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From: Commandant of the Marine Corps  
To: Distribution List

Subj: EA-6B T&R MANUAL

Ref: (a) NAVMC DIR 3500.14

Encl: (1) EA-6B T&R MANUAL

1. Purpose. To revise standards and regulations regarding the training of EA-6B aircrew per the reference.
2. Information. This revision, which supersedes MCO 3500.45A, brings the EA-6B T&R Manual into compliance with reference (a) T&R syllabus structure requirements. It aligns EA-6B instructor training syllabi with the MAWTS-1 Course Catalog and instructor program manuals, reduces redundancy, and provides additional flexibility to commanders in training for current and future operations.
3. Recommendations. Recommended changes to this order are invited, and may be submitted via the syllabus sponsor and the appropriate chain of command to: Commanding General, Training and Education Command, Aviation Training Branch via e-mail (refer to [http://www.tecom.usmc.mil/atb/contacts .htm](http://www.tecom.usmc.mil/atb/contacts.htm)) or the Defense Message System using the following plain language address: CG TECOM QUANTICO VA ATB.
4. Reserve Applicability. This manual is applicable to the Marine Corps Total Force.
5. Certification. Reviewed and approved this date.

  
GEORGE J. FLYNN  
By direction

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

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Subj: EA-6B T&R MANUAL

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1. Purpose. To publish standards and regulations regarding the training of EA-6B aircrew per the reference.

2. Information

a. Per reference (a), the Flight Leadership Standardization program has been added to this Manual. This program affects the Designation Tables and Instructor Requirements Tables on pages 10-11. The Flight Leadership Standardization Evaluator Plan of Instruction (POI) has been added, starting on page 55. Flight Leadership POIs, beginning with Section Leader, start on page 59.

b. In addition, a new event (EW-425) has been added to the 400 Phase for Litening Pod operations starting on page 48.

3. Recommendations. Recommended changes to this publication are invited, and may be submitted via the syllabus sponsor (MAWTS-1) and the appropriate chain of command to: Commanding General, Training and Education Command, Aviation Training Branch via e-mail (refer to <http://www.tecom.usmc.mil/atb/contacts.htm>) or the Defense Message System using the following plain language address: CG TECOM QUANTICO VA ATB.

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

5. Certification. Reviewed and approved this date.

  
M. G. SPIESE  
By direction

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EA-6B PILOT AND ELECTRONIC COUNTERMEASURES OFFICER (ECMO)

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100. UNIT CORE COMPETENCY

1. Background. Marine Aviation plays a crucial role in the MAGTF's ability to conduct Maneuver Warfare. The ultimate goal of Marine Aviation is to attain the highest possible combat readiness to support Expeditionary Maneuver Warfare while at the same time preserving and conserving our Marines and equipment. Embedded within our combat readiness is the ability to rapidly, effectively, and efficiently deploy on short notice and the ability to quickly and effectively plan for crises and/or contingency operations thereby ensuring Marine Aviation remains ready for combat when and where the need arises. The EA-6B T&R Manual represents the collaborative effort of EA-6B Subject Matter Experts who designed training standards to maximize the full combat capabilities of the EA-6B and its crew. These standards, intrinsic in the core competency section, describe and define unit capabilities and requirements necessary to maintain like-squadron proficiency in core skills and combat leadership. Training events are based on specific requirements and performance standards to ensure aircrew maintain a common base of training and depth of combat capabilities. Together, the T&R comprises a building block approach to ensure that trained aircrews remain ready, relevant, and fully capable of supporting the MAGTF commander. The capabilities defined and described in the core competency model are provided to ensure each like squadron maintains a common base of training and depth of capabilities. When resources permit, and when in the judgment of the commander additional training would significantly increase the unit's warfighting capability, training to a level above these base capabilities is permitted. It is incumbent upon, and expected of, the commander to balance any increase in the depth of core capabilities against the long-term health and readiness of his unit while staying within his resource constraints.

2. VMAQ Mission. Support the MAGTF Commander by conducting airborne electronic warfare, day or night, under all weather conditions during Expeditionary, Joint, or Combined Operations.

3. Mission Essential Task List (METL)

- a. (UJTL TA 1.1.4) Conduct Sea and Air Deployment Operations
  - Maintain the capability of operating from naval shipping, advanced bases, and expeditionary airfields
  - Maintain the capability to conduct extended range operations using air refueling
  - Perform organizational maintenance on assigned aircraft
- b. (UJTL TA 2) Develop Intelligence
  - Conduct airborne ES against communication/RADAR systems and associated architecture
  - Process and provide mission data obtained from EW missions and National sources to update targeting and to maintain Electronic Orders of Battle (EOB)
  - Interface with and contribute to all-source theater level Electronic Orders of Battle
- c. (UJTL TA 2.4) Disseminate Tactical Warning and Attack Assessment.
- d. (UJTL TA 3.2.4) Conduct Joint Suppression of Enemy Air Defenses
  - Conduct non-kinetic overt/covert denial, deception, and intrusion operations against communication/RADAR systems and associated architecture within an air defense system.

- Degrade, neutralize or destroy air defense RADAR and communications links with anti-radiation missiles
- Employ bulk chaff
- e. (UJTL TA 3.2.6) Conduct Attacks Using Non-lethal Means
  - Conduct non-kinetic overt/covert denial, deception, and intrusion operations against communication/RADAR systems and associated architecture
  - Employ bulk chaff
  - Coordinate airborne electronic attack with MAGTF, Joint and Coalition airborne and ground based EW assets
  - Integrate airborne electronic attack with lethal fires and fire-support planning
- f. (UJTL TA 3.2.7) Conduct Air and Missile Defense operations
- g. (UJTL TA 5.6) Employ Tactical Information Operations
  - Provide Electronic Warfare, military deception and psychological operations in support of a Tactical, Operational, and Strategic Information Operations (IO) plan
- h. (UJTL TA 6) Protect the Force
  - Conduct airborne EA operations for Electronic Protection (EP) training
  - Maintain self-protect capability against air and surface threats
  - Conduct Task Force Support operations

4. Table of Organization. Refer to Table of Organization 8880 managed by Total Force Structure, MCCDC, for current authorized organizational structure and personnel strength for EA-6B units. As of this publication date, EA-6B units are authorized:

Squadron  
5 aircraft  
8 Pilots  
21 ECMOs

5. Core Capability. A core capable squadron is able to sustain 4 sorties on a daily basis during contingency/combat operations. The above sortie rates are based on 2.0 hour average sortie duration and assume  $\geq 70$  percent FMC aircraft and  $\geq 90$  percent T/O aircrew on hand. If unit FMC aircraft  $< 70$  percent or T/O aircrew  $< 90$  percent, core capability will be degraded by a like percentage. A core capable squadron is able to accomplish all tasks designated in the unit METL from a main base, expeditionary base, or aircraft carrier.

6. METL/Core Skill Matrix. Unit core skills directly support the unit METL as follows:

METL	EA-6B CORE SKILL									
	FAM/ NAV	FORM	NS	AR	ES	EA	TRXN	OAS	TFS	DEFTAC
A. Conduct Sea and Air Deployment Operations.	X	X	X	X					X	
B. Develop Intelligence	X	X	X		X			X	X	
C. Disseminate Tactical Warning and Attack Assessment.	X	X	X		X			X	X	
D. Conduct Joint Suppression of Enemy Air Defenses	X	X	X		X	X	X	X	X	X
E. Conduct Attacks Using Non-lethal Means.	X	X	X		X	X	X	X	X	X
F. Conduct air and Missile Defense operations	X	X	X		X	X	X	X	X	X
G. Employ Tactical Information Operations.	X	X	X		X	X	X	X	X	X
H. Protect the Force.	X	X	X		X	X	X	X	X	X

METL	EA-6B CORE PLUS SKILL						
	FORM	AR	EW	TRXN	DEFTAC	EAF	CO
A. Conduct Sea and Air Deployment Operations.	X	X				X	X
B. Develop Intelligence.			X				
C. Disseminate Tactical Warning and Attack Assessment.			X				
D. Conduct Joint Suppression of Enemy Air Defenses			X	X	X		
E. Conduct Attacks Using Non-lethal Means.			X	X	X		
F. Conduct Air and Missile Defense Operations			X	X	X		
G. Employ Tactical Information Operations.			X	X	X		
H. Protect the Force.		X	X	X	X		

7. Core Model Minimum Requirements (CMMR). Squadron core competency is measured in terms of CMMR - the minimum numbers of core skill proficient crews and minimum numbers of flight leaders per paragraphs a and b below:

a. Minimum Unit CSP Requirements. At a minimum, in order to be considered Core Competent, a unit must possess the following numbers of crews who are proficient in each core skill (Unit CSP). The standard EA-6B crew consists of 1 Pilot and 1 ECMO for the FAM/NAV, Formation, and Aerial Refueling stages. Other crew positions are occupied as necessary in accordance with NATOPS and local SOP. The standard EA-6B crew consists of 1 Pilot and 3 ECMOs for all other stages. In order to be considered proficient in a core skill (Individual CSP), an individual must attain and maintain proficiency in core skill events, as delineated in paragraphs (1) and (2) below.

NOTE: Proficiency in Core Plus skills is not required to obtain Unit CSP. Below are EA-6B community recommended unit/individual proficiency standards for Core Plus skills.

EA-6B Unit CSP Requirements			
CORE SKILL	PILOT	ECMO	CREWS
FAM/NAV	5	5	5
FORM	5	5	5
NS	5	15	5
AR	5	5	5
ES	5	15	5
EA	5	15	5
TRXN	5	15	5
OAS	5	15	5
TFS	5	15	5
DEFTAC	3	9	3
EA-6B Unit Core Skill Plus Proficiency Standards			
CORE PLUS SKILL	PILOT	ECMO	CREWS
FORMATION	2	2	2
AR	2	2	2
EW	2	6	2
TRXN	2	6	2
DEFTAC	2	6	2
EAF	2	2	2
CQ	5	5	5

(1) Events Required to Attain Individual CSP. To initially attain CSP in a core skill, an individual must simultaneously have a 'proficient' status in all of the Core (200-300) T&R events listed in the table below for that core skill:

EA-6B Pilot	FAM NAV	FORM	NS	AR	ES	EA	TRXN	OAS	TFS	DEFTAC
T&R event requirements to attain CSP.	S200	210	220R	230R	S240	S250	S260	S300	S310	320R
	S201	211	221	231R	S241R	S251	261R	301R	S311R	S321
	202	212R	222		S243	S253R		S302	S312	322R
	203R					S255		303R	S313R	
	204R					257R		S304		
	S205							305R		
	206R							306R		
							307R			

EA-6B Pilot*	FORM	AR	EW	TRXN	DEFTAC	EAF	CQ
T&R event requirements to attain CSP.	400R	410R	420R	430R	440R	S450	460
			421R			451R	461
			S422R			452R	S462
			423R				463R
			424R				464R
		425R					

EA-6B ECMO	FAM NAV	FORM	NS	AR	ES	EA	TRXN	OAS	TFS	DEFTAC
T&R event requirements to attain CSP.	S200	210	220R	230R	S240	S250	S260	S300	S310	320R
	S201	211	221	231R	S241R	S251	261R	301R	311R	S321
	202	212R	222		242R	252R		S302	S312	322R
	203R				S243R	S253		303R	313R	
	204R				244R	254R		S304		
	S205				245R	S255		305R		
	206R					S256		306R		
						257R		307R		
						258R				

EA-6B ECMO*	FORM	AR	EW	TRXN	DEFTAC	EAF	CQ
T&R event requirements to attain CSP.	400R	410R	420R	430R	440R	S450	460
			421R			451R	461
			S422R			452R	S462
			423R				463R
			424R				464R
		425R					

(2) Events Required to Maintain Individual CSP. To maintain CSP in a core skill, an individual must maintain proficiency in all of the Core (200-300) T&R events listed in the table below for that core skill. Refreshers fly all events in this category.

EA-6B Pilot	FAM NAV	FORM	NS	AR	ES	EA	TRXN	OAS	TFS	DEFTAC
T&R event requirements to maintain CSP.	203	212	220	230	S241	S253	261	301	311	320
	204			231		257		303	313	322
	206							305		
								306		
								307		

EA-6B Pilot*	FORM	AR	EW	TRXN	DEFTAC	EAF	CQ
T&R event requirements to maintain CSP.	400	410	420	430	440	451	463
			421			452	464
			S422				
			423				
			424				
		425					

EA-6B ECMO	FAM NAV	FORM	NS	AR	ES	EA	TRXN	OAS	TFS	DEFTAC
T&R event requirements to maintain CSP.	203	212	220	230	S241	252	261	301	311	320
	204			231	242	254		303	313	322
	206				S243	257		305		
					244	258		306		
				245		307				

EA-6B ECMO*	FORM	AR	EW	TRXN	DEFTAC	EAF	CQ
T&R event requirements to maintain CSP.	400	410	420	430	440	451	463
			421			452	464
			S422				
			423				
			424				
			425				

- b. Minimum Combat Leader Requirements. At a minimum, in order to be considered Core Competent, a unit must possess the following numbers of aircrew with the listed leadership designations.

DESIGNATION	SQDN Pilots	SQDN ECMOs
MSN CMDR	3	8
DIV LDR	2	NA
SEC LDR	4	NA

8. Qualifications And Designations Tables

a. The table below delineates T&R events required to be completed to attain initial qualifications, to re-qualify, and to attain designations. All stage lectures, briefs, squadron training, and prerequisites shall be complete prior to completing final events. Qualification and designation letters signed by the Commanding Officer shall be placed in individual NATOPS and APR/MPR jackets. Loss of proficiency in ALL qualification events causes the associated qualification to be lost. Regaining a qualification requires completing all "R" coded syllabus events associated with the qualification.

Qualification (Tracking Code)	Initial Event Qualification Requirements
NSQ (QUAL-610)	Minimum of three events supervised by designated NSI - NS-220R, NS-221, and NS-222.
DEFTACQ (QUAL-611)	Minimum of three events supervised by designated DEFTACI - DEFTAC-320, DEFTAC-321, and DEFTAC-322.
F/S NATOPS (REQ-600)	IAW OPNAV 3710.7, EA-6B NATOPS, and an annual qualification letter signed by the Commanding Officer.
B/S NATOPS (REQ-601)	IAW OPNAV 3710.7, EA-6B NATOPS, and an annual qualification letter signed by the Commanding Officer.
INSTRUMENT (REQ-602)	IAW OPNAV 3710.7 NATOPS Instrument Flight Manual, and an annual qualification letter signed by the Commanding Officer.
CRM (REQ-603)	IAW OPNAV 3710.7 and OPNAV 1542.7 Crew Resource Management and shall be recorded in the individual's NATOPS jacket.

Designation (Tracking Code)	Designation Requirements
FIELD LSO (DESIG-674)	There are no sorties required to field qualify an LSO; however, the individual does require evaluation of his performance during EAF/FCLP operations by a Training LSO.
NSI (DESIG-665)	IAW the MAWTS-1 EA-6B Course Catalog.
DEFTACI (DESIG-666)	IAW the MAWTS-1 EA-6B Course Catalog.
WTI (DESIG-668)	IAW the MAWTS-1 EA-6B Course Catalog.
FCF Pilot / ECMO (DESIG-676)	IAW NATOPS and local SOP. FCF-675 check.
A NATOPS (I) (DESIG-670)	IAW NATOPS and local SOP.
NATOPS (I) (DESIG-669)	IAW NATOPS and local SOP.
INST EVAL (DESIG-671)	IAW NATOPS and local SOP.
CRM (I) (DESIG-672)	IAW NATOPS and local SOP.
CRM FACILITOR (DESIG-673)	IAW NATOPS and local SOP.
EWTO (DESIG-667)	IAW the MAWTS-1 EA-6B Course Catalog
ORMI (DESIG-677)	IAW NATOPS and local SOP. Complete applicable ORM training modules.
FLSE (FLSE-520)	Per Flight Leadership Program Model Manager requirements.
SEC LDR (TRK-684)	630 through 637
DIV LDR (TRK-685)	640 through 644
MSN CDR (TRK-686)	647 through 662

b. Instructor Requirements. A unit should possess the following numbers of aircrew with the listed designations.

\* Note: DEFTACI, NSI, WTI designations are IAW MCO 3500.12C (WTPP). Squadron COs/XOs with these designations shall not count towards the numbers below:

INSTRUCTOR DESIGNATION	SQDN PILOTS	SQDN ECMOS
FLSE	2	2
LSO	2	NA
DEFTACI*	1	1
NSI*	2	2
WTI*	1	2

9. Training Progression Model. The training progression model provides community recommended core skill, qualification, and designation attainment timelines for the average crewmember.

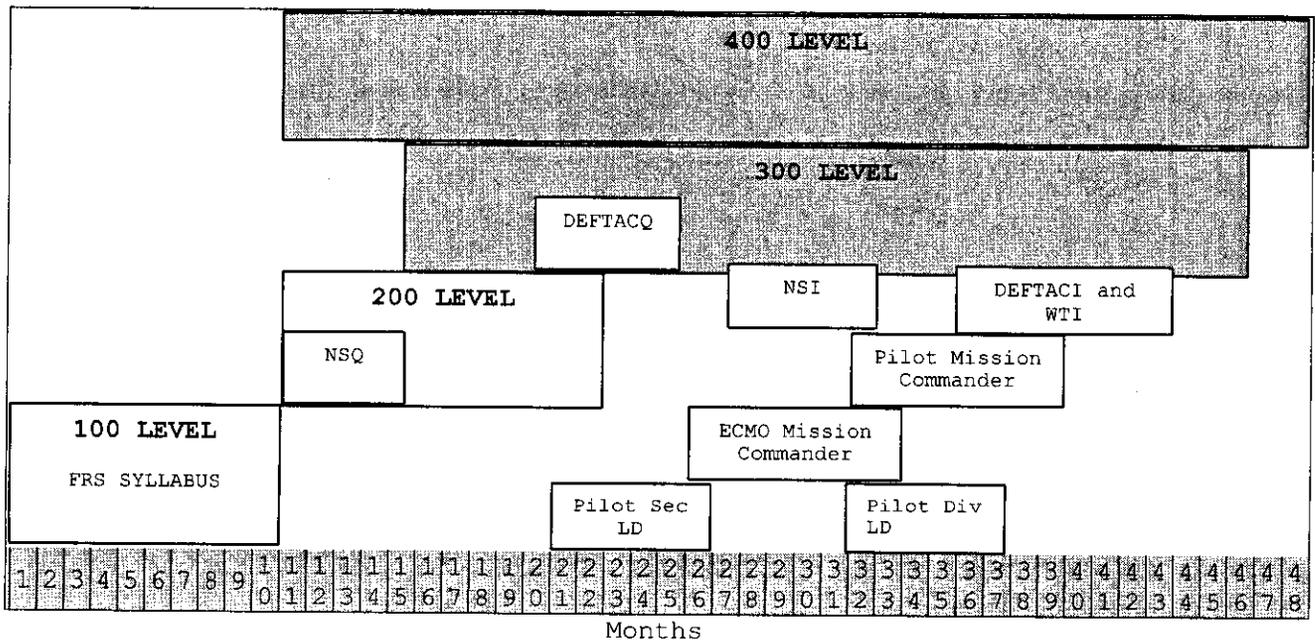


Figure 1.--EA-6B Core Progression Model.

101. POI FOR BASIC/TRANSITION/CONVERSION PILOT AND ECMO. EA-6B Pilots and ECMOs will complete all training per CNO approved syllabus provided at VAQ-129. Other training is administered through the tactical squadron.

1. Pilot

<u>WEEKS</u>	<u>COURSE/PHASE</u>	<u>ACTIVITY</u>
1-5	AVEWS Introduction	NAS Whidbey Is
6-42	Core Skill Introduction	FRS
43-95	Core Skill Basic Training	Tactical Squadron
96-122	Core Skill Advanced Training	Tactical Squadron
123-149	Core Plus Training	Tactical Squadron

2. ECMO

<u>WEEKS</u>	<u>COURSE/PHASE</u>	<u>ACTIVITY</u>
1-10	AVEWS Introduction	NAS Whidbey Is
11-51	Core Skill Introduction	FRS
52-104	Core Skill Basic Training	Tactical Squadron
105-131	Core Skill Advanced Training	Tactical Squadron
132-158	Core Plus Training	Tactical Squadron

102. POI FOR REFRESHER PILOT AND ECMO

1. Pilot

<u>WEEKS</u>	<u>COURSE/PHASE</u>	<u>ACTIVITY</u>
	Core Skill Introduction:	NAS Whidbey
1	Safe For Solo	FRS
1-4	Modified Refresher	FRS
1-24	Refresher	FRS
25-36	Core Skill Basic Training	Tactical Squadron
37-52	Core Skill Advanced Training	Tactical Squadron
53-62	Core Plus Training	Tactical Squadron

2. ECMO

<u>WEEKS</u>	<u>COURSE/PHASE</u>	<u>ACTIVITY</u>
	Core Skill Introduction:	NAS Whidbey
1-4	Modified Refresher	FRS
1-15	Refresher	FRS
25-36	Core Skill Basic Training	Tactical Squadron
37-52	Core Skill Advanced Training	Tactical Squadron
53-62	Core Plus Training	Tactical Squadron

103. POI FOR PILOT AND ECMO IUT

1. Pilot and ECMO DEFTAC IUT

<u>WEEKS</u>	<u>COURSE/PHASE</u>	<u>ACTIVITY</u>
1-3	IUT reviews DEFTAC syllabus	Tactical Squadron
4	IUT presents lectures and practices briefing	Tactical Squadron/MAWTS-1
5-6	IUT flies DEFTACI syllabus	Tactical Squadron/MAWTS-1

2. Pilot and ECMO Night Systems (NS) IUT

<u>WEEKS</u>	<u>COURSE/PHASE</u>	<u>ACTIVITY</u>
1	IUT reviews NS syllabus	Tactical Squadron
2-3	IUT flies NSI syllabus	Tactical Squadron/MAWTS-1

120. GROUND/ACADEMIC TRAINING COURSES OF INSTRUCTION

Utilize the academic courseware as outlined in the EA-6B chapter of the MAWTS-1 Course Catalog.

121. ASSOCIATED GROUND INSTRUCTION

<u>COURSE/PHASE</u>	<u>ACTIVITY</u>
Night Systems Instructor	NITE Lab/VMAQ/MAWTS-1
Defensive Tactics Instructor (DEFTACI)	Tactical/MAWTS-1
Electronic Warfare Tactics Officer (EWTO)	MAWTS-1
Weapons and Tactics Instructor (WTI)	MAWTS-1
IO SME Course	EAWS
HARM University	NAWC CHINA LAKE
Crew Resource Management Instructor	NAS Pensacola
Landing Signal Officer (LSO)	LSO School/VAQ-129
Information Operations Course	Various Locations
Strike Leader Attack Training Syllabus	NSAWC
Prowler Tactics Instructor (PTI)	EAWS

122. SQUADRON LEVEL TRAINING

Operations/Squadron Flight SOP/T&R Manual In-brief  
TACSOP  
Crew Resource Management  
Course Rules Brief/Exam

123. TRAINING REFERENCES

Appropriate MAW Flight SOP  
Appropriate MAG Flight SOP  
Appropriate VMAQ Flight SOP  
Appropriate MCAS Air Operations SOP  
NATOPS General Flight and Operating Instructions  
Landing Signal Officer NATOPS  
NATOPS Instrument Flight Manual  
CV NATOPS Manual  
NATOPS Air Refueling Manual  
EA-6B NATOPS Flight Manual  
EA-6B ICAP II Weapon System Operators Manual (WSOM)  
EA-6B Tactical Manual NTTP 3-22.1/AFTTP 3-1.13  
HARM Tactical Manual  
VMAQ Tactical SOP  
MAWTS-1 EA-6B Course Catalog  
EAWS Courseware  
VAQ-129 Courseware  
Weapons Tactics and Training Order (WTP)  
TOPGUN Manual  
JMPS Mission Planning Manual  
ETIRMS  
SLATS Notebook

130. EVENT PERFORMANCE REQUIREMENTS

1. General

- a. Mission guidance is generalized to allow for local conditions and to allow this document to remain unclassified. Squadrons are encouraged to use the full range of tactics contained in the tactical manuals, TACSOP, and to adopt the latest developed and proven tactics.
- b. All flights shall terminate with a comprehensive debrief with emphasis on aircrew performance utilizing all evaluation techniques available (e.g., TACTS, EW Range, participating aircrews, and AIC personnel).
- c. An Aircrew Training Form (ATF) is required for all initial events and E-coded events. Each stage description identifies evaluating aircrew responsibilities.
- d. The Aviation T&R Program Manual is the Marine Corps aircrew training document. It relates the training requirements and standards for Marine aircrew. When operational commanders assign EA-6B squadrons to prolonged commitments where specific EA-6B T&R training is not available (e.g., deployed), it is expected that degradation in some mission areas will occur. Commanding officers are authorized and encouraged to employ the EA-6B 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 training in areas 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 the EA-6B T&R manual as written.
- e. The sequence of events in the Basic/Conversion/Transition POI progresses in a systematic manner and should be accomplished in order.
- f. Flight simulators will be utilized to the maximum extent possible. To enhance flight training and airborne proficiency, simulators shall be flown as a prerequisite for all stages of training that require a simulator event when squadrons are located near mission capable simulators. In locations where mission capable simulators are not available, stage simulator events shall not be prerequisites for stage flights and are not required to be completed until a mission capable simulator is later available. CRP credit shall not be granted for any simulator until it is actually completed. Note: SARA error messages will occur if prerequisites are not met. They should be expected and briefed to the commanding officer as being in accordance with this paragraph.
- g. Crew Resource Management (CRM) shall be briefed for all flights and/or events.
- h. Event Requirements and Mission Performance Standards. Requirements and performance standards are listed in each T&R event description. These are training standards for individual aircrew performance and should be used by the evaluator as a guideline to determine the satisfactory completion of each event. If the aircrew did not successfully complete all requirements and performance standards, the evaluating officer shall determine if the event is complete or incomplete. If incomplete, the event T&R code shall not be logged and the event re-flown. If complete, all applicable aircrew log the appropriate codes; in addition, all aircrew should log lower level event codes when the performance standards of the lower level events have been met. For example, in many OAS and

TFS stage events, ECMO 2 and 3 may log ES-242 and EA-252 additional to the 300-level codes. The Mission Commander shall determine which codes are logged in NALCOMIS.

i. Event Condition Codes

- S - Simulator event only.
- A - Aircraft event only.
- S/A - Simulator preferred/Aircraft optional.
- A/S - Aircraft preferred/Simulator optional.
- N - Must be flown at night, aided or unaided.
- NS - Must be flown at night utilizing available night systems.
- (N) - May be flown at night, aided or unaided.
- (NS) - May be flown at night; if flown at night, available night systems shall be utilized.

j. Requirements and Performance Definitions

(1) Discuss

(a) The evaluator shall discuss a task or maneuver during the brief, in flight, or debrief.

(b) The aircrew under instruction is responsible for knowledge of the applicable procedures prior to the briefing.

(2) Demonstrate

(a) The evaluator performs the task with accompanying description.

(b) The aircrew under instruction observes the task and is responsible for the knowledge of the procedures prior to the sortie.

(3) Introduce

(a) At his or her option, the evaluator may perform the task or maneuver with an accompanying description, or he may coach the aircrew under instruction through the task or maneuver without demonstration.

(b) The aircrew under instruction shall perform the task or maneuver with coaching as necessary and is responsible for knowledge of the procedures prior to the sortie.

(4) Review

(a) The evaluator observes and grades the task or maneuver without coaching the aircrew under instruction. An airborne critique of aircrew under instruction performance is at the option of the evaluator.

(b) The aircrew under instruction is expected to perform the task or maneuver without coaching and devoid of procedural error at a level acceptable to warrant progress into the next event or stage of training.

131. CORE SKILL INTRODUCTION TRAINING

1. General. Core Skill Introduction training is conducted at VAQ-129, NAS Whidbey Island. The training consists of ground school, simulators, and aircraft flights. A detailed description of Core Skill Introduction training may be found in the VAQ-129 Course Catalog.

132. CORE SKILL BASIC TRAINING

1. General

a. This phase contains basic core skill training essential to wartime employment of the EA-6B. This phase should move an individual from basic understanding of core skills to proficiency in basic core skills. Individuals should normally complete this phase of training within the first year of assignment to a squadron. Units will normally train aircrews through this phase prior to overseas assignment.

b. Core Skill Basic Stages

- (1) Familiarization/Navigation (FAM/NAV)
- (2) Formation (FORM)
- (3) Night Systems (NS)
- (4) Air Refueling (AR)
- (5) Electronic Warfare Support (ES)
- (6) Electronic Attack (EA)
- (7) Threat Reaction (TRXN)

2. Familiarization/Navigation Stage

a. Purpose. Develop proficiency for Pilot and ECMO 1 in familiarization and navigation skills.

b. General. Emphasize crew coordination, emergency procedures, local course rules, aircraft performance characteristics, and navigation skills. The proficient Pilot or ECMO 1 shall evaluate the other front-seat aircrew under instruction.

c. Crew Requirements. Training codes apply only to Pilot and ECMO 1. Other crew positions may be manned and conduct other training as required.

d. Ground/Academic Training. Per local SOP. This normally includes, but is not limited to local course rules, standard operating procedures, etc. Additionally, complete applicable academic courseware as outlined in the EA-6B chapter of the MAWTS-1 course catalog.

e. Flight and Simulator Event Training (4 flights, 7.5 hours/3 simulators, 4.0 hours)

SEP-200

1.0

1 2F143 S

Goal. Maintain Pilot/ECMO proficiency in dealing with ground, takeoff, in-flight, and landing emergencies.

Requirement

1. Discuss emergency procedures.
2. Respond correctly to ground emergencies.
3. Respond correctly to takeoff emergencies.
4. Respond correctly to in-flight emergencies.
5. Respond correctly to landing emergencies.
6. Perform spin recovery procedures.

7. Practice out of control flight procedures.

Performance Standards. Accurately respond to all emergencies presented. The Pilot/ECMO 1 should switch positions, time permitting.

Crew. Pilot/ECMO 1.

SNAV-201

2.0 1 2F143 S

Goal. Maintain Pilot/ECMO 1 proficiency in day instruments, radar, and navigation systems. Be able to identify and effectively deal with navigation system failures. Expose the Pilot/ECMO 1 to local course rules and squadron operating procedures.

Requirement

1. Discuss instruments, radar, and navigation systems.
2. Prepare DD-175 and route card.
3. Introduce local course rules and standard operating procedures.
4. Perform at least one precision and one non-precision approach to a local airfield.
5. Perform one simulated single engine and one no flap/no slat approach to landing.

Performance Standards. IAW NATOPS, local course rules, and local SOP.

Crew. Pilot/ECMO 1.

NAV-202

2.0 1 EA-6B A (N)

Goal. Maintain Pilot/ECMO 1 proficiency in instrument, radar, and navigation systems. Expose the pilot/ECMO 1 to local course rules and squadron operating procedures.

Requirements

1. Discuss instruments, radar, and navigation systems.
2. Prepare DD-175 and route card.
3. Introduce local course rules and standard operating procedures.
4. Perform at least one precision and one non-precision approach to a local airfield.
5. Perform one simulated single engine and one no flap/no slat approach to landing.

Performance Standards. IAW NATOPS, local course rules, and local SOP.

Crew. Pilot/ECMO 1.

Prerequisites. SEP-200 and SNAV-201.

External Support. Special Use Airspace.

NAV-203

2.0 R 1 EA-6B A (N)

Goal. Maintain Pilot/ECMO 1 proficiency in radar navigation and radar system integration.

Requirements

1. Discuss radar navigation and other radar techniques.
2. Introduce use of the radar as the primary navigation reference on a suitable route.
3. Introduce use of the radar for weather avoidance if applicable.

Performance Standards

1. Recognize terrain features, cultural returns, and weather if applicable.
2. Successfully navigate using at least three radar significant points.

Crew. Pilot/ECMO 1.

Prerequisites. NAV-202.

External Support. Approved MTR.

NAV-204

2.0 R 1 EA-6B A (NS)

Goal. Maintain Pilot/ECMO 1 proficiency in visual low-level navigation.

Requirements

1. Discuss low altitude visual navigation and tactics.
2. Prepare MTR strip chart with route card.
3. Performed on a suitable MTR no lower than 500 feet AGL.
4. Introduce G-warm and FOD check prior to route entry.
5. Introduce low-level navigation using timing and visual references over at least three legs of the MTR.
6. Introduce comfort level, terminate, and climb to cope.
7. Introduce tactical maneuver in the low-level environment.

Performance Standards

1. Current chummed chart with correct route card.
2. Navigate within route structure.
3. Recognize timing errors and apply proper corrections.
4. Demonstrate safe, standard low-level navigation procedures.

Crew. Pilot/ECMO 1.

Prerequisites. NAV-202.

External Support. Approved MTR.

SFAM-205

1.0 1 2F143 S

Goal. Introduce the Pilot and ECMO 1 to the flight characteristics and maneuvering capabilities of the EA-6B.

Requirements

1. Discuss EA-6B flight characteristics, maneuvering capabilities, and FAM 205/206 flight maneuvers.
2. Introduce the following IAW NATOPS and MAWTS-1 EA-6B courseware:
  - a. Acceleration Demonstrations at 1 G and < 1 G.
  - b. 1 G Approach-to-Stall and Recovery.
  - c. 2 G Approach-to-Accelerated Stall and Recovery.
  - d. Rolling G/Stab Aug Demo.

- e. Break and Hard Turns at 10,000 ft. MSL.
  - f. Nose High Unusual Attitude and Recovery.
  - g. Break and Hard Turns at 20,000 ft. MSL.
  - h. Nose Low Unusual Attitude and Recovery.
  - i. Dynamic Zoom / Transient Wing Drop.
  - j. Slice Turn.
  - k. Confidence Maneuvers:
    - Flaperon Roll.
    - Wingover.
    - Barrel Roll.
  - l. Overhead Maneuvers:
    - Loop.
    - 1/2 Cuban Eight.
    - Immelmann.
    - Split S.
3. Introduce departures/out-of-control flight/spins. ECMOs shall fly the simulator for three departures/out-of-control/spins maneuvers.

Performance Standards. Properly perform all maneuvers IAW NATOPS and applicable MAWTS-1 EA-6B courseware.

Crew. Pilot/ECMO 1.

FAM-206

1.5 R 1 EA-6B A (NS)

Goal. Introduce/review maneuvers designed to familiarize the Pilot/ECMO 1 with flight characteristics and maneuvering capabilities of the EA-6B.

Requirements. Asterisked items are optional to complete the event. Overhead maneuvers are not required if flown at night.

- 1. Discuss EA-6B flight characteristics, maneuvering capabilities, and FAM 205/206 flight maneuvers.
- 2. Introduce the following IAW NATOPS and MAWTS-1 EA-6B courseware:
  - a. Acceleration Demonstrations at 1 G and < 1 G.
  - b. 1 G Approach-to-Stall and Recovery.
  - c. 2 G Approach-to-Accelerated Stall and Recovery.
  - d. \* Rolling G/Stab Aug Demo.
  - e. Break and Hard Turns at 10,000 ft. MSL.
  - f. Nose High Unusual Attitude and Recovery.
  - g. Break and Hard Turns at 20,000 ft. MSL.
  - h. Nose Low Unusual Attitude and Recovery.
  - i. \* Dynamic Zoom/Transient Wing Drop.
  - j. Slice Turn.
  - k. Confidence Maneuvers:
    - Flaperon Roll.
    - Wingover.
    - Barrel Roll.
  - l. Overhead Maneuvers:
    - \* Loop.
    - \* 1/2 Cuban Eight.
    - \* Immelmann.
    - \* Split S.

Performance Standards. Perform all maneuvers IAW NATOPS and applicable MAWTS-1 EA-6B courseware.

Crew. Pilot/ECMO 1.

Prerequisites. NAV-202 and SFAM-205.

External Support. Special Use Airspace.

3. Formation (FORM)

a. Purpose. Develop proficiency for pilot and ECMO 1 in section formation skills.

b. General. Emphasize crew coordination, flight leadership, and safe formation procedures. The Section Lead evaluates all other aircrew under instruction.

c. Crew Requirements. Training codes apply only to pilot and ECMO 1. Other crew positions may be manned and conduct other training as required.

d. Ground/Academic Training. Per NATOPS and local SOP. Additionally, complete applicable academic courseware as outlined in the EA-6B chapter of the MAWTS-1 course catalog.

e. Flight and Simulator Event Training (3 flights, 6.0 hours)

FORM-210

2.0

2 EA-6B A (N)

Goal. Maintain proficiency in basic section procedures and maneuvers.

Requirements

1. Discuss formation terms, visual signals, and definitions.
2. Introduce/review the following per NATOPS and MAWTS-1 EA-6B courseware:
  - a. Interval or section takeoff and rendezvous.
  - b. Parade, Cruise, Fighter Wing, Deployed Echelon, Combat Spread.
  - c. Lead changes.
  - d. 1 NATOPS TACAN rendezvous for each aircraft.
  - e. 2 NATOPS Break-up and rendezvous for each aircraft - one left, one right.
  - f. Under Run.
  - g. Section approach to low approach/touch and go.
  - h. Section approach to section waveoff.

Performance Standards

1. Know formation terms, hand signals, and definitions.
2. Perform all maneuvers per NATOPS and applicable MAWTS-1 EA-6B courseware.

Crew. Pilot/ECMO 1.

Prerequisites. NAV-202.

External Support. Special Use Airspace.

FORM-211

2.0

2 EA-6B A (N)

Goal. Maintain proficiency in section tactical navigation, tactical turns, and mutual support.

Requirements

1. Discuss standard tactical formations, maneuvering, and tactics.
2. Introduce/review the following per NATOPS and MAWTS-1 EA-6B courseware.
3. Interval or section takeoff and rendezvous.
4. Section combat checks, G warm-up, and FOD check.
5. Called and uncalled tactical turns in combat spread above 5000 feet AGL.
  - a. NAV turn into/away.
  - b. TAC turn into/away.
  - c. Shackle turn.
  - d. Cross turn.
  - e. In-place turn into/away.
6. Lead change and repeat combat spread tactical turns.
7. Fighter Wing and Deployed Echelon maneuvering above 5000 feet AGL.
8. Lead change and repeat Fighter Wing and Deployed Echelon maneuvering.
9. Perform at least one NATOPS/unit SOP section approach/missed approach procedure.
10. Unit SOP section landing recommended.

Performance Standards

1. Know standard tactical formations, maneuvering, and tactics.
2. Perform all maneuvers IAW NATOPS and applicable MAWTS-1 EA-6B courseware.

Crew. Pilot/ECMO 1.

Prerequisites. FORM-210.

External Support. Special Use Airspace.

FORM-212

2.0

R 2 EA-6B A (NS)

Goal. Maintain proficiency in section tactical navigation, tactical turns, and mutual support no lower than 500 feet AGL (day), no lower than 1,000 feet AGL (night). When conducted at night, this flight shall be 'aided. Initial event shall be conducted during the day.

Requirements

1. Discuss standard tactical formations, maneuvering, and tactics at low altitude.
2. Introduce/review the following per NATOPS and MAWTS-1 EA-6B courseware. A pilot's initial FORM-212 shall be flown as wing only. During follow-on flights, lead may be exchanged during the low altitude portion:
  - a. Section takeoff or interval takeoff and rendezvous.
  - b. Section combat checks and G warm-up.
  - c. Section FOD Check (day only).
  - d. Section low altitude tactical navigation, tactical maneuvering, and mutual support.
  - e. Combat spread (day only), fighter wing (day and

- night), and deployed echelon (night only).
- f. Perform at least one NATOPS/unit SOP section approach/missed approach procedure.
  - g. Unit SOP section landing recommended (day only).

Performance Standards

- 1. Know standard low altitude tactical formations, maneuvering, and tactics.
- 2. Perform all maneuvers IAW NATOPS and applicable MAWTS-1 EA-6B courseware.

Crew. Pilot/ECMO 1.

Prerequisites. FORM-211. When conducted at night, Pilot/ECMO 1 shall be NSQ.

External Support. Approved MTR.

4. Night Systems (NS)

a. Purpose. To qualify aircrew in the use of Night Vision Devices (NVDs) in the EA-6B aircraft.

b. General. NS training sorties introduce and familiarize EA-6B aircrew with capabilities and limitations of NVDs in the aircraft. The designated NSI evaluates all other aircrew under instruction.

(1) A designated NSI pilot or ECMO 1 shall be crewed with non-NS qualified front seat aircrew.

(2) In formation, if any of the front seat aircrew are not NS qualified, a Division/Section Lead NSI pilot is required in the lead aircraft.

(3) Only the pilot and ECMO 1 are required to be NSQ for all NS or NS optional events. Non-NSQ EA-6B aircrew who complete the prescribed NVD ground training may wear NVDs in the helmet-mounted mode in either ECMO 2 or ECMO 3 positions during any night sortie.

(4) Upon completion of the NS-220, NS-221, and NS-222 under the supervision of a designated NSI, aircrew may be issued a Night Systems Qualified (NSQ) letter. If aircrew lose proficiency in all NS events, the NS qualification is lost and may be regained by completing NS-220 with an NSI.

(5) If all front seat aircrew in a flight are NSQ, an NSI is not required and any night or night optional event in the T&R can be flown with the aid of NVDs.

(6) Comply with the current NAVAIR altitude restriction of no lower than 1000 feet AGL on NVGs except during takeoff and approaches/landings.

c. Crew Requirements. The NS-221 shall be flown only in the front seat. ECMOs may fly NS-220, and NS-222, in any seat. Other crew positions may be manned as required.

d. Ground/Academic Training. Night Imaging and Threat Evaluation (NITE) lab syllabus and applicable academic courseware as outlined in the EA-6B chapter of the MAWTS-1 course catalog.

e. Flight and Simulator Event Training (4 flights, 8.0 hours)

NS-220

2.0                    R 1 EA-6B A NS

Goal. Introduce high altitude (5000' AGL and above) flight with NVDs in the EA-6B. Practice all NVD principles and concepts.

Requirements

1. Discuss NVD use in the EA-6B.
2. Introduce NVDs to prospective NSQ pilot/ECMOs.
3. Introduce in-flight NVD donning/doffing/stowing procedures.
4. Demonstrate limited NVD Field-of-View (FOV) and practice NVD scan pattern with instrument crosschecks.
5. Demonstrate and practice maneuvering appropriate to EA tracks with consideration given to NVD capabilities and limitations. Prospective NSQ aircrew shall practice hard turns and scan techniques.
6. Practice removal and storage of NVDs during both normal operations and one simulated emergency.
7. Discuss recognition of NVD malfunctions.
8. Practice crew coordination procedures while on NVDs.

Performance Standards. Perform all tasks and maneuvers per MAWTS-1 Fixed Wing NVD Manual and applicable MAWTS-1 EA-6B courseware.

Crew. Pilot/ECMO 1 NSI and pilot/ECMO 1/2/3 under instruction.

Prerequisites. NAV-202.

External Support. Special Use Airspace.

NS-221

2.0                    1 EA-6B A NS

Goal. Introduce/review use of NVDs in a low altitude, tactical scenario.

Requirements

1. Discuss NVD use in low altitude navigation and tactics.
2. Prepare MTR strip chart with route card. Use SLAP for light level planning.
3. Perform on a suitable MTR or other approved training route (NLT 1,000' AGL).
4. Introduce G-warm and FOD check prior to route entry.
5. Introduce low-level navigation using timing and visual references over at least three legs of the MTR or training route.
6. Introduce comfort level, terminate, and climb to cope.
7. Introduce tactical maneuver in the low-level environment.
8. Introduce low altitude tactical mission tasking.

Performance Standards

1. Current chummed chart with correct route card.
2. Navigate within route structure.
3. Recognize timing errors and apply proper corrections.
4. Demonstrate safe, standard low-level navigation procedures.
5. Meet pre-briefed TOT/JOT/HARM launch time within +/- 10 seconds.

Crew. Pilot/ECMO 1 NSI and pilot/ECMO 1 under instruction.

Prerequisite. NAV-204 and NS-220.

External Support. Approved MTR.

NS-222

2.0

2 EA-6B A NS

Goal. Introduce formation flying with the aid of NVDs. This is the Pilot/ECMO NS Qualification sortie.

Requirements

1. Discuss NVD use in formation flight and low altitude navigation.
2. Introduce goggle admin formation(s) enroute and in the working area.
3. Introduce tactical section maneuvering per MAWTS-1 courseware and NS Guide above 5000' AGL.
  - a. Section or interval takeoff and rendezvous.
  - b. Parade, Cruise, Fighter Wing, and Deployed Echelon formations.
  - c. Lead Changes.
  - d. 1 NATOPS TACAN rendezvous for each aircraft.
  - e. 2 NATOPS Break-up and rendezvous for each aircraft - one left, one right.
  - f. G-warm, Fighter Wing, and Deployed Echelon maneuvering above 5000 feet AGL.
  - g. Lead change and repeat Fighter Wing and Deployed Echelon maneuvering.
4. Conduct tactical section maneuvering and navigation at low altitude (NLT 1,000' AGL) on an appropriate MTR or other approved training route.
  - a. Fighter Wing and Deployed Echelon
5. Introduce various combinations of external light options and range cues.

Performance Standards

1. Maintains sight of lead.
2. Conducts safe rendezvous.
3. Performs proper tactical section maneuvering.

Crew. Pilot/ECMO 1 NSI and Pilot/ECMO 1/2/3 under instruction.

Prerequisite. NS-221. FORM-211 and FORM-212 for Pilot and ECMO 1 only.

External Support. Special Use Airspace and approved MTR.

5. Aerial Refueling

a. Purpose. To introduce the pilot and ECMO 1 to aerial refueling procedures.

b. General. Any aerial refueling aircraft may be used. The proficient pilot or ECMO 1 shall evaluate the other front-seat aircrew under instruction.

c. Crew Requirements. Training codes apply only to pilot and ECMO 1. Other crew positions may be manned as required.

d. Ground/Academic Training. Applicable academic courseware as outlined in the EA-6B chapter of the MAWTS-1 course catalog.

e. Pilot/ECMO Flight Training (2.0 Flights, 2.0 Hours)

AR-230            1.0                    R 1 EA-6B A

Goal. Introduce/practice the techniques/procedures for high altitude day tanking.

Requirements. May be flown in conjunction with any other scheduled mission.  
1. Discuss air refueling in the EA-6B.  
2. Complete at least 4 plugs (wet or dry) for initial events.  
3. Complete at least 1 plug to maintain/regain proficiency.

Performance Standards

1. Proper communications procedures.
2. Proper tanker rendezvous.
3. Proper aerial refueling procedures/techniques.
4. Proper departure from tanker.

Crew. Pilot/ECMO 1.

Prerequisites. NAV-202.

External Support. Aerial refueling platform and Special Use Airspace.

AR-231            1.0                    R 1 EA-6B A N

Goal. Introduce/practice the techniques/procedures for high altitude night tanking.

Requirements. May be flown in conjunction with any other scheduled mission.  
1. Discuss night air refueling considerations.  
2. Complete 4 plugs (wet or dry) for initial events.  
3. Complete 1 plug to maintain/regain proficiency.

Performance Standards

1. Proper communications procedures.
2. Proper tanker rendezvous.
3. Proper aerial refueling procedures/techniques.
4. Proper departure from tanker.

Crew. Pilot/ECMO 1.

Prerequisites. AR-230.

External Support. Aerial refueling platform and Special Use Airspace.

6. Electronic Warfare Support

a. Purpose. To introduce/review ES equipment, tactics, techniques, and procedures.

b. General. This stage is designed to increase the signal recognition and identification proficiency in a dense electromagnetic environment. Flight events should be flown against an EW range with real world signals. To the greatest extent possible, these events should include an S-2 intelligence scenario, brief,

and debrief and TERPES brief and debrief. The Mission Commander shall evaluate all aircrew under instruction.

c. Crew Requirements. As described in each event description.

d. Ground/Academic Training. Applicable academic courseware as outlined in the EA-6B chapter of the MAWTS-1 course catalog.

e. Flight and Simulator Event Training (3 flights, 3.5 hours/3 simulators, 5.0 hours)

SES-240            2.0                    1 15E22C S

Goal. Maintain proficiency in EA-6B OBS equipment and software.

Requirements

1. Discuss OBS equipment, capabilities, and limitations.
2. Review OBS software basics.

Performance Standards. Demonstrate proper knowledge of OBS.

Crew. ECMO 2/3. Pilots shall complete in ECMO 2/3 position.

SES-241            2.0                    R 1 15E22C S

Goal. Increase signal recognition capabilities in a dense electromagnetic environment.

Requirements.

1. Discuss signal recognition in a dense EM environment.
2. Build a TEAMS mission.
3. Prioritize, detect, identify, localize, and record signals of interest in a dense signal environment.
4. Coordinate navigation track for ES optimization.
5. Properly initialize the OBS.
6. Maintain ES logs, focusing on SOI.
7. Correctly reference ETIRMS for SOI characteristics.
8. Discuss coordination with National Assets.
9. Review ambiguity resolution.

Performance Standards. Accurately identify multiple signals by band in a dense electromagnetic environment.

Crew. ECMO 2/3. Pilots shall complete in ECMO 2/3 position.

ES-242            2.0                    R 1 EA-6B A (N)

Goal. Maintain proficiency in EA-6B OBS equipment and software.

Requirements

1. Discuss OBS equipment, capabilities, and limitations.
2. Review OBS software basics.

Performance Standards. Demonstrate proper knowledge of OBS.

Crew. ECMO 2/3.

Prerequisites. SES-240 and SES-241.

External Support. EW Range.

TES-243

1.0 R 1 MATT/IDM S/A (N)

Goal. Introduce/Review MATT/IDM procedures.

Requirements

1. Discuss MATT/IDM equipment, capabilities, and limitations.
2. Initialize system.
3. Create filters based on SOI.
4. Manage real-world information if available.

Performance Standards. Demonstrate proper knowledge of MATT/IDM.

Crew. ECMO 2/3. Pilots shall complete in ECMO 2/3 position.

External Support. EW Range.

ES-244

1.0 R 1 EA-6B A (N)

Goal. Introduce/review HARM as a sensor.

Requirements

1. Discuss HARM as a sensor.
2. Build TEAMS mission.
3. Introduce HARM ABL mode against real world signals.
4. Localize signal based on HARM information.
5. Correlate HARM and OBS information.

Performance Standards. Properly localize signals within 5 nm.

Crew. ECMO 2/3.

Ordnance. CATM-88.

External Support. EW Range.

ES-245

0.5 R 1 EA-6B A (N)

Goal. Introduce/review the AR-3000 scanner.

Requirements

1. Discuss AR-3000 limits and capabilities.
2. Create scan list of given frequencies.
3. Scan for real world signals.
4. Keep log of signal activity.
5. If available, record real world signals.
6. Pass logs and recordings to appropriate outside agency via appropriate means.

Performance Standards. Properly creates scan list, keeps signal log, and passes information as appropriate.

Crew. ECMO 2/3.

External Support. EW Range.

7. Electronic Attack

a. Purpose. To introduce/review EA equipment, tactics, techniques, and procedures.

b. General. This stage is designed to increase weapons systems proficiency in electronic attack. Flight events should be flown against an EW range with real world signals. Where available, the EW Range Operator shall provide in-flight and/or post-flight feedback and measures of effectiveness to the mission aircrew. To the greatest extent possible, these events should include an S-2 intelligence scenario, brief, and debrief and TERPES brief and debrief. The Mission Commander shall evaluate all aircrew under instruction.

c. Crew Requirements. As described in each event description.

d. Ground/Academic Training. Applicable academic courseware as outlined in the EA-6B chapter of the MAWTS-1 course catalog.

e. Flight and Simulator Event Training (4 flights, 5.0 hours/5 simulators, 8.0 hours)

SEA-250            2.0                    1 15E22C S

Goal. Review TJS operations versus radar targets.

Requirements

1. Discuss TJS equipment, limits, and capabilities.
2. Discuss radar characteristics, jamming fundamentals, advanced jamming techniques, and degraded operations.
3. Build a TEAMS mission.
4. Review preemptive, alarm, display assignments versus radar targets in all bands.

Performance Standards

1. Successfully builds and loads TEAMS mission.
2. Properly makes preemptive, alarm, and display assignments to cover radar targets.
3. Properly recognizes and reacts to degraded systems.

Crew. ECMO 2/3. Pilots shall complete in ECMO 2/3 position.

SEA-251            2.0                    1 15E22C S

Goal. Introduce/review TJS operations versus communications and other targets.

Requirements

1. Discuss communication systems characteristics, communications jamming fundamentals, advanced jamming techniques, and degraded operations.
2. Discuss TJS limits and capabilities versus communications.
3. Build a TEAMS mission.
4. Introduce/Review preemptive and display assignments versus communications and other systems.

Performance Standards

1. Successfully builds and loads TEAMS mission.
2. Properly makes preemptive and display assignments to cover communications and other targets.
3. Properly recognizes and reacts to degraded systems.

Crew. ECMO 2/3. Pilots shall complete in ECMO 2/3 position.

EA-252

2.0                      R 1 EA-6B A (N)

Goal. Review TJS basic operations versus radar, communications, and other targets.

Requirements

1. Discuss TJS limits and capabilities.
2. Discuss radar and communication characteristics, jamming fundamentals, and degraded operations.
3. Build a TEAMS mission.
4. Review preemptive, alarm, display assignments versus radars, communications, and other targets.

Performance Standards

1. Successfully builds and loads TEAMS mission.
2. Properly makes preemptive and display assignments to cover communications targets.
3. Properly recognizes and reacts to degraded systems.

Crew. ECMO 2/3.

Prerequisites. SEA-250 and SEA-251.

External Support. EW Range.

TEA-253

2.0                      R 1 USQ-113 S

Goal. Introduce USQ-113 equipment, tactics, techniques, and procedures.

Requirements

1. Discuss USQ-113 equipment, capabilities, and limitations against communications and other targets.
2. Build configuration file on ETIRMS.
3. Transfer configuration file to USQ-113 system.
4. Introduce configuration file loading and mission setup.
5. Introduce all USQ-113 menus and functions.

Performance Standards. Successfully load configuration file and operate all menus and functions.

Crew. Pilot/ECMO 1/2/3.

EA-254

1.0                      R 1 EA-6B A (N)

Goal. Review USQ-113 equipment, tactics, techniques, and procedures.

Requirements

1. Discuss USQ-113 equipment, capabilities, and limitations against communications and other targets.
2. Build configuration file on ETIRMS.
3. Transfer configuration file to USQ-113 laptop and IOCP.
4. Review configuration file loading and mission setup
5. Review all USQ-113 menus and functions.

Performance Standards

1. Successfully load configuration file and operate all menus and functions.
2. Successfully jam real world signals.

Crew. ECMO 1/2/3.

Prerequisites. TEA-253.

External Support. EW Range.

SEA-255

1.0 1 2F143 S

Goal. Review Pilot and ECMO 1 HARM employment tactics, techniques, and procedures.

Requirements. Should be completed using integrated simulator with SEA-256.

1. Discuss HARM employment, terminology, and striker area tactics.
2. Build TEAMS mission to include route and timing requirements.
3. Review multiple HARM launches utilizing all modes (PB, RK, RU).
4. Review proper crew coordination with respect to pre- and post-launch responsibilities.
5. Complete HARM shot card.
6. Perform HARM ABL procedures.
7. Successfully employ missile with various system malfunctions.
8. Review abort codes.
9. Introduce local hung ordnance approach procedures.

Performance Standards

1. Properly launch HARM using the ALQ-99, HCP, and CDNU.
2. HARM launch within 10 seconds of planned launch time and within 3 nm of planned launch point.
3. HARM impact on target within 10 seconds of planned impact time.
4. Properly complete accurate post-launch HARM shot card.

Crew. Pilot/ECMO 1.

SEA-256

1.0 1 15E22C S

Goal. Review ECMO 2 and 3 HARM employment tactics, techniques, and procedures.

Requirements. Should be completed using integrated simulators with SEA-255.

1. Discuss HARM employment, terminology, and striker area tactics.
2. Build TEAMS mission to include route and timing requirements.
3. Review multiple HARM launches utilizing all modes (PB, RK, RU).
4. Develop target packages using Target Hook, Emitter Hook, library, OP Create, and ELINT modifications.
5. Review crew coordination with respect to pre- and post-launch responsibilities.
6. Complete HARM shot card.
7. Perform HARM ABL procedures.
8. Successfully employ missile with various system malfunctions.
9. Review abort codes.

Performance Standards

1. Properly create DAs as per requirements.
2. HARM launch within 10 seconds of planned launch time.
3. HARM impact on target within 10 seconds of planned impact time.
4. Properly complete accurate post-launch HARM shot card.

Crew. ECMO 2/3.

EA-257

1.0                      R 1 EA-6B A (N)

Goal. Review HARM employment procedures for Pilot and ECMO 1.

Requirements

1. Discuss HARM employment, terminology, and striker area tactics.
2. Build TEAMS mission to include route and timing requirements.
3. Review multiple HARM launches utilizing all modes (PB, RK, RU).
4. Review proper crew coordination with respect to pre- and post-launch responsibilities.
5. Complete HARM shot card.
6. Perform HARM ABL procedures.
7. Successfully employ missile with various system malfunctions.
8. Review abort codes.
9. Discuss or introduce local hung ordnance approach procedures.

Performance Standards

1. Properly launch simulated HARM using the ALQ-99, HCP, and CDNU.
2. Simulated HARM launch within 10 seconds of planned launch time and within 3 nm of planned launch point.
3. Simulated HARM impact on target within 10 seconds of planned impact time.
4. Properly complete accurate post-launch HARM shot card.

Crew. Pilot/ECMO 1.

Prerequisites. SEA-255.

Ordnance. CATM-88.

External Support. EW Range.

EA-258

1.0                      R 1 EA-6B A (N)

Goal. Review HARM employment procedures for ECMO 2 and 3.

Requirements.

1. Discuss HARM employment, terminology, and striker area tactics.
2. Build TEAMS mission to include route and timing requirements.
3. Review multiple HARM launches utilizing all modes (PB, RK, RU).
4. Develop target packages using Target Hook, Emitter Hook, library, OP Create, and ELINT modifications.
5. Review crew coordination with respect to pre- and post-launch responsibilities.
6. Complete HARM shot card.
7. Perform HARM ABL procedures.
8. Successfully employ missile with various system malfunctions.
9. Review abort codes.

Performance Standards.

1. Properly create DAs as per requirements.
2. Simulated HARM launch within 10 seconds of planned launch time.
3. Simulated HARM impact on target within 10 seconds of planned impact time.
4. Properly complete accurate post-launch HARM shot card.

Crew. ECMO 2/3.

Prerequisites. SEA-256.

Ordnance. CATM-88.

8. Threat Reaction (TRXN)

a. Purpose. Introduce EA-6B threat reaction tactics for Surface-To-Air missiles (SAM), Anti-Aircraft Artillery (AAA), and Air-To-Air missiles (AAM).

b. General. Emphasis should be placed on crew coordination, aircraft performance characteristics, and threat reaction skills. The DEFTACI or WTI shall evaluate aircrew under instruction.

c. Crew Requirements. A MAWTS-1 certified and squadron designated DEFTACI or WTI pilot or ECMO 1 shall be in the front seat for the initial STRXN-260 and TRXN-261 events only. STRXN-260 shall be flown in the front seat simulator with a DEFTACI or WTI in the simulator or at the console. ECMOs may fly the TRXN-261 in any ECMO seat.

d. Ground/Academic Training. Applicable academic courseware as outlined in the EA-6B chapter of the MAWTS-1 course catalog.

e. Flight and Simulator Event Training (1 flight, 1.5 hours/1 simulator, 1.0 hour)

STRXN-260            1.0                    1 2F143 S

Goal. Introduce EA-6B threat reaction for SAM, AAA, and AAM.

Requirements. No lower than 500 ft AGL.

1. Discuss EA-6B threat reaction to SAM, AAA, and AAM.

2. Introduce the following IAW MAWTS-1 EA-6B courseware:

a. Hard and Break turns NLT 500' AGL.

b. Dive Recovery Rules:

- 50% Rule.

- Dive Recovery Rules.

- Small Descent ROT.

- 10 degree Rule.

c. SAM threat reaction maneuvers.

d. AAA threat reaction maneuvers.

e. AAM threat reaction maneuvers.

3. Introduce threat reaction communications and expendables use.

Performance Standards. Perform all maneuvers per applicable MAWTS-1 EA-6B courseware.

Crew. Pilot/ECMO 1 and DEFTACI or WTI if initial only (at console or in simulator).

Prerequisites. FAM-206.

Ordnance. Simulate 40 Chaff/20 Flares.

TRXN-261            1.5                    R 1 EA-6B A (NS)

Goal. Introduce EA-6B threat reaction for SAM, AAA, and AAM.

Requirements. No lower than 500 ft AGL.

1. Discuss EA-6B threat reaction to SAM, AAA, and AAM.

2. Introduce the following IAW MAWTS-1 EA-6B courseware:

a. Hard and Break turns NLT 500' AGL.

- b. Dive Recovery Rules:
    - 50% Rule.
    - Dive Recovery Rules.
    - Small Descent ROT.
    - 10 degree Rule.
  - c. SAM threat reaction maneuvers.
  - d. AAA threat reaction maneuvers.
  - e. AAM threat reaction maneuvers.
3. Introduce threat reaction communications and expendables use.

Performance Standards. Perform all maneuvers per applicable MAWTS-1 EA-6B courseware.

Crew. Pilot/ECMO 1/2/3 and DEFTACI or WTI pilot or ECMO 1 if initial only.

Prerequisites. STRXN-260.

Ordnance. 40 Chaff/20 Flares.

External Support. Special Use Airspace. When able, use smokey SAMs and feedback-capable emitters to measure radar break-lock and expendable effectiveness.

### 133. CORE SKILL ADVANCED TRAINING

#### 1. General

a. This phase contains advanced core skill training. This phase should move an individual from proficiency in basic core skills to proficiency in more advanced/complex core skills. Crews proficient in this phase of training should be capable of planning/leading/directing flights of numerous aircraft in a contingency operation.

#### b. Core Skill Advanced Stages

- (1) Offensive Air Support.
- (2) Task Force Support.
- (3) Defensive Tactics.

#### 2. Offensive Air Support (OAS)

a. Purpose. Develop proficiency for aircrew in electronic warfare in support of OAS missions.

#### b. General

(1) Emphasize mission analysis, EW planning, crew coordination, and weapon systems integration in support of offensive air support missions. The Mission Commander shall evaluate all other aircrew in the event.

(2) These missions introduce electronic warfare in support of offensive air support. The intent is that the Mission Commander and aircrew conduct a thorough mission analysis based on a real-world, exercise, or simulated scenario. The Mission Commander and aircrew determine the EW support required for that mission and use the required weapon systems. All aircrew log the 300-level code for the appropriate EW in support of OAS event. Additionally, all aircrew log

200-level ES and EA codes if the applicable weapon systems were employed. Not all event requirements need to be met for the 200-level ES or EA event to be logged if used in a 300-level OAS mission. For example, if the aircrew employs the OBS, TJS, HARM, and USQ-113 in support of an OAS-300 simulator, they would also log the appropriate ES and EA 200-level codes for those weapon systems. 200-level codes will not be chained automatically by 300-level OAS codes, but must be logged individually on the NAVFLIR. Mission Commanders are responsible for ensuring all appropriate T&R codes are logged on the NAVFLIR.

c. Crew Requirements. A designated Mission Commander is required for all OAS events. For simulator events, the Mission Commander may be in the simulator or at the console. For flight events, a Mission Commander must be in the aircraft. For formation events, a Mission Commander must be in the formation, not necessarily in each aircraft. OAS training codes apply to all aircrew regardless of crew position.

d. Ground/Academic Training. Applicable academic courseware as outlined in the EA-6B chapter of the MAWTS-1 course catalog.

e. Flight and Simulator Event Training (7 flights, 14.0 hours/3 simulators, 6.0 hours)

SOAS-300            2.0                    1 2F143 / 15E22C S/A (N)

Goal. Develop aircrew proficiency in electronic warfare in support of air interdiction.

Requirements. Should be flown as integrated simulator. May be flown in aircraft day or night.

1. Discuss electronic warfare in support of air interdiction.
2. Conduct mission analysis based on given scenario.
3. Conduct EW targeting in support of given scenario.
4. Build TEAMS/ETIRMS mission to include route and mission cards.
5. Introduce proper communications procedures.
6. Execute planned mission based on Mission Commander's guidance.
7. React to mission developments and pop-up threats.

Performance Standards

1. Properly analyzed mission.
2. Properly conducted EW targeting in support of mission.
3. Properly executed planned mission.
4. Properly reacted to mission developments and pop-up threats.

Crew. Pilot/ECMO 1/2/3.

OAS-301            2.0                    R 1 EA-6B A (N)

Goal. Develop aircrew proficiency in electronic warfare in support of air interdiction.

Requirements. May be flown day or night.

1. Discuss electronic warfare in support of air interdiction.
2. Conduct mission analysis based on given scenario.
3. Conduct EW targeting in support of given scenario.
4. Build TEAMS/ETIRMS mission to include route and mission cards.
5. Introduce proper communications procedures.
6. Execute planned mission based on Mission Commander's guidance.
7. React to mission developments and pop-up threats.

Performance Standards

1. Properly analyzed mission.
2. Properly conducted EW targeting in support of mission.
3. Properly executed planned mission.
4. Properly reacted to mission developments and pop-up threats.

Crew. Pilot/ECMO 1/2/3.

External Support. EW Range. Fixed or rotary wing strike aircraft.

SOAS-302

2.0 1 2F143 / 15E22C S/A (N)

Goal. Practice single-ship techniques in an armed recce environment.

Requirements. Should be flown as integrated simulator. May be flown in aircraft day or night.

1. Discuss electronic warfare in support of armed recce.
2. Discuss/review HARM in support of OAS.
3. Develop scenario providing friendly and enemy ground order of battle, SAMs/AAA, Fire Support Coordination Measures, etc.
4. Conduct mission analysis based on given scenario.
5. Conduct EW targeting in support of given scenario.
6. Build TEAMS / ETIRMS mission to include route and mission cards.
7. Utilize both threat is the target and threat is not the target profiles.
8. Introduce proper communications procedures.
9. Execute planned mission based on Mission Commander's guidance.
10. React to mission developments and pop-up threats.

Performance Standards

1. Properly analyze mission.
2. Properly conduct EW targeting in support of mission.
3. Properly executed planned mission.
4. Properly reacted to mission changes and pop-up threats.
5. Conducted a minimum of 2 attacks against the threat SAM.
6. Conducted a minimum of 2 attacks against a target not co-located with threat SAM.

Crew. Pilot/ECMO 1/2/3.

OAS-303

2.0 R 1 EA-6B A (N)

Goal. Practice single-ship techniques in an armed recce environment.

Requirements. May be flown day or night.

1. Discuss electronic warfare in support of armed recce.
2. Discuss/review HARM in support of OAS.
3. Develop scenario providing friendly and enemy ground order of battle, SAMs/AAA, Fire Support Coordination Measures, etc.
4. Conduct mission analysis based on given scenario.
5. Conduct EW targeting in support of given scenario.
6. Build TEAMS/ETIRMS mission to include route and mission cards.
7. Utilize both threat is the target and threat is not the target profiles.
8. Introduce proper communications procedures.
9. Execute planned mission based on Mission Commander's guidance.

10. React to mission developments and pop-up threats.

Performance Standards

1. Properly analyze mission.
2. Properly conduct EW targeting in support of mission.
3. Properly executed planned mission.
4. Properly reacted to mission changes and pop-up threats.
5. Conducted a minimum of 1 attack against the threat SAM.
6. Conducted a minimum of 1 attack against a target not co-located with threat SAM.

Crew. Pilot/ECMO 1/2/3.

Ordnance. CATM-88. 40 Chaff/20 Flares.

External Support. EW Range. Fixed or rotary wing strike aircraft.

SOAS-304

2.0 1 2F143 / 15E22C S/A (N)

Goal. Practice single-ship techniques in a close air support environment.

Requirements. Should be flown as integrated simulator. May be flown in aircraft day or night.

1. Discuss electronic warfare in support of CAS.
2. Discuss/review HARM in support of CAS.
3. Develop scenario providing friendly and enemy ground order of battle, SAMs/AAA, Fire Support Coordination Measures, etc.
4. Conduct mission analysis based on given scenario.
5. Conduct EW targeting in support of given scenario.
6. Build TEAMS/ETIRMS mission to include route and mission cards.
7. Utilize both threat is the target and threat is not the target profiles.
8. Introduce proper communications procedures.
9. Execute planned mission based on Mission Commander's guidance.
10. React to mission developments and pop-up threats.

Performance Standards

1. Properly analyze mission.
2. Properly conduct EW targeting in support of mission.
3. Properly executed planned mission.
4. Properly reacted to mission changes and pop-up threats.
5. Conducted a minimum of 2 attacks against the threat SAM.
6. Conducted a minimum of 2 attacks against a target not co-located with threat SAM.

Crew. Pilot/ECMO 1/2/3.

OAS-305

2.0 R 1 EA-6B A (N)

Goal. Practice single-ship techniques in a close air support environment.

Requirements. May be flown day or night.

1. Discuss electronic warfare in support of CAS.
2. Discuss/review HARM in support of CAS.
3. Develop scenario providing friendly and enemy ground order of battle, SAMs/AAA, Fire Support Coordination Measures, etc.

4. Conduct mission analysis based on given scenario.
5. Conduct EW targeting in support of given scenario.
6. Build TEAMS/ETIRMS mission to include route and mission cards.
7. Utilize both threat is the target and threat is not the target profiles.
8. Introduce proper communications procedures.
9. Execute planned mission based on Mission Commander's guidance.
10. React to mission developments and pop-up threats.

Performance Standards

1. Properly analyze mission.
2. Properly conduct EW targeting in support of mission.
3. Properly executed planned mission.
4. Properly reacted to mission changes and pop-up threats.
5. Conducted a minimum of 1 attack against the threat SAM.
6. Conducted a minimum of 1 attack against a target not co-located with threat SAM.

Crew. Pilot/ECMO 1/2/3.

Ordinance. CATM-88. 40 Chaff/20 Flares.

External Support. EW Range. Fixed or rotary wing strike aircraft.

OAS-306

2.0 R 2 EA-6B A (N)

Goal. Practice section tactics in support of OAS.

Requirements. May be flown day or night.

1. Discuss/review section EW tactics in support of OAS.
2. Discuss/review HARM in support of OAS.
3. Develop scenario providing friendly and enemy ground order of battle, SAMs/AAA, Fire Support Coordination Measures, etc.
4. Conduct mission analysis based on given scenario.
5. Conduct EW targeting in support of given scenario.
6. Build TEAMS / ETIRMS mission to include route and mission cards.
7. Utilize both threat is the target and threat is not the target profiles.
8. Introduce proper communications procedures.
9. Execute planned mission based on Mission Commander's guidance.
10. React to mission developments and pop-up threats.

Performance Standards.

1. Properly analyze mission.
2. Properly conduct EW targeting in support of mission.
3. Properly executed planned mission.
4. Properly reacted to mission changes and pop-up threats.

Crew. Pilot/ECMO 1/2/3.

Prerequisites. FORM-210.

Ordinance. CATM-88. 40 Chaff/20 Flares.

External Support. EW Range. Fixed or rotary wing strike aircraft.

OAS-307                    2.0                    R 2 EA-6B A (N)

Goal. Practice signal recognition, localization, and recording capabilities in a dense electromagnetic environment.

Requirements. May be flown day or night. Shall be planned as a section, may be flown as a single.

1. Discuss electronic warfare support (ES) in support of OAS in a dense signal environment.
2. Develop scenario providing friendly and enemy ground order of battle, emitters, SAMs/AAA, Fire Support Coordination Measures, etc.
3. Build TEAMS/ETIRMS mission.
4. Introduce proper communications procedures.
5. Prioritize, detect, identify, localize, and record signals of interest.
6. Coordinate navigation tracks for ES optimization.
7. Properly initialize the OBS.
8. Maintain ES logs, focusing on SOI.

Performance Standards. Accurately identify, localize, and record multiple signals by band in a dense electromagnetic environment.

Crew. Pilot/ECMO 1/2/3.

Prerequisites. ES-242.

External Support. EW Range and Special Use Airspace.

### 3. Task Force Support (TFS)

a. Purpose. To practice EA-6B tactics and techniques in the task force support role.

#### b. General

(1) Emphasis should be placed on mission analysis, EW planning, crew coordination, and weapon systems integration in support of task force operations. Missions are intended to familiarize the EA-6B aircrew with tactics and techniques and may include, but are not limited to EW in support of ground combat operations, combat service support operations, and assault support. The Mission Commander shall evaluate all other aircrew in the event.

(2) These missions introduce electronic warfare in support of task force operations. The intent is that the Mission Commander and aircrew conduct a thorough mission analysis based on a real-world, exercise, or simulated scenario. The Mission Commander and aircrew determine the EW support required for that mission and use the required weapon systems. All aircrew log the 300-level code for the appropriate EW in support of TFS event. Additionally, all aircrew log 200-level ES and EA codes if the applicable weapon systems were employed. Not all event requirements need to be met for the 200-level ES or EA event to be logged if used in a 300-level TFS mission. For example, if the aircrew employs the TJS and USQ-113 in support of an TFS-310 simulator, they would also log the appropriate ES and EA 200-level codes for those weapon systems. 200-level codes will not be chained automatically by 300-level TFS codes, but they must be logged individually on the NAVFLIR. Mission Commanders are responsible for ensuring all appropriate T&R codes are logged on the NAVFLIR.

c. Crew Requirements. A designated Mission Commander is required for all TFS events. For simulator events, the Mission Commander may be in the simulator

or at the console. For flight events, a Mission Commander must be in the aircraft. For formation events, a Mission Commander must be in the formation, not necessarily in each aircraft. TFS training codes apply to all aircrew regardless of crew position.

d. Ground/Academic Training. Applicable academic courseware as outlined in the EA-6B chapter of the MAWTS-1 course catalog.

e. Flight and Simulator Event Training (3 flights, 6.0 hours/5 simulators, 10.0 hours)

STFS-310            2.0                    1 2F143 / 15E22C S/A (N)

Goal. Develop aircrew proficiency in electronic warfare in support of ground combat operations and combat service support operations.

Requirements. Should be flown as integrated simulator. May be flown in aircraft day or night.

1. Discuss electronic warfare in support of ground combat operations and combat service support operations. Training scenario may include any or all of the following:

- a. Convoy support
- b. Raids
- c. Direct Action
- d. MOUT
- e. Counter surface fires
- f. Information Operations

2. Conduct mission analysis based on given scenario.

3. Conduct EW targeting in support of given scenario.

4. Build TEAMS / ETIRMS mission to include route and mission cards.

5. Prepare go/no go criteria and flex plan.

6. Introduce proper communication procedures.

7. Practice degraded modes of operation.

8. Execute planned mission based on Mission Commander's guidance.

9. React to mission developments and pop-up threats.

Performance Standards

1. Properly analyzed mission.

2. Properly conduct EW targeting in support of mission.

3. Properly executed planned mission.

4. Properly reacted to mission developments and pop-up threats.

Crew. Pilot/ECMO 1/2/3.

TFS-311            2.0                    R 1 EA-6B A (N)

Goal. Develop aircrew proficiency in electronic warfare in support of ground combat operations and combat service support operations.

Requirements. May be flown day or night.

1. Discuss electronic warfare in support of ground combat operations and combat service support operations. Training scenario may include any or all of the following:

- a. Convoy support
- b. Raids
- c. Direct Action
- d. MOUT

- e. Counter surface fires
- f. Information Operations

2. Conduct mission analysis based on given scenario.
3. Conduct EW targeting in support of given scenario.
4. Build TEAMS/ETIRMS mission to include route and mission cards.
5. Prepare go/no go criteria and flex plan.
6. Introduce proper communication procedures.
7. Practice degraded modes of operation.
8. Execute planned mission based on Mission Commander's guidance.
9. React to mission developments and pop-up threats.

Performance Standards

1. Properly analyzed mission.
2. Properly conduct EW targeting in support of mission.
3. Properly executed planned mission.
4. Properly reacted to mission developments and pop-up threats.

Crew. Pilot/ECMO 1/2/3.

External Support. EW Range, appropriate Ground Combat Elements.

STFS-312

2.0                    1 2F143 / 15E22C S/A (N)

Goal. Develop aircrew proficiency in electronic warfare in support of Assault Support.

Requirements. Should be flown as integrated simulator. May be flown day or night.

1. Discuss electronic warfare in support of Assault Support. Training scenario may include any or all of the following:
  - a. Combat Assault Support
  - b. CSAR / TRAP
  - c. Air Delivery
2. Conduct mission analysis based on given scenario.
3. Conduct EW targeting in support of given scenario.
4. Build TEAMS/ETIRMS mission to include route and mission cards.
5. Prepare go/no-go criteria and flex plan.
6. Introduce proper communication procedures.
7. Practice degraded modes of operation.
8. Execute planned mission based on Mission Commander's guidance.
9. React to mission developments and pop-up threats.

Performance Standards.

1. Properly analyzed mission.
2. Properly conduct EW targeting in support of mission.
3. Properly executed planned mission.
4. Properly reacted to mission developments and pop-up threats.

Crew. Pilot/ECMO 1/2/3.

TFS-313

2.0                    R 1 EA-6B A (N)

Goal. Develop aircrew proficiency in electronic warfare in support of Assault Support.

Requirements. May be flown day or night.

1. Discuss electronic warfare in support of Assault Support. Training scenario may include any or all of the following:
  - a. Combat Assault Support

- b. CSAR / TRAP
- c. Air Delivery
- 2. Conduct mission analysis based on given scenario.
- 3. Conduct EW targeting in support of given scenario.
- 4. Build TEAMS/ETIRMS mission to include route and mission cards.
- 5. Prepare go/no-go criteria and flex plan.
- 6. Introduce proper communication procedures.
- 7. Practice degraded modes of operation.
- 8. Execute planned mission based on Mission Commander's guidance.
- 9. React to mission developments and pop-up threats.

Performance Standards

- 1. Properly analyzed mission.
- 2. Properly conduct EW targeting in support of mission.
- 3. Properly executed planned mission.
- 4. Properly reacted to mission developments and pop-up threats.

Crew. Pilot/ECMO 1/2/3.

External Support. EW Range, Special Use Airspace, and rotary wing aircraft.

4. Defensive Tactics (DEFTAC)

a. Purpose. Introduce basic fighter maneuver counters, intercept communications, and defensive air combat maneuvering.

b. General. Emphasis should be placed on crew coordination, aircraft performance characteristics, building situational awareness, and basic defensive air combat maneuvers. The DEFTACI shall evaluate aircrew under instruction.

(1) Upon completion of DEFTAC-320, SDEFTAC-321, and DEFTAC-322 under the supervision of a designated DEFTACI, aircrew may be issued a Defensive Tactics Qualified (DEFTAC) letter. If aircrew lose proficiency in all DEFTAC events, the DEFTAC qualification is lost and may be regained by completing all "R" coded DEFTAC events with a DEFTACI.

(2) One dissimilar aircraft is required for DEFTAC-320 and DEFTAC-322. DEFTAC-320 does not require a radar-missile/BVR capable aircraft. DEFTAC-322 requires a radar-missile capable dissimilar aircraft.

c. Crew Requirements. A designated DEFTACI Pilot or ECMO 1 shall be crewed with non-qualified DEFTAC aircrew. If all aircrew in the event are DEFTAC qualified, a DEFTACI is not required. Pilots must complete all DEFTAC events in the pilot seat. ECMOs may fly all DEFTAC events in any ECMO seat.

d. Ground/Academic Training. Applicable academic courseware as outlined in the EA-6B chapter of the MAWTS-1 course catalog.

e. Flight and Simulator Event Training (2 flights, 3.0 hours/1 simulator, 2.0 hours)

DEFTAC-320      1.5                      R 1 EA-6B A / 1 Dissimilar Adversary A

Goal. Introduce 1vl Basic Fighter Maneuver Counters (BFMC).

Requirements

- 1. Discuss BFMC concepts and maneuvers.

2. Introduce eyeball calibration and demos (Initial flight only):
  - a. Bogey demo low-to-high angle-off-tail (AOT) from 20, 40, 60° and top/bottom of aircraft.
  - b. Bogey demo missile and gun envelopes with pursuit demos(lead, lag, pure).
  - c. Bogey demo six o'clock blind zone.
  - d. Bogey demo low Yo-Yo, high Yo-Yo, and Lag Roll.
3. Guns Weave:
  - a. Run 1: Bogey comm/EA-6B non-maneuvering.
  - b. Run 2: Bogey comm/EA-6B maneuvers.
  - c. Run 3: Bogey no comm/EA-6B maneuvers.
4. Perform low angle and high angle defensive counters.
5. Perform multiple head-on starts.
  - a. One-circle flow (Initial flight only).
  - b. Two-circle flow (Initial flight only).
  - c. Bogey vertical at merge (Initial flight only).
  - d. Bogey vertical at turn-in.
  - e. Bogey uses highest category aircraft capable with an IR-1 or IR-2 WEZ.

Performance Standards

1. Knows BFMC concepts, terms, and procedures.
2. Properly recognizes and performs maneuvers.
3. Demonstrates proper crew coordination, communication, and expendables.

Crew. Pilot/ECMO 1/2/3. DEFTACI Pilot or ECMO1 if required.

Prerequisites. FAM-206.

Ordinance. 60 Flares. TACTS/ACMI pod should be used, if available.

External Support. Special Use Airspace, Instrumented Range, and dissimilar F/W adversary.

SDEFTAC-321

2.0                      1 2F143 / 15E22C S

Goal. Introduce intercept control and BVR engagements, Slide/Scram execution, and FQMD.

Requirements. Should be flown as integrated simulator. DEFTACI makes appropriate shot calls for simulated bogey.

1. Discuss intercept communications and BVR tactics.
2. Introduce:
  - a. Bogey commits against EA-6B from 30 nm (EA-6B non-maneuvering).
  - b. Bogey at Scram range.
  - c. Bogey inside Scram range but outside of E-Pole.
  - d. Pop-up Threat inside E-Pole.
3. Introduce/Review dive recovery rules to no lower than 500 ft AGL.

Performance Standards

1. Determine proper Slide, Scram, and E-Pole ranges and directions.
2. Properly interpret AIC/GCI communications.
3. Properly build situational awareness with standard intercept communications.
4. Demonstrate proper expendables employment.

Crew. Pilot/ECMO 1/2/3. DEFTACI if required.

Ordnance. Simulate 40 Chaff/20 Flares.

External Support. GCI controller (if available).

DEFTAC-322      1.5      R E 1 EA-6B A / 1 Dissimilar Adversary A

Goal. Review intercept control and BVR engagements, Slide/Scram execution, and FQMD. This is the Pilot/ECMO DEFTAC qualification sortie.

Requirements. GCI/AEW required if available. If no radar control available, an air-intercept radar-equipped bogey may provide reverse GCI control. TACTS debrief recommended if available.

1. Discuss intercept communications and BVR tactics.
2. Introduce:
  - a. Eyeball calibration (Initial flight only).
  - b. Bogey at Scram range (Initial flight only).
  - c. Bogey inside Scram range and outside of E-Pole (Initial flight only).
  - d. Pop-up Threat inside E-Pole.
  - e. Transition from BVR to BFMC as appropriate.
3. Review dive recovery rules to no lower than 500 ft AGL.

Performance Standards

1. Determine proper Slide, Scram, and E-Pole ranges and directions.
2. Properly interpret AIC/GCI communications.
3. Properly build situational awareness with standard intercept communications.
4. Demonstrate proper expendables employment.

Crew. Pilot/ECMO 1/2/3. DEFTACI if required.

Prerequisites. DEFTAC-320 and SDEFTAC-321.

Ordnance. 40 Chaff/20 Flares.

External Support. Special Use Airspace, GCI/AIC, Instrumented Range, and dissimilar F/W adversary.

134. CORE PLUS TRAINING

1. General

a. This phase contains skill training a community may accomplish. Although Core Plus training events may provide valuable training opportunities, they are not measured as part of unit SORTS reporting. Skills contained in this level are associated with high risk, low probability of execution, and/or are theater specific. This phase of training allows additional unit training flexibility.

b. Core Plus Stages. These stages are Formation, Aerial Refueling, Electronic Warfare, Defensive Tactics, Expeditionary Air Field Operations, and Carrier Qualifications.

2. Formation (FORM)

a. Purpose. Develop proficiency for Pilot and ECMO 1 in EA-6B division formation skills.

b. General. Emphasize crew coordination, flight leadership, and safe formation procedures. The Division Lead evaluates all other aircrew under instruction.

c. Crew Requirements. Training codes apply only to Pilot and ECMO 1. Other crew positions may be manned as required.

d. Ground/Academic Training. Per NATOPS and local SOP. Additionally, complete applicable academic courseware as outlined in the EA-6B chapter of the MAWTS-1 course catalog.

e. Flight and Simulator Event Training (1 flight, 2.0 hours)

FORM-400            2.0                    R 3 or more EA-6B A (N)

Goal. Maintain proficiency in basic division procedures and maneuvers.

Requirements. May be flown day or night.

1. Discuss division formation terms, visual signals, and definitions.
2. Introduce/Review:
  - a. Interval takeoff and rendezvous.
  - b. Parade and Cruise.
  - c. Lead Changes.
  - d. One NATOPS TACAN rendezvous.
  - e. Two NATOPS Break-up and rendezvous - one left, one right.
  - f. Division recovery.

Performance Standards

1. Know division formation terms, visual signals, and definitions.
2. Perform all maneuvers per NATOPS and applicable MAWTS-1 EA-6B courseware.

Crew. Pilot/ECMO 1.

Prerequisites. FORM-210.

External Support. Special Use Airspace.

3. Low Altitude Aerial Refueling (AR)

a. Purpose. To introduce/review the techniques and procedures required for low altitude aerial refueling.

b. General. Any refueling aircraft may be used for this stage.

c. Ground Training. Per NATOPS and local SOP. Additionally, complete applicable academic courseware as outlined in the EA-6B chapter of the MAWTS-1 course catalog.

d. Pilot/ECMO Flight Training (Pilot: 1 Flight, 1.0 Hour)

AR-410            1.0                    R 1 EA-6B A (N)

Goal. Introduce/review the techniques and procedures required for low altitude aerial refueling.

Requirements. May be flown day or night below 5000' AGL. Other requirements are the same as AR-230 or AR-231.

Performance Standards. Same as AR-230 or AR-231.

Crew. Pilot/ECMO 1.

Prerequisites. AR-230.

External Support. Special Use Airspace and 1 KC-130 or other suitable tanker.

#### 4. Electronic Warfare (EW)

a. Purpose. Develop proficiency for aircrew in electronic warfare in support of various missions.

##### b. General

(1) Emphasis should be placed on mission analysis, EW targeting and planning, crew coordination, and weapon systems integration in support of various missions. The Mission Commander shall evaluate all other aircrew in the event.

(2) These missions introduce electronic warfare in support of various missions to include but are not limited to ALE-43 bulk chaff, electronic protection training, expeditionary strike group support, national asset ES integration, large force exercises, and real world contingencies. The intent is that the Mission Commander and aircrew conduct a thorough mission analysis based on a real-world, exercise, or simulated scenario. The Mission Commander and aircrew determine the EW support required for that mission and use the required weapon systems. All aircrew log the 300-level code for the appropriate EW event. Additionally, all aircrew log 200-level ES and EA codes if the applicable weapon systems were employed. Not all event requirements need to be met for the 200-level ES or EA event to be logged if used in a 400-level EW mission. For example, if the aircrew employs the TJS and USQ-113 in support of an EW-421 flight, they would also log the appropriate ES and EA 200-level codes for those weapon systems. 200-level codes will not be chained automatically by 400-level EW codes; they must be logged individually on the NAVFLIR. Mission Commanders are responsible for ensuring all appropriate T&R codes are logged on the NAVFLIR.

c. Crew Requirements. A designated Mission Commander is required for all EW events. For simulator events, the Mission Commander may be in the simulator or at the console. For flight events, a Mission Commander must be in the aircraft. For formation events, a Mission Commander must be in the formation. EW stage training codes apply to all aircrew regardless of crew position.

d. Ground/Academic Training. Applicable academic courseware as outlined in the EA-6B chapter of the MAWTS-1 course catalog.

e. Flight and Simulator Event Training (5 flights, 10.0 hours/1 simulator, 2.0 hours)

EW-420                    2.0                    R 1 EA-6B A (N)

Goal. Introduce/practice the aircrew requirements for ALE-43 bulk chaff operations.

Requirements. May be flown day or night.

1. Discuss ALE-43 pod operation and bulk chaff tactics.
2. Prepare EA game plan to optimize chaff corridor.
3. Program chaff panel based on threat environment.
4. Dispense or simulate chaff employment.
5. Execute planned mission based on Mission Commander's guidance.

6. React to mission developments and pop-up threats.

Performance Standards

1. Properly determine bulk chaff drop track and altitudes.
2. Properly employ chaff utilizing correct cutter head.
3. Properly clear any malfunctions.
4. Properly react to mission developments and pop-up threats.

Crew. Pilot/ECMO 1/2/3.

Prerequisites. NAV-202.

Ordnance. ALE-43.

External Support. Special Use Airspace.

EW-421

2.0 R 1 EA-6B A (N)

Goal. Introduce/review the requirements for successful completion of EP training support for Fleet units.

Requirements. May be conducted day or night against any Fleet unit requesting EP training.

1. Discuss EP training for Fleet units.
2. Coordinate with the supported unit.
3. Develop TEAMS/ETIRMS mission.
4. Prepare communications plan and code words as necessary.
5. Maintain EA/ES logs.

Performance Standards

1. Properly coordinated with supported unit.
2. Properly provided EW training for supported unit.

Crew. Pilot/ECMO 1/2/3.

Prerequisites. NAV-202.

Ordnance. As required.

External Support. As required.

SEW-422

2.0 R 1 2F143/15E22C S/A (N)

Goal. Introduce Expeditionary Strike Group support tactics in the littoral.

Requirements. Should be conducted as an integrated simulator. May be completed in the aircraft day or night.

1. Discuss ESG concepts to include but not limited to ASMD, maritime air support, etc. The Mission Commander will develop the training requirements, which may include:
  - a. TEAMS mission.
  - b. EA and/or HARM game plan.
  - c. Employment of EA-6B ISO amphibious operations.
  - d. Localize/identify/strike target ship.
  - e. Utilize WAS tactics for attack.
  - f. Practice degraded operations.

Performance Standards

1. Properly analyzed mission.

2. Properly conduct EW targeting in support of mission.
3. Properly executed planned mission.
4. Properly reacted to mission developments and pop-up threats.

Crew. Pilot/ECMO 1/2/3.

Prerequisites. None.

Ordnance. As required.

External Support. As required.

EW-423

2.0 R 1 EA-6B A (N)

Goal. Introduce/review the requirements necessary to integrate EW with National Assets during mission planning and execution.

Requirements. May be flown day or night. Every attempt shall be made to receive capabilities briefs of the assets involved in the mission.

1. Discuss National Asset platform(s) involved in the mission. The Mission Commander will develop the training requirements which may include:
  - a. Develop TEAMS mission.
  - b. Develop communications plan and reporting procedures.
  - c. Correlate OBS signals with National sources in order to provide more accurate indications and warning to other tactical assets.
  - d. Correlate OBS signals to increase EA effectiveness.
  - e. Verify ELINT broadcast airborne if capable.
  - f. Properly initialize MATT if available.
  - g. Send and receive IDM message if available.

Performance Standards

1. Properly analyzed mission.
2. Properly coordinated with national asset.
3. Properly executed planned mission.
4. Properly reacted to mission developments and pop-up threats.

Crew. Pilot/ECMO 1/2/3.

Prerequisites. NAV-202.

Ordnance. As required.

External Support. National Asset(s).

EW-424

2.0 R 1 EA-6B A (N)

Goal. Introduce/review electronic warfare in support of large force exercise or contingency operations.

Requirements. May be flown day or night.

1. Discuss EW in support of exercise scenario and missions. The Mission Commander will develop training requirements which may include:
  - a. TEAMS/ETIRMS mission.
  - b. Determine EA-6B(s) EW and route timing in per the exercise scenario.
  - c. Determine optimum load-out.

- d. Coordinate TERPES and Intelligence brief of scenario and EOB.
- e. Develop HARM plan.
- f. Brief HVAA protection plan.
- g. USQ-113 integration and targeting.
- h. Expendables game plan.
- i. EMI with friendly systems.

Performance Standards

1. Properly analyzed mission.
2. Properly conduct EW targeting in support of mission.
3. Properly executed planned mission.
4. Properly reacted to mission developments and pop-up threats.

Crew. Pilot/ECMO 1/2/3.

Prerequisites. NAV-202.

Ordnance. As required.

External Support. As required.

EW-425

2.0 R 1 EA-6B A (N)

Goal. Introduce/practice the aircrew requirements for AN/AAQ-28 Litening Pod operations.

Requirements. May be flown day or night.

1. Discuss AN/AAQ-28 operations and ISR employment.
2. Prepare an ISR gameplan that utilizes different modes of operation under given environmental gameplans.
3. Execute a planned mission based on Mission Commander's guidance.

Performance Standards

1. Properly conduct pod operation and sensor optimization.
2. Properly interpret sensor images.
3. Properly troubleshoot any pod malfunctions.
4. Properly respond to mission development and pop-up threats.
5. Demonstrate knowledge of IR/LASER and ISR terminology.
6. Properly record and debrief mission tapes.

Crew. Pilot/ECMO 1.

Prerequisites. NAV-202.

Ordnance. AN/AAQ-28 Litening Pod.

External Support. As required.

5. Threat Reaction (TRXN)

a. Purpose. To introduce/review section EA-6B threat reaction for Surface-To-Air missiles (SAM) and Anti-Aircraft Artillery (AAA).

b. General. Emphasize crew coordination, aircraft performance characteristics, and threat reaction skills. The DEFTACI shall evaluate aircrew under instruction.

c. Crew Requirements. For a pilot's initial flight, a designated DEFTACI pilot shall lead.

d. Ground/Academic Training. Applicable academic courseware as outlined in the EA-6B chapter of the MAWTS-1 course catalog.

e. Flight and Simulator Event Training (1 flight, 1.5 hours)

TRXN-430

1.5

R E 2 EA-6B A (NS)

Goal. Introduce/review section EA-6B threat reaction for Surface-To-Air missiles (SAM) and Anti-Aircraft Artillery (AAA).

Requirements. No lower than 500 ft AGL.

1. Discuss EA-6B threat reaction to SAM, AAA, and AAM.
2. Introduce the following IAW MAWTS-1 EA-6B courseware:
  - a. Section SAM threat reaction maneuvers.
  - b. Section AAA threat reaction maneuvers.
  - c. Threat reaction communications and expendables use.

Performance Standards. Properly perform all maneuvers per MAWTS-1 EA-6B courseware.

Crew. Pilot/ECMO 1/2/3. DEFTACI if required.

Prerequisites. TRXN-261.

Ordinance. 40 Chaff/20 Flares.

External Support. Special Use Airspace. When able, use smokey SAMs and feedback capable emitters to measure radar break-lock and expendable effectiveness.

## 6. Defensive Tactics (DEFTAC)

a. Purpose. To introduce advanced DEFTAC, section coordination tactics, escort tactics, and escort coordination.

b. General. The intent of these sorties is to reinforce aircrew situational awareness in multi-plane environments and BVR/WVR DEFTAC. The DEFTACI shall evaluate aircrew under instruction. One dissimilar radar-missile/BVR capable aircraft is required.

c. Crew Requirements. A designated DEFTACI Pilot or ECMO 1 shall be crewed with non-qualified DEFTAC aircrew. If all aircrew in the events are DEFTAC qualified, a DEFTACI is not required. The pilot's initial flight shall be lead by a DEFTACI pilot. Pilots must complete all DEFTAC events in the pilot seat. ECMOs may fly this DEFTAC event in any ECMO seat.

d. Ground/Academic Training. Applicable academic courseware as outlined in the EA-6B chapter of the MAWTS-1 course catalog.

e. Flight and Simulator Event Training (1 flight, 1.5 hours)

DEFTAC-440

1.5

R E 2 EA-6B A / 1 Dissimilar Aircraft A

Goal. Introduce/review section DEFTAC communications and situational awareness required for Intercept Control and BVR engagements, determination of slide/scram criteria, and FQMD.

Requirements. GCI/AEW required if available. If no radar control available, an air-intercept radar equipped bogey may provide reverse GCI control. TACTS recommended if available.

1. Discuss Section DEFTAC.
2. Introduce:
  - a. Maneuver section to counter a Zone 1 threat outside of E-Pole.
  - b. Section FQMD to counter a Zone 1 threat inside of E-Pole.
  - c. Maneuver section to counter a Zone 2 threat outside of E-Pole.
  - d. Counter a threat outside of E-Pole from a non-visual set-up in an EW Track.
  - e. Counter a threat inside of E-Pole from a non-visual set-up in an EW Track.

Performance Standards

1. Properly determine Slide/Scram and E-Pole ranges and directions.
2. Properly interpret AIC/GCI communications.
3. Properly establish de-confliction criteria.
4. When targeted, execute effective FQMD; when not targeted, execute effective Scram tactics.
5. Maintain mutual support via communications.

Crew. Pilot/ECMO 1/2/3. DEFTACI as required

Prerequisites. FORM-211 and SDEFTAC-321.

Ordnance. 40 Chaff/20 Flares.

External Support. Special Use Airspace, Instrumented Range, dissimilar F/W adversary, and GCI/AEW.

7. Expeditionary Airfield Operations (EAF)

- a. Purpose. To prepare aircrew for operations from a short, tactical EAF.
- b. General. EAF training may be conducted when operational requirements dictate. Appropriate facility requirements include FCLP capability and short-field arresting gear. The pilot/ECMO 1 are considered EAF trained upon the completion of 1 day and 1 night arrested landing.
- c. Crew Requirements. Pilot and ECMO 1.
- d. Ground/Academic Training. Applicable academic courseware as outlined in the EA-6B chapter of the MAWTS-1 course catalog.
- e. Flight and Simulator Event Training (2 flights, 2.0 hours/1 simulator, 2.0 hours)

SEAF-450                      2.0                      1 2F143 S

Goal. Introduce the procedures and techniques required for EAF and FCLP operations.

Requirements.

1. Discuss EAF operations.
2. Introduce proper entry and departure procedures at the EAF.
3. Conduct a minimum of 2 Mode 2 approaches, 2 "Bulls eye" approaches, and 2 GCAs.

4. Complete a minimum of 2 night and 2 day arrested landings.
5. Appropriately deal with various landing emergencies associated with EAF operations.

Performance Standards

1. Properly perform 2 day and 2 night arrested landings.
2. Properly identify and react to various takeoff and landing emergencies.

Crew. Pilot/ECMO 1.

EAF-451

1.0                      R E 1 EA-6B A

Goal. Obtain day EAF qualification.

Requirements. EAF qualified LSO.

1. Discuss EAF operations.
2. Complete at least 1 arrested landing.
3. Demonstrate proper entry and departure procedures from the EAF.

Performance Standards

1. Safely accomplish at least 1 arrested landing.
2. Comply with LSO direction.

Crew. Pilot/ECMO 1.

Prerequisites. SEAF-450.

External Support. EAF and LSO as required.

EAF-452

1.0                      R E 1 EA-6B A N

Goal. Obtain night EAF qualification.

Requirements. EAF qualified LSO. Same as EAF-451 except flown at night.

Performance Standards. Same as EAF-451.

Crew. Pilot/ECMO 1.

Prerequisites. EAF-451.

External Support. EAF and LSO as required.

8. Field Carrier Landing Practice (FCLP)/Carrier Qualification (CQ)

- a. Purpose. To prepare aircrew for operations from an aircraft carrier.
- b. General

(1) FCLP will be conducted per current NATOPS and other applicable guidelines and under the control of a qualified LSO. Totals of graded passes may vary and the LSO is responsible for ensuring that the proficiency demonstrated by each pilot is sufficient for successful carrier qualification. The LSO will monitor the pilot's tendencies for all simulator events. Upon completion of the appropriate work-up period the LSO will provide written certification for all pilots. There is no requirement for certification/evaluation of ECMOs, but they will receive CRP credit for front-seat CQ sorties.

(2) All CQ aircrew will complete SCQ-462 prior to commencing CQ.

c. Crew Requirement. Pilot and ECMO 1.

d. Ground Training. As directed by the LSO.

e. Flight and Simulator Event Training (4 flights, 4.0 hours /1 simulator, 2.0 hours)

FCLP-460            1.0                    E 1 EA-6B A

Goal. Practice day FCLPs.

Requirements. Field qualified EA-6B LSO.

1. Discuss FCLP.
2. May be conducted as a single sortie or at the completion of another sortie.
3. Complete a minimum of 6 graded passes under the control of a qualified LSO.

Performance Standards. Per CV NATOPS.

Crew. Pilot/ECMO 1.

External Support. A field qualified LSO if the squadron does not possess one.

FCLP-461            1.0                    E 1 EA-6B A N

Goal. Practice night FCLPs.

Requirements. Same as FCLP-460 except at night.

Performance Standards. Same as FCLP-460 except at night.

Crew. Pilot/ECMO 1.

Prerequisites. At least 1 day FCLP period.

External Support. A field qualified LSO if the squadron does not possess one.

SCQ-462            2.0                    1 2F143 S

Goal. Introduce CV check-in, marshal, recovery, and departure procedures. Introduce communications and crew coordination requirements for successful carrier operations. Introduce CV emergencies.

Requirements. CV qualified EA-6B LSO at the console.

1. Discuss CQ.
2. Complete a minimum of 2 touch-and-go landings, 4 traps, and at least 4 cat shots.
3. Multiple Case I and II approaches.

Performance Standards

1. Properly demonstrate appropriate arrival and departure communications and procedures.
2. Appropriately resolve selected CV emergencies.

Crew. Pilot/ECMO 1.

External Support. CV qualified EA-6B LSO if the squadron does not possess one.

CQ-463

1.5 R E 1 EA-6B A

Goal. Day qualify for carrier operations.

Requirements. Under the control of a CV qualified EA-6B LSO. Complete required number of touch-and-go's and arrested landings per CV NATOPS.

Performance Standards. Per CV NATOPS.

Crew. Pilot/ECMO 1.

Prerequisites. LSO work-up certification. FCLP-460, SCQ-462.

External Support. CV qualified EA-6B LSO if the squadron does not possess one.

CQ-464

2.0 R E 1 EA-6B A N

Goal. Night qualify for carrier operations.

Requirements. Under the control of a CV qualified EA-6B LSO. Complete required number of touch-and-go's and arrested landings per CV NATOPS.

Performance Standards. Per CV NATOPS.

Crew. Pilot/ECMO 1.

Prerequisites. LSO work-up certification. FCLP-461, SCQ-462.

External Support. CV qualified EA-6B LSO if the squadron does not possess one.

#### 140. INSTRUCTOR TRAINING

##### 1. General

a. This phase contains instructor work-up and certification syllabus events. DEFTACI and NSI certification requirements are delineated by the Commanding Officer of MAWTS-1 and detailed in the MAWTS-1 EA-6B Course Catalog. Once certified by MAWTS-1, the appropriate 600 level code shall be logged. Flight Leadership Standardization Evaluator POIs are delineated by the VMAQ squadrons and are detailed below. Once designated by the MAG CO, the appropriate 600 level code shall be logged.

##### b. Instructor stages

- (1) Night Systems Instructor (NSI).
- (2) Defensive Tactics Instructor (DEFTACI).
- (3) Flight Leadership Standardization Evaluator (FLSE).

2. Night Systems Instructor (NSI). Purpose: Work-up and certify NSI.  
NSI-500            2.0                    E 1 EA-6B A NS

Goal. NSI work-up sortie.

Requirements. IUT a NS-220. See MAWTS-1 Course Catalog for additional requirements, performance standards, and guidance.

NSI-501            2.0                    E 1 EA-6B A NS

Goal. NSI work-up sortie.

Requirements. IUT a NS-221. See MAWTS-1 Course Catalog for additional requirements, performance standards, and guidance.

NSI-502            2.0                    E 2 EA-6B A NS

Goal. NSI work-up sortie.

Requirements. IUT a NS-222. See MAWTS-1 Course Catalog for additional requirements, performance standards, and guidance.

NSI-503            2.0                    E 2 EA-6B A NS

Goal. NSI certification sortie.

Requirements. Certify a NS-222. Alternately, prospective NSI ECMOs only may certify on an NSI-221. See MAWTS-1 Course Catalog for additional requirements, performance standards, and guidance.

3. DEFTAC Instructor. Purpose: Work-up and certify DEFTAC instructors.

DEFTAC-510        1.5                    E 1 EA-6B A

Goal. DEFTACI work-up sortie.

Requirements. IUT a TRXN-261. See MAWTS-1 Course Catalog for additional requirements, performance standards, and guidance.

DEFTAC-511        1.5                    E 1 EA-6B A/1 Dissimilar A/C A

Goal. DEFTACI work-up sortie.

Requirements. IUT a DEFTAC-320. See MAWTS-1 Course Catalog for additional requirements, performance standards, and guidance.

DEFTAC-512        1.5                    E 1 EA-6B A/1 Dissimilar A/C A

Goal. DEFTACI work-up sortie.

Requirements. IUT a DEFTAC-322. See MAWTS-1 Course Catalog for additional requirements, performance standards, and guidance.

DEFTAC-513        1.5                    E 1 EA-6B A/1 Dissimilar A/C A

Goal. DEFTACI certification sortie.

Requirements. Certify a DEFTAC-320. See MAWTS-1 Course Catalog

DEFTAC-514      for additional requirements, performance standards, and guidance.  
1.5                      E 1 EA-6B A/1 Dissimilar A/C A

Goal. DEFTACI certification sortie.

Requirements. Certify a DEFTAC-322. See MAWTS-1 Course Catalog for additional requirements, performance standards, and guidance.

4. Flight Leadership Standardization Evaluator (FLSE)

a. Purpose. FLSEs ensure flight leadership standardization across all squadrons. The FLSE shall conduct a standardized evaluation of a prospective flight lead's ability to safely and effectively perform the duties as a flight lead. Prospective FLSEs shall complete the POI listed below. Upon completion of the POI, the squadron CO will nominate the prospective FLSE to the VMAQ Flight Leadership Board composed of all VMAQ squadron COs. With concurrence, nominations will then be forwarded to the MAG CO for approval and designation. Once designated, the appropriate 600 level code shall be logged. Each squadron should possess four (two pilot/two ECMO) FLSEs.

b. General. Although the FLSE designation is synonymous between pilots and ECMOs, the types of events/sorties that pilots and ECMO FLSEs may evaluate will be different. For clarification:

(1) Pilot FLSEs shall evaluate SLUT and DLUT events.

(2) ECMO FLSEs shall only evaluate MCUT events.

c. Waiver and re-designation criteria. FLSE POIs are waiverable only by the MAG CO. Designated FLSEs are required to complete annual standardization training. If the FLSE has not completed annual standardization training or has been out of the aircraft greater than 180 days, redesignation will require completion of the entire FLSE POI.

FLSE-520      0.0                      Tracking

Goal. FLSE certification.

Requirements

1. Thoroughly reviews the 200-400 level MAWTS-1 Courseware concerning weapon systems and tactics (pilots and ECMOs).
2. Thoroughly reviews the self paced readings and lectures in the SLUT and DLUT POI (pilots only).
3. Conducts initial training/in-brief with the EA-6B Model Manager.
4. Observes a MCUT stan evaluation with a designated FLSE (pilots may, ECMOs shall).
  - a. ECMO FLSEs shall observe a MCUT stan evaluation.
  - b. Pilot FLSEs may observe a MCUT stan evaluation. However this shall not be used in lieu of the pilot FLSE observing a SLUT or DLUT stan evaluation.
5. Observes a SLUT or DLUT stan evaluation with a designated FLSE (pilots only).

Performance standards

1. Demonstrates a thorough knowledge of standardization applicable to tactics and the MCUT syllabus (pilots and ECMOs).
2. Demonstrates a thorough knowledge of standardization applicable to formation operations and the SLUT and DLUT syllabi (pilots only).

3. Demonstrates an understanding of the FLSE evaluation criteria.

Prerequisites

1. Designated Mission Commander (pilots and ECMOs).
2. Designated Division Lead (pilots only).
3. Nominated by the Squadron Standardization Board and approved by the squadron CO.
4. Designated ORM Instructor or CRM Facilitator.

150. REQUIREMENTS, QUALIFICATIONS, AND DESIGNATIONS

1. General

a. This phase contains tracking codes and events designed to facilitate training management. This level also provides community standardization for combat leadership designation.

b. 600-level stages. These stages are known as Requirements, Qualifications, Core Skill Complete, Work-up and Designation, and Tracking.

2. Requirements

a. Purpose. To track requirements as outlined in NATOPS AND OPNAVINST 3710.7.

b. General. This section allows squadrons to document and track annual NATOPS, Instrument, and CRM check flights.

c. Crew Requirements. All checks will be per all applicable directives. NATOPS front seat and back seat, Instrument, and CRM checks may be accomplished in the trainer or the aircraft. ECMOs shall complete Instrument and front-seat NATOPS checks in the front seat only.

d. Ground/Academic Training. Per applicable publications, directives, and courseware.

e. Flight and Simulator Event Training (Pilots: 0 flights, 0.0 hours/3 simulators, 6.0 hours; ECMOs: 0 flights, 0.0 hours/4 simulators, 8.0 hours)

REQ-600                    2.0                    R E 2F143/1 EA-6B S/A

Goal. Evaluate knowledge of front seat systems. Annual NATOPS qualification.

Requirements. Set forth in applicable directives.

Performance Standards. Per NATOPS.

Crew. Evaluated crewmember and NATOPS Instructor.

REQ-601                    2.0                    R E 15E22C/1 EA-6B S/A

Goal. Evaluate knowledge of back seat systems. Back seat NATOPS qualification.

Requirements. Set forth in applicable directives.

Performance Standards. Per NATOPS.

Crew. Evaluated ECMO and NATOPS Instructor.

REQ-602            2.0                    R E 2F143/1 EA-6B S/A

Goal. Evaluate the knowledge of and adherence to standard instrument procedures. Instrument qualification.

Requirements. Set forth in applicable directives.

Performance Standards. Per NATOPS and the Instrument Flight Manual.

Crew. Evaluated crewmember and Instrument Evaluator.

REQ-603            2.0                    R E 2F143/ 1 EA-6B S/A

Goal. Evaluate the knowledge of and adherence to standard CRM.

Requirements. Requirements will be delineated by the selected CRM scenario. May be flown in conjunction with the front seat NATOPS check or any other event deemed acceptable by the instructor/facilitator.

Performance Standards. Per CRM course objectives.

Crew. Evaluated crewmember and CRM Instructor or Facilitator.

Prerequisites. Applicable CRM courseware.

### 3. Qualifications

a. Purpose. To track completion of qualifications. Refer to the Core Skill Basic, Advanced, and Core Plus phases for qualification requirements.

b. General. Qualification codes do not constitute events themselves. Rather, they will be logged upon completion of qualification requirements; the qualification letter has been signed by the commanding officer, filed in the crewmember's NATOPS jacket and APR, and an entry made in the crewmember's logbook. Requirements for maintaining qualifications are detailed in the Aviation T&R Program Manual.

c. Crew Requirements. Per the applicable qualification syllabus.

d. Ground/Academic Training. Per NS and DEFTAC stage syllabus requirements.

QUAL-610            0.0                    Tracking

Goal. Complete Night Systems Qualification.

Requirements. Satisfactory completion of NS qualification syllabus.

Performance Standards. Per syllabus description.

Crew. Pilot or ECMO.

Prerequisites. NS-222.

QUAL-611            0.0                    Tracking

Goal. Complete DEFTAC Qualification.

Requirements. Satisfactory completion of DEFTAC qualification syllabus.

Performance Standards. Per syllabus description.

Crew. Pilot or ECMO.

Prerequisites. DEFTAC-322.

4. Core Skill Complete (CSC)

a. Purpose. To track completion of academic, simulator, and flight training in core skills.

b. General. CSC codes do not constitute events themselves. Rather, they will be logged by Operations personnel following completion of the set of T&R codes required to attain individual CSP as detailed in the EA-6B CMMR paragraph 106. CSC codes provide operations and training officers with quick reference to whether crewmembers are attaining or maintaining core skills per paragraph 106.

c. Crew Requirements. Per the applicable core skill syllabus.

d. Ground/Academic Training. Per the applicable core skill syllabus.

CSC-620            0.0                    Tracking

Goal. FAM/NAV core skill complete.

Requirements. Satisfactory completion of required FAM/NAV events.

Performance Standards. Per syllabus description.

Crew. Pilot or ECMO.

CSC-621            0.0                    Tracking

Goal. Formation core skill complete.

Requirements. Satisfactory completion of required formation events.

Performance Standards. Per syllabus description.

Crew. Pilot or ECMO.

CSC-622            0.0                    Tracking

Goal. Air Refueling core skill complete.

Requirements. Satisfactory completion of required air refueling events.

Performance Standards. Per syllabus description.

Crew. Pilot or ECMO.

CSC-623            0.0                    Tracking

Goal. Electronic Warfare Support (ES) core skill complete.

Requirements. Satisfactory completion of required ES events.

Performance Standards. Per syllabus description.

Crew. Pilot or ECMO.

CSC-624

0.0                    Tracking

Goal. Electronic Attack (EA) core skill complete.

Requirements. Satisfactory completion of required EA events.

Performance Standards. Per syllabus description.

Crew. Pilot or ECMO.

CSC-625

0.0                    Tracking

Goal. Threat Reaction core skill complete.

Requirements. Satisfactory completion of required Threat Reaction events.

Performance Standards. Per syllabus description.

Crew. Pilot or ECMO.

CSC-626

0.0                    Tracking

Goal. Offensive Air Support (OAS) core skill complete.

Requirements. Satisfactory completion of required OAS events.

Performance Standards. Per syllabus description.

Crew. Pilot or ECMO.

CSC-627

0.0                    Tracking

Goal. Task Force Support (TFS) core skill complete.

Requirements. Satisfactory completion of required TFS events.

Performance Standards. Per syllabus description.

Crew. Pilot or ECMO.

## 5. Flight Leadership

a. Purpose. This section enables squadrons to document and track the programs of instruction for flight leaders.

b. General. Flight leadership designations include Section Lead, Division Lead, and Mission Commander. All work-up codes for a specific designation must be complete prior to the check flight.

(1) Flight leadership POIs shall ensure aircrew are trained and evaluated in the skills and missions that the aircrew are expected to lead once designated. The flight leadership POI may be administered by a current, designated flight

lead of the same or higher qualification. At a minimum, a Flight Leadership Standardization Evaluator (FLSE) from outside the squadron shall certify any one of the flight lead events. If during that event, performance is determined 'unsatisfactory,' it must be rescheduled and successfully completed.

(2) FLSE certification of prospective flight leaders for deployed units or locations where a FLSE from a different unit is not available to conduct the certification may be conducted by an internal FLSE with MAG/MAGTF Commander approval.

(3) Flight leadership re-designation criteria for aircrew that do not require Core Skill Introduction Refresher training is at the discretion of the commanding officer. For aircrew that require Core Skill Introduction Refresher training, the minimum re-designation requirement for flight leader positions is successful completion of the respective flight leader POI check event (R-coded).

(4) Designated flight leaders shall log the applicable tracking code (SL-684, DL-685, MC-686) after flying an event as the respective flight lead to track proficiency. Flight leadership currency intervals reflect the maximum time where a flight lead is expected to maintain an acceptable level of proficiency. A delinquent status does not result in the loss of the flight leadership designation, but is intended to be used as a tool for ORM and training management purposes. If delinquent, the flight lead can regain currency by completing any applicable T&R event with a current, designated flight lead. The table below summarizes flight leadership proficiency intervals and tracking codes.

Flight Lead Designation	Currency Interval	T&R Code
Section Leader	180 days	SL-684
Division Leader	365 days	DL-685
Mission Commander	180 days	MC-686

- c. Crew Requirements. Per the applicable POI and designation syllabus.
- d. Ground/Academic Training. Per the applicable POI and designation syllabus.
- e. Section Lead POI

(1) Purpose. To prepare and evaluate the prospective section lead's ability to plan, brief and execute an event as a section leader.

(2) General

(a) Prospective section leads shall conduct the following day and night workup sorties in order to develop the prospective section lead's flight leadership. Section Lead Under Training (SLUT) events shall be evaluated by a designated section lead or higher. Squadrons are encouraged to have other squadron Section Leads evaluate a selection of SLUT events. By doing so, a greater level of standardization can be maintained. At minimum, any one SLUT event shall be conducted by a FLSE external to the unit.

(b) The section lead evaluator will use the sortie requirement accomplishment criterion to determine whether the prospective section lead completed the sortie. The prospective section lead will use the performance standards to debrief the flight. Completion of the SLUT syllabus meets the requirements for designation as section leader; however, squadron commanders may

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apply additional requirements. At the discretion of the squadron commanding officer, a letter designating the pilot as section leader shall be placed in his/her NATOPS jacket and Aircrew Performance Record (APR).

(c) Section Lead Prerequisites. First-tour aviators with no previous tactical jet qualifications require a minimum of 500 total hours as Pilot in Command and a minimum of 250 EA-6B hours. Aviators with previous tactical jet qualifications require a minimum of 500 total hours as Pilot in Command and a minimum of 150 EA-6B hours.

(d) Prospective section leads shall be Formation Core Skill complete and Night Systems Qualified prior to beginning the section lead syllabus (SL 630-637).

(e) The prospective section lead shall complete a day FORM-210/211/212, and a modified night FORM-212.

(f) The prospective section lead shall also lead a section through air refueling day and night, aided or unaided.

(3) Crew Requirements. Section Lead training events require a designated Section Lead in the flight. The designated Section Lead shall evaluate the Section Lead under training (SLUT).

(4) Ground/Academic Training. Refer to the standardized academic training matrix below.