time	0130	X							1.0					(N)	G			*		
	ACAD	LAT Stage Exam	0131	X							1.0					(N)	G			*		
	ACAD	MECH Stage Brief	0132	X							1.0					(N)	G			*		
	ACAD	LGW (MAWTS-1)	0133	X							1.0					(N)	G			*		
	ACAD	Tgt Acquisition/Det	0134	X							1.0					(N)	G			*		
	ACAD	Attack Profiles	0135	X							1.0					(N)	G			*		
	ACAD	LGTR	0136	X							1.0					(N)	G			*		
	ACAD	JDAM	0137	X							1.0					(N)	G			*		
	ACAD	Std Tgt Area TAC	0138	X							1.0					(N)	G			*		
	ACAD	A/S Planning & Time	0139	X							1.0					(N)	G			*		
	ACAD	Reactive Weaponeering	0140	X							1.0					(N)	G			*		
	ACAD	JMEN/JAWS	0141	X							1.0					(N)	G			*		
	ACAD	AGM-65E	0142	X							1.0					(N)	G			*		
	ACAD	Cluster Wep & Fuzing	0143	X							1.0					(N)	G			*		
	ACAD	Trans Profiles Plan	0144	X							1.0					(N)	G			*		
	ACAD	PGM Planning Lab	0145	X							1.0					(N)	G			*		
	ACAD	Mech Stage Exam	0146	X							1.0					(N)	G			*		
	ACAD	CAS Stage Brief	0147	X							1.0					(N)	G			*		
	ACAD	OAS Overview	0148	X							1.0					(N)	G			*		
	ACAD	CAS	0149	X							1.0					(N)	G			*		
	ACAD	CAS Execution	0150	X							1.0					(N)	G			*		
	ACAD	CAS Planning Lab	0151	X							1.0					(N)	G			*		

SKILL	STAGE	T&R DESCRIPTION	EVENT NUMBER	ATTAIN		MAINTAIN	FRS ONLY			ACAD/GRND		SIM		FLIGHT		COND	TYPE	# A/C or Sim	NETWORK	REFLY	PREREQUISITE	CHAINING
				B	R		MR	SS	CV	#	TIME	#	TIME	#	TIME							
	ACAD	CAS Grd Sch Exam	0152	X							1.0					(N)	G			*		
	ACAD	AI Stage Brief	0153	X							1.0					(N)	G			*		
	ACAD	AI Planning	0154	X							1.0					(N)	G			*		
	ACAD	AI Planning Lab	0155	X							1.0					(N)	G			*		
	ACAD	A/A Stage Brief	0160	X							1.0					(N)	G			*		
	ACAD	Depart Avoid Review	0161	X							1.0					(N)	G			*		
	ACAD	ACM Safety	0162	X							1.0					(N)	G			*		
	ACAD	A/A Drills and Proc	0163	X							1.0					(N)	G			*		
	ACAD	AIM-9 Sidewinder	0164	X							1.0					(N)	G			*		
	ACAD	Combat Gunnery	0165	X							1.0					(N)	G			*		
	ACAD	Shot Validation	0166	X							1.0					(N)	G			*		
	ACAD	CMBT Thrust Vector	0167	X							1.0					(N)	G			*		
	ACAD	Threat A/C	0168	X							1.0					(N)	G			*		
	ACAD	1v1 Basic Maneuvers	0169	X							1.0					(N)	G			*		
	ACAD	SEM	0170	X							1.0					(N)	G			*		
	ACAD	2V1 SEM	0171	X							1.0					(N)	G			*		
	ACAD	A/A Stage Exam	0172	X							1.0					(N)	G			*		
	ACAD	NS Stage Brief	0180	X							1.0					(N)	G			*		
	ACAD	Night Fly Enviro	0181	X							1.0					(N)	G			*		
	ACAD	IR Theory	0182	X							1.0					(N)	G			*		
	ACAD	NAVFLIR	0183	X							1.0					(N)	G			*		
	ACAD	Night Flt Procedures	0184	X							1.0					(N)	G			*		
	ACAD	Aided Night Flt Proc	0185	X							1.0					(N)	G			*		
	ACAD	Nite Lab	0186	X							1.0					(N)	G			*		
	ACAD	NS Grd Sch Exam	0187	X							1.0					(N)	G			*		
	ACAD	Radar Fund Stage Brf	0200	X							1.0					(N)	G			*		
	ACAD	Intro to Radar	0201	X							1.0					(N)	G			*		
	ACAD	Radar Theory	0202	X							1.0					(N)	G			*		
	ACAD	Radar Display Interp	0203	X							1.0					(N)	G			*		
	ACAD	A/S Radar Cont & Disp	0204	X							1.0					(N)	G			*		
	ACAD	A/S Radar Procedures	0205	X							1.0					(N)	G			*		
	ACAD	A/A Radar Cont & Disp	0206	X							1.0					(N)	G			*		
	ACAD	Basic Intercept Pt 1	0207	X							1.0					(N)	G			*		

SKILL	STAGE	T&R DESCRIPTION	EVENT NUMBER	ATTAIN		MAINTAIN	FRS ONLY			ACAD/GRND		SIM		FLIGHT		COND	TYPE	# A/C or Sim	NETWORK	REFLY	PREREQUISITE	CHAINING
				B	R		MR	SS	CV	#	TIME	#	TIME	#	TIME							
	ACAD	Basic Intercept Pt 2	0208	X							1.0					(N)	G			*		
	ACAD	A/A Search Techniques	0209	X							1.0					(N)	G			*		
	ACAD	Intro to AIC	0210	X							1.0					(N)	G			*		
	ACAD	Radar Chalk Talk	0211	X							1.0					(N)	G			*		
	ACAD	Basic Int Chalk Talk	0212	X							1.0					(N)	G			*		
	ACAD	Radar Stage Exam	0213	X							1.0					(N)	G			*		
	ACAD	A/S Sensor Stage Brf	0220	X							1.0					(N)	G			*		
	ACAD	Intro to LITENEING	0221	X							1.0					(N)	G			*		
	ACAD	TPOD Opt (MAWTS-1)	0222	X							1.0					(N)	G			*		
	ACAD	JDAM Empl (MAWTS-1)	0223	X							1.0					(N)	G			*		
	ACAD	DMW (MAWTS-1)	0224	X							1.0					(N)	G			*		
	ACAD	TPOD Chalk Talk	0225	X							1.0					(N)	G			*		
	ACAD	A/S Sensor Stage Exam	0226	X							1.0					(N)	G			*		
	ACAD	ALE-39 CMDS	0227	X							1.0					(N)	G			*		
	ACAD	ALR-67 RWR	0228	X							1.0					(N)	G			*		
	ACAD	ALQ-164 DECM Pod	0229	X							1.0					(N)	G			*		
	ACAD	Expendable Decoys	0230	X							1.0					(N)	G			*		
0000 ACAD SKILL TOTAL										183	183.0	0	0.0	0	0.0							
	SFAM	(S) COCKPIT PRE-STAR	S1100	X	X		X	X					2.0			D	S	1		*		
	SFAM	COCKPIT PRE-START	S1101	X									2.0			D	S	1		*	1100	
	SFAM	TAKEOFF INTRO	S1102	X									2.0			D	S	1		*	1101	
	SFAM	TAKEOFF CHECKS	S1103	X	X		X	X					2.0			D	S	1		*	1102	
	SFAM	INTRO LANDINGS	S1104	X	X		X	X					2.0			D	S	1		*	1103	
	SFAM	VFR INTRO	S1105	X									2.0			D	S	1		*	1104	
	SFAM	RVTO INTRO	S1106	X									2.0			D	S	1		*	1105	
	SFAM	VTO INTRO	S1107	X									2.0			D	S	1		*	1106	
1000 FAM	SFAM	EP INTRO	S1108	X									2.0			D	S	1		*	1107	
	SFAM	FCS EP INTRO	S1109	X									2.0			D	S	1		*	1108	
	SFAM	DECS EP INTRO	S1110	X									2.0			D	S	1		*	1109	
	SFAM	ENG EP INTRO	S1111	X	X		X	X					2.0			D	S	1		*	1110	
	SFAM	EP PROGRES CHECK	S1112	X	X		X	X					2.0			D	S	1		*	1111	
	FAM	CTO INTRO	1113	X	X		X	X							1.3	D	A	1		*	1112	
	FAM	TACAN INTRO	1114	X	X		X	X							1.3	D	A	1		*	1113	
	FAM	PAR INTRO	1115	X	X		X	X							1.3	D	A	1		*	1114	
	FAM	RVL INTRO	1116	X											1.3	D	A	1		*	1115	

SKILL	STAGE	T&R DESCRIPTION	EVENT NUMBER	ATTAIN		MAINTAIN	FRS ONLY			ACAD/GRND		SIM		FLIGHT		COND	TYPE	# A/C or Sim	NETWORK	REFLY	PREREQUISITE	CHAINING
				B	R		MR	SS	CV	#	TIME	#	TIME	#	TIME							
	FAM	RVTO INTRO	1117	X											1.3	D	A	1		*	1116	
	FAM	PEDAL TURN INTRO	1118	X											1.3	D	A	1		*	1117	
	FAM	SAAHS-OFF RVL INTRO	1119	X	X	X									1.3	D	A	1		*	1118	
1000 FAM SKILL TOTAL										0	0.0	13	26.0	7	9.1							
1000 INST	SINST	INST PROCEDURE INTRO	S1120	X									2.0			D	S	1		*	1119	
	SINST	AIRWAYS NAV INTRO	S1121	X	X		X						2.0			D	S	1		*	1120	
	SINST	MIN FUEL PAR INTRO	S1122	X									2.0			D	S	1		*	1121	
	INST	INST FLIGHT INTRO	1123	X											1.5	D	A	1		*	1122	
	INST	AIRWAYS INTRO	1124	X	X										1.5	D	A	1		*	1123	
	SINST	INSTRUMENT CHECK	S1125	X	X		X						1.5			D	S	1		*	1124	
	FAM	INTRO VFR STRAIGHT-I	1126	X											1.3	D	A	1		*	1125	
	SFAM	COMPOUND EMERGENCIES	S1127	X	X		X						2.0			D	S	1		*	1126	
	INST	SAFE FOR SOLO CHECK	1128	X	X		X	X							1.3	D	A	1		*	1127	
	INST	SOLO FLIGHT	1129	X	X		X	X							1.3	D	A	1		*	1128	
1000 INST SKILL TOTAL										0	0.0	5	9.5	5	6.9							
1000 FOB	SFOB	INTRO FBO AND EP	S1200	X									1.0			D	S			*	1129	
	FOB	PRACTICE FBO	1201	X											1.2	D	A	1		*	1200	
	FOB	REVIEW FBO	1202	X											0.8	D	A	1		*	1201	
1000 FOB SKILL TOTAL										0	0.0	1	1.0	2	2.0							
1000 FCLP	SFCLP	FCLP INTRO SIM	S1210	X									1.0			D	S	1		*	1129	
	FCLP	PRACTICE FCLP	1211	X											1.0	D	A	1		*	1210	
	FCLP	REVIEW FCLP	1212	X											1.0	D	A	1		*	1211	
	FCLP	REVIEW FCLP	1213	X											1.0	D	A	1		*	1212	
	FCLP	REVIEW FCLP	1214	X											1.0	D	A	1		*	1213	
	FCLP	REVIEW FCLP	1215	X											1.0	D	A	1		*	1214	
	FCLP	FCLP (D) QUAL	1216	X											1.0	D	A	1		*	1215	
1000 FCLP SKILL TOTAL										0	0.0	1	1.0	6	6.0							
1000 VCON	VCON	V/STOL CONSOLIDATION	1220	X											1.3	D	A	1		*	1129	
	SVCON	EMERGENCY PROCEDURES	S1221	X									1.0			D	S	1		*	1129	
	VCON	V/STOL CONSOLIDATION	1222	X											1.3	D	A	1		*	1129,1220	
	VCON	V/STOL CONSOLIDATION	1223	X											1.3	(N)	A	1		*	1129,1222,1606~N	

SKILL	STAGE	T&R DESCRIPTION	EVENT NUMBER	ATTAIN		MAINTAIN	FRS ONLY			ACAD/GRND		SIM		FLIGHT		COND	TYPE	# A/C or Sim	NETWORK	REFLY	PREREQUISITE	CHAINING
				B	R		MR	SS	CV	#	TIME	#	TIME	#	TIME							
1000 VCON SKILL TOTAL										0	0.0	1	1.0	3	3.9							
1000 FORM	FORM	ADMIN FORM INTRO	1300	X											1.3	D	A	2		*	1129	
	FORM	PRACTICE ADMINISTRAT	1301	X											1.3	D	A	2		*	1300	
1000 FORM SKILL TOTAL										0	0.0	0	0.0	2	2.6							
1000 AAH	SAAH	AEROBATICS INTRO	S1310	X									1.0			D	S	1		*	1129	
	AAH	PRACTICE AAH	1311	X											1.0	D	A	1		*	1310	
	AAH	PRACTICE AAH LAT	1312	X											1.0	D	A	2		*	1311, 1301	
1000 AAH SKILL TOTAL										0	0.0	1	1.0	2	2.0							
1000 TACFORM	TACFORM	INTRO FORM MED ALT	1320	X	X		X								1.1	D	A	2		*	1301	
	TACFORM	INTRO COMM-OUT TURNS	1321	X											1.1	D	A	2		*	1320	
	TACFORM	LL SEC TACFORM	1322	X											1.1	D	A	2		*	1321	
	TACFORM	HIGH SEC TACFORM	1323	X											1.1	D	A	2		*	1321	
	TACFORM	MED DIV TACFORM	1324	X											1.1	D	A	4		*	1323	
1000 TACFORM SKILL TOTAL										0	0.0	0	0.0	5	5.5							
1000 NAV	SNAV	INTRO LOW ALT NAV	S1330	X									0.5			D	S	1		*	1129	
	SNAV	INTRODUCE LOW LEVEL	S1331R	X									1.5			D	S			*	1330	
	NAV	INTR LOW LEVEL NAV	1332	X											1.3	D	A	1		*	1331	
1000 NAV SKILL TOTAL										0	0.0	2	2.0	1	1.3							
1000 AAR	AAR	DAY AAR QUAL	1340	X											1.5	D	A	2		*	1321, 1324 if div	
1000 AAR SKILL TOTAL										0	0.0	0	0.0	1	1.5							
1000 TCT	STCT	INTRO EW/SA	S1350	X	X		X						1.5			D	S	1		*	1312, 1361	
	TCT	INTRO MED ALT TCT	1351	X											1.0	D	A	2		*	1350	
	TCT	MEDIUM ALTITUDE AND	1352	X											1.0	D	A	2		*	1351, 1324	
1000 TCT SKILL TOTAL										0	0.0	1	1.5	2	2.0							
1000 RAD	SRAD	INTRO RADAR	S1360	X									1.5			D	S	1		*	1301	
	SRAD	INTRO AWI	S1361	X									1.5			D	S	1		*	1360	
1000 RAD SKILL TOTAL										0	0.0	2	3.0	0	0.0							
1000 AS	SAS	INTRODUCE COMPUTED W	S1400	X									1.5			D	S	1		*	1324	
	SAS	INTRO 10 DEG COMPUTED	S1401	X									1.0			D	S	1		*	1400	
	SAS	INTRODUCE ARBS/TV	S1402	X									1.0			D	S	1		*	1400	

SKILL	STAGE	T&R DESCRIPTION	EVENT NUMBER	ATTAIN		MAINTAIN	FRS ONLY			ACAD/GRND		SIM		FLIGHT		COND	TYPE	# A/C or Sim	NETWORK	REFLY	PREREQUISITE	CHAINING
				B	R		MR	SS	CV	#	TIME	#	TIME	#	TIME							
	SAS	INTRODUCE ARBS/LST D	S1403	X									1.0			D	S	1		*	1402	
	SAS	INTRO GAU-12 & RKT	S1404	X									1.0			D	S	1		*	1401	
	AS	INTRODUCE COMPUTED W	1405	X											1.0	D	A	1		*	1403	
	AS	PRACTICE MED ANGLE	1406	X											1.0	D	A	2		*	1405	
	AS	INTRODUCE ARBS/TV DE	1407	X											1.0	D	A	2		*	1406	
	AS	PRACTICE ARBS	1408	X											1.0	D	A	2		*	1407	
	AS	INTRODUCE 10 DEG	1409	X											1.0	D	A	1		*	1401	
	AS	INTRO GAU-12 & HD	1410	X											1.0	D	A	2		*	1404,1409	
1000 AS SKILL TOTAL										0	0.0	5	5.5	6	6.0							
1000 LAT	SLAT	BASIC LAT INTRO	S1420	X									1.0			D	S	1		*	1324	
	SLAT	INTRODUCE ADVANCED A	S1421	X									1.0			D	S	1		*	1420	
	SLAT	INTRO TXRX	S1422	X									1.0			D	S	1		*	1420,1351	
	LAT	INTRO BASIC	1423	X											1.0	D	A	1		*	1421	
	LAT	PRACTICE AAH PROCEDU	1424	X											1.0	D	A	2		*	1423	
	LAT	INTRO TXRX	1425	X											1.0	D	A	2		*	1422,1424,1352	
1000 LAT SKILL TOTAL										0	0.0	3	3.0	3	3.0							
1000 MECH	SMECH	INTRO CC RD & LOFT	S1430	X									1.0			D	S	1		*	1409,0141	
	SMECH	INTRO LGB AND LMAV	S1431	X	X								1.0			D	S	1		*	1430	
	SMECH	INTRO ABSOLUTE JDAM	S1432	X									1.0			D	S	1		*	1431	
	MECH	INTRO CC RD & LOFT	1433	X											1.0	D	A	1		*	1430,1425	
	MECH	INTRO MED ALT MECH	1434	X	X										1.0	D	A	2		*	1433	
	MECH	REVIEW MED ALT MECH	1435	X											1.0	D	A	2		*	1434	
	SMECH	INTRO LOW ALT POPS	S1436	X	X								1.0			D	S	1		*	1434,1425	
	MECH	INTRO LOW ALT POPS	1437	X											1.0	D	A	1		*	1436,1425	
	MECH	INTRO SXN LOW MECH	1438	X											1.0	D	A	2		*	1436,1425	
	MECH	INTRO LGW & JDAM	1439	X											1.0	D	A	2		*	1432	
1000 MECH SKILL TOTAL										0	0.0	4	4.0	6	6.0							
1000 CAS	SCAS	INTRO CAS PAGE PROG	S1440	X									0.5			D	S	1		*	1438,0147	
	SCAS	INTRODUCE MEDIUM ALT	S1441	X	X								1.0			D	S	1		*	1440	
	SCAS	INTRO MAD ALT CAS	S1442	X									1.0			D	S	1		*	1441	

SKILL	STAGE	T&R DESCRIPTION	EVENT NUMBER	ATTAIN		MAINTAIN	FRS ONLY			ACAD/GRND		SIM		FLIGHT		COND	TYPE	# A/C or Sim	NETWORK	REFLY	PREREQUISITE	CHAINING
				B	R		MR	SS	CV	#	TIME	#	TIME	#	TIME							
	SCAS	INTRODUCE LOW LEVEL	S1443	X									1.0			D	S	1		*	1442	
	CAS	INTRODUCE MEDIUM ALT	1444	X											1.0	D	A	1		*	1441	
	CAS	INTRO TRPE 2 CNTRL	1445	X											1.0	D	A	1		*	1442	
	CAS	REVIEW MEDIUM ALTITU	1446	X											1.0	D	A	2		*	1444	
	CAS	INTRODUCE LOW CAS	1447	X											1.0	D	A	2		*	1443,1446	
1000 CAS SKILL TOTAL										0	0.0	4	3.5	4	4.0							
1000 AI	SAI	INTRO LOW ALT AI	S1450	X									1.5			D	S	1		*	1447,1475,1510,1606,0148	
	AI	REV AERIAL INTERDICT	1451	X											1.0	D	A	2		*	1450	
1000 AI SKILL TOTAL										0	0.0	1	1.5	1	1.0							
1000 SEN	SSEN	INTRO TPOD CONT/DISP	S1460	X									0.5			D	S	1		*	1439	
	SSEN	INTRO SELF_LASE LGW	S1461	X	X								1.5			D	S	1		*	1460	
	SSEN	INTRO RELATIVE JDAM	S1462	X									1.5			D	S	1		*	1461	
	SSEN	INTRO GP LAUT/LCIP	S1463	X									1.0			D	S	1		*	1462	
	SSEN	INTRO LOW LAUT/LCIP	S1464	X	X		X						1.0			D	S	1		*	1463	
	SSEN	INTRO GAU-12 & RKT	S1465	X	X		X						1.0			D	S	1		*	1464	
	SEN	INTRO TPOD EMPLOYMENT	1466	X											1.3	D	A	2		*	1463	
	SEN	INTRO SELF-LASE LGW	1467	X											1.3	D	A/S	2		*	1461,1466	
	SEN	INTRO REL JDAM/LJDAM	1468	X											1.3	D	A/S	2		*	1462,1466	
	SEN	INTRO STANDOFF	1469	X											1.3	D	A	2		*	1467,1468	
	SEN	INTRO GP W/TPOD	1470	X											1.3	D	A	2		*	1468	
	SEN	REVIEW BCWD W/TPOD	1471	X	X		X								1.3	D	A	2		*	1470	
	SEN	INTRO GAU-12 & RKT	1472	X											1.3	D	A	2		*	1471	
	SSEN	INTRO NS ATTACK PROF	S1473	X									1.0			(NS)	S	1		*	1606,1470	
	SEN	INTRO NIGHT TPOD	1474	X											1.3	(NS)	A	2		*	1473,1470	
	SEN	INTRO NIGHT PGM	1475	X											1.3	(NS)	A	2		*	1472,1474	
1000 SEN SKILL TOTAL										0	0.0	7	7.5	9	11.7							
1000 AA	SAA	INTRO A/A WEPS PROG	S1500	X									1.5			D	S	1		*	1361,1324	
	AA	INTRODUCE TVC	1501	X											1.0	D	A	2		*	1500	
	AA	1V1 OFFENSIVE BFM	1502	X											1.0	D	A	2		*	1501	
	AA	1V1 OFFENSIVE BFM	1503	X											1.0	D	A	2		*	1502	
	AA	1V1 DEFENSIVE BFM	1504	X											1.0	D	A	2		*	1503	

SKILL	STAGE	T&R DESCRIPTION	EVENT NUMBER	ATTAIN		MAINTAIN	FRS ONLY			ACAD/GRND		SIM		FLIGHT		COND	TYPE	# A/C or Sim	NETWORK	REFLY	PREREQUISITE	CHAINING
				B	R		MR	SS	CV	#	TIME	#	TIME	#	TIME							
	AA	1V1 DEFENSIVE BFM	1505	X											1.0	D	A	2		*	1504	
	AA	INTRO 1V1 HI ASPECT	1506	X											1.0	D	A	2		*	1505	
	AA	REVIEW 1V1 HI ASPECT	1507	X											1.0	D	A	2		*	1506	
	AA	INTRO 2V1 SEM	1508	X											1.3	D	A	2+		*	1507	
	SAA	INTRO AWI	S1509	X									1.0			D	S	1		*	1500	
	SAA	REVIEW AWI	S1510	X	X								1.0			D	S	1		*	1509	
1000 AA SKILL TOTAL										0	0.0	3	3.5	8	8.3							
1000 NS	SNS	INTRO NIGHT V/STOL	S1600	X									1.0			N	S	1		*	1324	
	SNS	INTRODUCE NS V/STOL	S1601	X									1.0			NS	S	1		*	1600	
	NS	INTRO NIGHT V/STOL	1602	X											1.3	N	A	1		*	1601	
	NS	INTRO NIGHT FORM	1603	X											1.3	N	A	2		*	1602	
	NS	NIGHT SYSTEM V/STOL	1604	X											1.3	NS	A	1		*	1602	
	NS	INTRO NS FORM	1605	X											1.3	NS	A	2		*	1603,1604	
	NS	NS SOLO	1606	X											1.3	NS	A	1		*	1605	
1000 NS SKILL TOTAL										0	0.0	2	2.0	5	6.5							
2000 ACAD	ACAD	EXPENDABLE DECOYS	2000	X							1.0					(N)	G			*		
	ACAD	ALE-39 CMDS	2001	X							1.0					(N)	G			*		
	ACAD	ALR-67 RWR	2002	X							1.0					(N)	G			*		
	ACAD	ALQ-164 DEFENSIVE EC	2003	X							1.0					(N)	G			*		
	ACAD	TCT	2004	X							1.0					(N)	G			*		
	ACAD	NON-RF SAMS	2005	X							1.0					(N)	G			*		
	ACAD	RF SAMS	2006	X							1.0					(N)	G			*		
	ACAD	ADA SYSTEMS	2007	X							1.0					(N)	G			*		
	ACAD	THRT BRF SEMI-ACTIVE	2008	X							1.0					(N)	G			*		
	ACAD	AV-8B AERIAL REFUELI	2009	X							1.0					(N)	G			*		
	ACAD	ASP TACAIR LAT PT 1	2010	X							1.0					(N)	G			*		
	ACAD	ASP TACAIR LAT PT 2	2011	X							1.0					(N)	G			*		
	ACAD	ASP TACAIR LAT PT 3	2012	X							1.0					(N)	G			*		
	ACAD	TACAIR LAT PT 4	2013	X							1.0					(N)	G			*		
	ACAD	SURFACE-TO-AIR COUNT	2014	X							1.0					(N)	G			*		
	ACAD	LAT STAGE EXAM	2015	X							1.0					(N)	G			*		
	ACAD	HEIGHT ABOVE TARGET	2016	X							1.0					(N)	G			*		

SKILL	STAGE	T&R DESCRIPTION	EVENT NUMBER	ATTAIN		MAINTAIN	FRS ONLY			ACAD/GRND		SIM		FLIGHT		COND	TYPE	# A/C or Sim	NETWORK	REFLY	PREREQUISITE	CHAINING
				B	R		MR	SS	CV	#	TIME	#	TIME	#	TIME							
	ACAD	GP BOMBS	2017	X							1.0					(N)	G			*		
	ACAD	GP BOMB FUZING	2018	X							1.0					(N)	G			*		
	ACAD	25MM GUN	2019	X							1.0					(N)	G			*		
	ACAD	ROCKETS	2020	X							1.0					(N)	G			*		
	ACAD	FORWARD FIRING ORDNA	2021	X							1.0					(N)	G			*		
	ACAD	LASER-GUIDED BOMBS	2022	X							1.0					(N)	G			*		
	ACAD	ATTACK PROFILES	2023	X							1.0					(N)	G			*		
	ACAD	STANDARD TARGET AREA	2024	X							1.0					(N)	G			*		
	ACAD	AIR-TO-SURFACE PLAN	2025	X							1.0					(N)	G			*		
	ACAD	CLUSTER WEAPONS & MU	2026	X							1.0					(N)	G			*		
	ACAD	JOINT DIRECT ATTACK	2027	X							1.0					(N)	G			*		
	ACAD	LASER-GUIDED WEAPONS	2028	X							1.0					(N)	G			*		
	ACAD	DIVISION TARGET AREA	2029	X							1.0					(N)	G			*		
	ACAD	CFF (BY FAC(A)/PRIOR	2030	X							1.0					(N)	G			*		
	ACAD	WINGMAN CONTRACTS &	2031	X							1.0					(N)	G			*		
	ACAD	JMEMS A/S WEAPONEERI	2032	X							1.0					(N)	G			*		
	ACAD	SENSOR FOOTPRINT LAB	2033	X							1.0					(N)	G			*		
	ACAD	INFRARED THEORY	2034	X							1.0					(N)	G			*		
	ACAD	NAVFLIR	2035	X							1.0					(N)	G			*		
	ACAD	LUU02 PARACHUTE FLARE	2036	X							1.0					(N)	G			*		
	ACAD	NITE LAB	2037	X							1.0					(N)	G			*		
	ACAD	MAWTS-1 AV-8B NS MIS	2038	X							1.0					(N)	G			*		
	ACAD	ACM SAFETY & A/A SYS	2039	X							1.0					(N)	G			*		
	ACAD	AIRCRAFT PERFORMANCE	2040	X							1.0					(N)	G			*		
	ACAD	COMBAT GUNNERY	2041	X							1.0					(N)	G			*		
	ACAD	COMBAT THRUST VECTOR	2042	X							1.0					(N)	G			*		
	ACAD	AIM 9	2043	X							1.0					(N)	G			*		
	ACAD	GAU-12	2044	X							1.0					(N)	G			*		
	ACAD	ALR-67 RADAR WARNING	2045	X							1.0					(N)	G			*		
	ACAD	ALE-39/47 COUNTERMEASURES	2046	X							1.0					(N)	G			*		
	ACAD	ALQ-164 DEFENSIVE EL	2047	X							1.0					(N)	G			*		
	ACAD	AV-8B DEPARTURE AVOI	2048	X							1.0					(N)	G			*		
	ACAD	AV-8B RADAR CONTROLS	2049	X							1.0					(N)	G			*		

SKILL	STAGE	T&R DESCRIPTION	EVENT NUMBER	ATTAIN		MAINTAIN	FRS ONLY			ACAD/GRND		SIM		FLIGHT		COND	TYPE	# A/C or Sim	NETWORK	REFLY	PREREQUISITE	CHAINING
				B	R		MR	SS	CV	#	TIME	#	TIME	#	TIME							
	ACAD	AV-8B BASIC INTERCEPT	2050	X							1.0					(N)	G			*		
	ACAD	AIR-TO-AIR SEARCH TECH	2051	X							1.0					(N)	G			*		
	ACAD	1V1 BASIC FIGHTER MA	2052	X							1.0					(N)	G			*		
	ACAD	2V1 BASIC FIGHTER MA	2053	X							1.0					(N)	G			*		
	ACAD	AIR INTERCEPT CONTROL	2054	X							1.0					(N)	G			*		
	ACAD	APG-65 OPTIMIZATION	2055	X							1.0					(N)	G			*		
	ACAD	TACTS DEBRIEF LAB	2056	X							1.0					(N)	G			*		
	ACAD	AIR-TO-AIR TIMELINE CT	2057	X							1.0					(N)	G			*		
	ACAD	AIR-TO-AIR TIMELINE BRIEF	2058	X							2.0					(N)	G			*		
	ACAD	SECTION ENG MAN CT	2059	X							1.0					(N)	G			*		
	ACAD	VSTOL/LSO NATOPS PT1	2060	X							1.0					(N)	G			*		
	ACAD	VSTOL/LSO NATOPS PT2	2061	X							1.0					(N)	G			*		
	ACAD	LHA/LHD/MCS NATOPS	2062	X							1.0					(N)	G			*		
	ACAD	DAY FCLP	2063	X							1.0					(N)	G			*		
2000 ACAD SKILL TOTAL										64	65.0	0	0.0	0	0.0							
2000 FAM	SFAM	NORM/INST PROCEDURES	2100	X								1	1.0			D	S	1		*		
	SFAM	EP SIM	2101	X	X	X						1	1.0			(NS)	S	1		30	2100,2702~NS	
	FAM	FAM VSTOL NAV IN	2102	X	X	X								1	1.3	(NS)	A	1		60	2101,2702~NS	
2000 FAM SKILL TOTAL										0	0.0	2	2.0	1	1.3							
2000 INT	SINT	REVIEW INTERCEPTS	2200	X									1.0			D	S	1		*	2101	
	SINT	INTRO SHORT RANGE RADAR AND COLD OPS CHECKLIST	2201	X									1.0			D	S	1		*	2200	
	INT	INTRO 1V1 INTERCEPTS	2202	X	X	X									1.3	(NS)	A	1+		90	2102,2201,2702~NS	2102
2000 INT SKILL TOTAL										0	0.0	2	2.0	1	1.3							
2000 TCT	STCT	REVIEW S/A TCT	2300	X	X								1.0			D	S	1		*	2101	
	STCT	INTRO A/A TCT	2301	X	X								1.5			D	S	1		*	2202,2300	
	TCT	REVIEW MED ALT S/A TCT	2302	X	X	X									1.3	(NS)	A	2		180	2102,2301,2702~NS	2102

SKILL	STAGE	T&R DESCRIPTION	EVENT NUMBER	ATTAIN		MAINTAIN	FRS ONLY			ACAD/GRND		SIM		FLIGHT		COND	TYPE	# A/C or Sim	NETWORK	REFLY	PREREQUISITE	CHAINING
				B	R		MR	SS	CV	#	TIME	#	TIME	#	TIME							
2000 TCT SKILL TOTAL										0	0.0	2	2.5	1	1.3							
2000 AAR	AAR	NIGHT AAR	2400	X	X	X									1.3	NS	A	1+		365	1340,2102,2702~NS	2102,6800
2000 AAR SKILL TOTAL										0	0.0	0	0.0	1	1.3							
2000 LAT	SLAT	REVIEW ADV LAT AND TCT	2500	X	X	X							1.0			D	S	1		180	2300	
	LAT	REVIEW SECTION LAT	2501	X	X	X									1.3	D	A	2		365	2500	2102,2500
	LAT	INTRO LOW ALT S/A TCT	2502	X	X	X									1.3	D	A	2		365	2302, 2501	2102,2501
2000 LAT SKILL TOTAL										0	0.0	1	1.0	2	2.6							
2000 AS	SAS	REVIEW MED AND LOW ALT COMPUTED DELIVERIES AND FF ORDNANCE	2600	X	X								1.5			D	S	1		*	2202,2302	
	SAS	REVIEW PGM AGAINST STATIONARY TARGETS	2601	X	X								1.5			D	S	1		*	2202,2302	
	SAS	INTRO WEPS EMPLOYMENTS AGAINST MOVING TARGETS	2602	X									1.5			D	S	1		*	2600,2601	
	SAS	INTRO ADVANCED PGM EMPLOYMENT	2603	X									1.0			D	S	1		*	2602	
	SAS	CFF	2604	X									1.0			(NS)	S	1		*	2202	
	AS	REVIEW MED ALT GP/FF TGT AREA TACTICS	2605	X	X	X									1.3	(NS)	A	2+		180	2600,2702~NS	2102
	AS	REVIEW LOW ALT GP/FF TGT AREA TACTICS	2606	X	X	X									1.3	(NS)	A	2+		365	2600, 2702~NS, 2501~LAT	2102
	AS	REWVIEW PGM TGT AREA TACTICS	2607	X	X	X									1.3	(NS)	A	2+		90	2603,2702~NS	2102
2000 AS SKILL TOTAL										0	0.0	5	6.5	3	3.9							
2000 NS	SNS	NS ATTACK PROFILES	2700	X	X								1.5			NS	S	1		*	AS stage complete	
	NS	INTRO COMPUTED DELIVERIES FROM MED AND LOW ALT	2701	X											1.3	NS	A	2		*	2700	2102,2605
	NS	NS PGM/GP TGT AREA TACTICS	2702	X	X	X									1.3	NS	A	2		180	2701	2102,2605,2607
2000 NS SKILL TOTAL										0	0.0	1	1.5	2	2.6							
2000 AA	SAA	TVC / AIRCRAFT HANDL	2800	X	X								1.0			D	S	1		*	2202,2301	

SKILL	STAGE	T&R DESCRIPTION	EVENT NUMBER	ATTAIN		MAINTAIN	FRS ONLY			ACAD/GRND		SIM		FLIGHT		COND	TYPE	# A/C or Sim	NETWORK	REFLY	PREREQUISITE	CHAINING
				B	R		MR	SS	CV	#	TIME	#	TIME	#	TIME							
	AA	TVC / AIRCRAFT HANDL	2801	X	X	X									1.3	D	A	2		180	2800	2102
	AA	1V1 OFFENSIVE BFM	2802	X											1.3	D	A	1+		*	2801	2102,2801
	AA	1V1 DEFENSIVE BFM	2803	X											1.3	D	A	1+		*	2802	2102,2801
	AA	1V1 NEUTRAL / HABFM	2804	X	X	X									1.3	D	A	1+		180	2803	2102,2801,2802,2803
	SAA	INTRO A/A BASELINE TACTIC	2805	X									1.0			D	S	1		*	2202,2301	
	SAA	REVIEW A/A BASELINE TACTIC	2806	X									1.0			D	S	2	X	*	2805	
	SAA	INTRO A/A BASELINE TACTIC AGAINST SAR-1 THREAT	2807	X									1.0			D	S	1		*	2806	
	SAA	REVIEW A/A BASELINE TACTIC AGAINST SAR-1 THREAT	2808	X	X								1.0			D	S	2	X	*	2807	
	SAA	INTRO 2V1 SHORT RANGE INTERCEPTS	2809	X									1.0			D	S	2	X	*	2804,2808	
	AA	INTRO 1V1 A/A BASELINE TACTIC	2810	X											1.3	D	A	1+		*	2302,2809	2102,2202
	AA	2V1 SHORT RANGE INTERCEPTS AND SEM	2811	X											1.3	D	A	2+		*	2810	2102,2202, 2804, 2810
	AA	2V2 INTERCEPTS AGAINST SINGLE GROUP	2812	X	X	X									1.3	D	A	2+		180	2810	2102,2202,2810,2811
2000 AA SKILL TOTAL										0	0.0	6	6.0	7	9.1							
3000 ACAD	ACAD	ATHS/DIGITAL CAS	3000	X							1.0					(N)	G			*		
	ACAD	CAS EXECUTION	3001	X							1.0					(N)	G			*		
	ACAD	MAWTS-1 JCAS LECTURE	3002	X							1.0					(N)	G			*		
	ACAD	ARMED RECONNAISANCE	3003	X							1.0					(N)	G			*		
	ACAD	ARMED RECONNAISANCE	3004	X							1.0					(N)	G			*		
	ACAD	SCAR TACTICS, TECHNI	3005	X							1.0					(N)	G			*		
	ACAD	AIR INTERDICTION PLA	3006	X																		
3000 ACAD SKILL TOTAL										6	6.0	0	0.0	0	0.0							

SKILL	STAGE	T&R DESCRIPTION	EVENT NUMBER	ATTAIN		MAINTAIN	FRS ONLY			ACAD/GRND		SIM		FLIGHT		COND	TYPE	# A/C or Sim	NETWORK	REFLY	PREREQUISITE	CHAINING
				B	R		MR	SS	CV	#	TIME	#	TIME	#	TIME							
3000 CAS	SCAS	REVIEW MED ALT CAS WITH GP/FF	3100	X	X								1.0			D	S	1		*	AS stage complete	
	SCAS	REVIEW MED ALT CAS WITH PGM	3101	X									1.0			D	S	1		*	3100	
	SCAS	INTRO MED ALT CAS IN URBAN	3102	X	X								1.0			(NS)	S	1		*	3101,2702~NS	
	SCAS	INTRO LOW ALT CAS WITH GP/FF	3103	X	X								1.0			D	S	1		*	2502,3101	2500
	SCAS	INTRO MED ALT NIGHT CAS	3104	X	X								1.0			NS	S	1		*	2702,3101	
	CAS	REVIEW MED ALT CAS WITH GP/FF	3105	X	X	X									1.3	D	A	2		180	3102	2102,2302,2605,3106
	CAS	REVIEW MED ALT CAS WITH PGM	3106	X	X										1.3	D	A	2		*	3102	2102,2302,2605,2607,3105
	CAS	INTRO LOW ALT CAS WITH GP/FF	3107	X	X	X									1.3	D	A	2		365	3103,3105	2102,2302,2501,2502,2606
	CAS	INTRO MED ALT CAS IN URBAN	3108	X											1.3	(NS)	A	2		*	3105,3106,3104~NS	2102,2302,2605,2607,3105, 3106
	CAS	INTRO MED ALT NIGHT CAS WITH GP/FF	3109	X	X	X									1.3	NS	A	2		180	2702,3104,3105	2102,2302,2605,2607,2702, 3105,3106,3110
	CAS	INTRO MED ALT NIGHT CAS WITH PGM	3110	X	X										1.3	NS	A	2		*	2702,3104,3106	2102,2302,2605,2607,2702, 3105,3106,3109
3000 CAS SKILL TOTAL										0	0.0	5	5.0	6	7.8							
3000 AR	SAR	CONDUCT DAY MED ALT AR	3200	X									1.0			D	S	1		*	AS stage complete	
	AR	CONDUCT DAY MED ALT AR WITH GP	3201	X											1.3	D	A	2		*	3200	2102,2302,2605,2607,3202
	AR	CONDUCT DAY MED ALT AR WITH PGM	3202	X	X	X									1.3	D	A	2		180	3200	2102,2302,2605,2607,3201
	AR	CONDUCT NIGHT MED ALT AR WITH GP/PGM	3203	X	X	X									1.3	NS	A	2		180	2702,3201,3202	2102,2302,2605,2607,2702, 3201,3202
	AR	CONDUCT DIVISION MED ALT AR	3204	X											1.3	(NS)	A	4		*	3201,3202,3203~NS	2102,2302,2605,2607,3201, 3202
3000 AR SKILL TOTAL										0	0.0	1	1.0	4	5.2							
3000 SCAR	SSCAR	INTRO DAY SCAR EXECUTION	3300	X									1.0			D	S	2	X	*	3201,3202	

SKILL	STAGE	T&R DESCRIPTION	EVENT NUMBER	ATTAIN		MAINTAIN	FRS ONLY			ACAD/GRND		SIM		FLIGHT		COND	TYPE	# A/C or Sim	NETWORK	REFLY	PREREQUISITE	CHAINING
				B	R		MR	SS	CV	#	TIME	#	TIME	#	TIME							
	SCAR	CONDUCT DAY MED ALT SCAR	3301	X	X										1.3	D	A	2		365	3300	2102,2302,2605,2607,3201, 3202
	SCAR	CONDUCT NIGHT MED ALT SCAR	3302	X	X	X									1.3	NS	A	2		180	3203,3301	2102,2302,2605,2607,2702,3201,3202,3203,3301
3000 SCAR SKILL TOTAL										0	0.0	1	1.0	2	2.6							
3000 AI	SAI	REVIEW MED ALT AI	3400	X									1.0			D	S	1		*	AS stage complete, ACMQ	
	SAI	INTRO LOW ALT AI	3401	X									1.0			D	S	2	X	*	2502,3400	2500
	AI	CONDUCT DAY MED ALT AI	3402	X	X	X									1.3	D	A	2		180	3400	2102,2302,2605,2607
	AI	CONDUCT NIGHT MED ALT AI	3403	X	X	X									1.3	NS	A	2		180	2702,3402	2102,2302,2605,2607,2702, 3402
	AI	CONDUCT LOW ALT AI	3404	X	X	X									1.3	D	A	2+		365	3401,3402	2102,2302,2500,2501,2502,2606,3402
	AI	CONDUCT DIVISION AI	3405	X	X										1.3	(NS)	A	4		*	3402,3403~NS,3404	2102,2302,2605,2607,3402
3000 AI SKILL TOTAL										0	0.0	2	2.0	4	5.2							
3000 EXP	EXP	EXP	3500	X	X	X									1.3	(NS)	A	1		180		2102
3000 EXP SKILL TOTAL										0	0.0	0	0.0	1	1.3							
4000 ACAD	ACAD	NIGHT FCLP, UNAIDED	4004	X							1.0					(N)	G			*		
	ACAD	NIGHT FCLP, AIDED	4005	X							1.0					(N)	G			*		
	ACAD	DAY CQ	4006	X							1.0					(N)	G			*		
	ACAD	NIGHT CQ	4007	X							1.0					(N)	G			*		
	ACAD	FORWARD BASE OPERATI	4008	X							1.0					(N)	G			*		
	ACAD	NS LAT CONSIDERATION	4009	X							1.0					(N)	G			*		

SKILL	STAGE	T&R DESCRIPTION	EVENT NUMBER	ATTAIN		MAINTAIN	FRS ONLY			ACAD/GRND		SIM		FLIGHT		COND	TYPE	# A/C or Sim	NETWORK	REFLY	PREREQUISITE	CHAINING
				B	R		MR	SS	CV	#	TIME	#	TIME	#	TIME							
	ACAD	ASSAULT SUPPORT ESCO	4010	X							1.0					(N)	G			*		
	ACAD	LOW ALTITUDE CAS EXE	4011	X							1.0					(N)	G			*		
	ACAD	LOW ALTITUDE AI EXEC	4012	X							1.0					(N)	G			*		
	ACAD	COMBAT SECTION TACTI	4013	X							1.0					(N)	G			*		
	ACAD	AV-8B INTERCEPT MECH	4014	X							1.0					(N)	G			*		
	ACAD	AIR-TO-AIR TIMELINES	4015	X							1.0					(N)	G			*		
	ACAD	DARG CONSIDERATIONS	4016	X							1.0					(N)	G			*		
	ACAD	ALQ-231	4017	X							1.0					(N)	G			*		
4000 ACAD SKILL TOTAL										14	14.0	0	0.0	0	0.0							
4000 FCLP(D)	SFCLP	DAY FCLP SIM	4100	X	X								1.0			D	S	1		*	2102	
	FCLP	DAY FCLP QUAL	4101	X	X	X									2.0	D	A	1		365	4100	2102
4000 FCLP(D) SKILL TOTAL										0	0.0	1	1.0	1	2.0							
4000 FCLP(N)	SFCLP	NIGHT UNAIDED FCLP SIM	4102	X	X								1.0			N*	S	1		*	4100	
	FCLP	NIGHT UNAIDED FCLP	4103	X	X	X									2.0	N*	A	1		365	4101,4102	2102,4101
	SFCLP	NIGHT AIDED FCLP SIM	4104	X	X								1.0			NS	S	1		*	2702,4102	
	FCLP	NIGHT AIDED FCLP	4105	X	X	X									2.0	NS	A	1		365	4103,4104	2102,4101
4000 FCLP(N) SKILL TOTAL										0	0.0	2	2.0	2	4.0							
4000 CQ(D)	SCQ	DAY CQ SIM	4130	X	X								1.0			D	S	1		*	4100	
	CQ	DAY CQ QUAL	4131	X	X	X									3.0	D	A	1		365	4101,4130	2102,4101

SKILL	STAGE	T&R DESCRIPTION	EVENT NUMBER	ATTAIN		MAINTAIN	FRS ONLY			ACAD/GRND		SIM		FLIGHT		COND	TYPE	# A/C or Sim	NETWORK	REFLY	PREREQUISITE	CHAINING
				B	R		MR	SS	CV	#	TIME	#	TIME	#	TIME							
	CQ	CQ INSTRUMENT APPROACHES	4132	X	X	X									1.3	(N)	A	1		365	4131,4134~N*,4136~NS	2102,4101,4131
4000 CQ(D) SKILL TOTAL										0	0.0	1	1.0	2	4.3							
4000 CQ(N)	SCQ	NIGHT UNAIDED	4133	X	X								1.0			N*	S	1		*	4104	
	SCQ	NIGHT AIDED CASE 1 SIM	4134	X	X								1.0			NS	S	1		*	4133	
	CQ	NIGHT UNAIDED/AIDED CQ	4135	X	X	X									2.0	N	A	1		365	4105,4132,4134	2102,4101,4103,4105,4133
	CQ	NIGHT AIDED CQ	4136	X	X	X									2.0	NS	A	1		365	4105,4132,4134	2102,4101,4103,4105,4134
4000 CQ(N) SKILL TOTAL										0	0.0	2	2.0	2	4.0							
4000 FOB	SFOB	DAY FBO SIM	4160	X	X								1.0			D	S	1		*	2102	
	FOB	DAY FBO	4161	X	X	X									2.0	D	A	1		365	4160	2102,3500
	SFOB	NIGHT FBO SIM	4162	X	X								1.0			NS	S	1		*	2702,4160	
	FOB	NIGHT FBO	4163	X	X	X									2.0	NS	A	1		365	4161,4162	2102,3500,4161
4000 FOB SKILL TOTAL										0	0.0	2	2.0	2	4.0							
4000 MIR	MIR	MIR	4200	X	X	X									1.3	(NS)	A	2		365	2102,2702~NS	2102
	EW	CONDUCT EW WITH ALQ-231	4250	X	X										1.3	(NS)	A	2		*	AS stage complete,2702~NS	2102
4000 MIR SKILL TOTAL										0	0.0	0	0.0	1	1.3							
4000 ADVLAT	SADVLAT	BASIC/ADV NLAT SIM	4300	X									1.0			NS	S	1		*	2502,2702	2500
	SADVLAT	NLAT TGT MECH	4301	X	X	X							1.0			NS	S	1		180	4300	2500, 4300
	ADVLAT	BASIC LAT	4302	X											1.3	NS	A	2		*	4301	2102,2502, 4301
	ADVLAT	ADVANCED LAT	4303	X	X	X									1.3	NS	A	2		180	4302	2102,2502, 4302
	ADVLAT	NLAT IN SECTION	4304	X	X										1.3	NS	A	2		*	4303	2102,2502, 4303
	ADVLAT	NLAT TGT MECH	4305	X	X	X									1.3	NS	A	2		180	4304	2102,2502,2606, 4304

SKILL	STAGE	T&R DESCRIPTION	EVENT NUMBER	ATTAIN		MAINTAIN	FRS ONLY			ACAD/GRND		SIM		FLIGHT		COND	TYPE	# A/C or Sim	NETWORK	REFLY	PREREQUISITE	CHAINING
				B	R		MR	SS	CV	#	TIME	#	TIME	#	TIME							
4000 ADVLAT SKILL TOTAL										0	0.0	2	2.0	4	5.2							
4000 AAD	SAAD	INTRO TO 2 GROUP AND DECOY TACTICS	4400	X									1.0			D	S	2	X	*	2812	
	SAAD	INTRO TO DARG	4401	X	X								1.0			D	S	2	X	*	4400	
	AAD	DARG	4402	X	X	X									1.3	D	A	2+		180	4401	2102,2202,2812,4401
4000 AAD SKILL TOTAL										0	0.0	2	2.0	1	1.3							
4000 OAAW	SOAAW	SECTION AI WITH RF THREAT AND AIR THREAT	4500	X	X								1.0			(NS)	S	2	X	*	3000 level complete	
	OAAW	SECTION AI WITH RF THREAT AND AIR THREAT	4501	X											1.3	D	A	2		*	4500	2102,2202,2302,2605,2607, 3402,4500
	OAAW	DIVISION AI WITH RF THREAT AND AIR THREAT	4502	X	X	X									1.3	D	A	3+		180	4501	2102,2202,2302,2605,2607, 3402,3405,4500,4501
4000 OAAW SKILL TOTAL										0	0.0	1	1.0	2	2.6							
4000 AE	SAE	ASSAULT SUPPORT ESCORT SIM	4600	X	X								1.0			(NS)	S	1		365	3000 level complete	
	AE	ASSAULT SUPPORT ESCORT	4601	X											1.3	(NS)	A	2+		*	4600,4811~ACT AS FAC(A)	2102,2302,2605,2607
	SAE	ASSAULT SUPPORT ESCORT SIM WITH AIR THREAT	4602	X	X	X							1.0			(NS)	S	1		365	4600	4600
	AE	ASSAULT SUPPORT ESCORT WITH AIR THREAT	4603	X											1.3	(NS)	A	2+		*	4602	2102,2202,2801,2804,2812,4602
4000 AE SKILL TOTAL										0	0.0	2	2.0	2	2.6							
4000 CFF	CFF	CALL FOR FIRE	4700	X										1	1.3	(NS)	A	2		*	2604	2102
4000 CFF SKILL TOTAL										0	0.0	0	0.0	1	1.3							
4000 FAC(A)	SFAC(A)	DAY FAC(A) PROCEDURES SIM	4800	X									1.5			D	S	1+	(X)	*	Div Lead,WTO	
	SFAC(A)	NIGHT FAC(A) PROCEDURES SIM	4801	X									1.5			NS	S	1+	(X)	*	4800	
	SFAC(A)	DAY URBAN TYPE 1/2/3	4802	X									1.5			D	S	1+	(X)	*	4801	4800
	SFAC(A)	NIGHT URBAN TYPE 1/2/3	4803	X	X	X							1.5			NS	S	2	X	180	4802	4801

SKILL	STAGE	T&R DESCRIPTION	EVENT NUMBER	ATTAIN		MAINTAIN	FRS ONLY			ACAD/GRND		SIM		FLIGHT		COND	TYPE	# A/C or Sim	NETWORK	REFLY	PREREQUISITE	CHAINING
				B	R		MR	SS	CV	#	TIME	#	TIME	#	TIME							
	FAC(A)	FW TYPE 1/2	4804	X	X	X									1.3	D	A	2		180	4803	2102,2302,2605,2607,3105,3106
	FAC(A)	FW TYPE 1/3	4805	X	X	X									1.3	(NS)	A	2		90	4803	2102,2302,2605,2607,3105,3106
	FAC(A)	RW TYPE 1/2/3	4806	X	X	X									1.3	(NS)	A	2		365	4803	2102,2302,2605,2607,3105,3106
	FAC(A)	NIGHT FAC(A) BASICS	4807	X	X	X									1.3	NS	A	2		180	4700,4804,4805,4806	2102,2302,2605,2607,2702,3105,3106, 3109, 3110,4804, 4805, 4806, (4700 `NS)
	SFAC(A)	DAY INTEGRATION SIM	4808	X									1.5			D	S	1		*	4807	4800
	SFAC(A)	NIGHT INTEGRATION SIM	4809	X									1.5			D	S	1		*	4808	4803
	FAC(A)	DAY INTEGRATION	4810	X	X	X									1.3	D	A	2		365	4809	2102,2302,2605,2607,3105,3106,4804,4805,4806, 4700
	FAC(A)	NIGHT INTEGRATION	4811	X	X	X									1.3	NS	A	2		365	4810	2102,2302,2605,2607,3105,3106,3109,3110,4803,4804,4805,4806, 4700
	FAC(A)	FAC(A) ESCORT	4851	X	X	X									1.3	(NS)	A	2		365	Section Lead	2102,2302,2605,2607,3105,3106,(4700)
4000 FAC(A) SKILL TOTAL										0	0.0	6	9.0	7	9.1							
4000 LFE	LFE	DAY LFE	4900	X	X	X									1.3	D	A	4+		365	Applicable 3000 stage complete, ACMQ required if air threat exists	2102
	LFE	NIGHT LFE	4901	X	X	X									1.3	NS	A	4+		365	Applicable 3000 stage complete, ACMQ required if air threat exists	2102
4000 LFE SKILL TOTAL										0	0.0	0	0.0	2	2.6							
5000 ACAD	ACAD	MONITOR BRIEF/DEBRIE	5000	X							1.0					(N)	G	1		*		
	ACAD	MONITOR BRIEF/DEBRIE	5001	X							1.0					D	G	1		*		

SKILL	STAGE	T&R DESCRIPTION	EVENT NUMBER	ATTAIN		MAINTAIN	FRS ONLY			ACAD/GRND		SIM		FLIGHT		COND	TYPE	# A/C or Sim	NETWORK	REFLY	PREREQUISITE	CHAINING
				B	R		MR	SS	CV	#	TIME	#	TIME	#	TIME							
	ACAD	MONITOR AS TRO A/A R	5002	X							1.0					D	G	2		*		
	ACAD	MAWTS-1 FLSE DESIG L	5010	X							1.0					(N)	G			*		
	ACAD	A/S BRIEFING LAB	5011	X							1.0					(N)	G			*		
5000 ACAD SKILL TOTAL										5	5.0	0	0.0	0	0.0							
5000 WTO	SWTO	MAWTS-1 PROGRAM GUID	5100	X									1.5			D	S	2	X	*	See MAWTS-1 CC	
	SWTO	MAWTS-1 PROGRAM GUID	5101	X									1.5			D	S	1		*	See MAWTS-1 CC	
	SWTO	MAWTS-1 PROGRAM GUID	5102	X	X								1.5			D	S	1		*	See MAWTS-1 CC	
	SWTO	MAWTS-1 PROGRAM GUID	5103	X									1.5			D	S	1		*	See MAWTS-1 CC	
	WTO	MAWTS-1 PROGRAM GUID	5104	X											1.3	D	A	2		*	See MAWTS-1 CC	2102
	WTO	MAWTS-1 PROGRAM GUID	5105	X											1.3	D	A	2		*	See MAWTS-1 CC	2102
5000 WTO SKILL TOTAL										0	0.0	4	6.0	2	2.6							
5000 LATI	SLATI	MAWTS-1 PROGRAM GUID	5200	X	X								1.5			D	S	2	X	*	See MAWTS-1 CC	
	SLATI	MAWTS-1 PROGRAM GUID	5201	X									1.5			D	S	1		*	See MAWTS-1 CC	
	LATI	MAWTS-1 PROGRAM GUIDE	5202	X	X										1.3	D	A	2		*	See MAWTS-1 CC	2102,2501
	LATI	MAWTS-1 PROGRAM GUIDE	5203	X											1.3	D	A	2		*	See MAWTS-1 CC	2102,2501
	LATI	MAWTS-1 PROGRAM GUIDE	5204	X											1.3	D	A	2		*	See MAWTS-1 CC	2102,2501
5000 LATI SKILL TOTAL										0	0.0	2	3.0	3	3.9							
5000 NSI	SNSI	MAWTS-1 PROGRAM GUIDE	5300	X									1.5			NS	S	2	X	*	See MAWTS-1 CC	
	SNSI	MAWTS-1 PROGRAM GUIDE	5301	X	X								1.5			NS	S	1		*	See MAWTS-1 CC	
	NSI	MAWTS-1 EPROGRAM GUID	5302	X	X										1.3	NS	A	2		*	See MAWTS-1 CC	2102
	NSI	MAWTS-1 PROGRAM GUIDE	5303	X											1.3	NS	A	2		*	See MAWTS-1 CC	2102
5000 NSI SKILL TOTAL										0	0.0	2	3.0	2	2.6							
5000 NSLATI	SNSLATI	MAWTS-1 PROGRAM GUIDE	5400	X									1.5			NS	S	2	X	*	See MAWTS-1 CC	
	SNSLATI	MAWTS-1 PROGRAM GUIDE	5401	X	X								1.5			NS	S	1		*	See MAWTS-1 CC	
	NSLATI	MAWTS-1 PROGRAM GUIDE	5402	X	X										1.3	NS	A	2		*	See MAWTS-1 CC	2102,2501
5000 NSLATI SKILL TOTAL										0	0.0	2	3.0	1	1.3							
5000 ACTI	SACTI	MAWTS-1 PROGRAM GUIDE	5500	X	X								2.0			D	S	1		*	See MAWTS-1 CC	
	SACTI	MAWTS-1 PROGRAM GUIDE	5501	X									2.0			D	S	2	X	*	See MAWTS-1 CC	
	ACTI	MAWTS-1 PROGRAM GUIDE	5502	X											1.3	D	A	2		*	See MAWTS-1 CC	2102
	ACTI	MAWTS-1 PROGRAM GUIDE	5503	X											1.3	D	A	2		*	See MAWTS-1 CC	2102
	ACTI	MAWTS-1 PROGRAM GUIDE	5504	X	X										1.3	D	A	2		*	See MAWTS-1 CC	2102

SKILL	STAGE	T&R DESCRIPTION	EVENT NUMBER	ATTAIN		MAINTAIN	FRS ONLY			ACAD/GRND		SIM		FLIGHT		COND	TYPE	# A/C or Sim	NETWORK	REFLY	PREREQUISITE	CHAINING
				B	R		MR	SS	CV	#	TIME	#	TIME	#	TIME							
5000 ACTI SKILL TOTAL										0	0.0	2	4.0	3	3.9							
5000 FAC(A)I	SFAC(A)I	MAWTS-1 PROGRAM GUIDE	5600	X	X								2.0			D	S	2	X	*	See MAWTS-1 CC	
	SFAC(A)I	MAWTS-1 PROGRAM GUIDE	5601	X									2.0			NS	S	2	X		See MAWTS-1 CC	
	FAC(A)I	MAWTS-1 PROGRAM GUIDE	5602	X											1.3	D	A	2		*	See MAWTS-1 CC	2102
	FAC(A)I	MAWTS-1 PROGRAM GUIDE	5603	X	X										1.3	D	A	2		*	See MAWTS-1 CC	2102
	FAC(A)I	MAWTS-1 PROGRAM GUIDE	5604	X											1.3	NS	A	2		*	See MAWTS-1 CC	2102
	SFAC(A)I	VMAT-203 IUT FLIGHT	5605	X									1.5			D	S	1		*	See MAWTS-1 CC	2102
5000 FAC(A)I SKILL TOTAL										0	0.0	3	5.5	3	3.9							
FRSI	SIUT	PRACTICE NORMAL PROC	5800	X									1.5			D	S			*		
	SIUT	REV NORMAL PROC	5801	X									1.5			D	S			*		
	IUT	INTRO REAR SEAT TAV-8B	5802	X											1.3	D	A	1		*		
	IUT	REV REAR SEAT TAV-8B	5803	X											1.3	D	A	1		*		
	SIUT	SIM TECHNIQUES	5804	X									1.5			D	S			*		
	IUT	BASIC AND TAC FORM	5805	X											1.3	D	A	2		*		
	IUT	DIV FORM	5806	X											1.3	D	A	4		*		
	IUT	REV DIV FORM	5807	X											1.3	D	A	4		*		
FRSI SKILL TOTAL										0	0.0	3	4.5	5	6.5							
AARI	IUT	AARI	5808	X											1.3	D	A	1		*		
5808 IUT SKILL TOTAL										0	0.0	0	0.0	1	1.3							
TCCI	SIUT	REV TCC	5809	X									1.5			D	S			*		
	IUT	INTRO TCC CHACE	5810	X											1.3	D	A	1		*		
TCCI TOTAL										0	0.0	1	1.5	1	1.3							
ASI	SIUT	REV HIGH AND LOW ANGLE	5811	X									1.5			D	S			*		
	SIUT	REV TRANS PROFILES	5812	X									1.5			D	S			*		
	IUT	REV HIGH AND LOW ANGLE	5813	X											1.1	D	A	1		*		
ASI TOTAL										0	0.0	2	3.0	1	1.1							
TATI	IUT	REV TARGET AREA TACTICS	5814	X											1.1	D	A	2		*		
	IUT	REV TPOD ATTACKS	5815	X											1.1	D	A	2		*		

SKILL	STAGE	T&R DESCRIPTION	EVENT NUMBER	ATTAIN		MAINTAIN	FRS ONLY			ACAD/GRND		SIM		FLIGHT		COND	TYPE	# A/C or Sim	NETWORK	REFLY	PREREQUISITE	CHAINING
				B	R		MR	SS	CV	#	TIME	#	TIME	#	TIME							
TATI TOTAL										0	0.0	0	0.0	2	2.2							
CASI	SIUT	MED ALT CAS SIM	5816	X									1.5			D	S			*		
	IUT	REV CAS AS SCAR	5817	X											1.1	D	A	1		*		
	IUT	LOW ALT CAS (REAR SEAT)	5818	X											1.1	D	A	2		*		
CASI TTTAL										0	0.0	1	1.5	2	2.2							
LFAMI	IUT	INTRO FAM STAGE MAN	5819	X											1.3	D	A	1		*		
	IUT	PRAC FAM STAGE MAN	5820	X											1.3	D	A	1		*		
	SIUT	ERROR DETECTION	5821	X									1.5			D	S			*		
	SIUT	LATE STAGE FAM	5822	X									1.5			D	S			*		
	IUT	REV INST PROC	5823	X											1.3	D	A	1		*		
TOTAL LFAMI										0	0.0	2	3.0	3	3.9							
EFAMI	SIUT	MONITOR FAM SIM	5824	X									1.5			D	S			*		
	SIUT	ERROR DETECTION	5825	X									1.5			D	S			*		
TOTAL EFAMI										0	0.0	2	3.0	0	0.0							
NSFI	IUT	INTRO NS STAGE MAN	5826	X											1.3	NS	A	1		*		
	IUT	MONITOR NS FORM	5827	X											1.3	NS	A	2		*		
	IUT	INTRO NS FORM	5828	X											1.3	NS	A	2		*		
TOTAL NSFI										0	0.0	0	0.0	3	3.9							
AAHI	SIUT	MONITOR AAH SIM	5829	X									1.5			D	S			*		
	IUT	INTRO AAH CHASE	5830	X											1.1	D	A	2		*		
	IUT	REV AAH MAN	5831	X											1.1	D	A	1		*		
TOTAL AAHI										0	0.0	1	1.5	2	2.2							
AAI	SIUT	MONITOR TVC SIM	5832	X									1.5			D	S			*		
	IUT	REV TVC BFM	5833	X											1.1	D	A	2		*		
	IUT	CHASE TVC MAN	5834	X											1.1	D	A	2		*		
	IUT	REV 1V1 BFM	5835	X											1.1	D	A	2		*		
TOTAL AAI										0	0.0	1	1.5	3	3.3							
FRSLATI	SIUT	REV BASIC AND ADV LAT	5836	X									1.5			D	S			*		
	SIUT	LOW ALT TR	5837	X									1.5			D	S			*		
	IUT	REV BASIC AND ADV LAT	5838	X											1.3	D	A	1		*		
	IUT	REV LOW ALT TR	5839	X											1.3	D	A	2		*		
TOTAL FRSLATI										0	0.0	2	3.0	2	2.6							

SKILL	STAGE	T&R DESCRIPTION	EVENT NUMBER	ATTAIN		MAINTAIN	FRS ONLY			ACAD/GRND		SIM		FLIGHT		COND	TYPE	# A/C or Sim	NETWORK	REFLY	PREREQUISITE	CHAINING
				B	R		MR	SS	CV	#	TIME	#	TIME	#	TIME							
FOBI	SIUT	MONITOR FBO SIM	5840	X									1.5			D	S			*		
TOTAL FOBI										0	0.0	1	1.5	0	0.0							
NATOPS IP	SIUT	NATOPS EVAL W PROG MGR	5841	X									1.5			D	S			*		
TOTAL NATOPS IP										0	0.0	1	1.5	0	0.0							
NAVI	SIUT	MONITOR SNAV-1331	5842	X									1.5			D	S			*		
TOTAL NAVI										0	0.0	1	1.5	0	0.0							
RADI	SIUT	MONITOR SRAD-1361	5843	X									1.5			D	S			*		
TOTAL RADI										0	0.0	1	1.5	0	0.0							
SENI	SIUT	REV GP PGM W TPOD	5844	X									1.5			NS	S			*		
TOTAL SEMI TOTAL										0	0.0	1	1.5	0	0.0							
FRSBQ	IUT	2V1 BANDIT PROFILE	5845	X											1.1	D	A	3		*		
TOTAL FRSBQ										0	0.0	2	3.0	0	0.0							
5000 FLSE	SFLSE	FLSE DESIGNATION FLT	5900	X									1.5			(NS)	S			*		
	SFLSE	FLSE DESIGNATION FLT	5901	X									1.5			(NS)	S			*		
5000 FLSE SKILL TOTAL										0	0.0	2	3.0	0	0.0							
6000 NTPS	ANTPS	OPEN BOOK NATOPS	6000	X	X	X	X	X			1.5					(N)	G			365		
	ANTPS	CLSD BOOK NATOPS	6001	X	X	X	X	X			1.0					(N)	G			365		
	ANTPS	GRND EVAL NATOPS	6002	X	X	X	X	X			1.0					(N)	G			365		
	SNTPS	A/C SYSTEMS & EPS	6101	X	X	X	X	X					1.5			D	A/S	1		365	1507,1606	
	SNTPS	CRM	6103	X	X	X	X	X					1.0			(NS)	S	1		365		
6000 NTPS SKILL TOTAL										3	3.5	2	2.5	0	0.0							
6000 INST	AINST	INST GRND SCHOOL	6004	X	X	X	X	X			8.0					(N)	G			365		
	AINST	INST GRND SCH EXAM	6005	X	X	X	X	X			1.0					(N)	G			365		
	SINST	INSTRUMENT CHECK	6102	X	X	X	X	X					1.5			(NS)	S	1		365	6004,6005	
6000 INST SKILL TOTAL										2	9.0	1	1.5	0	0.0							

SKILL	STAGE	T&R DESCRIPTION	EVENT NUMBER	ATTAIN		MAINTAIN	FRS ONLY			ACAD/GRND		SIM		FLIGHT		COND	TYPE	# A/C or Sim	NETWORK	REFLY	PREREQUISITE	CHAINING
				B	R		MR	SS	CV	#	TIME	#	TIME	#	TIME							
6000 SL	ASL	BRIEF/DEBRIEF	6009	X							1.0						G			*		
	ASL	T&R TRAINING MANAGEMENT	6010	X							1.0						G			*		
	ASL	SECTION LEAD EXAM	6011	X							1.0						G			*		
	SSL	CONDUCT MED ALT CAS AT NIGHT IN LOW THREAT ENVIRONMENT	6200	X									1.5			NS	S	1	(X)	*	3000 complete	
	SSL	CONDUCT LOW ALT CAS IN ADVERSE WEATHER	6201	X									1.5			D	S	1	(X)	*	6200	
	SSL	CONDUCT SECTION AI WITH SURFACE AND AIR THREATS	6202	X									1.5			(NS)	S	2	X	*	6201	
	SL	CONDUCT AR IN A LOW THREAT ENVIRONMENT	6203	X											1.3	(NS)	A	2		*	6202	2102,2302,2605,2607,3201,3202
	SL	CONDUCT SCAR IN A LOW TO MEDIUM THREAT ENVIRONMENT	6204	X											1.3	(NS)	A	2		*	6202	2102,2302,2605,2607,3201,3202,3301
	SL	CONDUCT DIVISION AI WITH SURFACE AND AIR THREAT	6205	X											1.3	(NS)	A	4		*	6202	2102,2302,2605,2607,3402
	SL	CONDUCT NIGHT CAS WITH PGM AND FF ORD	6206	X	X										1.3	NS	A	2		*	6202	2102,2302,2605,2607,2702,3105,3106
	SL	1V1 INTERCEPTS TO ENGAGED MANEUVERING	6207	X											1.3	D	A	2		*	6202	2102,2202,2801,2804
	SL	2V2 AGAINST SAR-1 CAPABLE ADVESARY	6208	X	X										1.3	D	A	2+		*	6202	2102,2202,2801,2804,2812
6000 SL SKILL TOTAL										3	3.0	3	4.5	6	7.8							
6000 DL	DL	TACTS DEBRIEF LAB	6300	X							2.0					(N)	G			*	See phase description	
	DL	RTO DEMONSTRATION	6301	X							2.0					(N)	G				See phase description	
	DL	CONDUCT ARMED RECONAISSANCE	6302	X											1.3	(NS)	A	3+		*	6300, 6301	2102,2302,2605,2607,3402
	DL	CONDUCT DAY AERIAL INTERDICTION	6303	X	X										1.3	D	A	3+		*	6300, 6301	2102,2302,2605,2607,3201,3202
	DL	CONDUCT NIGHT AERIAL INTERDICTION	6304	X											1.3	NS	A	3+		*	See phase description	2102,2302,2605,2607,2702, 3402,3403

SKILL	STAGE	T&R DESCRIPTION	EVENT NUMBER	ATTAIN		MAINTAIN	FRS ONLY			ACAD/GRND		SIM		FLIGHT		COND	TYPE	# A/C or Sim	NETWORK	REFLY	PREREQUISITE	CHAINING
				B	R		MR	SS	CV	#	TIME	#	TIME	#	TIME							
	SDL	CONDUCT DARG	6305	X	X								1.0			D	S	4	X	*	6300, 6301	2807, 2809, 4400, 4401
6000 DL SKILL TOTAL										2	4.0	1	1.0	3	3.9							
6000 MC	AMC	STRIKE MC, PART 1	6013	X							1.0					(N)	G			*		
	AMC	STRIKE MC, PART 2	6014	X							1.0					(N)	G			*		
	MC	MC LFE (STRIKE)	6400	X											2.0	(NS)	A	4+		*	See Phase Description	2102,2202,2302,2605,2607, 3402,4500,4501,4502
	MC	MC LFE (SCAR)	6401	X	X										2.0	(NS)	A	4		*	See Phase Description	2102,2302,2605,2607,3201,3202,3301
6000 MC SKILL TOTAL										2	2.0	0	0.0	2	4.0							
6600 ADFL	ADFL	CONDUCT DARG	6500	X	X										1.3	D	A	3+		*	See Phase Description	2804,2812,4402
6000 ADFL SKILL TOTAL										1	2.0	0	0.0	1	1.3							
6600 PMCF	SFCF	PMCF SIMULATOR	6600	X									1.5			D	S	1		*	Per MAG order	
	FCF	PMCF	6601	X	X	X									1.5	D	A	1		180	6600	2102
6600 PMCF SKILL TOTAL										0	0.0	1	1.5	1	1.5							
6700 DESG	SDESG	AIR SHOW DEMO SIMULA	6700	X									1.5			D	S	1		*	Per MCO and MAG order	
	DESG	LEVEL III AIR SHOW D	6701	X	X	X									0.8	D	A	1		365	6700	2102
6000 DEMO SKILL TOTAL										0	0.0	1	1.5	1	0.8							
6000 LSO	LSO	LSO: DAY BASIC FIELD	6750	X											0.0	D	A	1		*		
	LSO	LSO: NITE BASIC FIELD	6751	X											0.0	N	A	1		*		
	LSO	LSO: DAY BASIC SHIP	6752	X											0.0	D	A	1		*		
	LSO	LSO: NITE BASIC SHIP	6753	X											0.0	N	A	1		*		
	LSO	LSO: DAY ADVANCED	6754	X											0.0	D	A	1		*		
	LSO	LSO: NITE ADVANCED	6755	X											0.0	N	A	1		*		
	LSO	LSO: DAY TRAINING	6756	X											0.0	D	A	1		*		
	LSO	LSO: NITE TRAINING	6757	X											0.0	N	A	1		*		
6000 LSO SKILL TOTAL										0	0.0	0	0.0	8	0.0							
6000 LSI	LSI	LSI: DAY FACILITY	6770	X											0.0	D	A	1		*		

SKILL	STAGE	T&R DESCRIPTION	EVENT NUMBER	ATTAIN		MAINTAIN	FRS ONLY			ACAD/GRND		SIM		FLIGHT		COND	TYPE	# A/C or Sim	NETWORK	REFLY	PREREQUISITE	CHAINING
				B	R		MR	SS	CV	#	TIME	#	TIME	#	TIME							
	LSI	LSI: NITE FACILITY	6771	X											0.0	N	A	1		*		
6000 LSI SKILL TOTAL										0	0.0	0	0.0	2	0.0							
6000 LSS	LSS	LSS: DAY ROAD	6772	X											0.0	D	A	1		*		
	LSS	LSS: NITE ROAD	6773	X											0.0	N	A	1		*		
	LSS	LSS: DAY CAL SITE	6774	X											0.0	D	A	1		*		
	LSS	LSS: NITE CAL SITE	6775	X											0.0	N	A	1		*		
6000 LSS SKILL TOTAL										0	0.0	0	0.0	4	0.0							
6000 TRK	TRK	Day Aerial Refueling	6800	X											0.0	D	A	1		365	1340	2102
	TRK	Strategic Tanking	6801R	X											0.0	D	A	1		365	1340,2300	2102,6800
	TRK	ALQ-164 EMPLOYMENT	6802	X											0.0	D	A	1		180		
	TRK	EMPLOY GAU-12 (AA)	6803	X											0.0	(NS)	A	1		*		
	TRK	ADVERSE WX, HIGH THR	6804	X											0.0	(NS)	A	2		*	4205,4912	
	TRK	UAV / UCAV INTEGRATI	6805	X											0.0	(NS)	A	2		*	4912	
	TRK	NSFS AIRSPOT	6806	X											1.3	(NS)	A	2		*	4912	
	TRK	AC-130 CFF	6807	X											1.3	(NS)	A	2		*	4912	
	TRK	PMCF A CARD	6808	X											0.1	D	A	1		*		
	TRK	PMCF B/C CARD	6809	X											0.1	D	A	1		*		
	TRK	ALQ-231 EMPLOYMENT	6810	X											0.1	D	A	1		*		
	TRK	DAY CAL SITE OPS	6900	X											0.0	D	A	1		*		
	TRK	NITE CAL SITE OPS	6901	X											0.0	NS	A	1		*	6900	
	TRK	DAY ROAD OPS	6902	X											0.0	D	A	1		*		
	TRK	NITE ROAD OPS	6903	X											0.0	NS	A	1		*		
	TRK	LSO: N* FCLP CTRL	6904	X											0.0	N*	A	1		*		
	TRK	LSO: CNTL UNAID FCLP	6905	X											0.0	N*	A	1		*		
	TRK	LSO: NS FCLP CTRL	6906	X											0.0	NS	A	1		*		
	TRK	LSO: DAY SHIP CTRL	6907	X											0.0	D	A	1		*		
	TRK	LSO: N* SHIP CTRL	6908	X											0.0	NS	A	1		*		
	TRK	LSO: NS SHIP CTRL	6909	X											0.0	N*	A	1		*		
	TRK	LSO UT: DAY CTRL	6910	X											0.0	D	A	1		*		

SKILL	STAGE	T&R DESCRIPTION	EVENT NUMBER	ATTAIN		MAINTAIN	FRS ONLY			ACAD/GRND		SIM		FLIGHT		COND	TYPE	# A/C or Sim	NETWORK	REFLY	PREREQUISITE	CHAINING
				B	R		MR	SS	CV	#	TIME	#	TIME	#	TIME							
	TRK	LSO UT: NITE CTRL	6911	X											0.0	D	A	1		*		
	TRK	LSI: DAY FACIL CTRL	6912	X											0.0	D	A	1		*		
	TRK	LSI: NITE FACIL CTRL	6913	X											0.0	N	A	1		*		
	TRK	LSS: DAY ROAD CTRL	6914	X											0.0	D	A	1		*		
	TRK	LSS: NITE ROAD CTRL	6915	X											0.0	N	A	1		*		
	TRK	LSS: DAY CAL CTRL	6916	X											0.0	D	A	1		*		
	TRK	LSI CNTL NITE CAL	6917	X											0.0	(N)	A	1		*		
	TRK	LSO: DAY APPR & EPS	6918	X							0.0					(N)	G			180		
	TRK	LSO: NT APPR & EPS	6919	X							0.0					(N)	G			180		
6000 TRK SKILL TOTAL										2	0.0	0	0.0	29	2.9							
8000 ACPM	ACPM	MACCS AGENCIES, FUNC	8200	X							0.5					(N)	G			*		
	ACPM	MWCS BRIEF	8201	X							0.5					(N)	G			*		
	ACPM	ACA AND AIRSPACE	8202	X							0.8					(N)	G			*		
	ACPM	AVIATION GROUND SUPP	8210	X							0.7					(N)	G			*		
	ACPM	ACM BATTLESTAFF	8230	X							1.0					(N)	G			*		
	ACPM	BATTLE COMMAND DISPL	8231	X							1.0					(N)	G			*		
	ACPM	SIX FUNCTIONS OF MAR	8240	X							1.7					(N)	G			*		
	ACPM	JTAR/ASR INTRO AND P	8241	X							1.3					(N)	G			*		
	ACPM	SITE COMMAND PRIMER	8242	X							1.0					(N)	G			*		
	ACPM	THEATER AIR GROUND S	8250	X							0.9					(N)	G			*		
	ACPM	AIR DEFENSE	8300	X							0.9					(N)	G			*		
	ACPM	FORWARD ARMING AND R	8310	X							0.8					(N)	G			*		
	ACPM	MARINE CORPS TACTICA	8311	X							0.9					(N)	G			*		
	ACPM	ACE BATTLE STAFF	8320	X							1.0					(N)	G			*		
	ACPM	JOINT AIR TASKING 1	8321	X							0.4					(N)	G			*		
	ACPM	JOINT AIR TASKING 2	8322	X							0.4					(N)	G			*		
	ACPM	JOINT AIR TASKING 3	8323	X							0.4					(N)	G			*		
	ACPM	JOINT AIR TASKING 4	8324	X							0.4					(N)	G			*		
	ACPM	JOINT AIR TASKING 5	8325	X							0.4					(N)	G			*		
	ACPM	JOINT AIR TASKING 6	8326	X							0.4					(N)	G			*		

SKILL	STAGE	T&R DESCRIPTION	EVENT NUMBER	ATTAIN		MAINTAIN	FRS ONLY			ACAD/GRND		SIM		FLIGHT		COND	TYPE	# A/C or Sim	NETWORK	REFLY	PREREQUISITE	CHAINING
				B	R		MR	SS	CV	#	TIME	#	TIME	#	TIME							
	ACPM	INTEGRATING FIRES AN	8340	X							0.5					(N)	G			*		
	ACPM	ESTABLISHING CONTROL	8350	X							0.9					(N)	G			*		
	ACPM	TACRON ORGANIZATIONS	8351	X							1.0					(N)	G			*		
	ACPM	ESG/CSG INTEGRATION	8620	X							1.0					(N)	G			*		
	ACPM	TACTICAL AIR COMMAND	8630	X							1.0					(N)	G			*		
	ACPM	JOINT DATA NETWORK	8640	X							0.9					(N)	G			*		
	ACPM	MAGTF THEATER AND NA	8641	X							1.3					(N)	G			*		
	ACPM	JOINT OPS INTRO	8660	X							0.5					(N)	G			*		
8000 ACPM SKILL TOTAL										28	22.5	0	0.0	0	0.0							

2.16 SYLLABUS SUPPORT MATRIX

STAGE	EVENT NUMBER	ORDNANCE	ORDNANCE QUANITY	ORDNANCE NOTES	RANGE	RANGE NOTES	EXTERNAL SYLLABUS SUPPORT	EXTERNAL SYLLABUS NOTES	EVAL	EOM	EVENT CONV
ACAD											
FAM											
SFAM	S1100										1100
SFAM	S1101										1101

STAGE	EVENT NUMBER	ORDNANCE	ORDNANCE QUANITY	ORDNANCE NOTES	RANGE	RANGE NOTES	EXTERNAL SYLLABUS SUPPORT	EXTERNAL SYLLABUS NOTES	EVAL	EOM	EVENT CONV
SFAM	S1102										1102
SFAM	S1103										1103
SFAM	S1104										1104
SFAM	S1105										1105
SFAM	S1106										1106
SFAM	S1107										1107
SFAM	S1108										1108
SFAM	S1109										1109
SFAM	S1110										1110
SFAM	S1111										1111
SFAM	S1112										1112
FAM	1113										1113
FAM	1114				MOA, RSTD						1114
FAM	1115				MOA, RSTD						1115
FAM	1116										1116
FAM	1117										1117
FAM	1118										1118
FAM	1119										1119
INST											
SINST	S1120										1120
SINST	S1121										1121
SINST	S1122										1122
INST	1123										1123
INST	1124										1124
SINST	S1125										1125
INST	1126										1126
SINST	S1127										1127
INST	1128										1128
INST	1129										1129
FOB											
SFOB	S1200										1200
FOB	1201										1201
FOB	1202										1202
FCLP											
SFCLP	S1210										1210
FCLP	1211										1211

STAGE	EVENT NUMBER	ORDNANCE	ORDNANCE QUANITY	ORDNANCE NOTES	RANGE	RANGE NOTES	EXTERNAL SYLLABUS SUPPORT	EXTERNAL SYLLABUS NOTES	EVAL	EOM	EVENT CONV
FCLP	1212										1212
FCLP	1213										1213
FCLP	1214										1214
FCLP	1215										1215
FCLP	1216										1216
VCON											
VCON	1220										1220
SVCON	S1221										1221
VCON	1222										1222
VCON	1223										1223
FORM											
FORM	1300				MOA, RSTD						1300
FORM	1301				MOA, RSTD						1301
AAH											
SAAH	S1310										1310
AAH	1311				MOA, RSTD						1311
AAH	1312				MOA, RSTD						1312
TACFORM											
TACFORM	1320				MOA, RSTD						1320
TACFORM	1321				MOA, RSTD						1321
TACFORM	1322				MOA, RSTD						1322
TACFORM	1323				MOA, RSTD						1323
TACFORM	1324				MOA, RSTD						1324
NAV											
SNAV	S1330										1330
SNAV	S1331R										1331
NAV	1332				MTR						1332
AAR											
AAR	1340				AAR						1340
TCT											
STCT	S1350										1350
TCT	1351	ALQ-164,TCTS POD,CHAFF,FLARES	1/1/30/30		TACTS, EW						1351
TCT	1352	ALQ-164,TCTS POD,CHAFF,FLARES	1/1/30/30		TACTS, EW						1352
SRAD											
SRAD	S1360										1900,1905

STAGE	EVENT NUMBER	ORDNANCE	ORDNANCE QUANITY	ORDNANCE NOTES	RANGE	RANGE NOTES	EXTERNAL SYLLABUS SUPPORT	EXTERNAL SYLLABUS NOTES	EVAL	EOM	EVENT CONV
SRAD	S1361										1906
AS											
SAS	S1400										1401
SAS	S1401										1402
SAS	S1402										1403
SAS	S1403										1404
SAS	S1404										1405
AS	1405	Mk-76	6		RKD RNG						1406
AS	1406	Mk-76, Flares	6/10		RKD RNG, EXP						1407
AS	1407	Mk-76, Flares	6/10		RKD RNG, EXP						1408
AS	1408	Mk-76, Flares	6/10		RKD RNG, EXP						1408
AS	1409	Mk-76	6		RKD RNG						1409
AS	1410	25mm, BDU-45, Flares	300/2/20		STRAFE, HVY INERT, WISS, EXP						1410
LAT											
SLAT	S1420										1420
SLAT	S1421										1421
SLAT	S1422										1422
LAT	1423				MOA, RSTD, LAT						1423
LAT	1424				MOA, RSTD, LAT						1424
LAT	1425				TACTS, MOA, RSTD, LAT, EW						1425
MECH											
SMECH	S1430										1431
SMECH	S1431										1430
SMECH	S1432										1432
MECH	1433	Mk-76	6		TGT, WISS						1433
MECH	1434	Mk-76	6		TGT, WISS						1435
MECH	1435	Mk-76, Flares	6/10		TGT, WISS, EXP						1436
SMECH	S1436										
MECH	1437	Mk-76, Flares	6/10		TGT, WISS, EXP						1434
MECH	1438	Mk-76, Flares	6/10		TGT, WISS, EXP						1437
MECH	1439	GBU-38, GBU-12, CAGM-65, Flares	1/1/1/2010	1 GBU-38I/1 GBU-32/1 GBU-32I, 1 GBU-12I/1 GBU-16/1 GBU-16I/1 LGTR	TGT, HE, JDAM, LSR						
CAS											
SCAS	S1440										1440

STAGE	EVENT NUMBER	ORDNANCE	ORDNANCE QUANITY	ORDNANCE NOTES	RANGE	RANGE NOTES	EXTERNAL SYLLABUS SUPPORT	EXTERNAL SYLLABUS NOTES	EVAL	EOM	EVENT CONV
SCAS	S1441										1441
SCAS	S1442										1442
SCAS	S1443										1443
	1444	Mk-76, 5in Rkts	6/3	Rockets allocated to support aircraft for marking tgt	TGT		FAC(A) OR FAC				1444
CAS	1445	LGTR, SIM GBU-12 AND SIM GBU-38	1		TGT		FAC(A) OR FAC, OR SIM FAC(A)				1445
CAS	1446	Mk-76, 5in Rkts, Flares	6/3/20	Rockets allocated to support aircraft for marking tgt	TGT, EXP		FAC(A) OR FAC, OR SIM FAC(A)				1446
CAS	1447	Mk-76, 5in Rkts, Flares	6/3/20	Rockets allocated to support aircraft for marking tgt	TGT, EXP		FAC(A) OR FAC, OR SIM FAC(A)				1447
AI											
SAI	S1450										1450
AI	1451	TCTS Pod, BDU-35, Flares, Chaff	1/2/10/20		TGT, RSTD, MTR, EXP						1451
SEN											
SSEN	S1460										1902
SSEN	S1461										1904
SSEN	S1462										2503
SSEN	S1463										2501
SSEN	S1464										
SSEN	S1465										2502
SEN	1466	TPOD	1		LSR						2506
SEN	1467	TPOD, LGTR, CAGM-65, Chaff, Flares	1/1/1/20/40	GBU-12/GBU-12I/GBU-16/GBU-16, CAGM-65	TGT, LSR, Restricted						2511
SEN	1468	TPOD, GBU-38I	1-Jan	GBU-38/GBU-32/GBU-32I (MAY BE COMPLETED WITH SIMULATED ORDNANCE)	TGT, LSR, JDAM, Restricted						2512
SEN	1469	TPOD	1		LSR						2514
SEN	1470	TPOD, Mk-76, Chaff, Flares	1/6/20/60	Mk-82/BDU-45/	TGT, LSR, Restricted						2507
SEN	1471	TPOD, Mk-76, Chaff, Flares	1/6/20/60	Mk-82/BDU-45/	TGT, LSR, Restricted						
SEN	1472	TPOD, 25MM, 2.75in Rkts, Chaff, Flares	1/300/7/20/60	4X 5in Rkts	TGT, LSR, STRAFE, Restricted						2509
SSEN	S1473										2601
SEN	1474	TPOD	1		LSR						2602
SEN	1475	TPOD, LGTR, Chaff, Flares	1/2/10/20	GBU-12/GBU-12I/GBU-16/GBU-16I/GBU-32/GBU-32I/GBU-38/GBU-38I (MAY BE COMPLETED WITH SIMULATED	TGT, LSR, Restricted						2603

STAGE	EVENT NUMBER	ORDNANCE	ORDNANCE QUANITY	ORDNANCE NOTES	RANGE	RANGE NOTES	EXTERNAL SYLLABUS SUPPORT	EXTERNAL SYLLABUS NOTES	EVAL	EOM	EVENT CONV
				ORDNANCE)							
AA											
SAA	S1500										1500
AA	1501	CATM-9	1		AA						1501
AA	1502	CATM-9, Flares,TCTS Pod	1/30/1		AA, TACTS, EXP		TCTS DEBRIEF FACILITY				1503
AA	1503	CATM-9, Flares, TCTS Pod	1/30/1		AA, TACTS, EXP		TCTS DEBRIEF FACILITY				1504
AA	1504	CATM-9, Flares, TCTS Pod	1/30/1		AA, TACTS, EXP		TCTS DEBRIEF FACILITY				1505
AA	1505	CATM-9, Flares, TCTS Pod	1/30/1		AA, TACTS, EXP		TCTS DEBRIEF FACILITY				1506
AA	1506	CATM-9, Flares, TCTS Pod	1/30/1		AA, TACTS, EXP		TCTS DEBRIEF FACILITY				1507
AA	1507	CATM-9, Flares, TCTS Pod	1/30/1		AA, TACTS, EXP		TCTS DEBRIEF FACILITY				1507
AA	1508	CATM-9, Flares, TCTS Pod	1/30/1		AA, TACTS, EXP		TCTS DEBRIEF FACILITY, 1 ADVERSARY A/C				2705
SAA	S1509										2706
SAA	S1510										2707
NS											
SNS	S1600										1600
SNS	S1601										1601
NS	1602				MOA,RSTD						1602
NS	1603				MOA,RSTD						1603
NS	1604				MOA,RSTD						1604
NS	1605				MOA,RSTD						1605
NS	1606										1606
FAM											
SFAM	2100										2100
SFAM	2101										2101
FAM	2102										2102
INT											
SINT	2200	AIM-9, AIM-120, Expendables	2/2								2706
SINT	2201	AIM-9, AIM-120, Expendables	2/2								2707
INT	2202	CAIM-9, TCTS Pod	1/1		MOA, Restricted, Warning		AIC/GCI, TCTS facility				2708
TCT											
STCT	2300	TPOD, ALQ-164, GBU-12, MK-82,	1/1/2/2								2200

STAGE	EVENT NUMBER	ORDNANCE	ORDNANCE QUANITY	ORDNANCE NOTES	RANGE	RANGE NOTES	EXTERNAL SYLLABUS SUPPORT	EXTERNAL SYLLABUS NOTES	EVAL	EOM	EVENT CONV
		Expendables									
STCT	2301	ALQ-164, AIM-9, AIM-120, Expendables	1/2/2								
TCT	2302	TPOD, TCTS POD, ALQ-164, Chaff, Flares	1/1/1/30/30		Restricted	MOA acceptable	TCTS facility				2201
AAR											
AAR	2400				MOA		Compatible tanker IAW ATP-56(B)				2300
LAT											
SLAT	2500	ALQ-164, Expendables	1								2401
LAT	2501	MK-82, Chaff, Flares	4/30/30	4 BDU-45/2 MK-83/2 MK-83I	Restricted,EXP	MRR acceptable					2402
LAT	2502	TPOD, TCTS POD, ALQ-164, Chaff, Flares	1/1/1/30/30		Restricted,EXP	MOA acceptable	TCTS facility				2403
AS											
SAS	2600	TPOD, MK-82, 5" Rockets, 25mm, Expendables	1,4,8,300								2501, 2502
SAS	2601	TPOD, GBU-54, GBU-12F/B, GBU-12, GBU-32, AGM-65E, Expendables	1/1/1/1/1								2503, 2504
SAS	2602	TPOD, AGM-65E, GBU-54, GBU-12F/B, GBU-12, 25mm, Expendables	1/1/2/1/300								
SAS	2603	TPOD, GBU-54, GBU-12F/B, GBU-12, Expendables	1/2/2/1								
SAS	2604	TPOD, Expendables	1								2505
AS	2605	TPOD, MK-82 LD, 25MM, Flares	1/4/100/30	4 BDU-45/2 MK-83/2 MK-83I/6 MK-76, 4 5” HE/4 5” Inert/7 2.75” HE/7 2.75” Inert	Restricted,EXP,STRAFE,HE						2508, 2509, 2513
AS	2606	TPOD, MK-82 HD, 25MM, Flares	1/4/100/30	4 MK-82 LD/4 BDU-45 HD/4 BDU-45 LD/2 MK-83 HD/2 MK-83 LD/2 MK-83I HD/2 MK-83I LD/6 MK-76, 4 5” HE/4 5” Inert/7 2.75” HE/7 2.75” Inert	Restricted,EXP,STRAFE,HE						2510
AS	2607	TPOD, CATM-65E, GBU-54, GBU-12, Chaff, Flares	1/1/1/1/10/20	1 GBU-54I/1 GBU-38/1 GBU-38I/1 GBU-32/1 GBU-32I/1 GBU-12F/B/1 GBU-12F/BI, 1 GBU-12I/1 GBU-16/1 GBU-16I/1 LGTR	Restricted,EXP,HE						2511, 2512, 2514
NS											
SNS	2700	TPOD, GBU-54, GBU-12, MK-82, 25mm, Expendables	1/1/1/2/300								2601
NS	2701	TPOD, MK-76, Flares	1/6/30	4 MK-82/4 BDU-45/4 MK-83/4 MK-83 Inert	Restricted,EXP						2604
NS	2702	TPOD, GBU-38, GBU-12, MK-82, 25MM, Flares	1/1/1/1/100/60	1 GBU-38I/GBU-32/GBU-32I/GBU-54/GBU-54I/1 GBU-12F/B/1 GBU-12F/BI, 1 GBU-12I/GBU-16/GBU-16I/LGTR, 1 BDU-45/MK-83/MK-83I/2 MK-76, 4 5” HE/5” Inert	Restricted,EXP,STRAFE,HE						2605

STAGE	EVENT NUMBER	ORDNANCE	ORDNANCE QUANITY	ORDNANCE NOTES	RANGE	RANGE NOTES	EXTERNAL SYLLABUS SUPPORT	EXTERNAL SYLLABUS NOTES	EVAL	EOM	EVENT CONV
AA											
SAA	2800	AIM-9, AIM-120, Expendables	2/2								2700
AA	2801	CATM-9,TCTS Pod, Flares	1/1/30		Restricted/WARN/EXP/ TCTS	MOA if AA approved	TCTS facility				2701
AA	2802	CATM-9,TCTS Pod, Flares	1/1/30		Restricted/WARN/EXP/ TCTS	MOA if AA approved	TCTS facility				2702
AA	2803	CATM-9,TCTS Pod, Flares	1/1/30		Restricted/WARN/EXP/ TCTS	MOA if AA approved	TCTS facility				2703
AA	2804	CATM-9,TCTS Pod, Flares	1/1/30		Restricted/WARN/EXP/ TCTS	MOA if AA approved	TCTS facility				2704
SAA	2805		2/2		Restricted/WARN/EXP/ TCTS			GCI Desired			
SAA	2806		2/2		Restricted/WARN/EXP/ TCTS			GCI Desired			
SAA	2807		2/2		Restricted/WARN/EXP/ TCTS			GCI Desired			4602
SAA	2808		2/2		Restricted/WARN/EXP/ TCTS			GCI Desired			
SAA	2809		2/2		Restricted/WARN/EXP/ TCTS			GCI Desired			4601
AA	2810	CATM-9,TCTS Pod, CATM-120, Chaff, Flares	1/1/2/30/30		Restricted/WARN/EXP/ TCTS	MOA if AA approved	TCTS facility	GCI Desired			
AA	2811	CATM-9,TCTS Pod, CATM-120, Chaff, Flares	1/1/2/30/30		Restricted/WARN/EXP/ TCTS	MOA if AA approved	TCTS facility, GCI/AIC, 1 Adversary	Dissimilar preferred			4605
AA	2812	CATM-9,TCTS Pod, CATM-120, Chaff, Flares	1/1/2/30/30		Restricted/WARN/EXP/ TCTS	MOA if AA approved	TCTS facility, GCI/AIC, 2xSAR-1 capableradar-equipped adversaries	Dissimilar preferred			4606
CAS											
SCAS	3100	TPOD, MK-82 HD/LD, 25mm, 5" HE Rockets, Expendables	1/2/300/4					JTAC at console or FAC(A) in linked simulator desired			3101
SCAS	3101	TPOD, GBU-12, GBU-54, GBU-38, AGM-65E, Expendables	1/1/1/1/1					JTAC at console or FAC(A) in linked simulator desired			3102
SCAS	3102	TPOD, GBU-12, GBU-54, GBU-38, 25mm, Expendables	1/2/1/1/300					JTAC at console or FAC(A) in linked simulator desired			
SCAS	3103	MK-82 HD, 5" HE Rockets, CBU-99, 25mm, Expendables	2/4/1/300					JTAC at console or FAC(A) in linked simulator desired			

STAGE	EVENT NUMBER	ORDNANCE	ORDNANCE QUANITY	ORDNANCE NOTES	RANGE	RANGE NOTES	EXTERNAL SYLLABUS SUPPORT	EXTERNAL SYLLABUS NOTES	EVAL	EOM	EVENT CONV
SCAS	3104	TPOD, MK-82, GBU-12, GBU-16, GBU-38, GBU-32, GBU-54, 25MM, Expendables	1/2/1/1/1/1/1/300					JTAC at console or FAC(A) in linked simulator desired			3103
CAS	3105	TPOD, MK-82, 5" HE Rockets, 25mm, Flares	1/2/4/300/30	6 Mk-76/4 Mk-82/4 BDU-45/2 Mk-83/2 Mk-83 inert/2 CBU-99/2 Mk-77, 7 2.75" Rockets	Restricted,STRAFE,HE,EXP		JTAC or FAC(A)				3104
CAS	3106	TPOD, GBU-12, GBU-38, CATM-65E, Flares	1/1/1/1/30	GBU-32/GBU-32 inert/GBU-38/GBU-38 inert/GBU-12/GBU-12 inert/GBU-16/GBU-16 inert/LGTR	Restricted,HE,EXP		JTAC or FAC(A)				4400
CAS	3107	MK-82 HD, 5" HE Rockets, 25MM, Flares	2/4/300/30	6 Mk-76/4 MK 82/4 BDU-45/2 Mk-83/2 Mk-83 inert/2 CBU-99/100, 7 2.75" Rockets	Restricted,STRAFE,HE,EXP		JTAC or FAC(A)				3101
CAS	3108	TPOD, LGTR, GBU-38 Inert, 25MM, Flares	1/1/1/300/30	Inert GBU 32/Inert GBU 38/Inert GBU 12/Inert GBU 16/Inert BDU 45/Inert 5" Rockets/Inert 7 2.75" Rockets	Restricted,STRAFE,HE,EXP,LSR		JTAC or FAC(A)				3107
CAS	3109	TPOD, MK-82, 25mm, Flares	1/2/300/30	6 Mk-76/4 Mk-82/4 BDU-45/2 Mk-83/2 Mk-83 inert/2 CBU-99/2 Mk-77, 7 2.75" Rockets, 4 5" HE Rockets	Restricted,STRAFE,EXP,HE		JTAC or FAC(A)				3105
CAS	3110	TPOD, GBU-12, GBU-16, GBU-38, GBU-32, GBU-54, CATM-65E, Chaff, Flares	1/1/1/1/1/1//1/10/20	2 CBU-99/2 Mk-77, 7 2.75" Rockets, 4 5" HE Rockets	Restricted,STRAFE,EXP,HE,LSR		JTAC or FAC(A)				3106
AR											
SAR	3200	TPOD, GBU-54, GBU-12F/B, GBU-12, 25MM, Expendables	1/1/1//1/300								3200
AR	3201	TPOD, MK-82, 25MM, Chaff, Flares	1/2/300/10/20	1 TPOD, 6 Mk-76/4 Mk-82/4 BDU-45/2 Mk-83/2 Mk-83 inert/2 CBU-99/2 Mk-77, 7 2.75" Rockets/4 5" Rockets, 300 25mm	Restricted,STRAFE,EXP,HE						3201
AR	3202	TPOD, GBU-38, GBU-54, GBU-12F/B, GBU-12, Chaff, Flars	1/1/1/1/1/10/20	TPOD, 2 GBU-12/2 GBU-12 inert/1 GBU-16/1 GBU-16 inert/2 LGTR/2 GBU-32/2 GBU-32 inert/2 GBU-38/2 GBU-38 inert/2 LJDAM/ 2 DMLGB	Restricted,STRAFE,EXP,HE,LSR						3202
AR	3203	TPOD, MK-82, GBU-38. GBU-54, GBU-12F/B, GBU-12, Chaff, Flares	1/2/1/1/1/1/10/20	1 TPOD, 6 Mk-76/4 Mk-82/4 BDU-45/2 Mk-83/2 Mk-83 inert/2 GBU-12/2 GBU-12 inert/1 GBU-16/1 GBU-16 inert/2 LGTR/2 GBU-32/2 GBU-32 inert/2 GBU-38/2 GBU-38 inert/2 CBU-99/2 Mk-77/2 DMLGB/1 LJDAM/ 7 2.75" Rockets/4 5" Rockets, 300 25mm, 4 LUU-2/4 LUU-19,10 Chaff, 20 Flares.	Restricted,STRAFE,EXP,HE,LSR						3202
AR	3204	TPOD, MK-82, GBU-38. GBU-54, GBU-12F/B, GBU-12, Chaff, Flares	1/2/1/1/1/1/10/20	1 TPOD, 6 Mk-76/4 Mk-82/4 BDU-45/2 Mk-83/2 Mk-83 inert/2 GBU-12/2 GBU-12 inert/1 GBU-16/1 GBU-16 inert/2 LGTR/2 GBU-32/2 GBU-32 inert/2 GBU-38/2 GBU-38 inert/2 CBU-99/2 Mk-77/2 DMLGB/1 LJDAM/ 7 2.75" Rockets/4 5" Rockets, 300 25mm, 4 LUU-2/4 LUU-19,10	Restricted,STRAFE,EXP,HE,LSR						

STAGE	EVENT NUMBER	ORDNANCE	ORDNANCE QUANITY	ORDNANCE NOTES	RANGE	RANGE NOTES	EXTERNAL SYLLABUS SUPPORT	EXTERNAL SYLLABUS NOTES	EVAL	EOM	EVENT CONV
				Chaff, 20 Flares.							
SCAR											
SSCAR	3300	TPOD, GBU-54, GBU-12, AGM-65E, Expendables	1/2/1/1				Initial simulator shall be linked	Follow-on simulators should be linked. ADVTE linked simulator should be used if available.			
SCAR	3301	TPOD, MK-82, GBU-38, GBU-12, Chaff, Flares	1/2/1/1/10/20	1 TPOD, 6 Mk-76/4 Mk-82/4 BDU-45/2 Mk-83/2 Mk-83 inert/2 GBU-12/2 GBU-12 inert/1 GBU-16/1 GBU-16 inert/2 LGTR/2 GBU-32/2 GBU-32 inert/2 GBU-38/2 GBU-38 inert/2 CBU-99/2 Mk-77, 7 2.75" Rockets/4 5" Rockets, 300 25mm	Restricted,EXP,HE		One section of AR assets				3300
SCAR	3302	TPOD, MK-82, GBU-38, GBU-12, Chaff, Flares	1/2/1/1/10/20	1 TPOD, 6 Mk-76/4 Mk-82/4 BDU-45/2 Mk-83/2 Mk-83 inert/2 GBU-12/2 GBU-12 inert/1 GBU-16/1 GBU-16 inert/2 LGTR/2GBU-32/2 GBU-32 inert/2 GBU-38/2 GBU-38 inert/2 CBU-99/2 Mk-77, 7 2.75" Rockets/4 5" Rockets, 300 25mm, 4 LUU-2/4 LUU-19	Restricted,EXP,HE,LSR		One section of AR assets				3301
AI											
SAI	3400	GBU-38, ALQ-164, AIM-9, AIM-120, Expendables	2/1/2/2								3400
SAI	3401	4 MK-82 HD, ALQ-164, Expendables	4/1								
AI	3402	TPOD, GBU-38, ALQ-164, TCTS pod, Chaff, Flares	1/2/1/1/60/30	2 GBU-38 inert/2 GBU-32/ 2 GBU-32 inert/1 GBU-12/1 GBU-12 Inert/1 GBU-16/1 GBU-16 Inert/1 LGTR	Restricted,HE,LSR,EXP	Warning for routing acceptable	TCTS facility, SAM threat emitters				3401
AI	3403	TPOD, GBU-38, ALQ-164, TCTS pod, Chaff, Flares	1/2/1/1/60/30	2 GBU-38 inert/2 GBU-32/ 2 GBU-32 inert/1 GBU-12/1 GBU-12 Inert/1 GBU-16/1 GBU-16 Inert/1 LGTR	Restricted,HE,LSR,EXP	Warning for routing acceptable	TCTS facility, SAM threat emitters				3402
AI	3404	MK-82 HD, ALQ-164, TCTS pod, Chaff, Flares	4/1/1/60/30	4 BDU-45 HD/2 MK-83 HD/2 MK-83 Inert HD/4 MK-82 LD/4 BDU-45 LD/2 MK-83 LD/2 MK-83 Inert LD/6 MK-76/2 MK-77	Restricted,HE,LSR,EXP	MRR for routing acceptable	TCTS facility, SAM threat emitters				4401
AI	3405	TPOD, GBU-38, ALQ-164, TCTS pod, Chaff, Flares	1/2/1/1/60/30	2 GBU-32 inert/2 GBU-38/ 2 GBU-38 inert/1 GBU-12/1 GBU-12 Inert/1 GBU-16/1 GBU-16 Inert/1 LGTR/4 MK-82/4 BDU-45 HD/2 MK-83 HD/2 MK-83 Inert HD/4 MK-82 LD/4 BDU-45 LD/2 MK-83 LD/2 MK-83 Inert LD/6 MK-76/2 MK-77	Restricted	Warning for routing acceptable	TCTS facility, SAM threat emitters				
EXP											

STAGE	EVENT NUMBER	ORDNANCE	ORDNANCE QUANITY	ORDNANCE NOTES	RANGE	RANGE NOTES	EXTERNAL SYLLABUS SUPPORT	EXTERNAL SYLLABUS NOTES	EVAL	EOM	EVENT CONV
EXP	3500										3500
FCLP											
SFCLP	4100						LSO				4100
FCLP	4101						LSO,FCLP facility				4101
SFCLP	4102						LSO				4102
FCLP	4103						FCLP facility,LSO				4103
SFCLP	4104						LSO				4104
FCLP	4105						NVD-compatible FCLP facility,LSO				4105
CQ											
SCQ	4130						LSO				4130
CQ	4131						L-Class Ship,LSO				4131
CQ	4132						L-Class Ship,LSO				4133
SCQ	4133						LSO				4134
SCQ	4134						LSO				4135
CQ	4135						L-Class Ship,LSO				4136
CQ	4136						L-Class Ship,LSO				
FOB											
SFOB	4160						LSS				4161
FOB	4161						LSS,Air Facility or Road				4162
SFOB	4162						LSS				4163
FOB	4163						LSS,Air Facility OR Road				4164

STAGE	EVENT NUMBER	ORDNANCE	ORDNANCE QUANITY	ORDNANCE NOTES	RANGE	RANGE NOTES	EXTERNAL SYLLABUS SUPPORT	EXTERNAL SYLLABUS NOTES	EVAL	EOM	EVENT CONV
MIR											
MIR	4200	TPOD	1								4500
EW											
EW	4250	ALQ-231	1								
ADLAT											
SADVLAT	4300	ALQ-164, Expendables	1		Restricted						4200
SADVLAT	4301				Restricted						4201
ADVLAT	4302				Restricted						4202
ADVLAT	4303	ALQ-164, Chaff, Flares,TCTS	1/20/40/1		Restricted,EXP		EW EMMITTERS, TCTS FACILITY				4203
ADVLAT	4304	ALQ-164, Chaff, Flares	1/20/40		Restricted,EXP						4204
ADVLAT	4305	ALQ-164, Mk-82, Chaff, Flares	1/4/20/40	4 BDU-45/2 Mk-83/2 Mk-83 inert, 6xMK-76	Restricted,EXP,HE	MRR for routing acceptable					4205
AAD											
SAAD	4400	AIM-9M-8, AIM-120, Expendables	2/2				GCI				4603
SAAD	4401	AIM-9M-8, AIM-120, Expendables	2/2				GCI				4604
AAD	4402	CATM-120, CATM-9, TCTS Pod, Chaff, Flares	2/1/1/30/30		Restricted or Warning,EXP,AA	MOA if AA approved	TCTS, GCI/AIC, RADAR-equipped adversary	Dissimilar preferred, 2 minimum			4607
OOAW											
SOAAW	4500	AIM-9M-8, PUI derived ordnance load, Expendables	2				Linked simulator is required; SOAAW-4600 complete wingman or section lead required. No dual (section lead & wingman) completion authorized (one of the aircrew in the simulator must be SOAAW-4600 complete).	GCI desired if available. Division Lead, ACTI, or WTI shall be the instructor at the console. Division Lead, ACTI, or WTI may be the flight lead or wingman with a section lead at the console if the DAQ is operable and used for the debrief.			4700
OAAW	4501	Any AG Ordnance, CATM-9, TCTS Pod, Flares	1/1/30		Restricted,AA, EXP	Warning if simulated ordnance	GCI, TCTS facility, 1xSEAD platform (EA-6B, F/A-18, F-16, etc)	1xSAR-1 Capable Bandit desired but not required.. Division Lead, ACTI, or WTI shall be the instructor. Blue RTO minimum if flying against live bandit(s).			4701

STAGE	EVENT NUMBER	ORDNANCE	ORDNANCE QUANITY	ORDNANCE NOTES	RANGE	RANGE NOTES	EXTERNAL SYLLABUS SUPPORT	EXTERNAL SYLLABUS NOTES	EVAL	EOM	EVENT CONV
OAAW	4502	Any AG Ordnance, CATM-9, TCTS Pod, Flares	1/1/30		Restricted, AA,EXP	Warning if simulated ordnance	1xSEAD platform (EA-6B, F/A-18, F-16, etc), and 2x SAR-1 capable bandits, GCI, TCTS facility, and blue and red RTOs	Dissimilar bandits preferred. Division Lead, ACTI, or WTI shall be in the flight per non-qualified wingman or section lead			4702
AE											
SAE	4600	TPOD, GBU-12, 25mm, Chaff, Flares	1/2/300/20/60								
AE	4601	TPOD, GBU-12, 25mm, Chaff, Flares	1/2/300/20/60		Restricted,EXP,HE,LSR	MOA if simulated ordnance	Assault support assets				4300
SAE	4602	TPOD, AIM-120, AIM-9, 25mm, Expendables	1/2/2/300				GCI/AIC				
AE	4603	CATM-120, CATM-9, TCTS Pod, Chaff, Flares	2/1/1/30/30		Restricted,EXP,AA		TCTS range, GCI/AIC, Assault Support assets. RADAR-equipped adversary	Dissimilar preferred, 2 minimum.			
CFF											
CFF	4700	TPOD, Chaff, Flares	1/20/40		Restricted		Indirect fire support assets must consist of either 155mm artillery, 81mm mortars or 120mm expeditionary fire support system. Indirect fire support asset requires a minimum of 10 HE rds, 2 WP rds, and 8 Illum rds				4907
FAC(A)											
SFAC(A)	4800	TPOD, 5" rockets, MK-82, Expendables	1/4/2								4900
SFAC(A)	4801	TPOD, 5" rockets, MK-82, Expendables	1/4/2								4901
SFAC(A)	4802	TPOD, 5" WP Rockets, Mk-82,Expendables	1/4/2								4902
SFAC(A)	4803	TPOD, GBU-12, GBU-54, 25mm, Expendables	1/2/2/300								4903
FAC(A)	4804	TPOD, Mk-82, 5" WP Rockets, Chaff, Flares	1/2/4/20/40	Mk-82, Mk-83, Mk-76, 7 2.75" HE/RP/WP/Inert Rockets, 4 5.00" HE/WP/RP/Inert Rockets, 300 25mm	Restricted,HE,EXP,LSR		One or 2 FW CAS elements with free-fall and/or forward firing ordnance and LASER Guided Weapons . Ground FAC/JTAC				4904
FAC(A)	4805	TPOD, Mk-82, GBU-12, Chaff, Flares	1/2/1/20/40	Mk-82, Mk-83, Mk-76, 7 2.75" RP/WP/HE/Inert rockets, 4 5.00" RP/WP/HE/Inert rockets, 300 25mm	Restricted,HE,EXP,LSR		One or 2 FW CAS elements with live or inert GP ordnance and/or forward-firing ordnance and laser guided weapons. Ground FAC/JTAC				4905

STAGE	EVENT NUMBER	ORDNANCE	ORDNANCE QUANITY	ORDNANCE NOTES	RANGE	RANGE NOTES	EXTERNAL SYLLABUS SUPPORT	EXTERNAL SYLLABUS NOTES	EVAL	EOM	EVENT CONV
FAC(A)	4806	TPOD, Mk-82, GBU-12, Chaff, Flares	1/2/1/20/40	Mk-76, Mk-83, BDU-45, LGTR, HE/Inert GBU-38, HE/Inert GBU-54, 300 25mm	Restricted,HE,EXP,LSR		One or two RW CAS elements with live/captive Hellfire, and rockets and guns. Ground FAC/JTAC				4906
FAC(A)	4807	TPOD, GBU-12, GBU-38, Mk-82, Chaff, Flares	1/1/1/1/10/20	Mk-82, HE/Inert Mk-83, BDU-45, LGTR, 300 25mm	Restricted,HE,EXP,LSR		One or 2 FW CAS elements with Live or inert laser-guided weapons, free-fall and/or forward-firing ordnance and a ground FAC/JTAC	If IDFS is to be used 10 HE rds, 4 WP rds for marking or suppression required			4908
SFAC(A)	4808	TPOD, Mk-82, 5" WP Rockets, Expendables	1/2/4								4909
SFAC(A)	4809	TPOD, GBU-54, GBU-12, 25mm, Expendables	1/2/2/300								4910
FAC(A)	4810	TPOD, Mk-82, 5" WP Rockets, Chaff, Flares	1/2/4/20/60	HE/Inert Mk-83, 7 2.75" HE/RP/WP/Inert rockets, LGTR, GBU-12, GBU-38, GBU-54, 300 25mm	Restricted,HE,EXP,LSR		One FW CAS element with free-fall or forward firing ordnance, 1 additional Fire support asset (RW CAS/UAS CAS/IDFS) and a ground FAC/JTAC	If IDFS is to be used 10 HE rds, 4 WP rds for marking or suppression required			4911
FAC(A)	4811	TPOD, GBU-12, GBU-38, Chaff, Flares	1/2/1/10/20	LGTR, GBU-54, Mk-82, HE/Inert Mk-83, 300 25mm	Restricted,HE,EXP,LSR		One FW CAS element with Laser guided weapons and/or IAMs, 1 additional Fire support asset (RW CAS/UAS CAS/IDFS) and a ground FAC/JTAC.	If IDFS is to be used 10 HE rds, 4 WP rds for marking or suppression required			4912
FAC(A)	4851	TPOD, Mk-76, LGTR, Chaff, Flares	1/6/1/20/40	Mk-82, Mk-83, GBU-12, GBU-38, GBU-54, 300 25mm	Restricted,HE,EXP,LSR						4951
LFE											
LFE	4900	Per applicable MCT T&R code being executed.			Restricted, Warning, MOA		Per Scenario	4 of the following: strike element, sweep element, SEAD element, EA/ES assets, AAR assets, and command and control assets			4800
LFE	4901	Per applicable MCT T&R code being executed.			Restricted, Warning, MOA		Per Scenario	4 of the following: strike element, sweep element, SEAD element, EA/ES assets, AAR assets, and command and control assets			4801
WTO											
SWTO	5100								X		5100
SWTO	5101								X		5101

STAGE	EVENT NUMBER	ORDNANCE	ORDNANCE QUANITY	ORDNANCE NOTES	RANGE	RANGE NOTES	EXTERNAL SYLLABUS SUPPORT	EXTERNAL SYLLABUS NOTES	EVAL	EOM	EVENT CONV
SWTO	5102								X		5102
SWTO	5103								X		5103
WTO	5104								X		5104
WTO	5105								X		5105
LATI											
SLATI	5200								X		5200
SLATI	5201								X		5201
LATI	5202								X		5202
LATI	5203								X		5203
LATI	5204								X		5204
NSI											
SNSI	5300								X		5300
SNSI	5301								X		5301
NSI	5302								X		5302
NSI	5303								X		5303
NSLATI											
SNSLATI	5400								X		5400
SNSLATI	5401								X		5401
NSLATI	5402								X		5402
ACTI											
SACTI	5500								X		
SACTI	5501								X		5500
ACTI	5502								X		5501
ACTI	5503								X		5502
ACTI	5504								X		5503
FAC(A)I											
SFAC(A)I	5600								X		5600
SFAC(A)I	5601								X		5601
FAC(A)I	5602								X		5602
FAC(A)I	5603								X		5603
FAC(A)I	5604								X		5604
SFAC(A)I	5605								X		
IUT											

STAGE	EVENT NUMBER	ORDNANCE	ORDNANCE QUANITY	ORDNANCE NOTES	RANGE	RANGE NOTES	EXTERNAL SYLLABUS SUPPORT	EXTERNAL SYLLABUS NOTES	EVAL	EOM	EVENT CONV
SIUT	5800								X		5800
SIUT	5801								X		5801
IUT	5802								X		5802
IUT	5803								X		5803
SIUT	5804								X		5804
IUT	5805								X		5805
IUT	5806								X		5806
IUT	5807								X		5807
IUT	5808								X		5808
SIUT	5809								X		5809
IUT	5810								X		5810
SIUT	5811								X		5811
SIUT	5812								X		5812
IUT	5813								X		5813
IUT	5814								X		5814
IUT	5815								X		5815
SIUT	5816								X		5816
IUT	5817								X		5817
IUT	5818								X		5818
IUT	5819								X		5819
IUT	5820								X		5820
SIUT	5821								X		5821
SIUT	5822								X		5822
IUT	5823								X		5823
SIUT	5824								X		5824
SIUT	5825								X		5825
IUT	5826								X		5826
IUT	5827								X		5827
IUT	5828								X		5828
SIUT	5829								X		5829
IUT	5830								X		5830
IUT	5831								X		5831
SIUT	5832								X		5832
IUT	5833								X		5833
IUT	5834								X		5834

STAGE	EVENT NUMBER	ORDNANCE	ORDNANCE QUANITY	ORDNANCE NOTES	RANGE	RANGE NOTES	EXTERNAL SYLLABUS SUPPORT	EXTERNAL SYLLABUS NOTES	EVAL	EOM	EVENT CONV
IUT	5835								X		5835
SIUT	5836								X		5836
SIUT	5837								X		5837
IUT	5838								X		5838
IUT	5839								X		5839
SIUT	5840								X		5840
SIUT	5841								X		5841
SIUT	5842								X		5842
SIUT	5843								X		5843
SIUT	5844								X		5844
IUT	5845								X		5845
FLSE											
SFLSE	5900	TPOD, GBU-12, GBU-38, 25mm, Expendables	1/1/2/300						X		5900
SFLSE	5901	25mm, AIM-9M, AIM-120, ALQ-164, Expendables.	300/2/2/1						X		5901
NTPS											
ANTPS	6000								X	X	6000
ANTPS	6001								X	X	6001
ANTPS	6002								X	X	6002
SNTPS	6101								X	X	6101
SNTPS	6103								X	X	6103
INST											
AINST	6004								X	X	6004
AINST	6005								X	X	6005
SINST	6102								X	X	6102
SL											
ASL	6009										6009
ASL	6010								X		6010
ASL	6011								X		6011
SSL	6200	TPOD,GBU-16, GBU-38, GBU-32, GBU-54, 25MM, Expendables	1/1/2/2/2/300						X		
SSL	6201	MK-82 HD, 5” Rockets, 25MM, Expendables	3/4/300						X		
SSL	6202	As determined by flight lead based upon JWS planning, AIM-9, AIM-120, ALQ-164, Expendables	2/2/1						X		6205
SL	6203	TPOD, MK-82, 25MM, Chaff, Flares	1/4/300/10/20	6 Mk-76/4 Mk-82/4 BDU-45/2 Mk-83/2 Mk-83 inert/2 CBU-99/2 Mk-77, 7 2.75"	Restricted,HE,STRAFE ,EXP,STRAFE				X		6206

STAGE	EVENT NUMBER	ORDNANCE	ORDNANCE QUANITY	ORDNANCE NOTES	RANGE	RANGE NOTES	EXTERNAL SYLLABUS SUPPORT	EXTERNAL SYLLABUS NOTES	EVAL	EOM	EVENT CONV
				Rockets/4 5" Rockets, 300 25mm, 4 LUU-2/4 LUU-19							
SL	6204	TPOD, MK-82, GBU-54, Chaff, Flares	1/2/2/10/20	6 Mk-76/4 Mk-82/4 BDU-45/2 Mk-83/2 Mk-83 inert/2 GBU-12/2 GBU-12 inert/1 GBU-16/1 GBU-16 inert/2 LGTR/2, GBU-32/2 GBU-32 inert/2 GBU-38/2 GBU-38 inert/2 CBU-99/2 Mk-77, 7 2.75" Rockets/4 5" Rockets, 300 25mm, 4 LUU-2/4 LUU-19	Restricted,HE,STRAFE ,EXP,LSR		Minimum of one section of AR assets		X		6206
SL	6205	As determined by flight lead based upon JWS planning, TCTS pod, Chaff, Flares	1/60/30	Simulated ordnance acceptable	Restricted,Warning, MOA,TCTS,EXP		TCTS facilitiy, SAM threat emitters		X		6205
SL	6206	TPOD, GBU-12 GBU-16, GBU-38, GBU-32, GBU-54, 25mm, Chaff, Flares	1/1/1/1/1/1/300/10/20	2 GBU-32/2 GBU-32 inert/2 GBU-38/2 GBU-38 inert/2 GBU-12/2 GBU-12 inert/2 GBU-16/2 GBU-16 inert/2 LGTR, Rockets	Restricted,Warning, MOA,TCTS,EXP,LSR		JTAC or FAC(A)				6204
SL	6207	CATM-9, CATM-120, TCTS Pod, Chaff, Flares	1/2/1/30/30		Restricted, Warning,TCTS,EXP,AA	MOA if AA appoved	GCI Desired				
SL	6208	CATM-9, CATM-120, TCTS Pod, Chaff, Flares	1/2/1/30/30		Restricted, Warning,TCTS,EXP,AA	MOA if AA appoved	TCTS, GCI/AIC, RTO (if required) 2 SAR-1 capable radar equipped adversaries	Dissimilar preferred, 2 minimum	X		
DL											
DL	6300						TACTS Debrief facility with an event saved to debrief. Two role players.		X		
DL	6301						TACTS Debrief facility, RTO required event, Red RTO, AA and SA threat.				
DL	6302	TPOD, MK-82, 25MM, Chaff, Flares	1/2/300/10/20	6 Mk-76/4 Mk-82/4 BDU-45/2 Mk-83/2 Mk-83 inert/2 CBU-99/2 Mk-77, 7 2.75" Rockets/4 5" Rockets, 300 25mm, 4 LUU-2/4 LUU-19	Restricted,HE,LSR,ST RAFE,EXP				X		6401
DL	6303	TPOD, GBU-38, TCTS pod, Chaff, Flares	1/2/1/60/30	2 GBU-38 inert/2 GBU-32/ 2 GBU-32 inert/1 GBU-12/1 GBU-12 Inert/1 GBU-16/1 GBU-16 Inert/1 LGTR	Restricted,HE,LSR,TC TS,EXP		TCTS facility, SAM threat emitters. RADAR-equipped adversary	Dissimilar preferred, 2 minimum	X		6402
DL	6304	As determined by mission anaylsis		1 TPOD, 6 Mk-76/4 Mk-82/4 BDU-45/2 Mk-83/2 Mk-83 inert/2 GBU-12/2 GBU-12 inert/1 GBU-16/1 GBU-16 inert/2 LGTR/2 GBU-32/2 GBU-32 inert/2 GBU-38/2 GBU-38 inert, 1 CATM-9, 1 TACTS Pod, 1 ALQ-164, 20 Chaff, 60 Flares	Restricted,HE,LSR,TC TS,EXP		TCTS facility, SAM threat emitters.		X		6403

STAGE	EVENT NUMBER	ORDNANCE	ORDNANCE QUANITY	ORDNANCE NOTES	RANGE	RANGE NOTES	EXTERNAL SYLLABUS SUPPORT	EXTERNAL SYLLABUS NOTES	EVAL	EOM	EVENT CONV
SDL	6305	AIM-120, CATM-9, Chaff, Flares	2/2				GCI				
MC											
AMC	6013								X		6013
AMC	6014								X		6014
MC	6400	As determined by mission anaylsis		1 TPOD, 6 Mk-76/4 Mk-82/4 BDU-45/2 Mk-83/2 Mk-83 inert/2 GBU-12/2 GBU-12 inert/1 GBU-16/1 GBU-16 inert/2 LGTR/2 GBU-32/2 GBU-32 inert/2 GBU-38/2 GBU-38 inert, 1 CATM-9, 1 TACTS Pod, 1 ALQ-164, 20 Chaff, 60 Flares	Restricted, Warning, MOA		Per Scenario		X		6500
MC	6401	As determined by mission anaylsis		1 TPOD, 6 Mk-76/4 Mk-82/4 BDU-45/2 Mk-83/2 Mk-83 inert/2 GBU-12/2 GBU-12 inert/1 GBU-16/1 GBU-16 inert/2 LGTR/2 GBU-32/2 GBU-32 inert/2 GBU-38/2 GBU-38 inert, 1 CATM-9, 1 TACTS Pod, 1 ALQ-164, 20 Chaff, 60 Flares	Restricted, Warning, MOA		Per Scenario		X		6501
ADFL											
ADFL	6500	CATM-120, 1 CATM-9, TCTS Pod, Chaff, Flares, Chaff	2/1/1/30/30		Restricted,HE,LSR,TCTS,EXP	MOA if AA approved	TACTS range, GCI/AIC, RADAR-equipped adversary	Dissimilar preferred, 2 minimum	X		
FCF											
SFCF	6600								X		6600
FCF	6601								X		6601
DESG/AIRSHOW											
SDESG	6700								X		6700
DESG	6701								X		6701
LSO											
LSO	6750								X		6750
LSO	6751								X		6751
LSO	6752								X		6752
LSO	6753								X		6753
LSO	6754								X		6754
LSO	6755								X		6755
LSO	6756								X		6756
LSO	6757								X		6757
LSI											
LSI	6770								X		6770

STAGE	EVENT NUMBER	ORDNANCE	ORDNANCE QUANITY	ORDNANCE NOTES	RANGE	RANGE NOTES	EXTERNAL SYLLABUS SUPPORT	EXTERNAL SYLLABUS NOTES	EVAL	EOM	EVENT CONV
LSI	6771								X		6771
LSS											
LSS	6772								X		6772
LSS	6773								X		6773
LSS	6774								X		6774
LSS	6775								X		6775
TRK											
TRK	6800										6800
TRK	6801R										6801
TRK	6802										6802
TRK	6803	25MM	1								6803
TRK	6804										6804
TRK	6805										6805
TRK	6806										6806
TRK	6807										6807
TRK	6808										
TRK	6809										
TRK	6810	ALQ-231	1								
TRK	6900										6916
TRK	6901										6917
TRK	6902										6914
TRK	6903										6915
TRK	6904										6904
TRK	6905										6905
TRK	6906										6906
TRK	6907										6907
TRK	6908										6908
TRK	6909										6909
TRK	6910										6910
TRK	6911										6911
TRK	6912										6912
TRK	6913										6913
TRK	6914										6914
TRK	6915										6915
TRK	6916										6916
TRK	6917										6917

STAGE	EVENT NUMBER	ORDNANCE	ORDNANCE QUANITY	ORDNANCE NOTES	RANGE	RANGE NOTES	EXTERNAL SYLLABUS SUPPORT	EXTERNAL SYLLABUS NOTES	EVAL	EOM	EVENT CONV
TRK	6918										6918
TRK	6919										6919

THIS PAGE BLANK

APPENDIX A-1

ANNUAL NATOPS CHECKFLIGHT

Description: The sortie should be flown in the simulator and shall be flown in accordance with attached scenarios. The load-out shall be considered a heavy load-out. T&R Code 6001, 6003 (CRM) and TMR Code 2L4.

Purpose: To provide a standardized annual NATOPS checkflight for squadron pilots which is IAW OPNAVINST 3710.7 series, NATOPS NFM-000, and current SOP.

Sortie Objectives:

Evaluate the PUI on his adherence to NATOPS procedures. It is not the purpose of this sortie to evaluate the PUI in a high threat AI scenario.

Demonstrate proficiency in the various types of takeoffs and landings. At a minimum, the following landings shall be evaluated: VL, VNSL, CL. At least one landing shall be SAAHS off.

Compliance with NATOPS procedures for emergency scenarios. At least one emergency shall include crew coordination, if combined with the CRM evaluation.

The PUI should face complications with the ordnance load-out, requiring a jettison decision or an asymmetric recovery.

At some point during the sortie, the PUI should be placed in an ejection dilemma.

Guidance: For the simulator, recommend starting the sortie at the hold short running. Timeliness is imperative. The instructor should have a well thought out gameplan that he can implement to drive a scenario that will accomplish the sortie objectives. Emergencies given to the PUI should follow a logical pattern and stimulate analytical thought in order to support the instructor's gameplan, not random EPs. An example would be an Auto Flap light early in the sortie that resets, followed later by a complete ADC failure. The PUI shall plan on flying a scenario as outlined below. There are countless ways to load out the jet. Assign a load-out that fits the scenario. Ordnance load-outs could also include cluster munitions, Maverick missiles, gun, etc.

Scenario A: PGM sortie load-out should consist of a TPOD, a GBU-12/16, tanks, and a gun. PUI shall plan on a med alt level lay and an appropriate gun pattern (e.g., 20 degrees).

Scenario B: Raked range sortie load-out should consist of 4 Mk-83's and a gun. PUI shall plan a 30-degree pattern.

Discussion: The objective of the sortie is to evaluate compliance with the NATOPS Flight Manual, not tactical knowledge or abilities derived from other publications. The annual SFI flight evaluates flight lead's tactical ability and adherence to the Air NTTP in a high threat AI environment. This is not to suggest that the NATOPS check is a day FAM. The evaluation should be focused on the brief, execution, and debrief all IAW NATOPS, OPNAVINST 3710.7 series, and SOPs.

NATOPS CHECK SCENARIO A: PGM SORTIE

1. Scenario. Aircraft running at the hold short with appropriate load-out (e.g., TPOD, GBU 12/16, tanks, and gun). Planned sortie includes medium alt PGM target attacks.

2. Objectives. The sortie will concentrate on NATOPS knowledge of emergency procedures throughout all phases of the sortie and on good headwork.

3. Sequence.

a. Start. N/A

b. Taxi. Taxi as cleared. Respond to one or more:
   Brake Failure
   NWS Failure
   Skid Light

c. Takeoff. PUI will perform a heavy weight STO and a VTO. Respond to two or more:
   Engine Overtemp
   Lack of Engine Performance
   Fire Light
   AC Power Failure
   IGV Failure in Full Closed Position
   Abort Call From Tower

d. Airborne. Respond to one or more (one shall be taken to a full stop):
   Birdstrike With Engine Surge
   Flaps Drive to Full Down
   AC Electrical failure
   Flameout
   Canopy Light
   Oil Light
   HYD 1 Failure
   Stuck Throttle in High Power Position
   Single Lane DECS Failure

e. Landing. PUI will perform a CL, VNSL, RVL, and a VL. Respond to one or more:
   Oil Light
   Unsafe Gear Indications
   Nozzle Failure at Other Than Full Aft
   Flap Failure at Low Angles
   HYD 1 Failure
   NWS Failure
   Max Crosswind Landing
   Total Electrical Failure

NATOPS CHECK SCENARIO B: RAKED RANGE

1. Scenario. Aircraft running at the hold short with appropriate load-out (e.g. 4 Mk-83's, full internal fuel and water, gun). Planned sortie is a raked range using a 30-degree pattern.

2. Objectives. The sortie will concentrate on NATOPS knowledge of emergency procedures throughout all phases of the sortie and on good headwork.

3. Sequence

a. Start. N/A

b. Taxi. Respond to one or more:
   Brake Failure
   NWS Failure
   Skid Light

c. Takeoff. PUI will perform a heavy weight STO and a VTO. Respond to two or more:
   Abnormal Engine Indications on Run-Up
   Nozzle Failure on STO
   Asymmetric Flap Failure
   Symmetric Flap Failure
   Flaps Fail in Full Down Position
   Fire Indication at Liftoff
   Abort Call From Tower

d. Airborne. Respond to one or more (one shall be taken to a full stop):
   Engine Surge
   Flaps Drive to Full Down
   AC Electrical Failure
   Flameout
   Tank Overpressure Light
   Oil Light
   Rough Running Engine
   HYD 1 Failure
   Stuck Throttle

e. Landing. PUI will perform a CL, VNSL, RVL, and a VL. Respond to one or more:
   Loss of Duct Pressure
   Unsafe Gear Indications
   Loss of Brakes
   Flap Failure at Low Angles
   SAAHS Failure
   Max Crosswind Landing
   Hot and Heavy RVL