



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

NAVMC 3500.43
C 4610
FEB 07 2008

NAVMC 3500.43

From: Commandant of the Marine Corps
To: Distribution List

Subj: TACTICAL AIR OPERATIONS CENTER (TAOC) TRAINING & READINESS (T&R)
MANUAL

Ref: (a) NAVMC 3500.14

Encl: (1) TAOC T&R MANUAL

1. Purpose. To revise standards and regulations regarding the training of TAOC air defense control officers, tactical air defense controllers and air control electronics operators per the reference.
2. Information. This revision brings the TAOC T&R Manual into compliance with the reference's T&R policy and syllabus structure requirements.
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) 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.


J. B. LASTER
By direction

DISTRIBUTION: PCN 10031976400

Copy to: 7000260 (2)
8145001 (1)

DISTRIBUTION STATEMENT A: Approved for public release; distribution is unlimited.

TACTICAL AIR OPERATIONS CENTER (TAOC) TRAINING & READINESS (T&R) MANUAL

TABLE OF CONTENTS

CHAPTERS

- 1 AIR DEFENSE CONTROL OFFICER (ADCO) (MOS 7210)
- 2 AIR CONTROL ELECTRONIC OPERATOR (ACEO) (MOS 7234)
- 3 TACTICAL AIR DEFENSE CONTROLLER (TADC) (MOS 7236)

APPENDICES

- A TAOC ACADEMICS
- B EVALUATION FORM
- C SENIOR WATCH OFFICER TRAINING REQUIREMENTS

CHAPTER 1

AIR DEFENSE CONTROL OFFICER (ADCO)
(MOS 7210)

	<u>PARAGRAPH</u>	<u>PAGE</u>
UNIT CORE COMPETENCY.	100	1-2
PROGRAMS OF INSTRUCTION (POI) FOR ADCO	101	1-11
ACADEMIC TRAINING.	102	1-11
EVENT PERFORMANCE REQUIREMENTS.	103	1-12
CORE SKILL INTRODUCTION TRAINING	104	1-13
CORE SKILL BASIC TRAINING	105	1-19
CORE SKILL ADVANCED TRAINING	106	1-28
CORE PLUS TRAINING	107	1-34
INSTRUCTOR TRAINING	108	1-41
QUALIFICATIONS AND DESIGNATIONS.	109	1-41
SYLLABUS SUMMARY MATRIX	110	1-45
EVENT CONVERSION MATRIX	111	1-49

FIGURE

1-1 AIR DEFENSE CONTROL OFFICER TRAINING PROGRESSION MODEL.	1-10
--	------

CHAPTER 1

AIR DEFENSE CONTROL OFFICER (ADCO)
(MOS 7210)

100. UNIT CORE COMPETENCY

1. Overview

a. Marine aviation plays a crucial role in the MAGTFs 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 to quickly and effectively plan for crises and/or contingency operations thereby ensuring the Marine Air Command and Control System (MACCS) remains ready for combat when and where the need arises.

b. This T&R directive represents the collaborative effort of tactical air operations center (TAOC) subject matter experts who designed training standards to maximize the full combat capabilities of TAOC and early warning and control (EW/C) detachments. 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 that ensure crews maintain a common base of training and depth of combat capabilities. Together, the T&R comprises a building block approach to ensure trained crews remain ready, relevant and fully capable of supporting the MAGTF commander.

c. 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 encouraged. 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 the unit while staying within resource constraints.

2. Mission. Provide task organized agencies to perform airspace surveillance, air direction and control, coordination, information exchange and weapons systems integration for the six functions of Marine aviation in support of MAGTF operations and joint/combined operations.

3. TAOC Mission Essential Tasks List (METL)

a. MCT 5.3.2.7.1 Establish/Conduct Tactical Air Operations Center Operations

b. MCT 5.3.5.2 Conduct Air Control

c. MCT 5.3.5.3 Conduct Airspace Management/Surveillance

d. MCT 6.1.1.7 Conduct Anti-air Warfare (AAW) (Air Defense)

4. Table of Organization (T/O). Refer to T/Os 8631, 8632, 8641, 8642, and 8644 managed by Total Force Structure, MCCDC, for current authorized organizational structure and personnel strength for MACS units. As of this publication date, MACS units are authorized:

MACS-1 AND MACS-2 (T/O 8642 and 8644)	
	<u>TAOC</u>
Officers	- 7 (7202) - 10 (7210)
Enlisted	- 29 (7234) - 19 (7236)
	<u>EW/C</u>
Officers	- 2 (7202) - 5 (7210)
Enlisted	- 13 (7234) - 11 (7236)
MACS-4 (T/O 8631 and 8632)	
	<u>TAOC</u>
Officers	- 3 (7202) - 14 (7210)
Enlisted	- 29 (7234) - 17 (7236)
MACS-23 AND MACS-24 (T/O 8632A, 8632B, 8632C)	
	<u>TAOC</u>
Officers	- 3 (7202) - 16 (7210)
Enlisted	- 23 (7234) - 14 (7236)
Note: Maintenance and support personnel assigned to each TAOC and EW/C detachment are not listed.	

5. Unit Core Capability. The TAOC Detachment is provided by the Marine Air Control Squadron (MACS) and is the principal air defense agency that conducts real-time surveillance, positive aircraft control of the assigned airspace, and weapons system integration and control within the MACCS. The TAOC normally deploys as part of the MACCS within the MAGTF but, if the mission dictates, may also deploy independently or as part of a combined or joint force. A core capable MACS (MACS-1 or MACS-2) is able to simultaneously field, at minimum, both one TAOC and one EW/C detachment; the exception is MACS-4 and the reserve squadrons who at minimum can field one TAOC detachment or one EW/C but not both simultaneously.

a. TAOC Detachment Core Capability. A core capable TAOC is task organized to execute the following functions: tactical air traffic control (TATC), combat identification and surveillance, air intercept control, deep air support, missile control, data link coordination, and air battle management. As configured below, a TAOC detachment is capable of sustaining 24-hour operations:

TAOC Detachment

- (2) Senior Watch Officer
- (2) Air Battle Manager
- (2) Deep Air Operation Coordinator
- (2) Senior Air Director
- (2) System Configuration Coordinator
- (2) Senior Weapons Director
- (2) Air Intercept Controller
- (2) Missile Controller
- (2) Deep Air Controller
- (2) Senior Traffic Director
- (2) Tactical Air Traffic Controller
- (2) Surveillance Identification Director
- (2) Data Link Coordinator
- (2) Surveillance Operator
- (2) Crew Chief
- (2) Plotter

Note: Total requirement is driven by mission and duration.

b. EW/C Detachment Core Capability. A core capable EW/C detachment augments a TAOC detachment or deploys independently to provide surveillance and data link operations and limited control of air or ground based weapons systems. As configured below, an EW/C detachment is capable of sustaining 24-hour operations.

EW/C Detachment

- (2) Senior Air Director
- (2) Senior Weapons Director
- (2) Air Intercept Controller
- (2) Surveillance Identification Director
- (2) Surveillance Operator
- (2) Data Link Coordinator
- (2) Systems Configuration Coordinator

Note: Total requirement is driven by mission and duration.

6. METL/Core Skills. Core skills shall be a determining factor in developing T&R requirements; core skill abbreviations are listed in the first table below. Core skills directly support METs for each unit as noted in the second table below. Special skills and training requirements must receive appropriate prioritization and emphasis based on the training need and the likelihood of those types of missions being assigned during operations.

CORE SKILL ABBREVIATIONS	
CORE SKILL	ABBREVIATION
Air Control	AC
Air Intercept Control	AIC
Battle Management	BMT
Crew Management	CMT
Data Link Coordination	DLC
Surveillance, Identification, & Detection	SID
Systems Configuration	SC
Weapons Employment	WE

MCTL AND CORE SKILLS MATRIX									
MARINE CORPS TASK LIST (MCTL)		CORE SKILLS							
MCT NUM	MCT	A C	A I C	B M T	C M T	D L C	S I D	S C	W E
5.3.2.7.1	Establish / Conduct Tactical Air Operations Center (TAOC) Operations	X	X	X	X	X	X	X	X
5.3.5.2	Conduct Air Control	X	X						X
5.3.5.3	Conduct Airspace Management / Surveillance	X		X			X		
6.1.1.7	Conduct Anti-air Warfare (AAW) (Air Defense)	X	X				X		X

MCTL AND CORE PLUS MATRIX									
MARINE CORPS TASK LIST (MCTL)		CORE PLUS SKILLS							
MCT NUM	MCT	A C	A I C	B M T	C M T	D L C	S I D	S C	W E
5.3.2.7.1	Establish / Conduct Tactical Air Operations Center (TAOC) Operations	X	X	X	X		X		X
5.3.5.2	Conduct Air Control	X	X						X
5.3.5.3	Conduct Airspace Management / Surveillance	X		X			X		
6.1.1.7	Conduct Anti-air Warfare (AAW) (Air Defense)	X	X	X			X		X

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

a. Minimum Unit Core Skill Proficiency (CSP) Requirements. As a minimum, in order to be considered core competent, a unit must possess the following numbers of personnel who are proficient in each core skill (unit CSP).

TAOC Detachment			
CORE SKILL	7210/7202	7236	7234
AC		2	2
AIC		2	
BMT	2 / 0	2	
CMT	2 / 0	2	
DLC			2
SID	2		2
SC			4
WE		6	
CORE PLUS			
BMT	2 / 2		

Denotes one minimum manned TAOC detachment for sustained operations. Total requirement driven by mission and duration.

EW/C Detachment			
CORE SKILL	7210/7202	7236	7234
AC			
AIC		2	
CMT	2 / 0		
DLC			2
SID	2 / 0		
SC			2
WE		2	

Denotes one minimum manned EW/C detachment for sustained operations. Total requirement driven by mission and duration.

(1) Events Required to Attain Individual Core Skill Competency. To initially attain competency in a core skill, an individual must successfully complete all of the T&R events listed in the chart below for the core skill.

ATTAIN INDIVIDUAL CORE SKILL										
	BMT		CMT				SID			
Air Defense Control Officer (7210)	220	221	300R	301	302	303	200	201	202	203
	222R	223	304	305	306	307R	204	205	206R	207R
	224R		308	309	310	311	208	209	210	211
			312R				212	213	214R	

(2) Events Required to Maintain Individual Core Skill Competency. To maintain competency in a core skill, an individual must maintain proficiency in all of the core skill events listed in the chart below.

MAINTAIN INDIVIDUAL CORE SKILL			
	BMT	CMT	SID
Air Defense Control Officer (7210)	222R	300R	206R
	224R	307R	207R
		312R	214R

(3) Events Required to Attain Individual Proficiency in Core Plus Skills. Proficiency in core plus skills is not required to obtain unit CSP. Training to core plus skills is at the discretion of the unit commanding officer. To initially attain proficiency in a core plus skill, an individual must simultaneously have a 'proficient' status in all of the T&R events listed below for that core plus skill.

ATTAIN INDIVIDUAL CORE PLUS					
Air Defense Control Officer (7210)	AIC				BMT
	410R	411R	412R	413R	400
	414	415	416	417R	401
	418	419	420R		

(4) Events Required to Maintain Individual Proficiency in Core Plus Skills. To maintain proficiency in a core plus skill, an individual must maintain proficiency in all of the T&R events displayed below for that core plus skill:

MAINTAIN INDIVIDUAL CORE PLUS				
Air Defense Control Officer (7210)	AIC			
	410R	411R	412R	
	413R	417R	420R	

b. Combat Leadership Requirements. As a minimum, in order to be considered core competent, a MACS must possess personnel with the listed combat leadership designations as noted below.

LEADERSHIP DESIGNATION	TAOC DETACHMENT	EW/C DETACHMENT
Air Battle Manager (ABM)	2	0
Deep Air Operations Coordinator (DAOC)	2	0
Senior Air Director (SAD)	2	2
Crew Chief (CC)	2	0
Senior Weapons Director (SWD)	2	2
Senior Traffic Director (STD)	2	0
Surveillance Identification Director (SID)	2	2
- Denotes combat leaders required to simultaneously support one TAOC detachment and one EW/C detachment for sustained operations.		
- Each MACS will have two 7202's designated as a TAOC SWO.		

8. Qualification and Designation. The tables below delineate T&R events required to be completed to attain initial qualifications and designations. All required academics (appendix A) and prerequisites shall be completed prior to completing final events. Qualification and designation letters signed by the commanding officer or his representative shall be placed in the individual performance record (IPR).

a. Qualification. A qualification is a status assigned based on demonstrated proficiency in a specific skill. Qualifications have a currency requirement and have designated re-fly event(s). Specific criteria to achieve qualifications are delineated in the qualification table below, the MAWTS-1 course catalog, and governing directives. The evaluation form, appendix B, shall be used to document all event evaluations. Upon completion of qualification criteria, commanding officers shall issue a qualification letter for inclusion into individual performance records (IPR). Qualifications are not lost when refreshing events. Loss of proficiency and/or time expiration (delinquent refresh events) for all associated qualification events constitutes loss of the qualification. Re-qualification requires demonstrated proficiency by successfully completing all R-coded events associated with the qualification (unless waived per the Aviation T&R Program Manual).

ADCO QUALIFICATIONS	TRACKING CODE	REQUIREMENT							
Surveillance Identification Director (SID)	QUAL-614	200	201	202	203	204	205	206R	207R
		208	209	210	211	212	213	214R	
Senior Traffic Director (STD)	QUAL-624	220	221	222R	223	224R			
Senior Air Director (SAD)	QUAL-612	300R	301	302	303	304	305	306	307R
		308	309	310	311	312R			
Air Intercept Controller (AIC)	QUAL-620	410R	411R	412R	413R	414	415	416	417R
		418	419	420R					
R = Refresh									

b. Designation

(1) A designation is a status assigned by the commanding officer to an individual based on leadership ability. It is command specific and remains in effect until removed for cause or when individual is transferred to another command. Commanders are encouraged to consider the individual designation requirements noted below prior to designating an individual. Once an individual is designated, commanders shall issue a designation letter for inclusion into the individual performance record (IPR). Follow-on commands shall repeat the "initial documentation procedure."

(2) Unit instructors are designated by the commanding officer. As a minimum, a unit should maintain two ADCO Weapons and Tactics Instructor (WTI) to support TAOC and EW/C training and operations. ADCOs receive MOS 7277 upon completion of the WTI course. The completion certificate shall be placed in the IPR. Instructor designations are outlined in the MAWTS-1 Course Catalog, MCO 3500.109 (WTTP), and applicable directives.

ADCO DESIGNATIONS	TRACKING CODE	REQUIREMENT
Senior Watch officer (SWO)	DESG-600	CO designated, refer to Appendix C for requirements
Air Battle Manager (ABM)	DESG-601	400, 401
Senior Air Director (SAD)	DESG-613	312R
Surveillance Identification Director (SID)	DESG-615	214R
Air Intercept Controller (AIC)	DESG-620	AIC-420
Senior Traffic Director (STD)	DESG-625	224R
Joint Interface Coordination Officer (JICO)	DESG-631	Graduate from the JICO Course
Weapons and Tactics Instructor (WTI)	DESG-651	Graduate from the WTI Course

9. Training Progression Model for ADCO

a. A progression model depicts the logical training progression for ADCOs. It develops and refines skills required for the ADCO to function in a director position within a core capable TAOC crew. The syllabus has been tailored towards that end by combining events into director position training. With the focus on director training and the resulting reduction in the number of required events, it is incumbent upon the squadron commander to ensure each event is completed in accordance with each event performance standard. The base of each model contains those events and qualifications an individual attains as an ADCO. The highest phase of the progression model contains core skill and core plus training normally attained by only the most experienced personnel within a unit. The training progression model for an ADCO is depicted in figure 1-1.

b. This progression model provides training officers with a valuable tool to develop training plans. With a clear training progression delineated, with an emphasis on obtaining core skills at the basic and advanced levels of training, training officers have the ability to produce viable training plans. Units will use the progression model as a point of departure to generate weekly, monthly, quarterly and annual training plans.

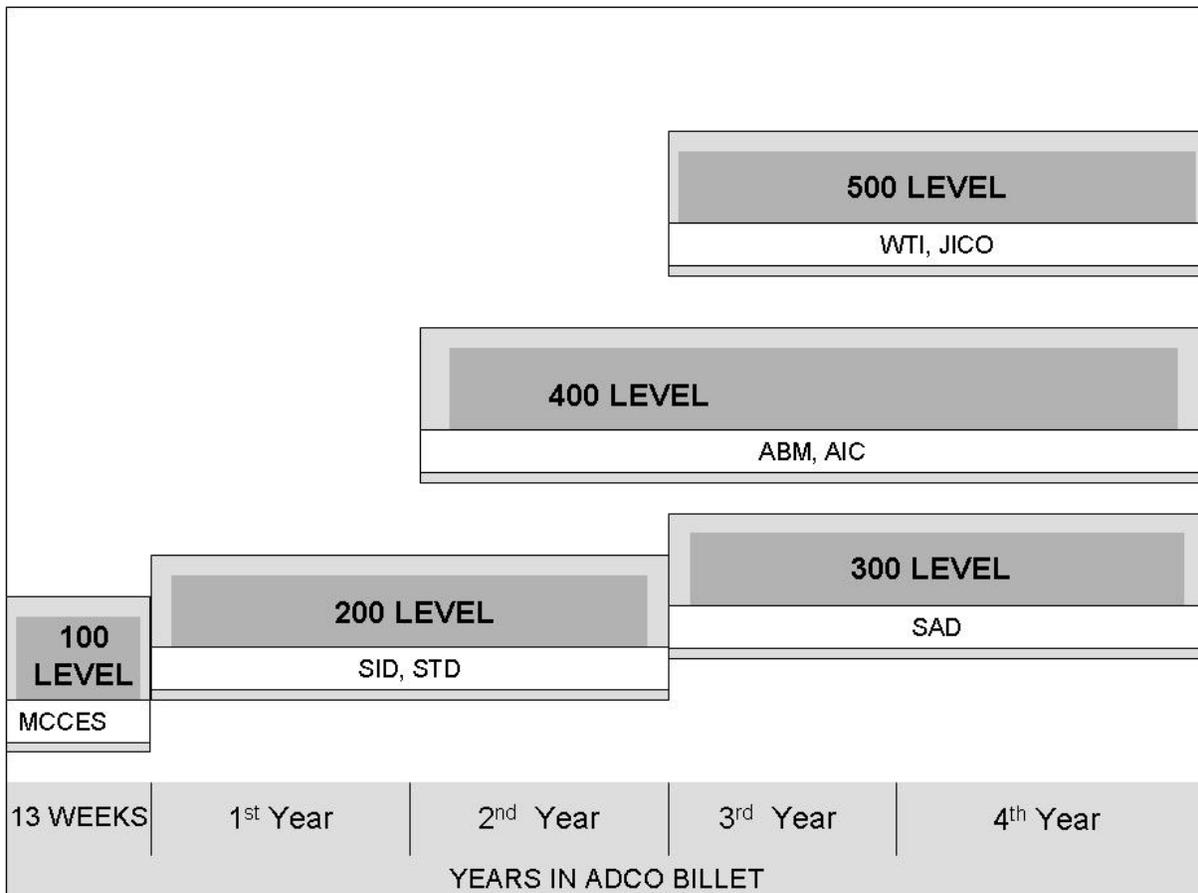


Figure 1-1.-- Air Defense Control Officer (ADCO) Training Progression Model.

101. PROGRAMS OF INSTRUCTION (POI) FOR ADCO

1. Basic ADCO POI

<u>Months</u>	<u>Phase</u>	<u>Activity</u>
1-4	Core Skill Introduction Air Defense Control Officers Course	MCCES, 29 Palms
5-16	Core Skill Basic	MACS
16-29	Core Skill Advanced	MACS
29-120	Core Plus	MACS

2. Refresher ADCO POI

<u>Weeks</u>	<u>Phase</u>	<u>Activity</u>
2	Core Skill Basic	MACS
1	Core Skill Advanced	MACS
2	Core Plus	MACS

3. WTI

<u>Weeks</u>	<u>COURSE/PHASE</u>	<u>ACTIVITY</u>
7	WTI	MAWTS-1
2	ACCOC	MAWTS-1

102. ACADEMIC TRAINING

1. Academic training shall be conducted for each phase/stage of the syllabus. Commanders shall incorporate the lectures in appendix A into the unit training plans. Where indicated, standardized academic training materials exist and may be obtained from the sponsoring activity.

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

<u>COURSE</u>	<u>ACTIVITY</u>
Weapons and Tactics Instructors (WTI) Course	MAWTS-1, MCAS Yuma
Marine Division Tactics Course (MDTC)	MAWTS-1
Multi-TDL Advanced Joint Interoperability Course (MAJIC)	JMTS, Ft McPherson
Joint Tactical Information Distribution System (JTIDS) Course	JMTS
Link 16 Planner Course	JMTS
Joint Interface Control Officer (JICO) Course	JMTS
Joint Air Tasking Order Process (JATOP) Course	505th Trng Sqdn, Hurlburt Fld
Strike Fighter Tactics Instructor Course (SFTI: TOPGUN)	NSAWC, NAS Fallon

103. EVENT PERFORMANCE REQUIREMENTS

1. The purpose of this section is to provide the commander with standardized training program for all TAOC personnel. The overall goal is to develop unit warfighting capabilities and not to measure the proficiency of individuals. Syllabi are based on specific performance standards designed to ensure proficiency in core competencies. An effective T&R program is the first step in providing the MAGTF commander with an Aviation Combat Element (ACE) capable of accomplishing any and all of its stated missions. The T&R program provides the fundamental tools for commanders to build and maintain unit combat readiness. Using these tools, training managers can construct and execute an effective training plan that supports the unit's METs.

2. Unit training management is the application of the Marine Corps Training Principles and the Systems Approach to Training to satisfy the training requirements of commanders at all levels in order to accomplish their wartime mission. Guidance concerning unit training management and the process for establishing effective unit training management programs are contained in MCRP 3-0A, Unit Training Management Guide, and form the basis for the development of this T&R Directive. Familiarity with MCRP 3-0A will enhance understanding of the Systems Approach to Training used in T&R development and Marine Corps UTM principles.

3. MACCS Integrated System Training. All elements of the MACCS shall maintain the capability to effectively function as part of an integrated airspace command and control system. In that, large exercises may not always offer sufficient training opportunity for all crew members and in many cases do not offer sufficient latitude to refine capability upon arrival, the MACCS should conduct MACCS Integrated System Training Exercises (MISTEX) on a regular basis to qualify units and personnel per their respective T&R syllabus. MISTEXs should focus on the establishment of necessary communications and data links between MACCS agencies, and incorporate sufficient simulation and Marine Simulation Events List (MSEL) items to exercise and analyze system integration, crew coordination, and critical information flow wherever possible. Tactical Data Link (TDL) capable agencies should conduct frequent link training exercises to maintain proficiency.

4. The ADCO POI requires in-depth integration within the MACCS. Likewise, development of MAGTF training, involving extensive integration with applicable elements of the MAGTF, is mandatory in the development of a core skill. Training not conducted in a live training environment shall be replaced with simulation where applicable and as indicated in the condition code for each event.

5. The matrix below lists all stages in the ADCO POI and the core skill that each stage supports.

CORE SKILL	STAGE(S) SUPPORTING THE CORE SKILL
Surveillance, Identification, & Detection (SID)	Surveillance Identification Director (SID)
Battle Management (BMT)	Senior Traffic Director (STD), Air Battle Manager (ABM)
Crew Management (CMT)	Senior Air Director (SAD)
Air Intercept Control (AIC)	Air Intercept Controller (AIC)

104. CORE SKILL INTRODUCTION TRAINING

1. General

a. This phase provides classroom entry-level instruction to develop the basic skills necessary for an officer to meet the requirements to be assigned MOS 7210, Air Defense Control officer (ADCO). This training is complete upon graduation from the Air Defense Control Officer Course (ADCOC). Upon completion of ADCOC, the officer is trained in air defense control operations and designated MOS 7210.

b. Prerequisite. Grade of 2nd Lieutenant through Captain, normal color vision, and a secret clearance.

c. Academic Training. Air Defense Control Officer Course (ADCOC), MCCES, located in 29 Palms, CA. The 100 level ADCO program of instruction can be viewed at www.29palms.usmc.mil/mcces.

d. Core Skill Introduction Stage. Familiarization (FAM).

e. Classroom and Practical Application Training. 19 events, 106 hours.

2. Familiarization (FAM) Training

FAM 100	8.0	B	TAOC	L
---------	-----	---	------	---

Goal. Identify the organizations within the Marine Air Command and Control System (MACCS).

Requirement. Understand and identify the following:

- (1) The operational components and crew positions of the Tactical Air Command Center.
- (2) The capabilities and crew positions of the Direct Air Support Center.
- (3) The capabilities of the Low Altitude Air Defense Battalion.
- (4) The capabilities of Marine Wing Communications Squadron assets used by the TAOC.
- (5) The organization of the Marine Air Control Squadron.
- (6) The organization of the TAOC.

Performance Standard. Pass a written test with a minimum score of 80%.

FAM 101	8.0	B	TAOC	L
---------	-----	---	------	---

Goal. Identify MACCS integration.

Requirement. Identify and define the following:

- (1) The organization of the Marine Air Wing.
- (2) The six functions of Marine aviation.
- (3) The missions of USMC aircraft squadrons.
- (4) The capabilities of friendly Surface to Air Missiles.
- (5) Airspace Control Measures.
- (6) The capabilities of US ordnance.

- (7) Threat systems to US aircraft.
- (8) Procedures and terms when controlling classified materials.
- (9) The organization of Theater Air Ground Systems.

Performance Standard. Pass a written test with a minimum score of 80%.

FAM 102 8.0 B TAOC L

Goal. Identify MACCS operational planning documents and doctrinal publications.

Requirement. Identify the following documents and state their purpose:

- (1) OPTASKLINK.
- (2) Air Space Control Order.
- (3) OORDER.
- (4) Air Tasking Order.
- (5) Special Instructions.
- (6) TAOC Handbook MCWP 3-25.7.
- (7) TAOC Pocket Checklist.
- (8) Joint Multi-Tactical Data link Operating Procedures JMTOP.
- (9) Joint Publication Command and Control for Joint Operations 3-56.1.
- (10) Joint Tactical Operations Handbook.
- (11) Joint Close Air Support Manual JP-09.3.
- (12) Air, Land, Sea Application (ALSA) manual.
- (13) Integrated Combat Airspace Command and Control Manual
- (14) Top Gun Manual

Performance Standard. Pass a written test with a minimum score of 80%.

FAM 103 8.0 B TAOC L

Goal. Set up a TAOM for operations.

Requirement. Conduct/identify the following:

- (1) Identify the components of the TAOM.
- (2) Apply power to the seven equipment groups of the TAOM.
- (3) OCU operation.
- (4) Data base building and loading.
- (5) Communications on UHF and HF radios.
- (6) TAOM cabling.
- (7) TAOC antenna capabilities.

Performance Standard. Pass a practical application and written exam with a minimum score of 80%.

FAM 104 8.0 B TAOC S

Goal. Perform Surveillance Operator functions.

Requirement. Demonstrate proficiency in the following:

- (1) Identification Matrix.
- (2) General and standing Rules Of Engagement.
- (3) Aircraft identification and classification.
- (4) Cross-tell procedures
- (5) Surveillance section crew coordination.
- (6) Air Tasking Order.

Performance Standard. Pass a practical application and written exam with a minimum score of 80%.

FAM 105	8.0	B	TAOC	L
---------	-----	---	------	---

Goal. Perform data link coordination functions.

Requirement. Understand and perform the following:

- (1) Link 11 operations.
- (2) Link 11B operations.
- (3) Link 16 operations.
- (4) Data link orders.
- (5) Data link filters.

Performance Standard. Pass a practical application and written exam with a minimum score of 80%.

FAM 106	8.0	B	TAOC	S
---------	-----	---	------	---

Goal. Perform as a Surveillance Identification Director (SID).

Requirement. Demonstrate proficiency in the following:

- (1) Intelligence, Surveillance and Reconnaissance (ISR) platforms capabilities.
- (2) Surveillance brief.
- (3) Surveillance section crew coordination and supervision.
- (4) TAOC RADAR capabilities.
- (5) Surveillance data base functions.
- (6) Surveillance section responsibilities.
- (7) Use of doctrinal nets in the surveillance section.

Performance Standard. Pass a practical application and written exam with a minimum score of 80%.

FAM 107	8.0	B	TAOC	S
---------	-----	---	------	---

Goal. Perform as a Tactical Air Traffic Controller (TATC).

Requirement. Understand and perform the following:

- (1) Doctrinal nets used by the traffic section.
- (2) Responsibilities of the TATC.
- (3) Voice communications for the traffic section.
- (4) Traffic system functions.
- (5) Emergency Procedures.
- (6) Construct a TATC log.

- (5) Operational Planning Team responsibilities.
- (6) Operate C4I systems.

Performance Standard. Pass a written exam with a minimum score of 80%.

FAM 112 8.0 B TAOC L

Goal. Understand air support communications equipment

Requirement. Understand the following:

- (1) Nomenclature.
- (2) Range.
- (3) Power requirements.
- (4) Antenna configurations.

Performance Standard. Pass a written exam with a minimum score of 80%.

FAM 113 1.0 B TAOC L

Goal. Accurately plot coordinates.

Requirement. Conduct the following:

- (1) Plot friendly/enemy units using appropriate symbols.
- (2) Plot DASC specific symbols (JTAR, ASR, etc.).
- (3) Complete and understand mission data on status boards (TAD/HD).

Performance Standard. Pass a written exam with a minimum score of 80%.

FAM 114 1.0 B TAOC L

Goal. Process JTARs/ASRs.

Requirement. Conduct the following:

- (1) Receive and process JTARs. Assign appropriate request number and complete the form.
- (2) Receive and process ASRs. Assign appropriate request number and complete the form.

Performance Standard. Pass a written exam with a minimum score of 80%.

FAM 115 1.0 B TAOC L

Goal. Introduce operations on the airborne command and control platform (DASC A).

Requirement. Understand and conduct the following:

- (1) DASC(A) radio and communication systems.
- (2) Place a telephone call.

- (3) Utilize intercommunications system.
- (4) Alter assigned frequencies utilizing resets/remote/radio face.
- (5) Conduct emergency shutdown procedures.

Performance Standard. Pass a written exam with a minimum score of 80%.

FAM 116 1.0 B TAOC L

Goal. Introduce operations on the ground command and control platform.

Requirement. Understand and conduct the following:

- (1) DASC radio and communication systems.
- (2) Place a telephone call.
- (3) Utilize intercommunications system.
- (4) Enable/disable crypto logical equipment.
- (5) Affiliate/disaffiliate a UCD.

Performance Standard. Pass a practical application test with a minimum score of 80%.

FAM 117 1.0 B TAOC L

Goal. Introduce Advanced Field Artillery Tactical Data System (AFATDS).

Requirement. Understand and conduct the following:

- (1) Apply power and login.
- (2) Perform setup initialization
 - (a) Install map mod/center
 - (b) Install printer
 - (c) Set alarms and time.
- (3) Setup communications to include:
 - (a) Owner ID
 - (b) Subscriber data
 - (c) Communication check.
- (4) Send/receive plain text messages.
- (5) Send/receive Battlefield Geometry.
- (6) Process data techniques.
- (7) Artillery firing update (AFU).

Performance Standard. A MCCES instructor will qualitatively evaluate performance.

FAM 118 1.0 B TAOC L

Goal. Introduce TBMCS applications.

Requirement. Using appropriate applications, receive, display, and process electronic requests for immediate air support.

Performance Standard. A MCCES instructor will qualitatively evaluate performance.

105. CORE SKILL BASIC TRAINING

1. General

a. This phase applies skills and information obtained in the Core Skill Introduction phase (100-level, MCCES). While assigned to a Marine Air Control Squadron (MACS), under the direct supervision of qualified personnel, the ADCO moves from an introductory understanding of core skills to core skill proficiency. Initial individual core skills are learned and mastered using a mix of live aircraft and simulation events. Training includes: equipment employment, surveillance and data link operations, airspace management and basic understanding of the Marine Air Command and Control System (MACCS). This phase is completed when the officer achieves both the SID and STD qualifications which are normally accomplished during the first two years of assignment to an operational MACS. Focus of this phase is to train the ADCO to execute methods, exercise practical application of skill sets, and plan/manage MACS operational capabilities.

b. Administrative Notes. The ADCO should complete both SID and STD qualification within the first 24 months of assignment to a MACS.

c. Prerequisite. Core Skill Introduction training events must be completed prior to beginning this phase of training. Training in this phase does not preclude simultaneous training in the Core Skill Advanced phase.

d. Core Skill Basic Stages

- (1) Surveillance Identification Director (SID)
- (2) Senior Traffic Director (STD)

2. Surveillance Identification Director (SID) Training

a. Purpose. To train the ADCO in SID duties that include the detection, identification, and classification of all tracks within assigned sector, coordination of data link configuration and use, as well as coordination of electronic protection within assigned sector. SID supervisory duties are also trained to in this stage.

b. Refresher Training. Refresher training is required once a Core Skill Basic ADCO has been absent from an ADCO billet for 18 months or longer. Upon return to an ADCO billet, the officer will complete "R" coded events for this stage of training.

c. Crew Requirements. A core competent TAOC crew will be required for higher level evaluated events.

d. Academic Training. Academic training will be conducted prior to and concurrent with required events. An academic event, once completed, can be credited as a prerequisite for follow-on training events.

e. Live and Simulator Event Training. 15 events, 114.0 hours.

SID-200	4.0	B	TAOC	S/L
---------	-----	---	------	-----

Goal. Perform surveillance operations.

Requirement. Complete the following:

- (1) Enter all appropriate Surveillance data base entries to include:
 - (a) Local/Remote radars.
 - (b) Special points or corridors.
 - (c) IFF/SIF codes.
 - (d) Applicable map/overlay features.
- (2) Execute briefed ID and classification procedures:
 - (a) Correlate SIF codes with published directives.
 - (b) Interrogate Mode IV and post results as required.
 - (c) Adhere to published ID criteria/ROE when evaluating unknown tracks.
 - (d) Classify tracks in a timely manner, per SAD direction.
- (3) Symbol management with a focus on data entry/updating.
- (4) Compile and forward any applicable reports.

Performance Standard. Complete each item in this event with 80% accuracy.

Prerequisite. Academics: T-704, T-726, T-752.

SID-201	8.0	B	TAOC	L/S
---------	-----	---	------	-----

Goal. Perform serial datalink functions.

Requirement. Perform serial link operations with a serial link (LINK 11B, NATO LINK-1, ATDL-1); demonstrate proficiency in the following:

- (1) Enter required data base entries.
- (2) Activate, determine the status of, and troubleshoot each link as applicable.
- (3) Ensure TAOC data link equipment is set-up/keyed.
- (4) Ensure required link filters are entered and activated.
- (5) Perform proper link entry and exit procedures.
- (6) Perform order functions associated with the appropriate link.
- (7) Perform link management functions.

Performance Standard. Complete each item in this event with 80% accuracy.

Prerequisite. Academics: T-703, T-105, T-707, T-710, T-716, T-718, T-719, T-720, T-721, T-722, T-751.

External Syllabus Support. External C3 agencies.

SID-202	8.0	B	TAOC	L/S
---------	-----	---	------	-----

Goal. Perform Link 11 functions.

Requirement. Perform link functions while participating in a live netted data link (Link 11). Conduct the following:

- (1) Enter required data base entries.
- (2) Activate, determine the status of, and troubleshoot link as applicable.
- (3) Perform proper net entry and exit procedures.
- (4) Ensure TAOC data link equipment is set up/keyed.
- (5) Ensure required data link filters are entered and activated.
- (6) Operate in the following modes as applicable:
 - (a) Radio Silent.
 - (b) Net Control Station (NCS).
 - (c) Picket.
- (7) Perform link management functions per SAD direction.
- (8) Perform link coordination over designated voice nets.

Performance Standard. Complete each item in this event with 80% accuracy.

Prerequisite. Academics T-705, T-707, T-709, T-716, T-718, T-719, T-720, T-721, T-722, T-751.

External Syllabus Support. JTAO data link platform(s).

SID-203	16.0	B	TAOC	L/S
---------	------	---	------	-----

Goal. Perform Link 16 functions.

Requirement. Perform link functions while participating in a LINK 16 network; demonstrate proficiency in the following:

- (1) Achieve fine synchronization in a LINK 16 Network, determine the status of, and troubleshoot the link as appropriate.
- (2) Enter and manage link data base entries.
- (3) Ensure TAOC link equipment is set up/keyed.
- (4) Ensure required link filters are entered and activated per the OPTASK LINK.
- (5) Operate in the Radio Silent and Data Silent modes as applicable.
- (6) Identify Stacked Net # assignments as per OPTASK LINK for voice and air control; ensure they are entered and validated in the data base.
- (7) Establish or demonstrate how to enter the TAOC as Network Time Reference (NTR).
- (8) Extract information from the slot block allocation sheet in the Network Data Load for entry into the data base.
- (9) Load the appropriate time and Network Data Load into the JTIDS/MIDS terminal from the TAOM.
- (10) Demonstrate proper link entry and exit procedures.

Performance Standard. Complete each item in this event with 80% accuracy.

Prerequisite. Academics T-705, T-707, T-711, T-716, T-718, T-719, T-720, T-721, T-722, and T-751.

External Syllabus Support. LINK 16 capable external C3 agencies.

SID-204	4.0	B	TAOC	L
---------	-----	---	------	---

Goal. Set-up the ADCP as a stand alone system.

Requirement. Demonstrate proficiency in the following:

- (1) Set up the ground antenna.
- (2) Ensure workstation and server drives are properly installed.
- (3) Load the KGV-8.
- (4) Load the Network Data Load (NDL).
- (5) Activate the link, following proper link entry procedures.
- (6) Monitor link activity utilizing DST laptop and troubleshoot the link.

Performance Standard. Complete each item in this event with 80% accuracy.

Prerequisite. SID-203 and academics T-700.

SID-205	4.0	B	TAOC	L
---------	-----	---	------	---

Goal. Set up the ADCP within a TAOM configuration.

Requirement. Demonstrate proficiency in the following:

- (1) Install Multi-Channel Interface Unit (MCIU) hard drive.
- (2) Load the KGV-8.
- (3) Enter link data base entries.
- (4) Enter required link filters.
- (5) Activate the link.
- (6) Monitor link activity utilizing DTS laptop and troubleshoot the link.

Performance Standard. Complete each item in this event with 80% accuracy.

Prerequisite. SID-203 and academics T-700.

SID-206	8.0	B, R, E	TAOC	L/S
---------	-----	---------	------	-----

Goal. Perform link operations in a multi-TDL environment.

Requirement. Demonstrate proficiency in the following:

- (1) Brief link critical information during a TAOC crew brief.
- (2) Ensure link data base entries are entered and correct.
- (3) Ensure TAOC link equipment is set up/keyed.
- (4) Ensure required link filters are entered and activated.
- (5) Troubleshoot the link and take corrective action as needed.
- (6) Perform link management functions per SAD direction.

Performance Standard. Complete this event with 80% accuracy.

Prerequisite. SID-201, SID-202, SID-203, SID-204, and SID-205.

External Syllabus Support. External C3 agencies.

SID-207 16.0 B, R, E TAOC L/S

Goal. Conduct tactical planning for the Surveillance Section.

Requirement. Demonstrate proficiency in the following, when planning an exercise, operation, or contingency:

- (1) Develop a radar coverage diagram for system radars that identifies potential gaps in coverage due to terrain masking and radar horizon limitations.
- (2) Recommend emplacement/employment of TAOC radars.
- (3) Recommend a radar degradation plan.
- (4) Determine coordination requirements with subordinate, adjacent and higher units, as required
- (5) Extract the ID matrix per published ROE, OPORD, ACP or ACO.
- (6) Conduct a threat analysis.
- (7) Identify Surveillance Section communications requirements and assignments.
- (8) Recommend EMCON/RADCON to the TAOC and for subordinate agencies based on OPORDER, ACP and ACO direction.
- (9) Plan for AN/TPS-59 decoy employment.
- (10) Identify surveillance crew responsibilities.
- (11) Plan for employment of a remote radar.
- (12) Identify surveillance data base requirements.
- (13) Prepare a Surveillance Section crew brief per MCWP 3-25.7.

Performance Standard. Complete this event with 100% accuracy.

Prerequisite. SID-206, and academics: T-701, T-704, T-762, and T-753.

SID-208 8.0 B TAOC L

Goal. Maximize radar performance.

Requirement. Demonstrate proficiency in the following:

- (1) Perform radar alignment.
- (2) Perform radar registration.
- (3) Coordinate with the TAOC Radar crew(s) to optimize the performance of selected radars.
- (4) Conduct remote radar operations.

Performance Standard. Complete this event with 100% accuracy.

Prerequisite. Academics T-714 and T-715.

SID-209 8.0 B, E TAOC L/S

Goal. Plan for emplacement and employment of a TMD site.

Requirement. Demonstrate proficiency in the following:

- (1) Evaluate the threat.
- (2) Conduct a site survey.

- (3) Recommend emplacement of a Theater Missile Defense (TMD) site.
- (4) Plan the information exchange of TMD specific data.
- (5) Coordinate with the TAOC radar crew(s) to maximize radar performance for TMD operations.
- (6) Prepare brief.

Performance Standard. Complete each item in this event with 80% accuracy.

Prerequisite. SID-203, SID-204, SID-205, and SID-208.
Academics: T-713, T-724.

SID-210	2.0	B	TAOC	L/S
---------	-----	---	------	-----

Goal. Conduct fidelity drills.

Requirement. In a link environment, conduct fidelity drills in accordance with the JMTOPI.

Performance Standard. Complete this event with 100% accuracy.

Prerequisite. Academics T-707.

SID-211	8.0	B	TAOC	L/S
---------	-----	---	------	-----

Goal. Perform as a SID.

Requirement. Demonstrate proficiency in the following:

- (1) Conduct the surveillance brief per MCWP 3-25.7.
- (2) Supervise surveillance data base entries including EMCON, data links, radar parameters, and airspace coordinating measures.
- (3) Supervise and manage air surveillance of the assigned sector.
- (4) Supervise implementation of established ID criteria and subsequent classification process.
- (5) Supervise initialization and management of TAOC links.
- (6) Perform detailed planning to assume functions of the TDC or ICO when directed.
- (7) Manage the EP/EMCON plan for the TAOC and subordinate agencies and make recommendations as required.
- (8) Implement published manual crosstell procedures.
- (9) Manage the Surveillance Section per SAD direction.
- (10) Compile and forward applicable reports.

Performance Standard. Complete each item in this event with 80% accuracy.

Prerequisite. SID-200, SID 201, SID-202, SID-203, SID-204, SID-205, SID-206, SID-207, SID-208, SID-209, and SID-210.

External Syllabus Support. External C3 agencies.

SID-212 8.0 B TAOC L/S

Goal. Perform as SID in a multi-TDL environment.

Requirement. While performing as an SID, demonstrate proficiency in the following:

- (1) All requirements identified in SID-211.
- (2) Conduct surveillance planning and operations with a joint/coalition track producing unit.
- (3) Coordinate with external agencies to resolve ID and IFF conflicts and other interface anomalies.
- (4) Conduct sensor registration.

Performance Standard. Complete each item in this event with 80% accuracy.

Prerequisite. SID-200, SID-201, SID-202, SID-203, SID-204, SID-205, SID-206, SID-207, SID-208, SID-209, SID-210, and SID-211.

External Syllabus Support. External C3 agencies.

SID-213 4.0 B TAOC L/S

Goal. Perform EW operations using TAOC equipment.

Requirement. Demonstrate proficiency in the following:

- (1) Enter TAOC EMCON plan and threat profile test thresholds in the data base.
- (2) Detect, identify and report any jamming to the SAD.
- (3) Complete, compile, and forward appropriate reports.
- (4) Identify and report the location of threat jammers with proper symbology (strokes/air tracks).
- (5) React to the EMCON alert and implement the TAOC EMCON plan per SAD direction.
- (6) Coordinate with the radar section to optimize radar performance in an EW environment.

Performance Standard. Complete each item in this event with 80% accuracy.

Prerequisite. SID-208.

External Syllabus Support. External C3 agencies and EW platforms.

SID-214 8.0 B, R, E TAOC L/S

Goal. Certify as a SID.

Requirement. During an exercise, demonstrate proficiency in all requirements identified in SID-211 and SID-212. The initial qualification must be conducted during a live exercise; subsequent evaluations may be conducted in a simulated environment.

Performance Standard. Complete this event with 80% accuracy.

Prerequisite. SID-200, SID 201, SID-202, SID-203, SID-204, SID-205, SID-206, SID-207, SID-208, SID-209, SID-210, SID-211, SID-212, and SID-213.

External Syllabus Support. External C3 agencies.

3. Senior Traffic Direction (STD) Training

a. Purpose. To train the ADCO in STD duties that include sector airspace management, providing navigational assistance to friendly aircraft, and tanker management. STD supervisory duties are also trained in this stage.

b. Refresher Training. Refresher training is required once a Core Skill Basic ADCO has been absent from an ADCO billet for 18 months or longer. Upon return to an ADCO billet, the officer will complete "R" coded events in this stage of training.

c. Crew Requirements. A core competent TAOC crew will be required for higher-level evaluated events.

d. Academic Training. Academic training will be conducted prior to and concurrent with required events. An academic event, once completed, can be credited as a prerequisite for follow-on training events.

e. Live and Simulator Event Training. 5 events, 30 hours.

STD-220	2.0	B	TAOC	L
---------	-----	---	------	---

Goal. Utilize TAOC communications.

Requirement. Perform the following:

- (1) Load voice crypto (KY-58).
- (2) Set up UHF radios for active communication (HAVEQUICK).
- (3) Set up UHF radios for clear and secure voice.
- (4) Set up UHF radios for local and remote operations.
- (5) Make appropriate RPP/SEPP settings and appropriate crypto assignments.

Performance Standard. Complete this event with 100% accuracy.

STD-221	4.0	B	TAOC	L/S
---------	-----	---	------	-----

Goal. Perform traffic section functions.

Requirement. Demonstrate proficiency in the following:

- (1) Enter and maintain the Traffic data base per SAD direction.
- (2) Operate TBMCS to receive and parse the ATO and construct a TATC Log.
- (3) RIO aircraft, to include:
 - (a) Covered comm.
 - (b) Authentication procedures.

- (4) Conduct SIF/Mode IV checks on all applicable aircraft.
- (5) Conduct external/internal handovers of aircraft as required.
- (6) Coordinate Aerial Refueling (AR) operations.
 - (a) Place tanker on the appropriate track and provide flight following as required.
 - (b) Execute the Slide/Retrograde plan as the threat dictates or per SAD direction.
 - (c) Monitor, record, and report tanker fuel status.
 - (d) Route aircraft to the tanker.
 - (e) Route aircraft departing the tanker and handover to the appropriate controller/agency.
- (7) Maintain proper symbol management.
- (8) Maintain appropriate Traffic Section logs.

Performance Standard. Complete each item in this event with 80% accuracy.

STD-222	8.0	B, R, E	TAOC	L/S
---------	-----	---------	------	-----

Goal. Conduct tactical planning for the Traffic Section.

Requirement. Demonstrate proficiency in the following standards associated with planning an exercise:

- (1) Recommend airspace coordinating measures (ACMs) to be used within the TAOC Area of Operations (AO).
- (2) Determine the procedures and recommend changes, if required, for procedural and positive handover of aircraft.
- (3) Coordinate with subordinate, adjacent and higher units for implementation of handover procedures and ACMs.
- (4) Plan for the execution of the Airspace Control Order (ACO), Airspace Control Plan (ACP), and Operations Order (OPORDER).
- (5) Conduct a threat analysis.
- (6) Identify the Traffic Section communications requirements and assignments.
- (7) Determine procedures and recommend changes if required for aerial refueling (AR) operations and HVAA protection.
- (8) Identify TATC responsibilities.
- (9) Coordinate procedures for receiving and parsing the ATO.
- (10) Identify all traffic data base requirements.
- (11) Prepare the Traffic Section crew brief per MCWP 3-25.7.

Performance Standard. Complete this event with 100% accuracy.

Prerequisite. STD-221, and academics: T-731, T-732, T-735, and T-739.

External Syllabus Support. Required planning documents.

STD-223	8.0	B, E	TAOC	L/S
---------	-----	------	------	-----

Goal. Perform as STD.

Requirement. Demonstrate proficiency in the following:

- (1) Manage the Traffic Section.
- (2) Supervise all traffic data base entries.
- (3) Ensure effective employment and adherence to published ACMS and RIO procedures.
- (4) Manage control of AR operations.
- (5) Assist in coordinating SAR/TRAP missions in assigned sector.
- (6) Ensure adherence to established Traffic Section emergency procedures.
- (7) Conduct handovers with the Weapons Section and external agencies.
- (8) Ensure TBMCS is properly utilized to receive and parse an ATO and to construct a TATC log.
- (9) Assist Surveillance Section in identification of friendly aircraft in the assigned sector.
- (10) Compile and forward applicable reports.

Performance Standard. Complete each item in this event with 80% accuracy.

Prerequisite. STD-222.

External Syllabus Support. External C3 agencies, tactical/support aircraft.

STD-224	8.0	R, E	TAOC	L/S
---------	-----	------	------	-----

Goal. Certify as STD.

Requirement. During an exercise, perform the duties of a STD. The initial qualification must be conducted during a live exercise; subsequent evaluations may be conducted in a simulated environment.

Performance Standard. Complete this event with 80% accuracy.

Prerequisite. STD-222 and STD-223.

External Syllabus Support. External C3 agencies, tactical/support aircraft.

106. CORE SKILL ADVANCED TRAINING

1. General

a. This phase contains advanced core skill training that completes the Senior Air Director (SAD) syllabus. This syllabus includes basic air intercept control events and weapons planning training. Upon completion of this phase, the ADCO will be prepared for follow-on training in Air Battle Management (ABM).

b. Administrative Note. The ADCO shall be certified by a qualified TAOC SAD and qualified by the commanding officer. A qualification letter shall be entered in the crewmember's IPR.

c. Core Skill Advanced Stages. Senior Air Director (SAD).

2. Senior Air Direction (SAD) Training

a. Purpose. To train the ADCO in SAD duties that include:

- (1) Plan for the deployment and employment of TAOC assets,
- (2) Ensure proper coordination among and within the TAOC sections,
- (3) Provide an operational system by directing ongoing maintenance through the system configuration coordinator, and assign casualty roles to crew members.

b. Administrative Notes. For evaluation purposes, a mission will consist of a brief, execution and debrief of each event.

c. Prerequisite. Complete the Core Skill Basic phase of training.

d. Refresher Training. Refresher training is required once a Core Advanced TADC has been absent from an ADCO billet for 18 months or longer. Upon return to an ADCO billet, the officer will complete "R" coded events for this stage of training.

e. Crew Requirements. Core competent TAOC crew.

f. Academic Training. TAOC specific academic training is designed to support live/simulated training events and is accomplished as a prerequisite to individual performance events.

g. Live and Simulator Event Training. 13 events, 118.5 hours.

SAD-300	0.5	R	TAOC	L/S
---------	-----	---	------	-----

Goal. Take appropriate action for an aircraft emergency.

Requirement. During a simulated emergency (controlled & uncontrolled), execute the Squadron SOP checklist for aircraft emergency, including proper switch actions. Refer to TAOC PCL and Squadron SOP.

Performance Standard. Complete this event with 100% accuracy.

Prerequisite. Academics T-730.

SAD-301	4.0		TAOC	S
---------	-----	--	------	---

Goal. Control a simulated section of fighter aircraft.

Requirement. Against an unknown threat and multiple threat, demonstrate proficiency in the following:

- (1) Provide intercept control, in accordance with the standard.
- (2) Utilize briefed GCI procedures.

(3) Control an intercept against a threat employing each of the following formations and tactics:

(a) Formations:

- Vic.
- Champagne.
- Ladder.
- Wall.
- Stack.

(b) Tactics per AFTTP 3-1 vol. 2.

Performance Standard. Complete each item in this event with 80% accuracy.

Prerequisite. SAD-300. Academics: T-711, T-725, T-744, T-745, T-746, T-750, T-752, T-753, T-754, T-755, and T-757.

SAD-302	2.0	TAOC	S
---------	-----	------	---

Goal. Control a simulated division of fighter aircraft.

Requirement. Against an unknown threat, demonstrate proficiency in the following:

- (1) Provide intercept control, in accordance with the standard.
- (2) Utilize briefed GCI procedures.

Performance Standard. Complete this event with 80% accuracy.

Prerequisite. SAD-301.

SAD-303	4.0	TAOC	L
---------	-----	------	---

Goal. Control a section/division of fighter aircraft.

Requirement. During a Defensive Counter Air (DCA) or Offensive Counter Air (OCA) mission demonstrate proficiency:

- (1) Utilize GCI procedures as briefed or in accordance with TOPGUN procedures.
- (2) Conduct AIC brief and debrief.

Performance Standard. Complete this event with 80% accuracy.

Prerequisite. SAD-302.

External Syllabus Support. Fighter and aggressor aircraft.

SAD-304	8.0	TAOC	L/S
---------	-----	------	-----

Goal. Conduct tactical planning for the Weapons Section.

Requirement. Perform the following:

- (1) Recommend ACMs to be used within the TAOC AOR.
- (2) Develop a destruction area within the TAOC assigned air defense sector by ensuring the following:
 - (a) Coordination with GBAD assets for employment/emplacement and MEZ construction.
 - (b) Coordination with higher headquarters for CAP employment and FEZ considerations.
- (3) Determine CAP management/control responsibilities and procedures.
- (4) Coordinate with an STD for development of handover procedures and symbol management functions.
- (5) Coordinate with the SADF staff for reporting AAW asset status, strip alert procedures and CAP reconstitution.
- (6) Establish procedures for target assignments.
- (7) Develop alternate/casualty engagement zones based on the threat and friendly AAW systems availability.
- (8) Disseminate TAOC and subordinate agency specific ROE procedures/requirements per published ROE.
- (9) Develop detailed procedures for IADS employment in decentralized and autonomous modes of control.
- (10) Plan for the integration of TAOC TMD capabilities with joint services.
- (11) Conduct a detailed threat analysis.
- (12) Prepare a Weapons Section brief per MCWP 3-25.7.
- (13) Identify Weapons Section communications requirements and assignments.
- (14) Identify weapons data base items.

Performance Standard. Complete this event with 100% accuracy.

Prerequisite. Academics: T-703, T-713, T-724, T-725, T-731, T-732, T-739, T-742, T-743, T-748, T-749, T-751, T-752, T-753, T-754, T-755, T-757, T-760, T-761, T-762, and T-763.

SAD-305	8.0	TAOC	L
---------	-----	------	---

Goal. Perform system troubleshooting.

Requirement. With a faulted TAOM system, demonstrate proficiency in the following:

- (1) Fault isolate components of the seven major equipment groups of a TAOM.
- (2) Reconfigure the system around failed units.
- (3) In a multi-TAOM system, echelon in and out a TAOM.
- (4) In a multi-TAOM system, echelon in and out a radar.

Performance Standard. Complete the above with 80% accuracy.

Prerequisite. Academics: T-764, T-765, and T-767.

SAD-306	24.0	TAOC	L
---------	------	------	---

Goal. Perform as SAD during garrison operations.

Requirement. Perform the duties as an SAD for a minimum cumulative period of 24 hours. Demonstrate proficiency in the following:

- (1) Conduct a crew brief/debrief.
- (2) Ensure proper system configuration and data base inputs.
- (3) Direct and manage crew functions.
- (4) Properly maintain records and logs.

Performance Standard. Complete each item in this event with 80% accuracy.

Prerequisite. SAD-304 and SAD-305.

External Syllabus Support. Fighter/aggressor aircraft and/or data link platforms.

SAD-307	16.0	R	TAOC	L/S
---------	------	---	------	-----

Goal. Conduct tactical planning for the Command Section.

Requirement. Demonstrate proficiency in the following:

- (1) Prepare a SAD brief per MCWP 3-25.7.
- (2) Oversee planning in the Traffic, Weapons, and Surveillance Sections.
- (3) Develop system configuration plan.
- (4) Plan the emplacement of a TAOC to include radar and EW/C employment.
- (5) Supervise data base construction and entry.
- (6) Coordinate with the ABM in planning overall TAOC employment.
- (7) Supervise the conduct of a detailed threat analysis.
- (8) Develop a crew watch schedule and change over procedures.
- (9) Develop a casualty/degradation plan and detailed restoration priorities plan.
- (10) Identify communications and power requirements that will allow for mission accomplishment.
- (11) Identify system limitations information for the ACE commander.

Performance Standard. Complete each item in the event with 80% accuracy.

Prerequisite. SAD-305. Academics: T-700, T-701, T-714, T-715, T-723, T-740, T-742, T-743, T-751, T-752, T-760, T-761, T-762, T-763, and T-766.

SAD-308	12.0		TAOC	S
---------	------	--	------	---

Goal. Perform as SAD during a TAOC only SIMEX.

Requirement. Perform the duties as an SAD for a minimum cumulative period of 12 hours. Demonstrate proficiency in the following:

- (1) Conduct a detailed SAD brief per MCWP 3-25.7.
- (2) Supervise system configuration and DB input.

- (3) Supervise and manage the traffic, weapons and surveillance sections.
- (4) Identify systems failures/degradations, troubleshoot and perform fault isolation and take corrective action utilizing the SCC.
- (5) Execute briefed casualty procedures and implement the restoration plan to include system reconfiguration, as required.
- (6) Properly maintain records and logs.
- (7) Ensure the SCC is conducting appropriate system maintenance/management and required interface with maintenance personnel.

Performance Standard. Complete each item in the event with 80% accuracy.

Prerequisite. SID-214, STD-224, SAD-304, and SAD-307.

SAD-309	8.0		TAOC	L/S
---------	-----	--	------	-----

Goal. Perform as SAD during an integrated exercise.

Requirement. Demonstrate proficiency in the following:

- (1) All requirements listed in SAD-308.
- (2) Coordinate integration of senior, adjacent, and subordinate agencies. Ensure accurate and timely critical information flow is being conducted.

Performance Standard. Complete each item above with 80% accuracy.

Prerequisite. SAD-308.

External Syllabus Support. External C3 agencies.

SAD-310	8.0	E	TAOC	L
---------	-----	---	------	---

Goal. Perform site emplacement of a TAOC.

Requirement. Demonstrate proficiency in the following:

- (1) Conduct a site survey in accordance with the TAOC Handbook and operational requirements.
- (2) Produce site layout diagram including laydown of support equipment.
- (3) Effective use of passive defense measures.

Performance Standard. Complete each item in event with 80% accuracy.

Prerequisite. SAD-307.

External Syllabus Support. MHE as required.

SAD-311	16.0		TAOC	L
---------	------	--	------	---

Goal. Perform as a SAD.

Requirement. During a live exercise, perform the duties of a SAD and demonstrate proficiency in the requirements of SAD-305 through SAD-310. Perform the duties as an SAD for a minimum cumulative period of 16 hours.

Performance Standard. Perform SAD duties the 80% accuracy. Only a qualified SAD can assess this event.

Prerequisite. SAD-309.

External Syllabus Support. External C3 agencies and MHE.

SAD-312	8.0	R, E	TAOC	L
---------	-----	------	------	---

Goal. Certify as SAD.

Requirement. Demonstrate proficiency in all requirements identified in SAD-305 through SAD-310.

Performance Standard. Perform the duties of a SAD to an 80% accuracy. Only a qualified SAD can assess this event. The initial certification must be conducted during a live exercise; subsequent evaluations may be conducted in a simulated environment.

Prerequisite. SAD-310 and SAD-311.

External Syllabus Support. External C3 agencies.

107. CORE SKILL PLUS TRAINING

1. General

a. This phase includes core skill plus training for senior combat leaders. A certain number of core skill plus qualified Marines must be maintained to accomplish special missions or tasks, to include supervision and training of a core competent crew. The officer is exposed to advanced MACCS integration and employment of the TAOC and EW/C within a joint environment, and coordination of deep air operations.

b. Prerequisite. Core Skill Basic and Core Skill Advanced phases must be completed prior to beginning training in this phase.

- c. Core Skill Basic Stages
(1) Air Battle Manager (ABM)
(2) Air Intercept Control (AIC)

2. Air Battle Manager (ABM) Training

a. Purpose. To train the ADCO in air battle management planning and execution.

b. Administrative Notes. In order to maintain required number of combat leaders within the MACS, commanding officers will select in writing those officers who shall have priority to train as an ABM. As resources allow, ADCOs who are not selected but who meet the prerequisites are encouraged to train as an ABM.

c. Prerequisite. QUAL-612.

d. Refresher Training. Refresher training is required once an ADCO has been absent from an ADCO billet for 18 months or longer. Upon reassignment to an ABM billet, the ADCO will complete "R" coded events in the 400 level syllabus.

e. Crew Requirements. Core competent TAOC crew.

f. Academic Training. Academic training will be conducted prior to and concurrently with required events. An academic training event, once completed, can be credited as a prerequisite for follow-on training events.

g. Live and Simulator Event Training. 3 events, 40.0 hours.

ABM-400	8.0	T	TAOC	L/S
---------	-----	---	------	-----

Goal. Conduct planning as an Air Battle Manager (ABM).

Requirements. With appropriate exercise documentation, demonstrate the following actions associated with planning an exercise.

- (1) Prepare a TAOC operations brief using the OPORDER and other applicable directives.
- (2) Task organize a TAOC battle management section, including crew positions and responsibilities.
- (3) Develop TAOC battle management section requirements/layout per SWO direction.
- (4) Develop a plan to effectively integrate the TAOC into the exercise/theater C2 system.
- (5) Identify and plan TAOC battle management section communications requirements.
- (6) Conduct detailed threat analysis and plan for integration of fighter aircraft and GBAD assets in the destruction area.
- (7) Conduct a detailed time-distance analysis to determine CAP manning/strip alert requirements for fighter aircraft allocated to the destruction area.
- (8) Conduct detailed tanker planning to correspond to the fighter plan.
- (9) Coordinate information exchange requirements with subordinate, adjacent and higher agencies.
- (10) Conduct detailed planning for the integration of AAW and C3 agencies within the IADS.
- (11) Develop a plan to assume the ATACC role.

Performance Standard. Complete the above with 100% accuracy.

Prerequisite. SAD-312 and be a WTI graduate.

ABM-401	16.0	T, E	TAOC	S/L
---------	------	------	------	-----

Goal. Execute duties as an ABM.

Requirement. During an integrated MACCS exercise, perform the following:

- (1) Conduct a TAOC Operations brief.
- (2) Plan for and ensure effective coordination and information flow between the TAOC crew and external agencies, including critical air defense operations and air battle management.
- (3) Effectively manage the TAOC battle management section per Senior Watch Officer direction.

Performance Standard. Complete each item above with 80% accuracy.

Prerequisite. ABM-400.

External Syllabus Support. External C3 Agencies and fighter aircraft.

ABM-402	16.0	T, R, E	TAOC	L
---------	------	---------	------	---

Goal. Certify as an Air Battle Manager.

Requirement. During an exercise in a garrison/field environment, demonstrate proficiency in all requirements listed for ABM-400 and ABM-401.

Performance Standard. Complete with 80% accuracy.

Prerequisite. ABM-400 and ABM-401.

External Syllabus Support. External C3 Agencies and fighter aircraft.

3. Air Intercept Control (AIC) Training

a. Purpose. To train the ADCO in the control of anti-air warfare (AAW) missions to include control of combat air patrol assets and intercept of hostile airborne targets.

b. Administrative Notes

(1) For evaluation purposes, a mission will consist of a brief, execution and debrief of each event.

(2) The AIC will become proficient in controlling simulated and live fighter aircraft employing section and division tactics.

(5) The AIC will become proficient in controlling during live and simulated integrated air defense exercises with multiple fighters.

(6) Briefing and debriefing standards will be per squadron SOP (developed using TOPGUN and F/A-18 TACMAN standards) to include flight safety and emergency procedures prior to executing any event.

(7) Two-way Link 16 and/or Link 4A will be used to the fullest extent possible for each event controlled.

(8) Missions will be executed per ROE established by published AAW directives, operational planning orders/documents, or individual mission briefs.

(9) TACTS facilities should be used when available for debriefing purposes.

(10) All AIC events should be performed in the OM during initial qualification.

(11) Run and hour credit will be given for control from non-OM facilities.

c. Refresher Training. Refresher training is required once a Core Skill Basic ADCO has been absent from a ADCO billet for 18 months or longer. Upon return to an AIC billet, the ADCO will complete "R" coded events for this stage of training.

d. Crew Requirements. A core competent TAOC crew will be required for the exercise events.

e. Academic Training. Academic training will be conducted prior to and concurrently with required events. An academic training event, once completed, can be credited as a prerequisite for follow on training events.

f. Live and Simulator Event Training. 11 events, 57.0 hours.

AIC-410	0.5	R	TAOC	S/L
---------	-----	---	------	-----

Goal. Take appropriate action during an aircraft emergency.

Requirement. During a simulated emergency (controlled & uncontrolled), complete squadron SOP checklist for aircraft emergency using proper switch actions. Refer to TAOC PCL and Squadron SOP for emergencies for assistance.

Performance Standard. Complete this event with 100% accuracy.

Prerequisite. Academics T-130.

AIC-411	1.5	R	TAOC	S
---------	-----	---	------	---

Goal. Control a simulated section of fighter aircraft.

Requirement. Against an unknown threat, demonstrate proficiency in the following:

- (1) Provide threat information using core information/communications format as briefed.
- (2) Provide broadcast control transitioning to tactical control after "the commit" or as briefed.
- (3) Utilize briefed GCI procedures.

Performance Standard. Complete this event with 100% accuracy.

Prerequisite. AIC-210 and academics: T-728, T-740, T-744, T-745, T-746, T-750, T-754, T-755, and T-757.

AIC-412	4.0	R	TAOC	S
---------	-----	---	------	---

Goal. Control a simulated section of fighter aircraft.

Requirement. Control against a multiple threat; demonstrate proficiency in the following:

- (1) Control an intercept against a threat employing each of the following formations and tactics:
 - (a) Formations:
 - VIC.
 - Champagne.
 - Ladder.
 - Wall.
 - Box.
 - Stack.
 - (b) Tactics per AFTTP 3-1 vol. 2.

Performance Standard. Complete this event with 100% accuracy.

Prerequisite. Academics: T-728, T-740, T-744, T-745, T-746, T-750, T-754, T-755, and T-757.

AIC-413	1.5	R	TAOC	S
---------	-----	---	------	---

Goal. Control a simulated division of fighter aircraft.

Requirement. Against an unknown threat, demonstrate proficiency in the following:

- (1) Provide threat information using core information/communications format as briefed.
- (2) Provide broadcast control transitioning to tactical control after "the commit."
- (3) Utilize briefed GCI procedures.

Performance Standard. Complete this event with 100% accuracy.

Prerequisite. AIC-412.

AIC-414	4.0	E	TAOC	S
---------	-----	---	------	---

Goal. Perform as an AIC.

Requirement. During a SIMEX, demonstrate proficiency in the following:

- (1) Ensure all AIC DB entries are correct.
- (2) Utilize briefed GCI procedures.

Requirement. During an Offensive Counter Air (OCA) mission (Strike Escort, Screen, Sweep) against an unknown threat, demonstrate proficiency in the following areas, on **three separate missions** with a minimum of one division mission:

- (1) Utilize GCI procedures as briefed or in accordance with TOPGUN procedures.
- (2) Utilize proper brief / debrief procedures in accordance with TOPGUN standards.

Performance Standard. Complete each item in this event with 80% accuracy.

Prerequisite. AIC-413.

External Syllabus Support. Fighter and aggressor aircraft.

AIC-418	12.0	TAOC	L
---------	------	------	---

Goal. Control a section/division of fighter aircraft.

Requirement. During a self-escort strike mission against an unknown threat, demonstrate proficiency in the following, on **three separate missions** with a minimum of one division mission:

- (1) Utilize GCI procedures as briefed or in accordance with TOPGUN procedures.
- (2) Utilize proper brief / debrief procedures in accordance with TOPGUN standards.

Performance Standard. Complete each item in this event with 80% accuracy.

Prerequisite. AIC-413.

External Syllabus Support. Fighter and aggressor aircraft.

AIC-419	4.0	TAOC	L
---------	-----	------	---

Goal. Control a division under the supervision of an AICI.

Requirement. During a mission, or in an exercise, demonstrate proficiency in the following:

- (1) Ensure all AIC related DB entries are entered and correct.
- (2) Initiate and employ Link-16 as briefed.
- (3) Utilize briefed GCI procedures to control CAP aircraft using broadcast/tactical control methods.
- (4) Ensure effective cross-boundary coordination between engagement zones per SWD direction.
- (5) Disseminate current threat status and appropriate WCS, ADWC and SOA to the fighters.

Performance Standard. Complete each item in this event with 80% accuracy.

Prerequisite. AIC-415, AIC-416, AIC-417, and AIC-418.

External Syllabus Support. Fighter and aggressor aircraft.

AIC-420	4.0	R, E	TAOC	L
---------	-----	------	------	---

Goal. Certify as an AIC.

Requirement. During a mission, or in an exercise, control at least a division under the supervision of an AICI. Demonstrate proficiency in the following:

- (1) Ensure all AIC related DB entries are entered and correct.
- (2) Initiate and employ Link-16 as briefed.
- (3) Utilize briefed GCI procedures to control CAP aircraft using broadcast/tactical control methods.
- (4) Ensure effective cross-boundary coordination between engagement zones per SWD direction.
- (5) Disseminate current threat status and appropriate WCS, ADWC and SOA to the fighters.
- (6) Perform appropriate switch actions.

Performance Standard. Complete each item in this event with 80% accuracy.

Prerequisite. AIC-419.

108. INSTRUCTOR TRAINING. No formal instructor training is conducted in a MACS unit for TAOC officers. Weapons and Tactics Instructors (WTIs) are certified upon completion of the Weapons and Tactics Instructor Course conducted by MAWTS-1, Yuma, AZ.

109. QUALIFICATIONS AND DESIGNATIONS

1. General

a. This phase contains tracking codes designed to facilitate training management. This level also provides community standardization for combat leadership designation. CRP is not awarded for 600 level events.

b. Tracking codes will be logged upon being qualified/designated in writing by the commanding officer; upon filing the letter in the controller's IPR, and once all administrative actions are completed. The squadron's WTI shall review the IPR and staff the recommendation to the commanding officer.

2. ADCO Qualifications

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

b. 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 ADCO's IPR, and an entry logged. Requirements for maintaining qualifications are detailed in the Aviation T&R Program Manual.

c. Qualifications

Senior Air Director (SAD)
Surveillance Identification Director (SID)
Air Intercept Controller (AIC)
Senior Traffic Director (STD)

QUAL-612

Goal. Tracking code for SAD qualification.

Requirement. Satisfactory completion of SAD qualification syllabus.

Prerequisite. SAD-300, SAD-301, SAD-302, SAD-303, SAD-304, SAD-305, SAD-306, SAD-307, SAD-308, SAD-309, SAD-310, SAD-311, and SAD-312.

QUAL-614

Goal. Tracking code for SID qualification.

Requirement. Satisfactory completion of SID qualification syllabus.

Prerequisite. SID-200, SID-201, SID-202, SID-203, SID-204, SID-205, SID-206, SID-207, SID-208, SID-209, SID-210, SID-211, SID-212, SID-213, and SID-214.

QUAL-620

Goal. Tracking code for AIC qualification.

Requirement. Satisfactory completion of AIC qualification syllabus.

Prerequisite. AIC-410, AIC-411, AIC-412, AIC-413, AIC-414, AIC-415, AIC-416, AIC-417, AIC-418, AIC-419, and AIC-420.

QUAL-624

Goal. Tracking code for STD qualification.

Requirement. Satisfactory completion of STD qualification syllabus.

Prerequisite. STD-220, STD-221, STD-222, STD-223, and STD-224.

3. ADCO Designations

a. Purpose. To track the designation of combat leaders, control positions and instructors.

b. This section enables units to document and track combat leaders and "position" designations. All syllabus training requirements for a specific designation must be complete prior to being designated. Training management personnel shall log final designation codes once designated by the commanding officer.

c. Administrative Notes. The Senior Watch Officer (SWO) is the senior member of the battle management section of the TAOC crew. Ideally, the SWO is a 7202 and has completed all SWO designation requirements located in appendix C. Although responsible for tactical planning and execution of the battle management section of the TAOC crew, there is no requirement for the SWO to have a 7210 background. Due to SWO being a 7202 designation, it is not reflected in the ADCO progression model and there is no SWO stage located within the ADCO syllabus.

d. Crew Requirements. Per the applicable designation syllabus.

e. Academic Training. Per the applicable designation syllabus.

f. Designations

Senior Watch Officer (SWO)
Air Battle Manager (ABM)
Senior Air Director (SAD)
Surveillance Identification Director (SID)
Air Intercept Controller (AIC)
Senior Traffic Director (STD)
Joint Interface Control officer (JICO)

DESG-600

Goal. Tracking code for SWO designation.

Requirement. Complete required SWO events. The 7202 shall be designated by the commanding officer as a SWO, appropriate entry made in TMS and a letter filed in the IPR.

Prerequisite. SWO-400, SWO-401, and SWO-402.

DESG-601

Goal. Tracking code for ABM designation.

Requirement. Complete required ABM events. The ADCO shall be designated by the commanding officer as ABM, appropriate entry made in TMS and a letter filed in the IPR.

Prerequisite. ABM-400 and ABM-401.

DESG-613

Goal. Tracking code for SAD designation.

Requirement. Complete required SAD events. The SAD shall be certified by a designated SAD and designated by the commanding officer as a SAD, appropriate entry made in TMS and a letter filed in the IPR.

Prerequisite. SAD-312.

DESG-615

Goal. Tracking code for SID designation.

Requirement. Complete required SID events. The SID shall be certified by a designated SAD and designated by the commanding officer as a SID, appropriate entry made in TMS and a letter filed in the IPR.

Prerequisite. SID-214.

DESG-620

Goal. Tracking code for AIC designation

Requirement. Complete required AIC events. The AIC shall be certified by a designated AIC(I) and designated by the commanding officer as an AIC, appropriate entry made in TMS and a letter filed in the IPR.

Prerequisite. AIC-420.

DESG-625

Goal. Tracking code for Senior Traffic Director (STD) designation.

Requirement. Complete required STD events. The STD shall be certified by a designated SAD and designated by the commanding officer as a STD, appropriate entry made in TMS and a letter filed in the IPR.

Prerequisite. STD-224.

DESG-631

Goal. Tracking code for a JICO course completion.

Requirement. Graduate from the JMTC JICO course. Appropriate entry made in TMS and completion certificate filed in the IPR.

Prerequisite. Per JMTC JICO course syllabus requirements.

4. Instructor Designations (DESG)

a. Purpose. To track the designation of weapons and tactics instructors (WTI).

b. The only TAOC instructor designation is WTI.

DESG-651

Goal. Tracking Code for WTI designation.

Requirement. Be certified by MAWTS-1 as a WTI.

Prerequisite. Per MAWTS-1 WTI course syllabus requirements.

110. SYLLABUS SUMMARY MATRIX

MOS 7210: AIR DEFENSE CONTROL OFFICER (ADCO)									
100 LEVEL: CORE SKILL INTRODUCTION									
STAGE	TRNG CODE	EVENT HRS	REFLY INTERVAL	DEVICE	PREREQ	POI	EVAL	CRP	CHAINING
FAM	100	8.0	*	L		B		2.0	
FAM	101	8.0	*	L		B		2.0	
FAM	102	8.0	*	L		B		2.0	
FAM	103	8.0	*	L		B		4.0	
FAM	104	8.0	*	S		B		4.0	
FAM	105	8.0	*	L		B		4.0	
FAM	106	8.0	*	S		B		5.0	
FAM	107	8.0	*	S		B		4.0	
FAM	108	8.0	*	S		B		5.0	
FAM	109	8.0	*	S		B		4.0	
FAM	110	4.0	*	S		B		4.0	
FAM	111	8.0	*	L		B		5.0	
FAM	112	8.0	*	L		B		2.0	
FAM	113	1.0	*	L		B		3.0	
FAM	114	1.0	*	L		B		2.0	
FAM	115	1.0	*	L		B		2.0	
FAM	116	1.0	*	L		B		2.0	
FAM	117	1.0	*	L		B		2.0	
FAM	118	1.0	*	L		B		2.0	
Total Hrs		106						60.0	CRP

MOS 7210: AIR DEFENSE CONTROL OFFICER (ADCO)										
200 LEVEL: CORE SKILL BASIC										
STAGE	TRNG CODE	EVENT HRS	REFLY INTERVAL	DEVICE	PREREQ	POI	EVAL	CRP	CHAINING	
SID	200	4.0	*	S/L	ASP	B		0.5		
SID	201	8.0	*	L/S	ASP	B		0.5		
SID	202	8.0	*	L/S	ASP	B		0.5		
SID	203	16.0	*	L/S	ASP	B		0.5		
SID	204	4.0	*	L	203, ASP	B		0.5		
SID	205	4.0	*	L	203, ASP	B		0.5		
SID	206	8.0	*	L/S	201, 202, 203 204, 205	B,R	E	0.5	201, 202, 203, 204, 205	
SID	207	16.0	*	L/S	206, ASP	B,R	E	0.5		
SID	208	8.0	*	L	ASP			0.5		
SID	209	8.0	*	L/S	203, 204, 205 208	B	E	0.5		
SID	210	2.0	*	L/S		B		0.5		
SID	211	8.0	*	L/S	200, 201, 202 203, 204, 205 206, 207, 208 209, 210	B,R		0.5		
SID	212	8.0	*	L/S	200, 201, 202 203, 204, 205 206, 207, 208 209, 210, 211	B,R	E	0.5		
SID	213	4.0	*	L/S	208			0.5		
SID	214	8.0	18	L/S	200, 201, 202 203, 204, 205 206, 207, 208 209, 210, 211 212, 213	B,R	E	1.0	200, 201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 211, 212, 213	
STD	220	2.0	*	L				1.0		
STD	221	4.0	*	L/S				1.0		
STD	222	8.0	*	L/S	221, ASP	R	E	1.0		
STD	223	8.0	*	L/S	222		E	1.0		
STD	224	8.0	18	L/S	222, 223	B,R	E	3.0	220, 221, 222, 223	
Total Hrs		144						15.0	CRP	

MOS: 7210 AIR DEFENSE CONTROL OFFICER (ADCO)									
300 LEVEL: CORE SKILL ADVANCED									
STAGE	TRNG CODE	EVENT HRS	REFLY INTERVAL	DEVICE	PREREQ	POI	EVAL	CRP	CHAINING
SAD	300	0.5	*	L/S	ASP	B,R	E	1.25	
SAD	301	4.0	*	S	300, ASP	B		1.25	
SAD	302	2.0	*	S	301	B		1.25	
SAD	303	4.0	*	L	302	B		1.25	301, 302
SAD	304	8.0	*	L/S	ASP	B		1.25	
SAD	305	8.0	*	L	ASP	B		1.25	
SAD	306	24.0	*	L	304, 305	B		1.25	
SAD	307	16.0	*	L/S	305, ASP	B,R	E	1.25	207, 222, 304
SAD	308	12.0	*	S	214, 224 304, 307	B,R	E	1.25	
SAD	309	8.0	*	L/S	308	B		1.25	306, 308
SAD	310	8.0	*	L	307	B	E	1.25	
SAD	311	16.0	*	L	309	B	E	1.25	306, 308, 309
SAD	312	8.0	18	L	310, 311	B,R	E	5.0	300, 301, 302, 303, 304, 305, 306, 307, 308, 309, 310, 311
Total Hrs		118.5						20.0	CRP

MOS 7210 AIR DEFENSE CONTROL OFFICER (ADCO)									
400 LEVEL: CORE PLUS									
STAGE	TRNG CODE	HRS	REFLY INTERVAL (Months)	DEVICE	PREREQ	POI	EVAL	CRP	CHAINING
ABM	400	8.0	*	L/S	312, WTI	B,T	E	1.4	
ABM	401	16.0	*	L/S	400	B,T	E	2.4	400
ABM	402	16.0	*	L	400, 401	B,T,R	E	0.1	400, 401
AIC	410	0.5	*	S/L	ASP	B,R		0.1	300
AIC	411	1.5	*	S	210, ASP	B,R		0.1	301
AIC	412	4.0	*	S	ASP	B,R		0.1	302
AIC	413	1.5	*	S	412	B,R		0.1	301, 302, 303, 411, 412
AIC	414	4.0	*	S			E	0.1	
AIC	415	2.0	*	L	410,411,412 413,414,	B		0.1	
AIC	416	12.0	*	L	413	B		0.1	
AIC	417	12.0	*	L	413	B,T,R		0.1	
AIC	418	12.0	*	L	413	B		0.1	
AIC	419	4.0	*	L	415, 416 417, 418	B		0.1	
AIC	420	4.0	18	L	419	B,R		0.1	410, 411, 412, 413, 414, 415, 416, 417, 418, 419
Total Hrs		97.5						5.0	CRP

111. EVENT CONVERSION MATRIX. The event conversion matrix lists all events in this ADCO POI as they correspond to the previous ADCO POI that this chapter replaced.

MOS: 7210 AIR DEFENSE CONTROL OFFICER (ADCO)			
EVENT CHANGE MATRIX			
Phase	Old Event	New Event	Note
200			
	SYS-200	(none)	Deleted
	SYS-201	(none)	Deleted
	SYS-202	(none)	Deleted
	SYS-203	(none)	Deleted
	SYS-204	(none)	Deleted
	SYS-205	(none)	Deleted
	STD-210	STD-221	Modified, Renamed and Renumbered
	STD-211	STD-222	Renumbered
	STD-212	STD-223	Modified and Renumbered
	STD-213	(none)	Deleted
	STD-214	STD-224	Renamed and Renumbered
	SID-220	SID-200	Modified, Renamed and Renumbered
	SID-221	SID-201	Modified, Renamed and Renumbered
	SID-222	SID-202	Renamed and Renumbered
	SID-223	SID-203	Modified, Renamed and Renumbered
	SID-224	(none)	Deleted
	SID-225	SID-204	Renamed and Renumbered
	SID-226	SID-205	Modified, Renamed and Renumbered
	SID-227	SID-207	Modified, Renamed and Renumbered
	SID-228	SID-208	Modified, Renamed and Renumbered
	SID-229	SID-209	Modified, Renamed and Renumbered
	SID-230	SID-213	Renamed and Renumbered
	SID-231	SID-211	Combined with SID-232, Renamed and Renumbered
	SID-232	SID-211	Combined with SID-231, Renamed and Renumbered
	SID-233	SID-214	Modified, Renamed and Renumbered
	(none)	STD-220	New event
	(none)	SID-206	New event
	(none)	SID-210	New event
	(none)	SID-212	New event
300			
	GBAD-300	(none)	Deleted
	GBAD-301	(none)	Deleted
	GBAD-302	(none)	Deleted
	GBAD-303	(none)	Deleted
	AIC-310	SAD-300 AIC-410	Some AIC and Weapons events moved to SAD stage in Core Skill Advanced; full AIC stage exists in Core Skill Plus
	AIC-311	SAD-301 AIC-411	Combined with AIC-312 in SAD-301, Modified and Renumbered
	AIC-312	SAD-301 AIC-412	Combined with AIC-311 in SAD-301, Modified, Renamed and Renumbered
	AIC-313	SAD-302, AIC-413	Modified and Renumbered

	AIC-314	AIC-414	Modified and Renumbered
	AIC-315	AIC-415	Renamed and Renumbered
	AIC-316	AIC-416	Modified, Renamed and Renumbered
	AIC-317	AIC-417	Modified, Renamed and Renumbered
	AIC-318	AIC-418	Modified and Renumbered
	AIC-319	AIC-419	Modified, Renamed and Renumbered
	AIC-320	AIC-420	Modified, Renamed and Renumbered
400			
	SWD-400	SAD-304	SWD no longer an ADCO qualification. Some SWD events moved to SAD stage.
	SWD-401	(none)	Deleted
	SWD-402	(none)	Deleted
	SWD-403	(none)	Deleted
	SAD-410	SAD-305	SAD moved to Core Skill Advanced
	SAD-411	SAD-306	Modified and Renumbered
	SAD-412	SAD-307	Renumbered
	SAD-413	SAD-308	Renamed and Renumbered
	SAD-414	SAD-309	Renamed and Renumbered
	SAD-415	SAD-310	Modified, Renamed and Renumbered
	SAD-416	SAD-311	Modified and Renumbered
	SAD-417	SAD-312	Modified, Renamed and Renumbered
	SOPS-420	ABM-400	Former SADC Ops stage is now Air Battle Manager stage, Modified, Renamed and Renumbered
	SOPS-421	ABM-401	Modified, Renamed and Renumbered
	SOPS-422	ABM-402	Renamed and Renumbered
	SADC-430	(none)	Former SADC stage is now Senior Watch Officer stage conducted at the 7202 level. Requirements can be found in appendix A.
	SADC-431	(none)	Deleted
	SADC-432	(none)	Deleted
500			
	INST-500	DESG-651	Changed to a WTI designation
600			
	WTI-600	DESG-651	Tracking Code for WTI designation
	JICO-601	DESG-631	Tracking Code for JICO certification
	ABM-602	(none)	Tracking code for ABM designation

CHAPTER 2

AIR CONTROL ELECTRONIC OPERATOR (ACEO)
(MOS 7234)

	<u>PARAGRAPH</u>	<u>PAGE</u>
UNIT CORE COMPETENCY.	200	2-2
PROGRAMS OF INSTRUCTION (POI) FOR ACEO	201	2-11
ACADEMIC TRAINING.	202	2-11
EVENT PERFORMANCE REQUIREMENTS.	203	2-11
CORE SKILL INTRODUCTION TRAINING	204	2-12
CORE SKILL BASIC TRAINING	205	2-15
CORE SKILL ADVANCED TRAINING	206	2-23
CORE PLUS TRAINING	207	2-26
INSTRUCTOR TRAINING	208	2-34
QUALIFICATIONS AND DESIGNATIONS.	209	2-36
SYLLABUS SUMMARY MATRIX	210	2-39
EVENT CONVERSION MATRIX	211	2-40

FIGURE

2-1 AIR CONTROL ELECTRONIC OPERATOR TRAINING PROGRESSION MODEL	2-10
---	------

CHAPTER 2

AIR CONTROL ELECTRONIC OPERATOR (ACEO)

200. UNIT CORE COMPETENCY

1. Overview

a. Marine aviation plays a crucial role in the MAGTFs 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 to quickly and effectively plan for crises and/or contingency operations thereby ensuring the Marine Air Command and Control System (MACCS) remains ready for combat when and where the need arises.

b. This T&R directive represents the collaborative effort of tactical air operations center (TAOC) subject matter experts who designed training standards to maximize the full combat capabilities of TAOC and early warning and control (EW/C) detachments. 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 that ensure crews maintain a common base of training and depth of combat capabilities. Together, the T&R comprises a building block approach to ensure trained crews remain ready, relevant and fully capable of supporting the MAGTF commander.

c. 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 encouraged. 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 the unit while staying within resource constraints.

2. Mission. Provide task organized agencies to perform airspace surveillance, air direction and control, coordination, information exchange and weapons systems integration for the six functions of Marine aviation in support of MAGTF operations and joint/combined operations.

3. TAOC Mission Essential Tasks List (METL)

- a. MCT 5.3.2.7.1 Establish/Conduct Tactical Air Operations Center Operations
- b. MCT 5.3.5.2 Conduct Air Control
- c. MCT 5.3.5.3 Conduct Airspace Management/Surveillance
- d. MCT 6.1.1.7 Conduct Anti-air Warfare (AAW) (Air Defense)

4. Table of Organization (T/O). Refer to T/Os 8631, 8632, 8641, 8642, and 8644 managed by Total Force Structure, MCCDC, for current authorized organizational structure and personnel strength for MACS units. As of this publication date, MACS units are authorized:

MACS-1 AND MACS-2 (T/O 8642 and 8644)	
	<u>TAOC</u>
Officers	- 7 (7202) - 10 (7210)
Enlisted	- 29 (7234) - 19 (7236)
	<u>EW/C</u>
Officers	- 2 (7202) - 5 (7210)
Enlisted	- 13 (7234) - 11 (7236)
MACS-4 (T/O 8631 and 8632)	
	<u>TAOC</u>
Officers	- 3 (7202) - 14 (7210)
Enlisted	- 29 (7234) - 17 (7236)
MACS-23 AND MACS-24 (T/O 8632A, 8632B, 8632C)	
	<u>TAOC</u>
Officers	- 3 (7202) - 16 (7210)
Enlisted	- 23 (7234) - 14 (7236)
Note: Maintenance and support personnel assigned to each TAOC and EW/C detachment are not listed.	

07 Feb 2008

5. Unit Core Capability. The TAOC Detachment is provided by the Marine Air Control Squadron (MACS) and is the principal air defense agency that conducts real-time surveillance, positive aircraft control of the assigned airspace and weapons system integration and control within the MACCS. The TAOC normally deploys as part of the MACCS within the MAGTF but, if the mission dictates, may also deploy independently or as part of a combined or joint force. A core capable MACS (MACS-1 or MACS-2) is able to simultaneously field, at minimum, both one TAOC and one EW/C detachment; the exception is MACS-4 and the reserve squadrons who at minimum can field one TAOC detachment or one EW/C but not both.

a. TAOC Detachment Core Capability. A core capable TAOC is task organized to execute the following functions: tactical air traffic control (TATC), combat identification and surveillance, air intercept control, deep air support, missile control, data link coordination, and air battle management. As configured below, a TAOC detachment is capable of sustaining 24-hour operations.

TAOC Detachment

- (2) Senior Watch Officer
- (2) Air Battle Manager
- (2) Deep Air Operation Coordinator
- (2) Senior Air Director
- (2) Crew Chief
- (2) System Configuration Coordinator
- (2) Senior Weapons Director
- (2) Air Intercept Controller
- (2) Missile Controller
- (2) Deep Air Controller
- (2) Senior Traffic Director
- (2) Tactical Air Traffic Controller
- (2) Surveillance Identification Director
- (2) Data Link Coordinator
- (2) Surveillance Operator
- (2) Plotter

Note: Total requirement is driven by mission and duration.

b. EW/C Detachment Core Capability. A core capable EW/C detachment augments a TAOC detachment or deploys independently to provide surveillance and data link operations and limited control of air or ground based weapons systems. As configured below, an EW/C detachment is capable of sustaining 24-hour operations.

EW/C Detachment

- (2) Senior Air Director
- (2) Senior Weapons Director
- (2) Air Intercept Controller
- (2) Surveillance Identification Director
- (2) Surveillance Operator
- (2) Data Link Coordinator
- (2) Systems Configuration Coordinator

Note: Total requirement is driven by mission and duration.

6. METL/Core Skills. Core skills shall be a determining factor in developing T&R requirements; core skill abbreviations are listed in the first table below. Core skills directly support METs for each unit as noted in the second table below. Special skills and training requirements must receive appropriate prioritization and emphasis based on the training need and the likelihood of those types of missions being assigned during operations.

CORE SKILL ABBREVIATIONS	
CORE SKILL	ABBREVIATION
Air Control	AC
Air Intercept Control	AIC
Battle Management	BMT
Crew Management	CMT
Data Link Coordination	DLC
Surveillance, Identification & Detection	SID
Systems Configuration	SC
Weapons Employment	WE

MCTL AND CORE SKILLS MATRIX									
MARINE CORPS TASK LIST (MCTL)		CORE SKILLS							
MCT NUM	MCT	A C	A I C	B M T	C M T	D L C	S I D	S C	W E
5.3.2.7.1	Establish / Conduct Tactical Air Operations Center (TAOC) Operations	X	X	X	X	X	X	X	X
5.3.5.2	Conduct Air Control	X	X						X
5.3.5.3	Conduct Airspace Management / Surveillance	X		X			X		
6.1.1.7	Conduct Anti-air Warfare (AAW) (Air Defense)	X	X				X		X

MCTL AND CORE PLUS MATRIX									
MARINE CORPS TASK LIST (MCTL)		CORE PLUS SKILLS							
MCT NUM	MCT	A C	A I C	B M T	C M T	D L C	S I D	S C	W E
5.3.2.7.1	Establish / Conduct Tactical Air Operations Center (TAOC) Operations	X	X	X	X		X		X
5.3.5.2	Conduct Air Control	X	X						X
5.3.5.3	Conduct Airspace Management / Surveillance	X		X			X		
6.1.1.7	Conduct Anti-air Warfare (AAW) (Air Defense)	X	X	X			X		X

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

a. Minimum Unit Core Skill Proficiency (CSP) Requirements. As a minimum, in order to be considered core competent, a unit must possess the following numbers of personnel who are proficient in each core skill (unit CSP).

TAOC Detachment			
CORE SKILL	7210/7202	7236	7234
AC		2	2
AIC		2	
BMT	2 / 0	2	
CMT	2 / 0	2	
DLC			2
SID	2		2
SC			4
WE		6	
CORE PLUS			
BMT	2 / 2		

Denotes one minimum manned TAOC detachment for sustained operations. Total requirement driven by mission and duration.

EW/C Detachment			
CORE SKILL	7210/7202	7236	7234
AC			
AIC		2	
CMT	2 / 0		
DLC			2
SID	2 / 0		
SC			2
WE		2	

Denotes one minimum manned EW/C detachment for sustained operations. Total requirement driven by mission and duration.

(1) Events Required to Attain Individual Core Skill Competency. To initially attain competency in a core skill, an individual must successfully complete all of the T&R events listed in the chart below for the core skill.

ATTAIN INDIVIDUAL CORE SKILL								
Air Control Electronic Operator (MOS 7234)	AC	DLC			SC		SID	
	300R	220	221	222	200	201	210	211
	301	223	224	225R	202	203	212	213R
	302R	226R			204			

(2) Events Required to Maintain Individual Core Skill Competency. To maintain competency in a core skill, an individual must maintain proficiency in all of the core skill events listed in the chart below.

MAINTAIN INDIVIDUAL CORE SKILL			
Air Control Electronic Operator (MOS 7234)	AC	DLC	SID
	300R, 302R	225R, 226R	213R

(3) Events Required to Attain Individual Proficiency in Core Plus Skills. Proficiency in core plus skills is not required to obtain unit CSP. Training to core plus skills is at the discretion of the unit commanding officer. To initially attain proficiency in a core plus skill, an individual must simultaneously have a 'proficient' status in all of the T&R events listed below for that core plus skill:

ATTAIN INDIVIDUAL CORE PLUS							
Air Control Electronic Operator (MOS 7234)	CMT	SC		SID		WE	
	410	420	421	400	401	424	425R
	411R	422	423R	402	403	426	427
				404R		428R	

(4) Events Required to Maintain Individual Proficiency in Core Plus Skills. To maintain proficiency in a core plus skill, an individual must maintain proficiency in all of the T&R events displayed below for that core plus skill:

MAINTAIN INDIVIDUAL CORE PLUS					
Air Control Electronic Operator (MOS 7234)	SC		SID	WE	
		411R	423R	404R	425R

07 Feb 2008

b. Combat Leadership Requirements. As a minimum, in order to be considered core competent, a MACS must possess personnel with the listed combat leadership designations as noted below.

LEADERSHIP DESIGNATION	TAOC DETACHMENT	EW/C DETACHMENT
Air Battle Manager (ABM)	2	0
Deep Air Operations Coordinator (DAOC)	2	0
Senior Air Director (SAD)	2	2
Crew Chief (CC)	2	0
Senior Weapons Director (SWD)	2	2
Senior Traffic Director (STD)	2	0
Surveillance Identification Director (SID)	2	2
- Denotes combat leaders required to simultaneously support one TAOC detachment and one EW/C detachment for sustained operations.		
- Each MACS will have two 7202's designated as a SWO (see Appendix C).		

8. Qualifications and Designations. The tables below delineate T&R events required to be completed to attain initial qualifications and designations. All required academics (appendix A) and prerequisites shall be completed prior to completing final events. Qualification and designation letters signed by the commanding officer or designated representative shall be placed in the individual performance record (IPR).

a. Qualification. A qualification is a status assigned based on demonstrated proficiency in a specific skill. Qualifications have a currency requirement and have designated re-fly event(s). Specific criteria to achieve qualifications are delineated in the qualification table below, the MAWTS-1 course catalog, and governing directives. The evaluation form, appendix B, shall be used to document all event evaluations. Upon completion of qualification criteria, commanding officers shall issue a qualification letter for inclusion into individual performance records (IPR). Qualifications are not lost when refreshing events. Loss of proficiency and/or time expiration (delinquent refresh events) for all associated qualification events constitutes loss of the qualification. Re-qualification requires demonstrated proficiency by successfully completing all R-coded events associated with the qualification (unless waived per the Aviation T&R Program Manual).

ACEO QUALIFICATIONS	TRACKING CODE	REQUIREMENT
Tactical Air Traffic Controller (TATC)	QUAL-602	302R
Surveillance Operator (SO)	QUAL-613	213R
Data Link Coordinator (DLC)	QUAL-626	226R
Assistant Weapons Controller (AWC)	QUAL-628	428R

b. Designation

(1) A designation is a status assigned by the commanding officer to an individual based on leadership ability. It is command specific and remains in effect until removed for cause or when individual is transferred to another command. Commanders are encouraged to consider the individual

designation requirements noted below prior to designating an individual. Once an individual is designated, commanders shall issue a designation letter for inclusion into the individual performance record (IPR). Follow-on commands shall repeat the "initial documentation procedure."

(2) Unit instructors are designated by the commanding officer. As a minimum, a unit should maintain Weapons and Tactics Instructor (WTI) - Air Control designations to support TAOC and EW/C training and operations. The completion certificate shall be placed in the individual performance record (IPR). Instructor designations are outlined in the MAWTS-1 Course Catalog, MCO 3500.109_ (WTTP).

ACEO DESIGNATIONS	TRACKING CODE	REQUIREMENT
Plotter (PLTR)	DESG-604	400, 401, 402, 403, 404R
System Configuration Coordinator (SCC)	DESG-623	420, 421, 422, 423R
Air Control Electronics Operator Instructor (ACEOI)	DESG-630	500, 501, 502, 503

9. ACEO Training Progression Model

a. The progression model depicts the logical training progression for ACEOs. It develops and refines skills required for the ACEO to function as an operator with progression into a Tactical Air Defense Controller (TADC) within a core capable TAOC crew. The base of each model contains those events an individual must complete in order to attain qualifications/designations as an ACEO. The highest phase of the progression model contains core training held by only the most experienced personnel within a unit. The training progression model for an ACEO is depicted in figure 3-1.

b. This training progression model provides training officers with a valuable tool to develop training plans. With a clear training progression delineated, with an emphasis on the obtaining core skills at the basic and advanced levels of training, training officers have the ability to produce viable training plans. Units will use the model as a point of departure to generate weekly, monthly, quarterly and annual training plans.

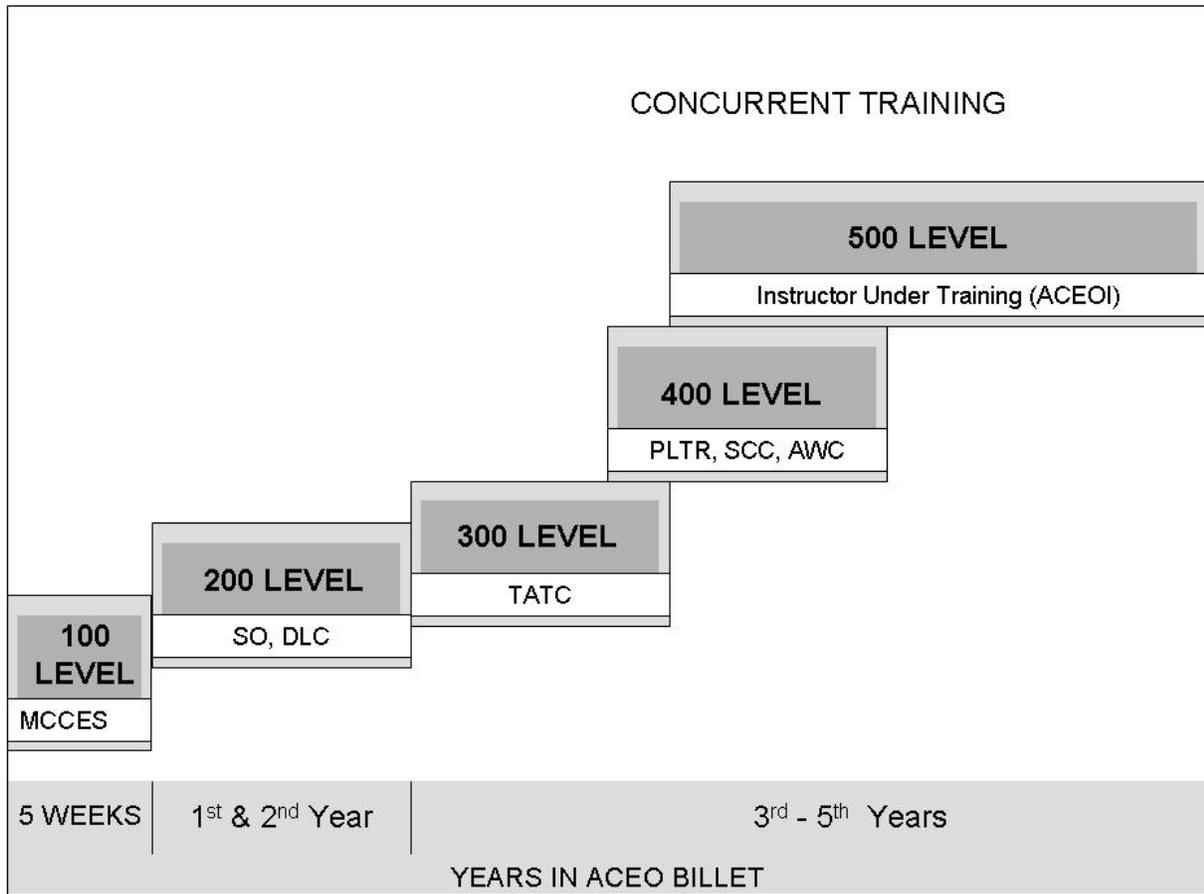


Figure 3-1.-- Air Control Electronics Operator Training Progression Model.

201. PROGAMS OF INSTRUCTION (POI) FOR ACEO

1. Basic ACEO POI

Months	Course	Activity
01-03	Air Control Electronics Operators Course	MCCES
06-18	Core Skill Basic	MACS
18-41	Core Skill Advanced	MACS
10-49	Core Plus	MACS

2. Refresher ACEO POI

Months	Course	Activity
1	Core Skill Basic	MACS
1	Core Skill Advanced	MACS
1	Core Plus	MACS

202. ACADEMIC TRAINING

1. Academic training will be conducted for each phase/stage of the syllabus. Commanders will incorporate the lectures in appendix A into the unit training plans. Where indicated, standardized academic training materials exist and may be obtained from the activity listed as the sponsor.

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

<u>COURSE</u>	<u>ACTIVITY</u>
Multi-TDL Advanced Joint Interoperability Course (MAJIC)	JMTS, Ft McPherson
Joint Tactical Information Distribution System (JTIDS) Course	JMTS
Link 16 Planner Course	JMTS
Joint Interface Control Officer (JICO) Course	JMTS

203. EVENT PERFORMANCE REQUIREMENTS

1. The purpose of this section is to provide the commander with standardized training programs for all TAOC personnel. The overall goal is to develop unit warfighting capabilities and not to measure the proficiency of individuals. Syllabi are based on specific performance standards designed to ensure proficiency in core competencies. An effective T&R program is the first step in providing the MAGTF commander with an Aviation Combat Element (ACE) capable of accomplishing any and all of its stated missions. The T&R program provides the fundamental tools for commanders to build and maintain unit combat readiness. Using these tools, training managers can construct and execute an effective training plan that supports the unit's METs.

2. Unit training management is the application of the Marine Corps Training Principles and the Systems Approach to Training to satisfy the training requirements of commanders at all levels in order to accomplish their wartime mission. Guidance concerning unit training management and the process for

07 Feb 2008

establishing effective unit training management programs are contained in MCRP 3-0A, Unit Training Management Guide, and form the basis for the development of this T&R Directive. Familiarity with MCRP 3-0A will enhance understanding of the Systems Approach to Training used in T&R development and Marine Corps UTM principles.

3. MACCS Integrated System Training. All elements of the MACCS shall maintain the capability to effectively function as part of an integrated airspace command and control system. In that, large exercises may not always offer sufficient training opportunity for all crew members and in many cases do not offer sufficient latitude to refine capability upon arrival, the MACCS should conduct MACCS Integrated System Training Exercises (MISTEX) on a regular basis to qualify units and personnel per their respective T&R syllabus. MISTEXs should focus on the establishment of necessary communications and data links between MACCS agencies, and incorporate sufficient simulation and Marine Simulation Events List (MSEL) items to exercise and analyze system integration, crew coordination, and critical information flow wherever possible. Tactical Digital Link (TDL) capable agencies should conduct frequent Link training exercises to maintain proficiency.

4. The ACEO POI requires in-depth integration within the MACCS. Likewise, development of MAGTF training involving extensive integration with applicable elements of the MAGTF is mandatory in the development of a core skill. Training not conducted in a live training environment shall be replaced with simulation where applicable and as indicated in the condition code for each event.

5. The matrix below lists all stages in the ACEO POI and the core skill that each stage supports.

CORE SKILL	STAGE(S) SUPPORTING THE CORE SKILL
Air Control (AC)	Tactical Air Traffic Controller (TATC)
Systems Configuration (SC)	System Configuration Coordinator (SCC)
	Plotter (PLTR)
Crew Management (CMT)	
Data Link Coordinator (DLC)	Data Link Coordinator (DLC)
Surveillance, Identification, & Detection (SID)	Surveillance Operator (SO)
Weapons Employment (WE)	Assistant Weapons Controller (AWC)

204. CORE SKILL INTRODUCTION TRAINING

1. General

a. This phase provides entry-level instruction to develop the basic skills necessary for a student to meet the requirements to be assigned MOS 7234, Air Control Electronics Operator (ACEO). This training is completed upon graduation from the Air Control Electronics Operator Course (ACEOC).

b. Prerequisite. Grade of Private through Sergeant, normal color vision, and a secret clearance. Appropriate medical certificate, GT 105 and US citizenship.

c. Academic Training. Air Control Electronics Operator Course (ACEOC), MCCES, located in 29 Palms, CA. The 100 level ACEO program of instruction can be viewed at www.29palms.usmc.mil/mcces.

d. Core Skill Introduction Stage. Familiarization (FAM).

e. Live and Simulated Event Training. 7 events, 72 hours.

2. Familiarization (FAM)

FAM 100	8.0	B	TAOC	L
---------	-----	---	------	---

Goal. Identify the organization of the MACCS.

Requirement. Identify the functions of the following:

- (1) MACCS
- (2) MAW
- (3) MACG
- (4) MTACS
- (5) MASS
- (6) MACS
- (7) LAAD
- (8) VMU

Performance Standard. Pass a written test with a minimum score of 80%.

FAM 101	8.0	B	TAOC	L
---------	-----	---	------	---

Goal. Identify MACCS operational planning documents and doctrinal publications.

Requirement. Identify the purpose of the following:

- (1) OPTASKLINK.
- (2) Airspace Control Order.
- (3) OPORDER.
- (4) Air Tasking Order.
- (5) Air Control Electronic Operation Instructions.
- (6) Training and Readiness Manual.
- (7) Special Instructions.
- (8) ALSA Manual.
- (9) TAOC Handbook MCWP 3-25.7.
- (10) TAOC Pocket Checklist.
- (11) Joint Multi-Tactical Data link Operating Procedures JMTOP.
- (12) Joint Tactical Air Operations Handbook.
- (13) Integrated Combat Airspace Command and Control Manual

Performance Standard. Pass a written test with a minimum score of 80%.

- (1) Doctrinal nets used by the traffic section.
- (2) Responsibilities of the Tactical Air Traffic controller.
- (3) Voice communications for the traffic section.
- (4) Traffic system functions.
- (5) Emergency Procedures.
- (6) Construct a TATC log.

Performance Standard. Pass a written test and practical application with 80% accuracy.

FAM 106	8.0	B	TAOC	L
---------	-----	---	------	---

Goal. Operate C4I systems.

Requirement. Demonstrate proficiency in operating TBMCS and C2PC systems:

Performance Standard. Pass a written test and practical application with 80% accuracy.

205. CORE SKILL BASIC TRAINING

1. General

a. This phase enhances skills obtained in the Core Skill Introduction phase (100-level) while assigned to a Marine Air Control Squadron (MACS). This phase moves an ACEO from an entry level understanding of core skills to an advanced proficient level. Individual core skills are learned and mastered using a mix of live aircraft and simulation. Training includes tactical air operations, equipment training, and MACCS integration.

b. Administrative Notes. The ACEO should complete Surveillance Operator (SO), Data Link Coordinator (DLC) and Tactical Air Traffic Control (TATC) functions within the first three years of assignment to a MACS. Beyond the three year mark and prior to becoming a 7236 the ACEO should maintain proficiency in these skill sets while striving for core skills advanced training.

c. Prerequisite. Core Skill Introduction training events must be completed prior to beginning this phase of training. Training in this phase does not preclude simultaneous training in the Core Skill Advanced phase.

d. Refresher Training. Refresher training is required once a Core Skill Basic ACEO has been absent from an ACEO billet for 18 months or longer. Upon return to an ACEO billet, the operator will complete "R" coded events for this phase of training.

e. Core Skill Basic Stages

- (1) System Configuration (SYS)
- (2) Surveillance Operator (SO)
- (3) Data Link Coordinator (DLC)

07 Feb 2008

2. System (SYS) Training

a. Purpose. To develop proficiency and experience required to setup, operate and maintain the TAOM. Provides for the tactical and technical information necessary to perform TAOC operations within the TAOM.

b. Crew Requirements. A core competent TAOC crew will be required for higher level evaluated events.

c. Academic Training. Academic training will be conducted prior to and concurrent with required events. An academic event, once completed, can be credited as a prerequisite for follow-on training events.

d. Refresher Training. Refresher training is required once a Core Skill Basic ACEO has been absent from an ACEO billet for 18 months or longer. Upon return to an ACEO billet, the operator will complete "R" coded events for this stage of training.

e. Live and Simulated Event Training. 5 events, 40.0 hours.

SYS-200	8.0	B	TAOC	L
---------	-----	---	------	---

Goal. Cable a TAOM system.

Requirement. Given two or more TAOMs and two or more radars perform system cabling to include:

- (1) DDB/VCB cabling.
- (2) Fiber channel cabling for LAN.
- (3) Multi-radar cabling.
- (4) Power and ECU pallet cabling.

Performance Standard. Cabling shall be done to 100% accuracy.

SYS-201	8.0	B	TAOC	L
---------	-----	---	------	---

Goal. Perform TAOM and ECU pallet pack up.

Requirement. In garrison or deployed, prepare the TAOM and ECU for transport using SL3 tools; pack up the TAOM and all appropriate equipment on the ECU pallet.

Performance Standard. Conduct the pack-up with no discrepancies.

SYS-202	8.0	B	TAOC	L
---------	-----	---	------	---

Goal. Setup the TAOM for operations.

Requirement. Set up a TAOM and ECU pallet using SL3 tools.

Performance Standard. Ensure the TAOM is ready for operations.

SYS-203	8.0	B	TAOC	L
---------	-----	---	------	---

Goal. Operate the TAOM in NBCD environment.

Requirement. Operate the TAOC in a simulated NBCD environment while in MOPP level four. Ensure crew operational requirements are performed properly.

Performance Standard. Ensure operational requirements are met while in MOPP level four gear.

Prerequisite. Individual NBCD training.

SYS-204	8.0	B	TAOC	L
---------	-----	---	------	---

Goal. Establish and conduct TAOC communications.

Requirement. Perform the following:

- (1) Erect antennae (to include HT-20, HT-25, whip and AB577)
- (2) Load voice crypto (KY-58 and KYV-5).
- (3) Load data crypto (KG-40, KG-84 and KGV-8).
- (4) Set up UHF radios for HAVEQUICK.
- (5) Set up HF radios for clear and secure voice/data operations.
- (6) Set up UHF radios for clear and secure voice /data, local and remote operations.
- (7) Make appropriate RPP/SEPP settings and appropriate crypto assignments.
- (8) Utilize C&M Panel to talk, monitor and/or assign UHF, HF, external radios and secure/non-secure phones.
- (9) Set up an external radio.

Performance Standard. TAOC communications are established.

Prerequisite. Academics T-719.

External Syllabus Support. External radio support.

2. Surveillance Operations (SO) Training

a. Purpose. To develop ACEO skills in surveillance operations to include: monitor radar input, initiate/monitor acquisition of air tracks, and perform preliminary identification and update track data.

b. Administrative Notes

(1) Once qualified as a SO, the ACEO must remain proficient on TAOC system operations.

(2) For evaluation purposes, an event will consist of a brief, execution and debrief to be evaluated by the Surveillance Coordinator (SC), Surveillance Identification Director (SID), enlisted WTI or the Senior Air Director (SAD).

(3) Prior to training in each event, (including SIM) ensure all required Surveillance database items are entered for that event.

(4) All SO events will be supervised by a designated ACEOI.

07 Feb 2008

c. Crew Requirements. A core competent TAOC crew will be required for the exercise events.

d. Academic Training. Academic training will be conducted prior to and concurrently with required events. An academic training event, once completed, can be credited a prerequisite for follow on training events.

e. Refresher Training. Refresher training is required once a Core Skill Basic ACEO has been absent from an ACEO billet for 18 months or longer. Upon return to an ACEO billet, the operators will complete "R" coded events for this stage of training.

f. Live and Simulated Event Training. 4 events, 18.0 hours.

SO-210	2.0	B	TAOC	L/S
--------	-----	---	------	-----

Goal. Conduct manual cross-tell.

Requirement. Conduct manual cross-tell with an external agency or the TAOC. Perform the following:

- (1) Enter appropriate reference system in the DB via a map/overlay.
- (2) Use established/published cross-tell format to pass track information on the appropriate net, when directed by the SID.
- (3) Post and maintain Non-Real Time (NRT) rate-aided tracks based on information received from external agencies.

Performance Standard. Successfully conduct manual cross-tell with an external agency.

Prerequisite. SYS-200, SYS-201, SYS-202 and 203;
Academics: T-704, T-716, T-717, T-718 and T-726.

External Syllabus Support. External C3 agencies.

SO-211	4.0		TAOC	L/S
--------	-----	--	------	-----

Goal. Perform surveillance operations.

Requirement. Complete the following:

- (1) Enter all appropriate Surveillance DB entries to include:
 - (a) Local/Remote radars.
 - (b) Special points or corridors.
 - (c) IFF/SIF codes.
 - (d) Applicable map/overlay features.
- (2) Execute briefed ID and classification procedures:
 - (a) Correlate SIF codes with published directives.
 - (b) Interrogate Mode IV and post results as required.
 - (c) Adhere to published ID criteria/ROE when evaluating unknown tracks.
 - (d) Classify tracks in a timely manner, per SID direction.
- (3) Symbol management with a focus on data entry/updating.
- (4) Compile and forward any applicable reports.

Performance Standard. Complete each item in this event with 80% accuracy during garrison operations or an exercise.

Prerequisite. Academics: T-701, T-714, and T-726.

SO-212	4.0	B	TAOC	L/S
--------	-----	---	------	-----

Goal. Perform surveillance operations in a data link environment.

Requirement. Complete the following:

- (1) Manually correlate dual designations.
- (2) Recognize and report to the SID ID and IFF conflicts and other interface anomalies.
- (3) Respond to data link orders as directed by the DLC/SID.
- (4) Enter all appropriate Surveillance DB entries to include:
 - (a) Local/Remote radars.
 - (b) Special points or corridors.
 - (c) IFF/SIF codes.
 - (d) Applicable map/overlay features.
- (5) Execute briefed ID and classification procedures:
 - (a) Correlate SIF codes with published directives.
 - (b) Interrogate Mode IV and post results as required.
 - (c) Adhere to published ID criteria/ROE when evaluating unknown tracks.
 - (d) Classify tracks in a timely manner, per SID direction.
- (6) Symbol management with a focus on data entry/updating.
- (7) Compile and forward any applicable reports.

Performance Standard. Complete each item in this event with 80% accuracy.

Prerequisite. SO-211 and Academics T-705 and T-722.

External Syllabus Support. External C3 agencies.

SO-213	8.0	B, R, E	TAOC	L
--------	-----	---------	------	---

Goal. Certify as an SO.

Requirement. While performing SO functions, demonstrate proficiency in all requirements listed in SO-212.

Performance Standard. Complete each item in this event with 80% accuracy.

Prerequisite. SO-210, SO-211 and SO-212.

External Syllabus Support. External C3 agencies.

3. Data Link Coordinator (DLC)

a. Purpose. To develop ACEO skills in datalink configuration which includes managing datalinks, initiating directed changes to degraded links with subordinate agencies, and recommending changes to degraded links with adjacent and senior agencies.

b. Administrative Notes

(1) Once qualified as a DLC, the ACEO must maintain proficiency on TAOC system training.

(2) For evaluation purposes, an event will consist of a brief, execution and debrief to be evaluated by the Surveillance Coordinator (SC), Surveillance Identification Director (SID), enlisted WTI or the Senior Air Director (SAD).

(3) Prior to training in each event, (including SIM) ensure all required data link DB items are entered for that event.

(4) All DLC events will be supervised by a qualified DLC.

c. Crew Requirements. A core competent TAOC crew will be required for the exercise events.

d. Academic Training. Academic training will be conducted prior to and concurrently with required events. An academic training event, once completed, can be credited for follow on training events.

e. Refresher Training. Refresher training is required once a Core Skill Basic ACEO has been absent from an ACEO billet for 18 months or longer. Upon return to an ACEO billet the operator will complete "R" coded events in the 200 level syllabus.

f. Live and Simulated Event Training. 7 events, 44.0 hours.

DLC-220	8.0	B	TAOC	L/S
---------	-----	---	------	-----

Goal. Perform serial data link functions.

Requirement. Perform DLC functions with a serial link (LINK 11B, NATO LINK-1, ATDL-1). Demonstrate proficiency in the following:

- (1) Enter required DB entries.
- (2) Activate, determine the status of and troubleshoot each link as applicable.
- (3) Ensure TAOC data link equipment is set up/keyed.
- (4) Ensure required DL filters are entered and activated.
- (5) Perform proper link entry and exit procedures.
- (6) Perform order functions associated with the appropriate link.
- (7) Perform link management functions.

Performance Standard. Complete each item in this event with 80% accuracy.

Prerequisite. Academics: T-702, T-707, T-710, T-712, T-719, T-720, and T-765.

External Syllabus Support. External C3 agencies.

DLC-221	8.0	B	TAOC	L/S
---------	-----	---	------	-----

Goal. Perform Link 11 functions.

Requirement. Perform DLC functions while participating in a live netted data link (Link 11). Demonstrate proficiency in the following:

- (1) Enter required DB entries.
- (2) Activate, determine the status of, and troubleshoot link as applicable.
- (3) Perform proper net entry and exit procedures.
- (4) Ensure data link DB entries are entered and correct.
- (5) Ensure TAOC data link equipment is set up/keyed.
- (6) Ensure required DL filters are entered and activated.
- (7) Operate in the following modes:
 - (a) Radio Silent (RADSIL).
 - (b) Net Control Station (NCS).
 - (c) Picket.
- (8) Perform link management functions per SID direction.
- (9) Perform data link coordination responsibilities over designated voice nets.

Performance Standard. Complete each item in this event with 80% accuracy.

Prerequisite. Academics: T-705, T-709, T-721 and T-722.

External Syllabus Support. JTAO data link platform(s).

DLC-222	8.0	B	TAOC	L/S
---------	-----	---	------	-----

Goal. Perform Link 16 DLC functions.

Requirement. Perform DLC functions while participating in a Link 16 network. Demonstrate proficiency in the following:

- (1) Achieve fine synchronization in LINK 16 Network, determine the status of, and troubleshoot the link as appropriate.
- (2) Ensure data link DB entries are entered and correct.
- (3) Ensure TAOC data link equipment is set up/keyed.
- (4) Ensure required DL filters are entered and activated.
- (5) Operate in the Radio Silent and Data Silent modes.
- (6) Identify Stacked Net # assignments as per OPTASK LINK for voice and air control; ensure they are entered and validated in the DB.
- (7) Establish TAOC as Network Time Reference (NTR).
- (8) Extract information from the slot block allocation sheet in the NDL for entry into the DB.
- (9) Enter the data filters per the OPTASK LINK.
- (10) Load appropriate time and NDL into JTIDS terminal from TAOM.

(11) Demonstrate proper link entry and exit procedures.

Performance Standard. Complete each item in this event with 80% accuracy.

Prerequisite. DLC 221, and Academics: T-706, T-708, T-711, and T-717.

External Syllabus Support. Link 16 capable external C3 agencies.

DLC-223	2.0	B	TAOC	L
---------	-----	---	------	---

Goal. Set-up ADCP as a stand alone system.

Requirement. Demonstrate proficiency in the following:

- (1) Erect ground antenna.
- (2) Ensure workstation and server drives are properly installed.
- (3) Load KGV-8 with crypto fill device.
- (4) Load Network Data Load (NDL).
- (5) Activate the link.
- (6) Monitor link activity utilizing DST laptop and troubleshoot the Link.
- (7) Load PRC-117 for data operations (GBDL).
- (8) Load PRC-117 for encrypted voice operations (Frequency Agile)
- (9) Operate the PRC-117 from the UCD.
- (10) Utilize the Beyond Line of Sight capability of the ADCP.
- (11) Perform PPDL operations with the AN/TPS-59 radar.

Performance Standard. Ensure the stand alone system is properly setup and ready for operations.

Prerequisite. Academics T-700, T-703 and T-767.

External Syllabus Support. Link 16 capable external C3 agencies and/or operational AN/TPS-59 radar.

DLC-224	2.0	B	TAOC	L
---------	-----	---	------	---

Goal. Setup ADCP within TAOM configuration.

Requirement. Demonstrate proficiency in the following:

- (1) Ensure Multi-Channel Interface Unit (MCIU) hard drive is properly installed.
- (2) Load KGV-8 with crypto fill device.
- (3) Load Network Data Load (NDL) from the MITS to the J-Terminal.
- (4) Load NDL from the TAOM to the J-Terminal.
- (5) Pull the NDL from the MITS to the TAOM and load J-Terminal.
- (6) Ensure data link DB entries are entered and correct.
- (7) Ensure required DL filters are entered and activated.
- (8) Activate the link.
- (9) Monitor link activity utilizing ADCP operator station and troubleshoot the link.

Performance Standard. Ensure the ADCP set up is properly configured and ready for operations.

Prerequisite. Academics T-707.

DLC-225	8.0	B, R, E	TAOC	L/S
---------	-----	---------	------	-----

Goal. Perform data link operations in multi TDL environment.

Requirement. While performing as a DLC, demonstrate proficiency in the following:

- (1) Brief link critical information during a TAOC crew brief.
- (2) Ensure data link DB entries are entered and correct.
- (3) Ensure TAOC data link equipment is set up/keyed.
- (4) Ensure required DL filters are entered and activated.
- (5) Troubleshoot the link and take corrective action as needed.
- (6) Perform link management functions per SID direction.

Performance Standard. Complete each item in this event with 80% accuracy.

Prerequisite. DLC-220, DLC-221, DLC-222, DLC-223 and DLC-224.

External Syllabus Support. External C3 agencies.

DLC-226	8.0	B, R, E	TAOC	L
---------	-----	---------	------	---

Goal. Certify as a DLC.

Requirement. While performing as DLC during an exercise, demonstrate proficiency in all requirements identified in DLC-225.

Performance Standard. Complete each item in this event with 80% accuracy.

Prerequisite. DLC-220, DLC-221, DLC-222, DLC-223, DLC-224 and DLC-225.

External Syllabus Support. External C3 agencies.

206. CORE SKILL ADVANCED TRAINING

1. General

a. This phase contains advanced core skill training that includes completion of the Tactical Air Traffic Controller (TATC) syllabus. Personnel trained in the Core Skill Advanced phase are those Marines a commanding officer feels are capable of directing the actions of subordinates during wartime scenarios.

07 Feb 2008

b. Administrative Note

(1) The ACEO shall be TATC certified by a qualified TAOC SAD and designated by the commanding officer. A qualification letter shall be entered in the individual performance record (IPR).

(2) All Core Skill Basic (200 level) and Core Skill Advanced (300 level) training can be conducted concurrently.

c. Core Skill Advanced Stage. Tactical Air Traffic Controller (TATC).

2. Tactical Air Traffic Controller (TATC) Training

a. Purpose. To develop ACEO skills in tactical air traffic control to include:

- (1) Detailed airspace management within the TAOC's sector for all missions not controlled by the weapons section;
- (2) Transmit friendly and threat situational awareness information to entering or transiting aircraft;
- (3) Initiate TDL-C links with all properly equipped aircraft; and (4) maintain track symbology on all aircraft under TATC control.

b. Administrative Notes

(1) During each period, the ACEO must demonstrate proficiency in passing threat information, maintaining situation awareness, utilization of proper report formats, voice and data communication procedures, and functioning as a member of the Traffic Section.

(2) Evaluation will be conducted by a Senior Traffic Director (STD), an enlisted WTI, or a Senior Air Director (SAD).

c. Crew Requirements. A core competent TAOC crew will be required for the higher level evaluated events.

d. Academic Training. Academic training will be conducted prior to and concurrently with required events. An academic training event, once completed, can be credited as a prerequisite for follow on training events.

e. Refresher Training. Refresher training is required once a Core Skill Advanced ACEO has been absent from an ACEO billet for 18 months or longer. Upon return to an ACEO billet, the operator will complete "R" coded events in the 300 level syllabus.

f. Live and Simulated event training. 3 events, 24.0 hours.

TATC-300	8.0	B, R, E	TAOC	S
----------	-----	---------	------	---

Goal. Perform TATC functions in a simulated exercise environment.

Requirement. While performing as a TATC during a simulation, demonstrate proficiency in the following:

- (1) Enter and maintain the Traffic DB per STD direction.

- (2) Operate TBMCS to receive and parse the ATO and construct a TATC Log.
- (3) RIO aircraft, to include:
 - (a) Covered comm.
 - (b) Authentication procedures.
- (4) Conduct SIF/Mode IV checks on all applicable aircraft.
- (5) Conduct external/internal handovers of aircraft as required.
- (6) Coordinate Aerial Refueling (AR) operations.
 - (a) Place tanker on the appropriate track and provide flight following as required.
 - (b) Execute the Slide/Retrograde plan as the threat dictates or per STD direction.
 - (c) Monitor, record, and report tanker fuel status.
 - (d) Route aircraft to the tanker.
 - (e) Route aircraft departing the tanker and handover to the appropriate controller/agency.
- (7) Maintain proper symbol management.
- (8) Maintain appropriate Traffic Section logs.
- (9) Assist the STD in traffic management functions.
- (10) Recommend airspace control measures (ACM) to be used within the TAOC Area of Operations (AO).
- (11) Coordinate procedures for receiving and modifying the ATO.
- (12) Execute the Airspace Control Order (ACO) and the Airspace Control Plan (ACP).

Performance Standard. Complete each item in this event with 80% accuracy.

Prerequisite. SO 213, and Academics: T-725, T-726, T-728, T-730, T-731, T-734, T-735, T-736, T-737, T-738, T-739, T-740, T-741, T-751, T-756, T-761, and T-766.

External Syllabus Support. External C3 agencies and tactical/support aircraft.

TATC-301	8.0	B	TAOC	L
----------	-----	---	------	---

Goal. Perform TATC functions during a live event.

Requirement. While performing as a TATC in garrison or in the field, demonstrate proficiency in the following:

- (1) Local operating procedures per squadron SOP.
- (2) Check-in procedures and proper use of air control communications.
- (3) Provide flight following with an emphasis on traffic deconfliction.
- (4) Symbology management.

Performance Standard. Complete each item in this event with 80% accuracy.

Prerequisite. TATC-300, local area academics and testing requirements.

External Syllabus Support. Live aircraft support.

TATC-302 8.0 B, R, E TAOC L

Goal. Certify as a TATC.

Requirement. While performing as a TATC, demonstrate proficiency in the following:

Performance Standard. Demonstrate proficiency in the following:

- (1) Enter and maintain the Traffic DB per STD direction.
- (2) Operate TBPCS to receive and parse the ATO and construct a TATC Log.
- (3) RIO aircraft, to include:
 - (a) Covered comm.
 - (b) Authentication procedures.
- (4) Conduct SIF/Mode IV checks on all applicable aircraft.
- (5) Conduct external/internal handovers of aircraft as required.
- (6) Coordinate Aerial Refueling (AR) operations.
 - (a) Place tanker on the appropriate track and provide flight following as required.
 - (b) Execute the Slide/Retrograde plan as the threat dictates or per STD direction.
 - (c) Monitor, record, and report tanker fuel status.
 - (d) Route aircraft to the tanker.
 - (e) Route aircraft departing the tanker and handover to the appropriate controller/agency.
- (7) Maintain proper symbol management.
- (8) Maintain appropriate Traffic Section logs.
- (9) Assist the STD in traffic management functions.

Performance Standard. Complete each item in this event with 80% accuracy.

Prerequisite. TATC-300 and TATC-301.

External Syllabus Support. External C3 agencies and tactical/support aircraft.

207. CORE PLUS TRAINING

1. General

a. This phase provides a venue for selected ACEOs to achieve qualification in those critical areas, above the core skill advanced requirements, essential for TAOC operations. Not all ACEOs are required to complete core plus training. Core plus training provides the commanding officer flexibility in accomplishing operational requirements. In this phase, the ACEO is exposed to advanced MACCS integration and employment of TAOC and EW/C equipment within a joint environment.

b. Prerequisite

(1) Plotter training can be conducted concurrently with Core Skill Basic (200 level) training.

(2) TAOC CC, AWC, Plotter and SCC training can be conducted concurrently with Core Skill Advanced (300 level) training.

c. Refresher Training. Refresher training is required once a Core Skill Advanced ACEO has been absent from an ACEO billet for 18 months or longer. Upon return to an ACEO billet, the operator will complete "R" coded events in the 300 level syllabus.

d. Core Skill Advanced Stages

- (1) TAOC Plotter (PLTR)
- (2) System Configuration Coordinator (SCC)
- (3) Assistant Weapons Controller (AWC)

2. Plotter (PLTR) Training

a. Purpose. The ACEO plotter is responsible for the setup and operation of MAGTF C2 systems within the TAOC. The plotter is also responsible for maintaining the status boards within the TAOC. This stage will refine ACEO skills required for Plotter designation.

b. Administrative Notes

(1) Once designated a Plotter, the ACEO must maintain proficiency on TAOC systems training.

(2) During each Plotter event, the ACEO must demonstrate proficiency in maintaining situational awareness, using proper report formats, and functioning as a member of the TAOC Crew.

(3) Evaluation will be done by the Senior Air Director (SAD).

c. Academic Training. Academic training will be conducted prior to and concurrently with required events. An academic training event, once completed, can be credited as a prerequisite for follow on training events.

d. Live and Simulated Event Training. 5 events, 22.0 hours.

PLTR-400	2.0	B	TAOC	L
----------	-----	---	------	---

Goal. Prepare the TAOC for operations.

Requirement. Prepare the TAOC for operations using SL3 tools.

- (1) Prepare the TAOC with guidance from the TAOC crew chief.
- (2) Assist SysAdmin personnel in the set-up of tactical information systems.
- (3) Embark the TAOC for transport to/from the field.

Performance Standard. Complete this event with 80% accuracy.

PLTR-401	4.0	B	TAOC	L/S
----------	-----	---	------	-----

Goal. Perform plotter functions in the TAOC.

Requirement. Coordinate with external agencies (as required) to obtain required information needed to maintain situation displays within the TAOC.

- (1) Maintain Air Defense Weapons Condition status boards as required.
- (2) Maintain Weapons Control Status boards as required.
- (3) Maintain Internet Chat capabilities as required.
- (4) Ensure usable Commanders Tactical Terminal information is available.

Performance Standard. Maintain the displays with up-to-date information through timely coordination with external agencies.

Prerequisite. SO-213, and Academics: T-704, T-716, T-717, T-718, T-719, and T-726.

External Syllabus Support. External C3 agencies.

PLTR-402	4.0	B	TAOC	L/S
----------	-----	---	------	-----

Goal. Operate current MAGTF C2 systems.

Requirement. Operate current MAGTF C2 systems, to include:

- (1) Apply power and login.
- (2) Use software applications: map functions, track functions, and overlays.
- (3) Send and receive operator notes
- (4) Ensure timely and accurate update of situational displays.

Performance Standard. Successfully send and receive one operator note.

Prerequisite. Academics T-761 and T-762.

External Syllabus Support. External C³ agencies.

PLTR-403	4.0	B	TAOC	L/S
----------	-----	---	------	-----

Goal. Operate TBMCS.

Requirement. In garrison or in the field, operate TBMCS by conducting the following:

- (1) Apply power and login.
- (2) Receive and parse the ATO.
- (3) Input mission update information.
- (4) Send and receive email messages.

Performance Standard. Conduct each item in this event with 80% accuracy.

External Syllabus Support. External C³ agencies.

PLTR-404	8.0	B, R, E	TAOC	L/S
----------	-----	---------	------	-----

Goal. Certify as a Plotter (PLTR).

Requirement. While operating as a Plotter during an exercise, demonstrate proficiency in all requirements identified in events PLTR 400, PLTR-401, PLTR 402, and PLTR-403.

Performance Standard. Complete all plotter functions in this event with 80% accuracy.

Prerequisite. PLTR-400, PLTR-401, PLTR-402, and PLTR-403.

External Syllabus Support. External C3 agencies.

3. System Configuration Coordinator (SCC) Training

a. Purpose. To develop ACEO skills in system configuration coordination to include equipment readiness, ongoing maintenance, and conduct manual reconfiguration of computer and communications equipment.

b. Administrative Notes

(1) During each event, the ACEO must demonstrate proficiency in system troubleshooting and maintenance of the TAOM, ECU pallet, and other equipment organic to the TAOM, and to function as a key member of the TAOC crew supporting the command section.

(2) At least one live SCC performance event will be conducted with a full TAOC crew.

(3) Evaluation will be done by the Senior Air Director (SAD).

c. Crew Requirements. A core competent TAOC crew will be required for the advanced level evaluated events.

d. Academic Training. Academic training will be conducted prior to and concurrently with required events. An academic training event, once completed, can be credited as a prerequisite for follow-on training events.

e. Live and Simulated Event Training. 4 events, 60.0 hours.

SCC-420	24.0	B	TAOC	L
---------	------	---	------	---

Goal. Setup the TAOM for field operations.

Requirement. Perform the following:

(1) Perform a detailed site survey with qualified SAD.

(a) Determine power requirements and locations of generator pits.

- (b) Determine power requirements and locations of radars.
- (c) Determine power requirements and location of ADCP.
- (2) Pack TAOM in accordance with unit SOP.
- (3) Supervise staging and loading the TAOM/ECU pallets for transport.
- (4) Supervise off-load and placement of the TAOM/ECU pallets.
- (5) Unpack the TAOM/ECU pallets.
- (6) Provide a cabling diagram and ensure proper cabling of multi-TAOM system.
- (7) Ensure proper placement of cables.
- (8) Set up SL-3 UHF antennas.
- (9) Set up SL-3 HF antennas.
- (10) Perform liaison with external voice/data communications personnel.
- (11) Set up TAOM equipment to include external communications and radar.

Performance Standard. Ensure proper setup of a TAOM.

Prerequisite. Academics T-714, T-719, T-764 and T-765.

External Syllabus Support. MHE.

SCC-421	24.0	B	TAOC	L
---------	------	---	------	---

Goal. Perform TAOC SCC communications related functions.

Requirement. Perform the following:

- (1) Set up UHF radio.
- (2) Set up GRC-171 for Havequick operations.
- (3) Set up GRC-171 for Link 11 operations.
- (4) Set up UHF radio equipment for encrypted voice operations.
 - (a) Proper use of CYZ-10.
 - (b) Proper use of CMS callout message.
- (5) Set up UHF radio equipment for encrypted data operations.
 - (a) Proper use of CYZ-10.
 - (b) Proper use of CMS callout message.
- (6) Set up Digital Voice Recorder.
- (7) Set up of satellite communications equipment.
- (8) Coordinate and set up external computer assets.
- (9) C&M panel:
 - (a) Assign a net radio to an OCU.
 - (b) Assign a UHF radio to an OCU.
 - (c) Use the C&M panel to key UHF/HF encryption devices.
 - (d) Check status of voice DDB.
 - (e) List voice DDB faults.
 - (f) Use the C&M panel to change encryption status.
- (10) Ensure proper file management of DB files.
- (11) Ensure operational data base loads properly.
- (12) Ensure radars are entered properly into data base.
- (11) Troubleshoot and fault isolate the components of the seven major equipment groups of the TAOC to the LRI.
- (12) Take appropriate actions on all operator alerts.

- (13) Ensure continuity of operations by reconfiguring the system around faulted units.
- (14) Echelon a TAOM in and out of a multi-TAOM system.
- (15) Maintain all SCC/crew maintenance logs:
 - (a) Follow up on all maintenance requests.
 - (b) Coordinate preventive maintenance requirements between MTDS and Operations.

Performance Standard. Complete each item in this event with 80% accuracy.

Prerequisite. Academics: T-700, T-701, T-714, T-715, T-719, T-720, T-766 and T-767.

SCC-422	4.0	B	TAOC	L
---------	-----	---	------	---

Goal. Perform SCC brief.

Requirement. While performing as a SCC during an exercise, demonstrate proficiency in the following:

- (1) Brief the system configuration portion of the TAOC crew brief per TAOC PCL.
- (2) Perform requirements identified in SCC-420.
- (3) Brief all requirements identified in Pocket Check List (PCL) to the TAOC crew.

Performance Standard. Complete all SCC functions with 100% accuracy.

Prerequisite. SCC-420 and SCC-421.

SCC-423	8.0	B, R, E	TAOC	L
---------	-----	---------	------	---

Goal. Certify as a SCC.

Requirement. While performing as an SCC during an exercise, demonstrate proficiency in the following:

- (1) Troubleshoot multi-TAOM system per the SAD's requirements during a live exercise.

Performance Standard. Complete this event.

Prerequisite. SCC-420, SCC-421, and SCC-422.

External Syllabus Support. External C3 agencies.

4. Assistant Weapons Controller (AWC) Training

a. Purpose. To develop ACEO skills to assist the weapons controller and or the Missile Controller. Training includes:

- (1) Enter data on and monitor aircraft tracks,
- (2) Monitor radio nets,
- (3) Maintain aircraft missile control logs,

07 Feb 2008

- (4) Operate TDL-C datalinks, and
- (5) Provide the AIC/MC information on hostile aircraft.

b. Administrative Notes

(1) Once qualified as an AWC, the Marine must remain proficient on TAOC systems.

(2) For evaluation purposes, an event will consist of a brief, execution and debrief to be evaluated by the WTI, Senior Weapons Director or the Senior Air Director (SAD).

(3) A comprehensive brief and debrief will be conducted for each mission per squadron SOPs (based on TOPGUN and F/A-18 TACMAN guidelines).

(4) The AWC will become proficient in assisting the AIC/MC during live and simulated integrated air defense exercises with multiple fighters/GBAD units in a dynamic threat environment.

c. Prerequisite. Be qualified as a Surveillance Operator (SO).

d. Crew Requirements. A core competent TAOC crew will be required for exercise events.

e. Academic Training. Academic training will be conducted prior to and concurrently with required events. An academic training event, once completed, can be credited as a prerequisite for follow on training events.

f. Live and Simulated Event Training. 5 events, 16.0 hours.

AWC-424	2.0	B	TAOC	L/S
---------	-----	---	------	-----

Goal. Assist the AIC during a fighter intercept mission.

Requirement. While assisting the AIC during a section Fighter Intercept mission against a dynamic threat, demonstrate proficiency in the following:

- (1) Enter all DB items required for the mission.
- (2) Manage symbols to include assignments, join-ups, and Link-4A/Link-16 functions as briefed.
- (3) Update all aircraft information in the HDRO.
- (4) Provide the AIC with threat information to include:
 - (a) Number of groups.
 - (b) Target altitude.
 - (c) Target heading.
 - (d) Formation and tactics.
 - (e) Target aspect (hot, cold, capping, etc.).
- (6) Update threat ranking as directed.
- (7) Advise the AIC of any items affecting flight safety, i.e. factor traffic/airspace boundaries.
- (8) Assist the AIC to successfully complete squadron SOP checklist for an aircraft emergency:
 - (a) Determine the nature of the emergency.
 - (b) Determine the last known speed and heading.

- (c) Identify and triangulate position of the aircraft with the emergency.
- (d) Establish emergency fix as appropriate.

(9) Perform applicable switch functions.

Performance Standard. Complete each item in this event with 80% accuracy.

Prerequisite. SO 213, and Academics: T-742, T-744, T-746, T-748, T-750, T-752, T-754, T-755, T-756, T-759, and T-766.

AWC-425	2.0	B, R	TAOC	S/L
---------	-----	------	------	-----

Goal. Assist the MC during a GBAD engagement mission.

Requirement. While assisting the AIC during a division Fighter Intercept (FI) mission against a dynamic threat, demonstrate proficiency in all requirements identified in AWC-424.

Performance Standard. Complete each item in this event with 80% accuracy.

Prerequisite. AWC-424.

AWC-426	4.0	B	TAOC	L
---------	-----	---	------	---

Goal. Assist the AIC during a "2 v X" unknown fighter intercept mission.

Requirement. While assisting the AIC during a "2 v X" mission against a dynamic threat, demonstrate proficiency in the following:

- (1) Enter all DB items required for the mission.
- (2) Manage symbols to include assignments, join-ups, and Link-4A/Link 16 functions as briefed.
- (3) Update all aircraft information in the HDRO display.
- (4) Provide the AIC with threat information to include:
 - (a) Number of groups.
 - (b) Target altitude.
 - (c) Target heading.
 - (d) Formation and tactics.
 - (e) Target aspect (hot, cold, capping, etc.).
- (5) Update threat ranking as directed.
- (6) Advise the AIC of any items affecting flight safety, i.e. factor traffic/airspace boundaries.
- (7) Perform all applicable switch functions.
- (8) Assist the AIC to successfully complete the squadron SOP emergency checklist.

Performance Standard. Complete each item in this event with 80% accuracy.

Prerequisite. AWC-425.

External Syllabus Support. Fighter and aggressor aircraft.

AWC-427	4.0	B	TAOC	L
---------	-----	---	------	---

Goal. Assist the AIC during a "4 v X" intercept fighter mission.

Requirement. While assisting the AIC during a "4 v X" mission against a dynamic threat, demonstrate proficiency in all requirements identified in AWC-426.

Performance Standard. Complete this event with 80% accuracy.

Prerequisite. AWC-426.

External Syllabus Support. Fighter and aggressor aircraft.

AWC-428	4.0	B, R, E	TAOC	L
---------	-----	---------	------	---

Goal. Certify as an AWC.

Requirement. While performing as an AWC, demonstrate proficiency in all requirements identified in AWC-424.

Performance Standard. Complete this event with 80% accuracy.

Prerequisite. AWC-424, AWC-425, AWC-426, and AWC-427.

External Syllabus. Fighter and aggressor aircraft.

208. INSTRUCTOR UNDER TRAINING (IUT)

a. Purpose. To develop instructor proficiency and experience for ACEOs to effectively train and monitor operators undergoing ACEO training. Upon completion, the operator will be certified as an Air Control Electronic Operator Instructor (ACEOI) and may be considered by the commanding officer for designation as an ACEOI.

b. Administrative Notes

(1) An ACEO will be considered for instructor training by the WTTP, a WTI or an ACEOI upon completion of all events contained with the three phases of training (academic, performance and evaluation).

(2) Instructor training will only be conducted by a designated ACEOI who is proficient and current in the area(s) being instructed.

(3) Completion of all IUT training events meets the requirements for the ACEO to be designated an ACEOI at the discretion of the commanding officer.

(a) Once the ACEO completes instructor training, a review of the ACEO's individual performance record (IPR) will be conducted by the WTTP and a recommendation for ACEOI designation will be staffed to the commanding officer.

(b) Once designated, a letter designating the ACEO as an ACEOI shall be placed in the IPR along with any waivers, deferments or endorsements; and tracking code of IDESG-630 will be logged.

c. Prerequisite. Prior to beginning instructor training, the ACEO shall be fully trained in those areas in which the ACEO will be providing course(s) of instruction, and shall be recommended by the squadron WTTP. The ACEO shall remain current in those areas the ACEO is instructing.

d. Live and simulated training. 4 events, 14 hours.

IUT-500	2.0	B	TAOC	L
---------	-----	---	------	---

Goal. Introduce principles of instruction.

Requirement. Introduce the following:

- (1) Introduce/discuss instruction techniques.
- (2) Introduce/discuss instructor duties:
 - (a) How to prepare a period of instruction.
 - (b) How to conduct a class.
 - (c) How to evaluate and document student performance.
 - (d) Class management.
- (3) Review training references, to include:
 - (a) Unit Training Management (UTM).
 - (b) Aviation T&R Program Manual.
 - (c) Local/unit SOPs.

Performance Standard. Pass a verbal exam with 80% accuracy.

IUT-501	6.0	B	TAOC	L
---------	-----	---	------	---

Goal. Understand instructor administrative duties

Requirement. This event must cover all instructor duties to include administrative duties, in training requirements, CRM training and readiness record keeping, and evaluation documentation.

- (1) Thoroughly understand the contents of the following training manuals/references:
 - (a) Aviation T&R Program Manual.
 - (b) TAOC T&R Manual.
 - (c) Local/unit SOPs.
- (2) Understand Aviation T&R Program (policy and requirements).
- (3) Record keeping:
 - (a) Review training documentation requirements.
 - (b) Properly record/log incomplete/completed events.
 - (c) Properly file required documentation in the individual performance record (IPR).
- (4) Fully understand all system components and their functions.

Performance Standard. Pass a verbal exam with 80% accuracy.

IUT-502	2.0	B	TAOC	L
---------	-----	---	------	---

Goal. Conduct a period of instruction on a TAOC "T" code event.

Requirement. Using an operational TAOC system with radars, aircraft and classroom facilities, demonstrate the ability to:

- (1) Conduct a TAOC "T-code" formal period of instruction. *The "T-code" must lie in the area of expertise of the instructor under training.*
- (2) Evaluate students' performance.
- (3) Correct student deficiencies in a timely manner.
- (4) Properly debrief students on their performance and provide corrective action.
- (5) Complete an IPR for the each student trained.

Performance Standard. During the period of instruction demonstrate the ability to instruct, evaluate and debrief students.

Prerequisite. IUT-500.

IUT-503	4.0	B	TAOC	L/S
---------	-----	---	------	-----

Goal. Assess training performance and develop a training plan.

Requirement

- (1) Review student training history.
- (2) Develop and document a training plan.
- (3) Conduct a monthly Student Training Review.
- (4) Ensure continuous, objective assessment of the student's progress during training.
- (5) Provide recommendations on student readiness for qualification or designation.
- (6) Identify areas requiring improved performance.
- (7) Provide information during the training review process, as requested.
- (8) Make decisions on skill enhancement training after receiving input from other instructors and the student.

Performance Standard. Complete this event with 80% accuracy.

Prerequisite. IUT-500 and IUT-501.

209. QUALIFICATIONS AND DESIGNATIONS

1. General

a. This phase contains tracking codes designed to facilitate training management. This level also provides community standardization for combat leadership designation. CRP is not awarded for 600 level events.

b. Tracking codes will be logged upon being qualified/designated in writing by the commanding officer; upon filing the letter in the ACEO's IPR,

and once all administrative actions are completed. The squadron's WTI shall review the IPR and staff the recommendation to the commanding officer.

2. ACEO Qualifications

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

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 ACEO's IPR, and an entry logged. Requirements for maintaining qualifications are detailed in the Aviation T&R Program Manual.

c. Qualifications

Tactical Air Traffic Controller (TATC)
Surveillance Operator (SO)
Data Link Coordinator (DLC)
Assistant Weapons Controller (AWC)

QUAL-602

Goal. Tracking code for TATC qualification.

Requirement. Satisfactory completion of TATC qualification syllabus, signed qualification letter by the commanding officer, appropriate entry made in TMS and the letter filed in the IPR. Shall be qualified by a SAD, STD or enlisted WTI.

Prerequisite. TATC-302.

QUAL-613

Goal. Tracking code for SO qualification.

Requirement. Satisfactory completion of SO qualification syllabus, signed qualification letter by the commanding officer, appropriate entry made in TMS and the letter filed in the IPR. Shall be evaluated by a SC, SID, SAD, or enlisted WTI.

Prerequisite. SO-213.

QUAL-626

Goal. Tracking code for qualification as a DLC.

Requirement. Satisfactory completion of DLC qualification syllabus, signed qualification letter by the commanding officer, appropriate entry made in TMS and a letter filed in the IPR. Shall be evaluated by a SC, SID, SAD or an enlisted WTI

Prerequisite. DLC-226.

QUAL-628

Goal. Tracking code for AWC qualification.

Requirement. Satisfactory completion of AWC qualification

07 Feb 2008

syllabus signed qualification letter by the commanding officer, appropriate entry made in TMS and a letter filed in the IPR. Shall be evaluated by a SWD, SAD or an enlisted WTI.

Prerequisite. AWC-428.

3. ACEO Designations

a. Purpose. To track the designation of combat leaders, control positions and instructors.

b. General. This section enables units to document and track combat leaders, "position" designations, and instructor designations (IDESG). All syllabus training requirements for a specific designation must be complete prior to being designated. Training management personnel shall log final designation codes once designated by the commanding officer.

c. Crew Requirements. Per the applicable designation syllabus.

d. Academic Training. Per the applicable designation syllabus.

e. ACEO Designations

Plotter (PLTR)

System Configuration Coordinator (SCC)

Air Control Electronic Operator (ACEOI)

DESG-604

Goal. Tracking code for PLTR designation.

Requirement. Satisfactory completion of PLTR designation syllabus, designated by the commanding officer, appropriate entry made in TMS and the letter filed in the IPR. Shall be evaluated by CC, SAD, or enlisted WTI.

Prerequisite. PLTR-404.

DESG-623

Goal. Tracking code for SCC designation.

Requirement. Satisfactory completion of CC designation syllabus, designated by the commanding officer, appropriate entry made in TMS and the letter filed in the IPR. Shall be evaluated by a SAD.

Prerequisite. SCC-423.

DESG-630

Goal. Tracking code for ACEOI instructor designation.

Requirement. Complete the ACEOI syllabus and be recommended by a WTP. Must be proficient in area in which instructing.

Prerequisite. IUT-500, IUT-501, IUT-502, and IUT-503.

210. SYLLABUS SUMMARY MATRIX

MOS 7234: AIR CONTROL ELECTRONIC OPERATOR (ACEO)									
100 LEVEL: CORE SKILL INTRODUCTION									
STAGE	TRNG CODE	HRS	REFLY INTERVAL (Months)	DEVICE	PREREQ	POI	EVAL	CRP	CHAINING
FAM	100	8.0	*	L		B		6.0	
FAM	101	8.0	*	L		B		6.0	
FAM	102	16.0	*	L		B		15.0	
FAM	103	8.0	*	S		B		6.0	
FAM	104	16.0	*	L		B		15.0	
FAM	105	8.0	*	S		B		6.0	
FAM	106	8.0	*	L		B		6.0	
Total Hrs		72.0						60.0	CRP

07 Feb 2008

212. EVENT CONVERSION MATRIX. The event conversion matrix lists all events in this ACEO POI as they correspond to the previous ACEO POI that this chapter replaced.

STAGE	TRNG CODE	HRS	REFLY INTERVAL (Months)	DEVICE	PREREQ	POI	EVAL	CRP	CHAINING
SYS	200	8.0	*	L		B		1.0	
SYS	201	8.0	*	L		B		1.0	
SYS	202	8.0	*	L		B		1.0	
SYS	203	8.0	*	L		B		1.0	
SYS	204	8.0	*	L	719	B		1.0	
SO	210	2.0	*	L/S	200,201,202,203,704,716,717,718,726	B		0.5	
SO	211	4.0	*	L/S	701,714,726			0.5	
SO	212	4.0	*	L/S	211,705,722			1.0	211
SO	213	8.0	18	L	210,211,212	B,R	E	1.0	210, 211, 212
DLC	220	8.0	*	L/S	702,707,710,712,719,720,765	B		1.0	
DLC	221	8.0	*	L/S	705,709,721,722	B		1.0	
DLC	222	8.0	*	L/S	221,706,708,711,717	B		1.0	221
DLC	223	2.0	*	L	700,703,767	B		1.0	
DLC	224	8.0	*	L	707	B		1.0	
DLC	225	8.0	18	L/S	220,221,222,223,224	B,R	E	1.0	220, 221, 222, 223, 224
DLC	226	8.0	18	L	225	B,R	E	1.0	225
Total Hours		108.0						15.0	CRP

STAGE	TRNG CODE	HRS	REFLY INTERVAL (Months)	DEVICE	PREREQ	POI	EVAL	CRP	CHAINING
TATC	300	8.0	18	S	213,725,726,728,730,731,734,735,736,737,738,739,740,741,751,761,766	B,R		6.0	213
TATC	301	8.0	*	L	300			6.0	300
TATC	302	8.0	18	L	300,301	B,R	E	8.0	300, 301
Total Hours		24.0						20	CRP

STAGE	TRNG CODE	HRS	REFLY INTERVAL (Months)	DEVICE	PREREQ	POI	EVAL	CRP	CHAINING
PLTR	400	2.0	*	L		B		0.25	
PLTR	401	4.0	*	L/S	213,704,716,717,718,719,726	B		0.25	213
PLTR	402	4.0	*	L/S	761,762	B		0.25	
PLTR	403	4.0	*	L/S		B		0.25	
PLTR	404	8.0	18	L/S	400,401,402,403	B,R	E	0.25	400,401,402,403
SCC	420	24.0	*	L	714,719,764,765	B		0.75	
SCC	421	24.0	*	L	700,701,714,715,719,720,766,767	B		0.75	
SCC	422	4.0	*	L	420,421	B		0.50	420, 421
SCC	423	8.0	18	L	420,421,422	B,R	E	0.75	422
AWC	424	2.0	*	L/S	213,742,744,746,748,750,752,754,755,756,759,766	B		0.20	213
AWC	425	2.0	18	S/L	424	B,R		0.20	424
AWC	426	4.0	*	L	425	B		0.20	425
AWC	427	4.0	*	L	426	B		0.20	426
AWC	428	4.0	18	L	424,425,426,427	B,R	E	0.20	427
Total Hours		98.0						5.0	CRP

STAGE	TRNG CODE	HRS	PROF INTERVAL	DEVICE	PREREQ	POI	EVAL	CRP	CHAINING
IUT	500	2.0	*	L		B			
IUT	501	6.0	*	L		B			
IUT	502	2.0	*	L	500	B			500
IUT	503	4.0	*	L/S	500,501,502	B			500,501
Total Hours		14.0							

07 Feb 2008

ACEO Event Conversion Matrix			
	Old Event	Current Event	Remarks
Old Core Skill Basic (200 Level) Training			
	SYS-200	SYS-200	No change
	SYS-201	SYS-201	No change
	SYS-202	SYS-202	No change
	SYS-203	SYS-203	No change
	SYS-204	SYS-204	No change
	SO-210	SO-210	No change
	SO-211	SO-211	No change
	SO-212	SO-212	No change
	SO-213	SO-213	Merged old SO-214 with new SO-213
	SO-214		Old SO-214 is combined with SO-213
	AWC-220	AWC-424	Renumbered
	AWC-221	AWC-425	Renumbered
	AWC-222	AWC-426	Renumbered
	AWC-223	AWC-427	Renumbered
	AWC-224	AWC-428	Renumbered
Old Core Skill Advanced (300 Level) Training			
	DLC-300	DLC-220	Renumbered
	DLC-301	DLC-221	Renumbered
	DLC-302	DLC-222	Renumbered
	DLC-303	DLC-223	Renumbered
	DLC-304	DLC-224	Renumbered
	DLC-305	DLC-225	Renumbered
	DLC-306	DLC-226	Renumbered
	TATC-310	TATC-300	Renumbered
	TATC-311	TATC-301	Renumbered
	TATC-312	TATC-302	Renumbered. Merged old TATC-313 with new TATC-302
	TATC-313		TATC-313 & 312 merged into new TATC-302
Old Core Plus (400 Level) Training			
	SDFO-400	PLTR-400	Code SDFO was replaced with PLTR
	SDFO-401	PLTR-401	Code SDFO was replaced with PLTR
	SDFO-402	PLTR-402	Code SDFO was replaced with PLTR
	SDFO-403	PLTR-403	Code SDFO was replaced with PLTR
	SDFO-404	PLTR-404	Code SDFO was replaced with PLTR
	SDFC-410		Deleted
	SDFC-411		Deleted
	SCC-420	SCC-420	No change
	SCC-421	SCC-421	No change
	SCC-422	SCC-422	No change
	SCC-423	SCC-423	No change
	SID-430		All 7234 SID 430-436 events removed from 7234 T&R
	SID-431		Deleted
	SID-432		Deleted
	SID-433		Deleted
	SID-434		Deleted
	SID-435		Deleted
	SID-436		Deleted

		CMT-410	New Add
		CMT-411	New Add
New Instructor Training (500 Level)			
		IUT-500	New Add
		IUT-501	New Add
		IUT-502	New Add
		IUT-503	New Add
New QUAL and DESG Codes (600 Level)			
		QUAL-602	New Add
		QUAL-613	New Add
		QUAL-626	New Add
		QUAL-628	New Add
		DESG-604	New Add
		DESG-623	New Add
		DESG-630	New Add

CHAPTER 3

TACTICAL AIR DEFENSE CONTROLLER (TADC)
(MOS 7236)

	<u>PARAGRAPH</u>	<u>PAGE</u>
UNIT CORE COMPETENCY.	300	3-2
PROGRAMS OF INSTRUCTION (POI) FOR TADC	301	3-10
ACADEMIC TRAINING.	302	3-11
EVENT PERFORMANCE REQUIREMENTS.	303	3-11
CORE SKILL INTRODUCTION TRAINING	304	3-12
CORE SKILL BASIC TRAINING	305	3-13
CORE SKILL ADVANCED TRAINING	306	3-26
CORE PLUS TRAINING	307	3-31
INSTRUCTOR TRAINING	308	3-43
QUALIFICATIONS AND DESIGNATIONS.	309	3-44
SYLLABUS SUMMARY MATRIX	310	3-49
EVENT CONVERSION MATRIX	311	3-52

FIGURE

3-1 TACTICAL AIR DEFENSE CONTROLLER (TADC) PROGRESSION MODEL	3-10
---	------

CHAPTER 3

TACTICAL AIR DEFENSE CONTROLLER (TADC)
(MOS 7236)

300. UNIT CORE COMPETENCY

1. Overview

a. Marine aviation plays a crucial role in the MAGTFs 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 to quickly and effectively plan for crises and/or contingency operations thereby ensuring the Marine Air Command and Control System (MACCS) remains ready for combat when and where the need arises.

b. This T&R directive represents the collaborative effort of tactical air operations center (TAOC) subject matter experts who designed training standards to maximize the full combat capabilities of TAOC and early warning and control (EW/C) detachments. 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 that ensure crews maintain a common base of training and depth of combat capabilities. Together, the T&R comprises a building block approach to ensure trained crews remain ready, relevant and fully capable of supporting the MAGTF commander.

c. 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 encouraged. 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 the unit while staying within resource constraints.

2. Mission. Provide task organized agencies to perform airspace surveillance, air direction and control, coordination, information exchange and weapons systems integration for the six functions of Marine aviation in support of MAGTF operations and joint/combined operations. This includes to detect, identify and control the intercept of hostile aircraft and missiles and to provide air direction and control to friendly aircraft.

3. TAOC Mission Essential Tasks List (METL)

a. MCT 5.3.2.7.1 Establish/Conduct Tactical Air Operations Center Operations

b. MCT 5.3.5.2 Conduct Air Control

c. MCT 5.3.5.3 Conduct Airspace Management/Surveillance

d. MCT 6.1.1.7 Conduct Anti-air Warfare (AAW) (Air Defense)

4. Table of Organization (T/O). Refer to T/Os 8631, 8632, 8641, 8642, and 8644 managed by Total Force Structure, MCCDC, for current authorized organizational structure and personnel strength for MACS units. As of this publication date, MACS units are authorized:

MACS-1 AND MACS-2 (T/O 8642 and 8644)	
	<u>TAOC</u>
Officers	- 7 (7202) - 10 (7210)
Enlisted	- 29 (7234) - 19 (7236)
	<u>EW/C</u>
Officers	- 2 (7202) - 5 (7210)
Enlisted	- 13 (7234) - 11 (7236)
MACS-4 (T/O 8631 and 8632)	
	<u>TAOC</u>
Officers	- 3 (7202) - 14 (7210)
Enlisted	- 29 (7234) - 17 (7236)
MACS-23 AND MACS-24 (T/O 8632A, 8632B, 8632C)	
	<u>TAOC</u>
Officers	- 3 (7202) - 16 (7210)
Enlisted	- 23 (7234) - 14 (7236)
Note: Maintenance and support personnel assigned to each TAOC and EW/C detachment are not listed.	

5. Unit Core Capability. The TAOC Detachment is provided by the Marine Air Control Squadron (MACS) and is the principal air defense agency that conducts real-time surveillance, positive aircraft control of the assigned airspace and weapons system integration and control within the MACCS. The TAOC normally deploys as part of the MACCS within the MAGTF but, if the mission dictates, may also deploy independently or as part of a combined or joint force. A core capable MACS (MACS1 or MACS-2) is able to simultaneously field one TAOC and one EW/C detachment; the exception is MACS-4 and the reserve squadrons who can field one TAOC detachment or one EW/C.

a. TAOC Detachment Core Capability. A core capable TAOC is task organized to execute the following functions: tactical air traffic control (TATC), combat identification and surveillance, air intercept control, deep air support, missile control, data link coordination, and air battle management. As configured below, a TAOC detachment is capable of sustaining 24-hour operations:

TAOC Detachment

- (2) Senior Watch Officer
- (2) Air Battle Manager
- (2) Deep Air Operation Coordinator
- (2) Senior Air Director
- (2) Crew Chief
- (2) System Configuration Coordinator
- (2) Senior Weapons Director
- (2) Air Intercept Controller
- (2) Missile Controller
- (2) Deep Air Controller
- (2) Senior Traffic Director
- (2) Tactical Air Traffic Controller
- (2) Surveillance Identification Director
- (2) Data Link Coordinator
- (2) Surveillance Operators
- (2) Plotter

Note: Total requirement is driven by mission and duration.

b. EW/C Detachment Core Capability. A core capable EW/C detachment augments a TAOC detachment or deploys independently to provide surveillance and data link operations and limited control of air or ground based weapons systems. As configured below, an EW/C detachment is capable of sustaining 24-hour operations.

EW/C Detachment

- (2) Senior Air Director
- (2) Senior Weapons Director
- (2) Air Intercept Controller
- (2) Surveillance Identification Director
- (2) Surveillance Operator
- (2) Data Link Coordinator
- (2) Systems Configuration Coordinator

Note: Total requirement is driven by mission and duration.

6. METL/Core Skills. Core skills shall be a determining factor in developing T&R requirements; core skill abbreviations are listed in the first table below. Core skills directly support METs for each unit as noted in the second table below. Special skills and training requirements must receive

appropriate prioritization and emphasis based on the training need and the likelihood of those types of missions being assigned during operations.

CORE SKILL ABBREVIATIONS	
CORE SKILL	ABBREVIATION
Air Control	AC
Air Intercept Control	AIC
Battle Management	BMT
Crew Management	CMT
Data Link Coordination	DLC
Surveillance, Identification, & Detection	SID
Systems Configuration	SC
Weapons Employment	WE

MCTL AND CORE SKILLS MATRIX									
MARINE CORPS TASK LIST (MCTL)		CORE SKILLS							
MCT NUM	MCT	A C	A I C	B M T	C M T	D L C	S I D	S C	W E
5.3.2.7.1	Establish / Conduct Tactical Air Operations Center (TAOC) Operations	X	X	X	X	X	X	X	X
5.3.5.2	Conduct Air Control	X	X						X
5.3.5.3	Conduct Airspace Management / Surveillance	X		X			X		
6.1.1.7	Conduct Anti-air Warfare (AAW) (Air Defense)	X	X				X		X

MCTL AND CORE PLUS MATRIX									
MARINE CORPS TASK LIST (MCTL)		CORE PLUS SKILLS							
MCT NUM	MCT	A C	A I C	B M T	C M T	D L C	S I D	S C	W E
5.3.2.7.1	Establish / Conduct Tactical Air Operations Center (TAOC) Operations	X	X	X	X		X		X
5.3.5.2	Conduct Air Control	X	X						X
5.3.5.3	Conduct Airspace Management / Surveillance	X		X			X		
6.1.1.7	Conduct Anti-air Warfare (AAW) (Air Defense)	X	X	X			X		X

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

a. Minimum Unit Core Skill Proficiency (CSP) Requirements. As a minimum, in order to be considered core competent, a unit must possess the following numbers of personnel who are proficient in each core skill (unit CSP).

TAOC Detachment			
CORE SKILL	7210/7202	7236	7234
AC		2	2
AIC		2	
BMT	2 / 0	2	
CMT	2 / 0	2	
DLC			2
SID	2		2
SC			4
WE		6	
CORE PLUS			
BMT	2 / 2		

Denotes one minimum manned TAOC detachment for sustained operations. Total requirement driven by mission and duration.

EW/C Detachment			
CORE SKILL	7210/7202	7236	7234
AC			
AIC		2	
CMT	2 / 0		
DLC			2
SID	2 / 0		
SC			2
WE		2	

Denotes one minimum manned EW/C detachment for sustained operations. Total requirement driven by mission and duration.

(1) Events Required to Attain Individual Core Skill Competency. To initially attain competency in a core skill, an individual must successfully complete all of the T&R events listed in the chart below for the core skill.

ATTAIN INDIVIDUAL CORE SKILL										
Tactical Air Defense Controller (MOS 7236)	AIC			AC		SID			WE	
	210R	211R	212R	310	311R	230	231	232	200	201
	213R	214	215	312	313	233	234	235	202R	300R
	216	217R	218	314	315	236	237	238	301R	
	219R	220R		316R		239	240R			

(2) Events Required to Maintain Individual Core Skill Competency. To maintain competency in a core skill, an individual must maintain proficiency in all of the core skill events listed in the chart below.

MAINTAIN INDIVIDUAL CORE SKILL						
Tactical Air Defense Controller (MOS 7236)	AIC			AC	SID	WE
	210R	211R	212R	311R, 316R	240R	202R
	213R	217R	219R			300R
	220R					301R

(3) Events Required to Attain Individual Proficiency in Core Plus Skills. Proficiency in core plus skills is not required to obtain unit CSP. Training to core plus skills is at the discretion of the unit commanding officer. To initially attain proficiency in a core plus skill, an individual must simultaneously have a 'proficient' status in all of the T&R events listed below for that core plus skill:

ATTAIN INDIVIDUAL CORE PLUS SKILL										
Tactical Air Defense Controller (MOS 7236)	AIC		AC		CMT			BMT	SID	
	460	461	420	421	450	451R	452R	400R	410	411
	462		460	461	453R	454	455	401R	412	413
			462		456	457			414	415
								416R	417R	

(4) Events Required to Maintain Individual Proficiency in Core Plus Skills. To maintain proficiency in a core plus skill, an individual must maintain proficiency in all of the T&R events displayed below for that core plus skill:

MAINTAIN INDIVIDUAL CORE PLUS SKILL							
Tactical Air Defense Controller (MOS 7236)	CMT			BMT			SID
		451R	452R	453R	400R	401R	402R

b. Combat Leadership Requirements. As a minimum, in order to be considered core competent, a MACS must possess personnel with the listed combat leadership designations as noted below.

LEADERSHIP DESIGNATION	TAOC DETACHMENT	EW/C DETACHMENT
Air Battle Manager (ABM)	2	0
Deep Air Operations Coordinator (DAOC)	2	0
Senior Air Director (SAD)	2	2
Crew Chief (CC)	2	2
Senior Weapons Director (SWD)	2	2
Senior Traffic Director (STD)	2	0
Surveillance Identification Director (SID)	2	2
- Denotes combat leaders required to simultaneously support one TAOC detachment and one EW/C detachment for sustained operations. - Each MACS will have two 7202's designated as a SWO.		

8. Qualifications and Designations. The tables below delineate T&R events required to be completed to attain initial qualifications and designations. All required academics (appendix A) and prerequisites shall be completed prior to completing final events. Qualification and designation letters signed by the commanding officer or his representative shall be placed in the individual performance record (IPR).

a. Qualification. A qualification is a status assigned based on demonstrated proficiency in a specific skill. Qualifications have a currency requirement and have designated re-fly event(s). Specific criteria to achieve qualifications are delineated in qualification table below, the MAWTS-1 course catalog and governing directives. The evaluation form at appendix B shall be used to document all event evaluations. Upon completion of qualification criteria, commanding officers shall issue a qualification letter for inclusion into individual performance records (IPR). Qualifications are not lost when refreshing events. Loss of proficiency and/or time expiration (delinquent refresh events) for all associated qualification events constitutes loss of the qualification. Re-qualification requires demonstrated proficiency by successfully completing all R-coded events associated with the qualification (unless waived per the Aviation T&R Program Manual).

TADC QUALIFICATIONS	TRACKING CODE	REQUIREMENT
Senior Weapons Director (SWD)	QUAL-601	301R
Missile Controller (MC)	QUAL-603	202R
Deep Air Controller (DAC)	QUAL-616	316R
Air Intercept Controller (AIC)	QUAL-620	220R

b. Designation

(1) A designation is a status assigned by the commanding officer to an individual based on leadership ability. It is command specific and remains in effect until removed for cause or when individual is transferred to another command. Commanders are encouraged to consider the individual designation requirements noted below prior to designating an individual. Once an individual is designated, commanders shall issue a designation letter for inclusion into the individual performance record (IPR). Follow-on commands shall repeat the "initial documentation procedure."

(2) Unit instructors are designated by the commanding officer. As a minimum, a unit should maintain Weapons and Tactics Instructor (WTI) - Air Control designations to support TAOC and EW/C training and operations. TADCs receive MOS 7277 upon completion of WTI course. Course completion certificates shall be placed in the individual performance record. Instructor designations are outlined in the MAWTS-1 Course Catalog, MCO 3500.109 (WTTP).

TADC DESIGNATIONS	TRACKING CODE	REQUIREMENT
Senior Weapons Director (SWD)	DESG-602	300R, 301R
Senior Traffic Director (STD)	DESG-610	401R
Crew Chief (CC)	DESG-657	457
Deep Air Operations Coordinator (DAOC)	DESG-633	Be DAC qualified and a WTI graduate.
Deep Air Controller (DAC)	DESG-617	316R
Surveillance Coordinator (SC)	DESG-640	240R
Air Intercept Control Supervisor (AICS)	DESG-662	460, 461, 462
Surveillance Identification Director (SID)	DESG-611	417R
Weapons Controller (WC)	DESG-612	Be MC and AIC qualified
Joint Interface Control Officer Course	DESG-631	JICO course graduate
Weapons and Tactics Instructor (WTI)	DESG-630	301R, WTI graduate
Air Intercept Control Instructor - AICI(w/SFTI)	DESG-605	SFTI graduate
Air Intercept Control Instructor - AICI(w/MDTI)	DESG-606	MDTI graduate

9. Tactical Air Defense Controller (TADC) PROGRESSION MODEL

a. A progression model depicts the logical training progression for TADCs. The base of each model contains those events an individual must complete in order to attain qualifications/designations as a TADC. The highest phase of the progression model contains core training held by only the most experienced personnel within a unit. The training progression model for a TADC is depicted in figure 3-1.

b. This training progression model provides training officers with a valuable tool to develop training plans. With a clear training progression delineated and an emphasis on the obtaining core skills at the basic and advanced levels of training, training officers have the ability to produce viable training plans. Units will use the model as a point of departure to generate weekly, monthly, quarterly and annual training plans.

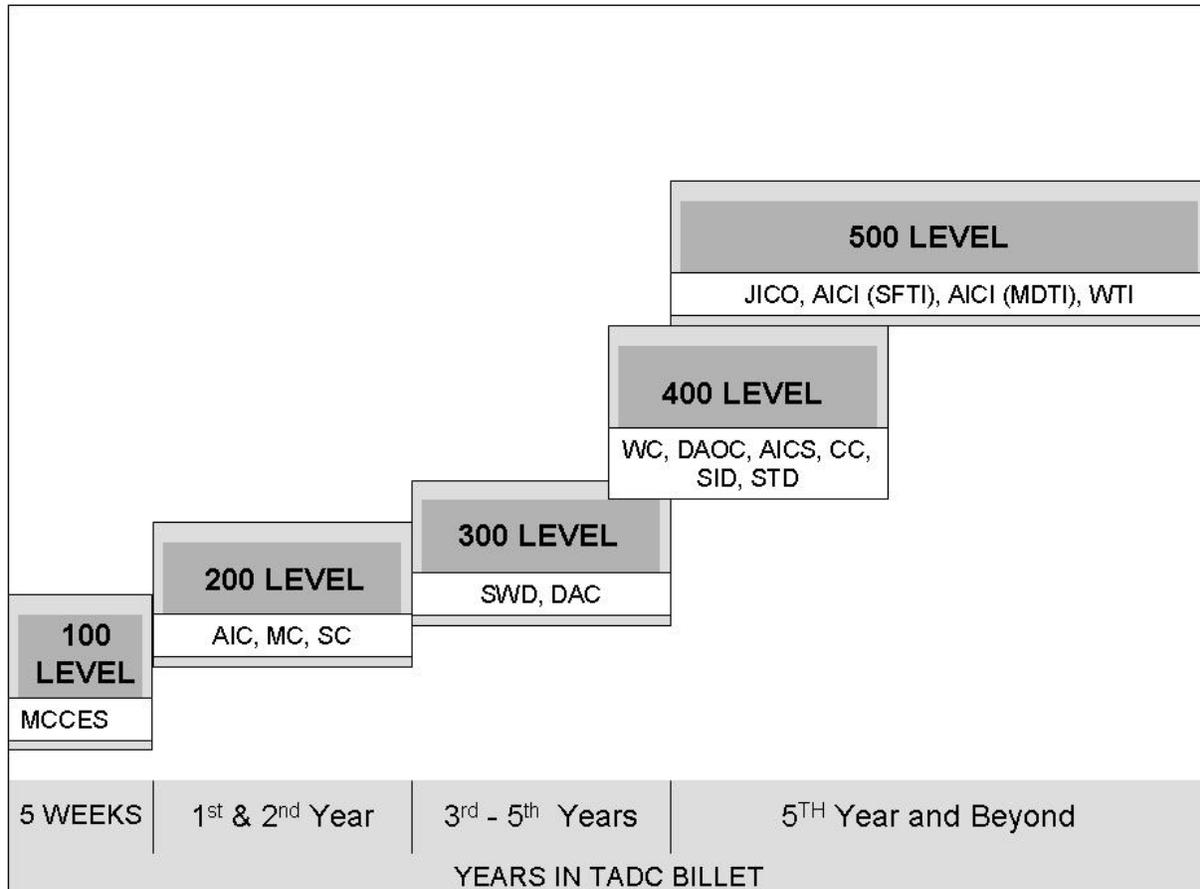


Figure 2-1. Tactical Air Defense Controller Training Progression Model.

301. PROGRAMS OF INSTRUCTION (POI) FOR TADC

1. Basic TADC POI

<u>Months</u>	<u>Course/Phase</u>	<u>Activity</u>
0 - 1.5	Tactical Air Defense Controller Course (TADCC)	MCCES
1.5 - 24	Core Skill Basic	MACS
24 - 60	Core Skill Advanced	MACS
60 - 120	Core Plus	MACS

2. Refresher TADC POI

<u>Months</u>	<u>Course/Phase</u>	<u>Activity</u>
2	Core Skill Basic	MACS
1	Core Skill Advanced	MACS
2	Core Plus	MACS

3. WTI-Air Control

<u>Weeks</u>	<u>Course/Phase</u>	<u>Activity</u>
7	WTI-Air Control	MAWTS-1

302. ACADEMIC/GROUND TRAINING

1. Academic training shall be conducted for each phase/stage of the syllabus. Commanders shall incorporate the lectures in appendix A into the unit training plans. Where indicated, standardized academic training materials exist and may be obtained from the sponsoring activity.
2. External academic courses of instruction available to complete the syllabus are listed below:

<u>COURSE</u>	<u>ACTIVITY</u>
Weapons and Tactics Instructors (WTI) Course	MAWTS-1
Marine Division Tactics Course (MTDC)	MAWTS-1
Multi-TDL Advanced Joint Interoperability Course (MAJIC)	JMTS, Ft McPherson
Joint Tactical Information Distribution System (JTIDS) Course	JMTS
Link 16 Planner Course	JMTS
Joint Interface Control Officer (JICO) Course	JMTS
Joint Air Tasking Order Process (JATOP) Course	505th Trng Sqdn Hurlburt Field
Air Operations Center Initial Qual Training (AOC IQT: Defense/Offense)	
505th Trng Sqdn	
Strike Fighter Tactics Instructor Course (SFTI: TOP GUN)	NSAWC, NAS Fallon

303. EVENT PERFORMANCE REQUIREMENTS

1. The purpose of this section is to provide the commander with standardized training program for all MATC personnel. The overall goal is to develop unit warfighting capabilities and not to measure the proficiency of individuals. Syllabi are based on specific performance standards designed to ensure proficiency in core competencies. An effective T&R program is the first step in providing the MAGTF commander with an Aviation Combat Element (ACE) capable of accomplishing any and all of its stated missions. The T&R program provides the fundamental tools for commanders to build and maintain unit combat readiness. Using these tools, training managers can construct and execute an effective training plan that supports the unit's METs.
2. Unit training management is the application of the Marine Corps Training Principles and the Systems Approach to Training to satisfy the training requirements of commanders at all levels in order to accomplish their wartime mission. Guidance concerning unit training management and the process for establishing effective unit training management programs are contained in MCRP 3-0A, Unit Training Management Guide, and form the basis for the development of this T&R Directive. Familiarity with MCRP 3-0A will enhance understanding of the Systems Approach to Training used in T&R development and Marine Corps UTM principles.
3. MACCS Integrated System Training. All elements of the MACCS shall maintain the capability to effectively function as part of an integrated airspace command and control system. In that, large exercises may not always

offer sufficient training opportunity for all crew members and in many cases do not offer sufficient latitude to refine capability upon arrival, the MACCS should conduct MACCS Integrated System Training Exercises (MISTEX) on a regular basis to qualify units and personnel per their respective T&R syllabus. MISTEXs should focus on the establishment of necessary communications and data links between MACCS agencies, and incorporate sufficient simulation and Marine Simulation Events List (MSEL) items to exercise and analyze system integration, crew coordination, and critical information flow wherever possible. Tactical Digital Information Link (TDL) capable agencies should conduct frequent "Link" training exercises to maintain proficiency.

4. The TADC POI requires in-depth integration within the MACCS. Likewise, development of MAGTF training involving extensive integration with applicable elements of the MAGTF is mandatory in the development of a core skill. Training not conducted in a live training environment shall be replaced with simulation where applicable and as indicated in the condition code for each event.

5. The matrix below lists all stages in the TADC POI and the core skill that each stage supports.

CORE SKILL	STAGE(S) SUPPORTING THE CORE SKILL
Air Control (AC)	Deep Air Controller (DAC)
Air Intercept Control	Air Intercept Controller (AIC)
Battle Management (BMT)	Senior Traffic Director (STD)
Crew Management (CMT)	Crew Chief (CC)
Surveillance, Identification & Detection (SID)	Surveillance Coordinator (SC) Surveillance Identification Director (SID)
Weapons Employment (WE)	Senior Weapons Director (SWD) Missile Controller (MC) Direct Air Operations Coordinator (DAOC)

304. CORE SKILL INTRODUCTION TRAINING

1. General

a. This phase provides classroom entry-level instruction to develop the basic skills necessary for a student to meet the requirements to be assigned MOS 7236, Tactical Air Defense Controller (TADC). This training is complete upon graduation from the Tactical Air Defense Controller Course (TADCC), MCCES, located in 29 Palms, CA.

b. Prerequisites. Grade of Sergeant, Surveillance Operator and Tactical Air Traffic Controller qualified, AWC academics complete, normal color vision, and a secret clearance.

c. Academic Training. Tactical Air Defense Controller Course (TADCC), MCCES, located in 29 Palms, CA.

d. Core Skill Introduction Stage. Tactical Air Defense Controller (TADC).

e. Classroom and Simulator Event Training. 5 events, 168 hours.

2. Tactical Air Defense Control (TADC)

TADC-100	18	B	TAOC	L
----------	----	---	------	---

Goal. Build a simulated exercise.

Requirement. Demonstrate proficiency in the following:

Performance Standards. Pass a practical application exam with a minimum score of 80%.

TADC-101	51	B	TAOC	S
----------	----	---	------	---

Goal. Perform as an Air Intercept Controller.

Requirement. Demonstrate proficiency in the following:

Performance Standards. Pass a written and practical application exam with a minimum score of 80%.

TADC-102	33	B	TAOC	S
----------	----	---	------	---

Goal. Perform as a Missile Controller.

Requirement. Demonstrate proficiency in the following:

Performance Standards. Pass a written and practical application exam with a minimum score of 80%.

TADC-103	33	B	TAOC	S
----------	----	---	------	---

Goal. Perform as a Senior Weapons Director.

Requirement. Demonstrate proficiency in the following:

Performance Standards. Pass a written and practical application exam with a minimum score of 80%.

TADC-104	33	B	TAOC	L
----------	----	---	------	---

Goal. Perform tactical planning for the weapons section.

Requirement. Demonstrate proficiency in the following:

Performance Standards. Pass a written and practical application exam with a minimum score of 80%.

305. CORE SKILL BASIC TRAINING

1. General

a. This phase applies skills and information obtained in the Core Skill Introduction phase (100-level) while assigned to a Marine Air Command and

Control Squadron (MACS), under the direct supervision of qualified personnel in an On the Job Training (OJT) environment. This phase moves a TADC from an introductory level understanding of core skills to proficiency in basic core skills. Initial individual core skills are learned and mastered using a mix of live aircraft and simulation. Training includes tactical air operations and equipment training, and the MACCS. This phase is normally completed during the first two years of assignment to an operational unit when the controller achieves Air Intercept Controller and Missile Controller qualifications and Surveillance Coordinator designation.

b. Administrative Notes

(1) The 200 and 300 levels of training cannot run concurrently in accordance with the TADC Progression Model with the exception of SWD.

(2) Training in this phase does not preclude simultaneous training in the Core Plus phase.

(3) The TADC must complete all Core Skills Basic academics within the first year of assignment to a Marine Air Control Squadron (MACS).

(4) The TADC must be designated a Weapons Controller and Surveillance Coordinator by the end of year two after assignment to a MACS. A TADC is eligible for designation as a Weapons Controller upon obtaining AIC and MC qualifications.

c. Prerequisite. Core Skill Introduction training events must be completed prior to beginning this phase of training.

d. Core Skill Basic Stages

- (1) Missile Control (MC)
- (2) Air Intercept Control (AIC)
- (3) Surveillance Coordinator (SC)

4. Missile Control (MC) Training

a. Purpose. To refine TADC skills required to be qualified as a Missile Controller and to provide a means for the TADC to remain current.

b. Administrative Notes

(1) Successful completion of MC and AIC events required for designation as a Weapons Controller.

(2) Core Skill Basic and Core Skill Advanced training can be conducted concurrently. However, the TADC's focus remains on the completion of the Core Skill Basic phase.

(3) For evaluation purposes, a mission will consist of a brief execution and debrief of each event.

c. Refresher Training. Refresher training is required once a MC has been absent from a MC billet for 18 months or longer. Upon return to a TADC billet, the TADC will complete "R" coded events in the 200 level syllabus.

d. Crew Requirements. A core competent TAOC crew.

e. Academic Training. Academic training will be conducted prior to and concurrently with required events. An academic training event, once completed, can be credited as a prerequisite for follow on training events.

f. Live and Simulator Event Training. 3 events, 12.0 hours.

MC-200	4.0	B	TAOC	L/S
--------	-----	---	------	-----

Goal. Perform MC functions without a data link.

Requirement. Without data link, in a medium to high intensity field/garrison environment IADS, coordinate missile control with multiple GBAD units.

- (1) Conduct manual crosstell to the simulated/live FU.
- (2) Conduct manual assignments against air threats.
- (3) Disseminate appropriate Weapons Control Status (WCS), Air Defense Warning Condition (ADWC), and States of Alert (SOA).
- (4) Monitor and post FU status.
- (5) Coordinate TAOC TMD capabilities and limitations and interface with GBAD units.
- (6) Maintain an accurate critical information flow to the GBAD units via assigned nets.
- (7) Ensure effective cross boundary coordination.
- (8) Coordinate with GBAD units to ensure clear, effective communication procedures are established.

Performance Standards. Complete each item in this event with 80% accuracy.

Prerequisites. Academics: T-703, T-724, T-728, T-742, T-748, T-749, T-752, T-753, T-754, T-755, T-756, T-757, T-758, and T-759.

External Syllabus Support. SAM FU if conducted live.

MC-201	4.0	B	TAOC	L/S
--------	-----	---	------	-----

Goal. Perform MC functions with a data link.

Requirement. With a data link, in a medium to high intensity field/garrison environment IADS, coordinate missile control with multiple GBAD units.

- (1) Use data link orders to conduct assignments against multiple air threats.
- (2) Conduct manual assignments against air threats.
- (3) Disseminate appropriate Weapons Control Status (WCS), Air Defense Warning Condition (ADWC), and States of Alert (SOA).
- (4) Monitor and post FU status.
- (5) Coordinate TAOC TMD capabilities and limitations and interface with GBAD units.
- (6) Maintain an accurate critical information flow to the GBAD units via assigned nets.
- (7) Ensure effective cross boundary coordination.
- (8) Coordinate with GBAD units to ensure clear, effective communication procedures are established.

Performance Standards. Complete each item in this event with 80% accuracy.

External Syllabus Support. SAM FU if conducted live.

MC-202	4.0	B, R, E	TAOC	L/S
--------	-----	---------	------	-----

Goal. Certify as an MC.

Requirement. During a live exercise, perform MC functions by demonstrating proficiency in all requirements for GBAD-200 and GBAD-201.

Performance Standards. Complete this event with 80% accuracy.

Prerequisite. MC-200 and MC-201.

External Syllabus Support. SAM FU if conducted live.

5. Air Intercept Control (AIC) Training

a. Purpose. To refine TADC skills required to be qualified as an AIC and to provide a means for the TADC to remain current.

b. Administrative Notes

(1) Successful completion of AIC and MC events required for designation as a Weapons Controller.

(2) Core Skill Basic and Core Skill Advanced training can be conducted concurrently. However, the TADC's focus remains on the completion of the Core Skill Basic phase.

(3) For evaluation purposes, a mission will consist of a brief, execution and debrief of each event.

(4) The AIC will become proficient in controlling simulated and live fighter aircraft employing section and division tactics.

(5) The AIC will become proficient in controlling during live and simulated integrated air defense exercises with multiple fighters.

(6) Briefing and debriefing standards will be per squadron SOP (developed using TOPGUN and F/A-18 TACMAN standards) to include flight safety and emergency procedures prior to executing any event.

(7) Two-way Link 4A and/or Link 16 will be used to the fullest extent possible for each event controlled.

(8) Missions will be executed per ROE established by published AAW directives, operational planning orders/documents, or individual mission briefs.

(9) TACTS facilities should be used when available for debriefing purposes.

(10) All AIC events should be performed in the TAOM during initial qualification.

(11) Run and hour credit will be given for control from non-TAOM facilities.

c. Refresher Training. Refresher training is required once a AIC has been absent from a AIC billet for 18 months or longer. Upon return to a AIC billet, the TADC will complete "R" coded events in the 200 level phase.

d. Crew Requirements. A core competent TAOC crew will be required for the exercise events.

e. Academic Training. Academic training will be conducted prior to and concurrently with required events. An academic training event, once completed, can be credited as a prerequisite for follow-on training events.

f. Live and Simulator Event Training. 11 events, 57.5 hours.

AIC-210	0.5	B, R	TAOC	S/L
---------	-----	------	------	-----

Goal. Take appropriate action during an aircraft emergency.

Requirement. During a simulated emergency (controlled & uncontrolled). Refer to TAOC PCL and Squadron SOP for emergencies for assistance. Complete squadron SOP checklist for aircraft emergency using proper switch actions.

Performance Standards. Complete this event with 100% accuracy.

Prerequisite. Academics T-730.

AIC-211	1.5	B, R	TAOC	S
---------	-----	------	------	---

Goal. Control a simulated section of fighter aircraft against unknown threat groups.

Requirement. Against an unknown threat, demonstrate proficiency in the following:

- (1) Provide threat information using core information/communications format as briefed.
- (2) Provide broadcast control transitioning to tactical control after "the commit" or as briefed.
- (3) Utilize briefed GCI procedures.

Performance Standards. Complete this event with 100% accuracy.

Prerequisite. AIC-210, and academics: T-728, T-740, T-744, T-745, T-746, T-750, T-754, T-755, and T-757.

AIC-212	4.0	B, R	TAOC	S
---------	-----	------	------	---

Goal. Control a simulated section of fighter aircraft against multiple threat groups.

Requirement. Control against a multiple threat; control an intercept against a threat employing each of the following:

- (1) Formations:
 - (a) VIC.
 - (b) Champagne.
 - (c) Ladder.
 - (d) Wall.
 - (e) Box.
 - (f) Stack.
- (2) Conduct tactics per AFTTP 3-1 Vol. 2.

Performance Standards. Complete each item in this event with 100% accuracy.

Prerequisites. AIC-211, and academics T-751.

AIC-213	1.5	B, R	TAOC	S
---------	-----	------	------	---

Goal. Control a simulated division of fighter aircraft.

Requirement. Against an unknown threat, demonstrate proficiency in the following:

- (1) Provide threat information using core information/communications format as briefed.
- (2) Provide broadcast control transitioning to tactical control after "the commit."
- (3) Utilize briefed GCI procedures.

Performance Standards. Complete each item in this event with 100% accuracy.

Prerequisite. AIC-212.

AIC-214	4.0	B E	TAOC	S
---------	-----	-----	------	---

Goal. Perform as an AIC.

Requirement. During a SIMEX, demonstrate proficiency in the following:

- (1) Ensure all AIC DB entries are correct.
- (2) Utilize briefed GCI procedures.
- (3) Ensure effective cross-boundary coordination between engagement zones per SWD direction.
- (4) Disseminate current threat status via WCS, ADWC and SOA to the fighters.

Performance Standards. Complete each item in this event with 80% accuracy.

Prerequisite. T-734, T-741, T-742, T-749, T-752, T-753, T-756, T-758, T-766 and AIC-213.

- (3) Utilize briefed GCI procedures to control CAP aircraft using broadcast/tactical control methods.
- (4) Ensure effective cross-boundary coordination between engagement zones per SWD direction.
- (5) Disseminate current threat status and appropriate WCS, ADWC and SOA to the fighters.
- (6) Perform appropriate switch actions.

Performance Standards. Complete each items in this event with 80% accuracy.

Prerequisite. AIC-219.

3. Surveillance Coordination (SC) Training

a. Purpose. To refine TADC skills required for Surveillance Coordinator designations to provide a means for a designated SC to remain current.

b. Administrative Notes

(1) Perform all functions for SC qualifications.

(2) At least one live and one simulated SID performance event will be conducted during an exercise.

(3) The Core Skill Basic Phase can be conducted concurrent with the Core Skill Plus phase.

(4) If not previously qualified as a DLC in the 7234 MOS curriculum, the TADC is required to perform events SC-230 through SC-235.

c. Refresher Training. Refresher training is required once a TADC has been absent from an SC billet for 18 months or longer. Upon return to a SC billet, the TADC will complete "R" coded events in the 200 level syllabus.

d. Crew Requirements. A core competent TAOC crew will be required for the higher level evaluated events.

e. Academic Training. Academic training will be conducted prior to and concurrently with required events. An academic training event, once completed, can be credited as a prerequisite for follow-on training events.

f. Live and Simulated Event Training. 11 events, 61.5 hours.

SC-230	8.0	B	TAOC	L/S
--------	-----	---	------	-----

Goal. Perform serial data link functions.

Requirement. Perform SC functions with a serial link (LINK 11B, NATO LINK-1, ATDL-1). Demonstrate proficiency in the following:

- (1) Enter required DB entries.
- (2) Activate, determine the status of and troubleshoot each link as applicable.
- (3) Ensure TAOC data link equipment is set up/keyed.
- (4) Ensure required DL filters are entered and activated.
- (5) Perform proper link entry and exit procedures.

- (6) Perform order functions associated with the appropriate link.
- (7) Perform link management functions.

Performance Standards. Complete each item in this event with 80% accuracy.

Prerequisites. Academics: T-702, T-703, T-707, T-710, T-712, T-719, and T-720.

External Syllabus Support. External C3 agencies.

SC-231	8.0	B	TAOC	L/S
--------	-----	---	------	-----

Goal. Perform Link 11 SC functions.

Requirement. Perform SC functions while participating in a live netted data link (Link 11). Demonstrate proficiency in the following:

- (1) Enter required DB entries.
- (2) Activate, determine the status of, and troubleshoot link as applicable.
- (3) Perform proper net entry and exit procedures.
- (4) Ensure data link DB entries are entered and correct.
- (5) Ensure TAOC data link equipment is set up/keyed.
- (6) Ensure required DL filters are entered and activated.
- (7) Operate in the following modes:
 - (a) Radio Silent (RADSIL).
 - (b) Net Control Station (NCS).
 - (c) Picket.
- (8) Perform link management functions per SID direction.
- (9) Perform data link coordination responsibilities over designated voice nets.

Performance Standards. Complete each item in this event with 80% accuracy.

Prerequisites. Academics T-705, T-709, T-721, and T-722.

External Syllabus Support. JTAO data link platform(s).

SC-232	8.0	B	TAOC	L/S
--------	-----	---	------	-----

Goal. Perform Link 16 SC functions.

Requirement. Perform SC functions while participating in a LINK 16 network. Demonstrate proficiency in the following:

- (1) Achieve fine synchronization in LINK 16 Network, determine the status of, and troubleshoot the link as appropriate.
- (2) Ensure data link DB entries are entered and correct.
- (3) Ensure TAOC data link equipment is set up/keyed.
- (4) Ensure required DL filters are entered and activated.
- (5) Operate in the Radio Silent and Data Silent modes.
- (6) Identify Stacked Net # assignments as per OPTASK LINK for voice and air control; ensure they are entered and validated in the DB.

SC-235	8.0	B	TAOC	L/S
--------	-----	---	------	-----

Goal. Perform SC operations in multi TDL environment.

Requirement. While performing as a SC, demonstrate proficiency in the following:

- (1) Brief link critical information during a TAOC crew brief.
- (2) Ensure data link DB entries are entered and correct.
- (3) Ensure TAOC data link equipment is set up/keyed.
- (4) Ensure required DL filters are entered and activated.
- (5) Troubleshoot the link and take corrective action as needed.
- (6) Perform link management functions per SID direction.

Performance Standards. Complete each item in this event with 80% accuracy.

Prerequisites. SC-232, SC-233, and SC-234, academics T-716 and T-718, .

External Syllabus Support. External C3 agencies.

SC-236	2.0	B	E	TAOC	L/S
--------	-----	---	---	------	-----

Goal. Maximize radar performance.

Requirement. Demonstrate proficiency in the following:

- (1) Perform radar alignment as required.
- (2) Perform radar registration.
- (3) Coordinate to optimize performance of selected radars.
- (4) Conduct remote radar operations.

Performance Standards. Complete each item in this event with 100% accuracy.

Prerequisites. Academics: T-701, T-714 and T-715.

SC-237	2.0	B	E	TAOC	L/S
--------	-----	---	---	------	-----

Goal. Conduct fidelity drills.

Requirement. In a live link environment conduct fidelity drills in accordance with JMTOP or JTAO Handbook.

Performance Standards. Complete this event with 100% accuracy.

SC-238	8.0	B	TAOC	L/S
--------	-----	---	------	-----

Goal. Perform as a Surveillance Coordinator.

Requirement. Demonstrate proficiency in the following:

- (1) Supervise surveillance DB entries including EMCON, data links, radar parameters, and ACMs.
- (2) Supervise air surveillance of the assigned sector.

- (3) Supervise implementation of established ID criteria and subsequent classification process.
- (4) Supervise initialization and management of data links.
- (5) Perform functions of the TDC or ICO when directed.
- (6) Manage the EP/EMCON plan for the TAOC and subordinate agencies.
- (7) Implement published manual crosstell procedures.
- (8) Manage the Surveillance Section per SAD direction.
- (9) Compile and forward applicable reports.

Performance Standards. Complete each item in this event with 80% accuracy.

Prerequisites. Academics: T-704, T-726, T-751, T-752, T-760, T-761, T-762 and T-766.

External Syllabus Support. External C3 agencies.

SC-239	4.0	B	TAOC	L/S
--------	-----	---	------	-----

Goal. Perform EW operations using TAOC equipment.

Requirement. Demonstrate proficiency in the following:

- (1) Enter TAOC EMCON plan and missile thresholds in the DB.
- (2) Detect, identify and report any jamming to the SAD.
- (3) Forward appropriate reports.
- (4) Fix the location of threat jammers with proper symbology (strokes/air tracks).
- (5) React to the EMCON alert and implement the TAOC EMCON plan per SAD direction.
- (6) Coordinate with the radar section to optimize radar performance in an EW environment.

Performance Standards. Complete each item in this event with 80% accuracy.

Prerequisite. Academics T-701.

External Syllabus Support. External C3 agencies and EW platforms.

SC-240	8.0	B, R	TAOC	L
--------	-----	------	------	---

Goal. Certify as a Surveillance Controller.

Requirement. During an exercise, demonstrate proficiency in all requirements identified in SC-235 and SC-238.

Performance Standards. Complete this event with 80% accuracy.

306. CORE SKILL ADVANCED TRAINING

1. General

a. This phase contains advanced core skill training that includes completion of SWD and DAC training requirements. When the training requirements are complete the TADC is then eligible for designation. A TADC is designated a SWD or DAC after completing required events in this phase. Personnel trained in the Core Skill Advanced phase are those Marines a commanding officer feels are capable of directing the actions of subordinates during wartime scenarios.

b. Administrative Notes

(1) The TADC must complete either SWD or DAC by the end of year three after assignment to a MACS.

(2) The TADC must be designated as WC prior to being designated as an SWD or DAC.

(3) SWD and DAC training can be trained concurrently.

c. Prerequisite. Complete all 200 level event training prior to commencing training in 300 level events.

d. Core Skill Advanced Stages

(1) Senior Weapons Director (SWD)

(2) Deep Air Controller (DAC)

2. Senior Weapons Director (SWD) Training

a. Purpose. To refine TADC skills required for SWD qualification and to be eligible for designation SWD. Additionally, these events will provide a means for a SWD to remain current.

b. Administrative Notes

(1) Core Skill Advanced training will consist of planning for and execution of Anti-Air Warfare (AAW). This phase of training encompasses SWD specific training events.

(2) For evaluation purposes, a mission will consist of a brief, execution and debrief of each event.

c. Refresher Training. Refresher training is required once a SWD has been absent from a SWD billet for 18 months or longer. Upon return to a MACS assigned to a SWD billet, the TADC will complete "R" coded events in the 300 level syllabus.

d. Crew Requirements. Core competent TAOC crew.

e. Academic Training. TAOC specific academic training is designed to support live/simulated training events and is accomplished as a prerequisite to individual performance events.

f. Live and Simulator Event Training. 2 events, 18.0 hours.

SWD-300 2.0 B, R TAOC L/S

Goal. Conduct tactical planning for a Weapons Section.

Requirement. Perform the following:

- (1) Recommend ACMs to be used within the TAOC AOR.
- (2) Develop a destruction area within the TAOC assigned air defense sector by ensuring the following:
 - (a) Coordination with GBAD assets for employment/emplacement and MEZ construction.
 - (b) Coordination with higher headquarters for CAP employment and FEZ considerations.
- (3) Determine CAP management/control responsibilities and procedures.
- (4) Coordinate with an STD for development of handover procedures and symbol management functions.
- (5) Coordinate with the SADF staff for reporting AAW asset status, strip alert procedures and CAP reconstitution.
- (6) Establish procedures for target assignments.
- (7) Develop alternate/casualty engagement zones based on the threat and friendly AAW systems availability.
- (8) Disseminate TAOC and subordinate agency specific ROE procedures/requirements per published ROE.
- (9) Develop detailed procedures for IADS employment in decentralized and autonomous modes of control.
- (10) Plan for the integration of TAOC TMD capabilities with joint services.
- (11) Conduct a detailed threat analysis.
- (12) Prepare a Weapons Section brief per the TAOC PCL.
- (13) Identify Weapons Section communications requirements and assignments.
- (14) Identify weapons DB items.

Performance Standards. Complete each item in this event with 80% accuracy.

Prerequisite. Academics: T-700, T-702, T-703, T-723, T-724, T-725, T-726, T-728, T-730, T-734, T-736, T-740, T-741, T-742, T-743, T-745, T-746, T-748, T-749, T-751, T-752, T-753, T-754, T-755, T-756, T-757, T-758, T-759, T-760, T-761, T-762, and T-766.

SWD-301 16.0 B, R, E TAOC L

Goal. Certify as SWD during an exercise.

Requirement. During an exercise, demonstrate proficiency in the following:

- (1) Manage employment of multiple GBAD and AAW assets within an IADS per established ROE.
- (2) Conduct a detailed crew brief per TAOC PCL.
- (3) Supervise weapons related DB entries to include WEZs, weapons control boundaries, TAORs and special points.
- (4) Manage the Weapons Section.

- (5) Maintain status of assigned weapons systems and ensure critical information is relayed to appropriate agencies.
- (6) Maintain SA within the Destruction Areas.
- (7) Make recommendations on WCS, ADWC, SOA, and ROE changes.
- (8) Ensure effective cross boundary coordination between engagement zones.
- (9) Request Strip Launch Alert (SLA) aircraft in a timely manner, as threat dictates.
- (10) Ensure maximum use of data links to minimize voice communications.
- (11) Ensure emergency procedures are fully understood and effectively implemented, as required.
- (12) Compile and forward applicable reports.

Performance Standards. Complete each item in this event with 80% accuracy. Evaluation must be conducted by a qualified SWD.

Prerequisite. SWD-300.

3. Deep Air Control (DAC) Training

a. Purpose. To refine TADC skills required for DAC qualification and to be eligible for designation DAC. Additionally, these events will provide a means for a DAC to remain current.

b. Administrative Notes

(1) Due to unique battlespace requirements and limited asset availability, there are no live fly requirements to achieve DAC. It is highly encouraged for DACs to train during live operations.

(2) Complete all events to achieve qualification as DAC.

(3) All DAC students will be supervised by a qualified DAC or designated DAOC.

(4) For evaluation purposes, a mission will consist of a brief, execution and debrief of each event.

c. Refresher Training. Refresher training is required once a DAC has been absent from a DAC billet for 18 months or longer. Upon return to a MACS and assigned to a DAC billet, the TADC will complete "R" coded events in the 300 level syllabus.

d. Crew Requirements. Core competent TAOC crew.

e. Academic Training. TAOC specific academic training is designed to support live/simulated training events and is accomplished as a prerequisite to individual performance events.

f. Live and Simulator Event Training. 8 events, 64.0 hours.

DAC-310	8.0	B	TAOC	L/S
---------	-----	---	------	-----

Goal. Conduct tactical planning for deep air operations.

Requirement. Demonstrate proficiency with the following tasks associated with planning an exercise:

- (1) Conduct a detailed threat analysis.
- (2) Conduct detailed study of ACE Commander's Guidance and types of control authorized.
- (3) Conduct a detailed study of ACE Commander's targeting priorities, including Joint Prioritized Integrated Target List (JPITL) and Reactive Attack Guidance Matrix (RAGM).
- (4) Conduct a detailed study of Rules of Engagement.
- (5) Conduct a detailed study of weather and terrain.
- (6) Identify the communications requirements and assignments.
- (7) Establish procedures for Marine sector air operations, aerial refueling (AR) operations, and HVAA protection.
- (8) Coordinate procedures for receiving and modifying the ATO.
- (9) Identify all appropriate DB requirements.
- (10) Prepare the Deep Air Operations brief per standards.

Performance Standards. Complete each item in this event with 80% accuracy.

Prerequisites. Academics: T-711, T-724, T-725, T-726, T-727, T-729, T-730, T-731, T-732, T-733, T-734, T-737, T-738, T-739, T-740, T-741, T-751, T-752, T-753, T-754, T-755, T-761, and T-766.

DAC-311	8.0	B, R	TAOC	S
---------	-----	------	------	---

Goal. Perform TAOC traffic functions.

Requirement. Demonstrate proficiency in the following:

- (1) Supervise all traffic DB entries.
- (2) Ensure effective employment and adherence to published ACMS and RIO procedures.
- (3) Manage control of AR operations.
- (4) Assist in coordinating SAR/TRAP missions in assigned sector.
- (5) Ensure adherence to established Traffic Section emergency procedures.
- (6) Conduct handovers with the Weapons Section and external agencies.
- (7) Ensure TBMCS is properly utilized to receive and parse an ATO and to construct a TATC log.
- (8) Assist Surveillance Section in identification of friendly aircraft in the assigned sector.
- (9) Compile and forward applicable reports.

Performance Standards. Complete each item in this event with 80% accuracy.

Prerequisite. DAC-310.

External Syllabus Support. External C3 agencies, tactical/support aircraft.

DAC-312	4.0	B	TAOC	L/S
---------	-----	---	------	-----

Goal. Perform deep air operations information management.

Requirement. Demonstrate proficiency with the following tasks associated with deep air operations information management:

- (1) Receive and process JTAR/ASR/MEDEVAC, assign request numbers and complete forms.
- (2) Receive, process, and disseminate Bomb Hit Assessments (BHA) and Inflight/Pilot Reports (IFREP/PIREP).
- (3) Maintain crew position log.

Performance Standards. Complete each item in this event with 80% accuracy.

DAC-313	8.0	B	TAOC	L/S
---------	-----	---	------	-----

Goal. Perform deep air operations weaponing.

Requirement. In a garrison/exercise environment, demonstrate proficiency in performing deep air operations weaponing.

- (1) Understand effects of weather and terrain on weapons employment.
- (2) Identify ATO-assigned weapons Standard Conventional Loads (SCL).
- (3) Match available aviation assets with requests.
- (4) Perform appropriate weapon-to-target match.
- (5) Coordinate with external agencies for collateral damage estimates.

Performance Standards. Complete each item in this event with 80% accuracy.

DAC-314	8.0	B	TAOC	S
---------	-----	---	------	---

Goal. Control simulated deep air operations.

Requirement. In a garrison/field environment, demonstrate proficiency with the following standards associated controlling simulated aircraft in opposed and unopposed deep air support missions.

- (1) Manage pre-planned and immediate JTARs.
- (2) Control armed reconnaissance aircraft.
- (3) Control Strike Coordination and Reconnaissance aircraft.
- (4) Control air interdiction aircraft.
- (5) Control Suppression of Enemy Air Defenses (SEAD) aircraft.
- (6) Coordinate aerial refueling operations of DAS aircraft.

Performance Standards. Complete each item in this event with 80% accuracy.

DAC-315 8.0 B TAOC S

Goal. In a garrison/field environment, integrate fires during a simulated deep air operations event.

Requirement. Demonstrate proficiency in the integration of surface-to-surface and aviation fires in the same objective area.

- (1) Control and deconflict unmanned aircraft systems.
- (2) Deconflict long-range artillery fires.
- (3) Deconflict Naval Surface Fire Support assets.
- (4) Control and deconflict MAGTF and Joint aviation assets.

Performance Standards. Complete each item in this event with 80% accuracy.

DAC-316 20.0 B, R, E TAOC S/L

Goal. Certify as a DAC.

Requirement. Demonstrate proficiency in the control of integrated deep air operations by controlling live/simulated aircraft in opposed and unopposed deep air support missions.

- (1) Manage pre-planned and immediate JTARs.
- (2) Perform weaponeering.
- (3) Control and deconflict unmanned aircraft systems.
- (4) Deconflict long-range artillery fires.
- (5) Deconflict Naval Surface Fire Support assets.
- (6) Control and deconflict MAGTF and Joint aviation assets.
- (7) Control armed reconnaissance missions.
- (8) Control Strike Coordination and Reconnaissance missions.
- (9) Control air interdiction missions.
- (10) Coordinate aerial refueling operations for DAS aircraft.

Performance Standards. Complete each item in this event with 80% accuracy. Evaluation must be conducted by a qualified DAC, DAOC, or SAD.

Prerequisites. DAC-310, DAC-311, DAC-312, DAC-313, DAC-14 and DAC-315.

307. CORE PLUS TRAINING

1. General

a. This phase includes skills and qualifications that are not prerequisite to combat qualification or the ability to function as combat leaders, but are those for which a certain number of trained individuals or crews must be maintained to accomplish special missions or tasks. The TADC is exposed to advanced MACCS integration and employment of TAOC equipment within a joint environment. The TADC serves in Marine Air Control Group (MACG) detachments on a Marine Expeditionary Unit (MEU), as a MACCS airspace management liaison for the MAGTF, and with joint/coalition forces where contingency plans and operations are developed. This phase provides training such as Special Purpose MAGTF/MEF level MACCS employment, advanced tactics

- (2) Determine and develop the procedures for radar, data link and procedural handovers.
- (3) Coordinate with subordinate, adjacent and higher units for implementation of handover procedures and ACM.
- (4) Plan for the execution of the Airspace Control Order (ACO), Airspace Control Plan (ACP), and Operations Order (OPORD).
- (5) Conduct a detailed threat analysis.
- (6) Identify the Traffic Section communications requirements and assignments.
- (7) Establish procedures for aerial refueling (AR) operations and HVAA protection.
- (8) Identify TATC responsibilities.
- (9) Coordinate procedures for receiving and modifying the ATO.
- (10) Identify all traffic DB requirements.
- (11) Prepare the Traffic Section crew brief per TAOC PCL.

Performance Standards. Complete each item in this event with 80% accuracy.

Prerequisite. Academics: T-725, T-726, T-730, T-733, T-735, T-736, T-737, T-738, T-740, T-741, T-751, T-760, T-761, and T-766.

STD-401 8.0 B, R, E TAOC L/S

Goal. Certify as a STD.

Requirement. Demonstrate proficiency in the following:

- (1) Manage the Traffic Section.
- (2) Supervise all traffic DB entries.
- (3) Ensure effective employment and adherence to published ACMS and RIO procedures.
- (4) Manage control of AR operations.
- (5) Assist in coordinating SAR/TRAP missions in assigned sector.
- (6) Ensure adherence to established Traffic Section emergency procedures.
- (7) Conduct handovers with the Weapons Section and external agencies.
- (8) Ensure TBMCS is properly utilized to receive and parse an ATO and to construct a TATC log.
- (9) Assist Surveillance Section in identification of friendly aircraft in the assigned sector.
- (10) Compile and forward applicable reports.

Performance Standards. Complete each item in this event with 80% accuracy.

Prerequisite. STD-400.

External Syllabus Support. External C3 agencies and tactical/support aircraft.

3. Surveillance Identification Director (SID)

a. Purpose. The enlisted SID is the exception and a qualified SC should suffice for any surveillance section functions that a SID may fill. This

phase refines the eligibility and TADC skills required for a SID designation. Additionally, these events will provide a means for a SID to remain current.

b. Administrative Notes

(1) Perform all functions for SID qualifications.

(2) At least one live and one simulated SID performance event will be conducted during an exercise.

(3) The Core Plus phase can be conducted concurrent with the Core Skill Basic and Advanced phases.

c. Prerequisite. **Be qualified as a SC prior to beginning this stage of training.**

d. Refresher Training. Refresher training is required once a SID has been absent from an SID billet for 18 months or longer. Upon return to an appropriate billet, the TADC will complete "R" coded events in the 400 level syllabus.

e. Crew Requirements. A core competent TAOC crew will be required for the higher level evaluated events.

f. Academic Training. Academic training will be conducted prior to and concurrently with required events. An academic training event, once completed, can be credited for follow on training events.

g. Live and Simulator Event Training. 8 events, 42.0 hours.

SID-410	4.0	B	TAOC	L/S
---------	-----	---	------	-----

Goal. Conduct tactical planning for the Surveillance Section.

Requirement. Demonstrate proficiency with the following standards associated with planning an exercise:

- (1) Develop a radar coverage diagram for system radars that identifies potential gaps in coverage due to terrain masking and radar horizon limitations.
- (2) Recommend emplacement/employment of TAOC radars.
- (3) Recommend a radar degradation plan.
- (4) Coordinate with subordinate, adjacent and higher units for data link architecture and implementation per the OPTASK LINK.
- (5) Extract the ID matrix per published ROE, OPORD, ACP or ACO.
- (6) Conduct a detailed threat analysis.
- (7) Identify Surveillance Section communications requirements and assignments.
- (8) Recommend EMCON/RTADCN to the TAOC and for subordinate agencies based on OPORDER, ACP and ACO direction.
- (9) Plan for AN/TPS-59 decoy employment.
- (10) Identify SO and DLC responsibilities.
- (11) Plan for employment of a remote radar.
- (12) Identify surveillance DB requirements.
- (13) Prepare a Surveillance Section crew brief per TAOC PCL.

Performance Standards. Complete this event with 100% accuracy.

Prerequisites. Academics: T-701, T-702, T-703, T-704, T-705, T-706, T-707, T-708, T-709, T-710, T-711, T-712, T-713, T-716, T-717, T-718, T-720, T-721, T-722, T-724, T-740, T-741, T-751, T-752, T-760, T-761, and T-766.

SID-411	2.0	B	TAOC	L/S
---------	-----	---	------	-----

Goal. Maximize radar performance.

Requirement. Demonstrate proficiency in the following:

- (1) Perform radar alignment as required.
- (2) Perform radar registration.
- (3) Coordinate to optimize performance of selected radars.
- (4) Conduct remote radar operations.

Performance Standards. Complete this event with 100% accuracy.

Prerequisites. Academics: T-714 and T-715.

SID-412	6.0	B	TAOC	L/S
---------	-----	---	------	-----

Goal. Plan for emplacement and employment of a TMD site.

Requirement. Demonstrate proficiency in the following:

- (1) Evaluate the threat.
- (2) Conduct a site survey.
- (3) Recommend emplacement of a TMD site.
- (4) Provide reporting connectivity.
- (5) Coordinate with radar section to maximize radar performance for TMD operations.
- (6) Prepare brief.

Performance Standards. Complete each item in this event with 80% accuracy.

External Syllabus Support. Link-16 capable external C3 agencies.

SID-413	2.0	B	TAOC	L/S
---------	-----	---	------	-----

Goal. Conduct/supervise fidelity drills.

Requirement. In a live link environment conduct fidelity drills in accordance with JMTOP or JTAO Handbook.

Performance Standards. Complete this event with 100% accuracy.

SID-414	8.0	B	TAOC	L/S
---------	-----	---	------	-----

Goal. Perform as a Surveillance Identification Director.

Requirement. Demonstrate proficiency in the following:

- (1) Conduct the surveillance brief per TAOC PCL.

- (2) Supervise surveillance DB entries including EMCON, data links, radar parameters, and ACMs.
- (3) Supervise air surveillance of the assigned sector.
- (4) Supervise implementation of established ID criteria and subsequent classification process.
- (5) Supervise initialization and management of data links.
- (6) Perform detailed planning to assume functions of the TDC or ICO when directed.
- (7) Manage the EP/EMCON plan for the TAOC and subordinate agencies.
- (8) Implement published manual crosstell procedures.
- (9) Manage the Surveillance Section per SAD direction.
- (10) Compile and forward applicable reports.

Performance Standards. Complete each item in this event with 80% accuracy.

Prerequisites. SID-410, SID-411, and SID-412.

External Syllabus Support. External C3 agencies.

SID-415	8.0	B	TAOC	L/S
---------	-----	---	------	-----

Goal. Perform as a Surveillance Identification Director in a multi TDL environment.

Requirement. Demonstrate proficiency in the following:

- (1) In a live link environment conduct fidelity drills in accordance with JMTOP or JTAO Handbook.
- (2) Conduct surveillance planning and operations with a joint/coalition track producing unit.
- (3) Coordinate with external agencies to resolve ID and IFF conflicts and other interface anomalies.

Performance Standards. Complete this event with 80% accuracy.

Prerequisites. SID-413.

External Syllabus Support. External C3 agencies.

SID-416	4.0	B, R	TAOC	L/S
---------	-----	------	------	-----

Goal. Perform EW operations using TAOC organic equipment.

Requirement. Demonstrate proficiency in the following:

- (1) Enter TAOC EMCON plan and missile thresholds in the DB.
- (2) Detect, identify and report any jamming to the SAD.
- (3) Forward appropriate reports.
- (4) Fix the location of threat jammers with proper symbology (strokes/air tracks).
- (5) React to the EMCON alert and implement the TAOC EMCON plan per SAD direction.
- (6) Coordinate with the radar section to optimize radar performance in an EW environment.

Performance Standards. Complete this event with 80% accuracy.

External Syllabus Support. External C3 agencies and EW platforms.

SID-417	8.0	B, R, E	TAOC	L
---------	-----	---------	------	---

Goal. Certify as SID.

Requirement. During an exercise, demonstrate proficiency in all requirements identified in SID-410, SID-413, and SID-414.

Performance Standards. Complete this event with 80% accuracy.

Prerequisites. SID-410, SID-411, SID-412, SID-413, SID-414, SID-415, and SID-416.

4. Deep Air Operations Coordinator (DAOC) Training

a. Purpose. The DAOC is responsible for targeting, weaponeering, and general safety of flight for aircraft under the DBC's control. This phase will refine TADC skills required for DAOC designation and to be eligible for designation DAOC. Additionally, these events will provide a means for a DAOC to remain current.

b. Administrative Notes

(1) Due to unique battlespace requirements and limited asset availability, there are no live fly requirements to achieve DAC. It is highly encouraged for DACs to train during live operations.

(2) Complete all events to achieve qualification as DAC.

(3) All DAOC students will be supervised by a qualified DAOC.

(3) For evaluation purposes, a mission will consist of a brief, execution and debrief of each event.

c. Prerequisite. Be a qualified DAC prior to beginning this stage of training.

d. Refresher Training. Refresher training is required once a DAOC has been absent from a DAOC billet for 18 months or longer. Upon return to an appropriate billet, the TADC will complete DAOC 420 and 421 if required for current billet.

e. Crew Requirements. Core competent TAOC crew.

f. Academic Training. TAOC specific academic training is designed to support live/simulated training events and is accomplished as a prerequisite to individual performance events.

g. Live and Simulator Event Training. 2 events, 8.0 hours.

DAOC-420 4.0 B TAOC L/S

Goal. Utilize Joint Automated Deep Air Operations Computer System (JADOCS).

Requirement. In a garrison/field environment, demonstrate proficiency using JADOCS or an equivalent system, to include but not limited to:

- (1) Basic setup to include: Cabling, connections, communications, hard drive insertion and power application.
- (2) Setup initialization: Setup own unit, install map mod, map center, printer, alarms and set time.
- (3) Setup communications: Owner ID, subscriber data and communication check.
- (4) Send/receive plain text messages.
- (5) Send/receive Battlefield Geometry.
- (6) Data distribution techniques.
- (7) Receive and process immediate air support requests.
- (8) Manipulate overlays.

Performance Standards. Complete each item in this event with 80% accuracy.

DAOC-421 4.0 B TAOC L/S

Goal. Utilize Army Field Artillery Tactical Data System (AFATDS).

Requirement. In a garrison/field environment, demonstrate proficiency using AFATDS or an equivalent system, to include but not limited to:

- (1) Basic setup to include: Cabling, connections, communications, hard drive insertion and power application.
- (2) Setup initialization: Setup own unit, install map mod, map center, printer, alarms and set time.
- (3) Setup communications: Owner ID, subscriber data and communication check.
- (4) Send/receive plain text messages.
- (5) Send/receive Battlefield Geometry.
- (6) Data distribution techniques.
- (7) Receive and process immediate air support requests.
- (8) Artillery Firing Unit (AFU) update.
- (9) Manipulate overlays.

Performance Standards. Complete each item in this event with 80% accuracy.

5. Crew Chief (CC) Training

a. Purpose. The Crew Chief is responsible for the needs of the TAOC crew and is fundamental to field and garrison operations. The CC may sit in as a temporary replacement to the Senior Air Director should the need arise, providing flexibility for Commanding Officer to utilize senior enlisted leadership at the highest tactical level. This phase will refine TADC skills

required for CC designation. Additionally, these events will provide a means for a CC to remain current.

b. Administrative Notes. For evaluation purposes, a mission will consist of a brief, execution and debrief of each event.

c. Prerequisite. Be qualified as a SC, SWD, and DAC prior to beginning this stage of training.

d. Refresher Training. Refresher training is required once a TADC has been absent from a CC billet for 18 months or longer. Upon return to a MACS and assigned to a CC billet, the TADC will complete "R" coded events in the 400 level syllabus.

e. Crew Requirements. Core competent TAOC crew.

f. Academic Training. TAOC specific academic training is designed to support live/simulated training events and is accomplished as a prerequisite to individual performance events.

g. Live and Simulator Event Training. 8 events, 84.0 hours.

CC-450	8.0	B	TAOC	L
--------	-----	---	------	---

Goal. Perform system troubleshooting.

Requirement. With a faulted TAOM system, demonstrate proficiency in the following:

- (1) Fault isolate components of the seven major equipment groups of a TAOM.
- (2) Reconfigure the system around failed units.
- (3) In a multi-TAOM system, echelon in and out both a TAOM and a radar.

Performance Standard. Complete each item in the event with 80% accuracy.

Prerequisites. Academics: T-719, T-762, T-763, T-764, T-765, and T-767.

CC-451	24.0	B, R	TAOC	L
--------	------	------	------	---

Goal. Perform as Crew Chief during garrison operations.

Requirement. Demonstrate proficiency in the following:

- (1) Conduct a crew brief/debrief.
- (2) Ensure proper system configuration and DB inputs.
- (3) Direct and manage crew function.
- (4) Properly maintain records and logs.

Performance Standard. Complete each item in the event with 80% accuracy.

Prerequisite. CC-450.

External Syllabus Support. Fighter/aggressor aircraft and/or data link platforms.

CC-452 8.0 B, R TAOC L/S

Goal. Conduct tactical planning for the Command Section.

Requirement. Demonstrate proficiency in the following:

- (1) Prepare an SAD brief per the TAOC PCL.
- (2) Oversee planning in the Traffic, Weapons, and Surveillance Sections.
- (3) Develop system configuration plan.
- (4) Plan the emplacement of a TAOC to include radar and EW/C employment.
- (5) Supervise DB construction and entry.
- (6) Coordinate with SCC and SAD in planning overall TAOC employment.
- (7) Supervise the conduct of a detailed threat analysis.
- (8) Develop a crew watch schedule and change over procedures.
- (9) Develop a casualty/degradation plan and detailed restoration priorities plan.
- (10) Identify communications and power requirements that will allow for mission accomplishment.
- (11) Identify system limitations information for the ACE commander.

Performance Standard. Complete each item in the event with 80% accuracy.

Prerequisites. CC-450.

CC-453 12.0 B, R TAOC S

Goal. Perform as Senior Air Director during a TAOC only SIMEX.

Requirement. Demonstrate proficiency in the following:

- (1) Conduct a detailed SAD brief per the TAOC PCL.
- (2) Supervise system configuration and DB input.
- (3) Supervise and manage the traffic, weapons, and surveillance sections.
- (4) Identify systems failures/degradations, troubleshoot and perform fault isolation and take corrective action utilizing the SCC.
- (5) Execute briefed casualty procedures and implement the restoration plan to include system reconfiguration, as required.
- (6) Properly maintain records and logs.
- (7) Ensure the SCC is conducting appropriate system maintenance/management and required interface with maintenance personnel.

Performance Standard. Complete each item in the event with 80% accuracy.

Prerequisite. CC-452.

CC-454	8.0	B		TAOC	S/L
--------	-----	---	--	------	-----

Goal. Perform as Senior Air Director during an integrated exercise.

Requirement. Demonstrate proficiency in the following:

- (1) All requirements listed in CC-453.
- (2) Coordinate integration of senior, adjacent, and subordinate agencies. Ensure accurate and timely critical information flow is being conducted.

Performance Standard. Complete each item in this event with 80% accuracy.

Prerequisite. CC-453.

External Syllabus Support. External C3 agencies.

CC-455	8.0	B	E	TAOC	L
--------	-----	---	---	------	---

Goal. Perform site emplacement of a TAOC.

Requirement. Demonstrate proficiency in the following:

- (1) Conduct a site survey in accordance with the TAOC Handbook and operational requirements.
- (2) Produce site layout diagram including laydown of support equipment.
- (3) Effective use of passive defense measures.

Performance Standard. Complete the above with 80% accuracy.

Prerequisite. CC-452.

External Syllabus Support. MHE.

CC-456	16.0	B		TAOC	L
--------	------	---	--	------	---

Goal. Perform as SAD during a live integrated exercise.

Requirement. Demonstrate proficiency in CC-450 through CC-455.

Performance Standard. Complete the event with 80% accuracy.

Prerequisite. CC-454.

External Syllabus Support. External C3 agencies.

CC-457	8.0	B	E	TAOC	L
--------	-----	---	---	------	---

Goal. Certify as SAD.

Requirement. Demonstrate proficiency in all requirements identified in CC-450 through CC-456.

Performance Standard. Complete each item in the above requirements with 80% accuracy.

Prerequisite. CC-450, CC-451, CC-452, CC-453, CC-454, CC-455, and CC-456.

External Syllabus Support. External C3 agencies.

6. Air Intercept Control Supervisor (AICS)

a. Purpose. This stage progresses the TADC towards designation as an Air Intercept Control Supervisor (AICS). AICS designation is a prerequisite for TOPGUN or MDTC and allows for supervision of an AIC.

b. Administrative Notes

(1) During the AICS training a qualified/designated AICI will act as the "student" AIC for the AICS under instruction.

(2) For evaluation purposes, a mission will consist of a brief, execution and debrief of each event.

(3) The AICI will evaluate AICS events.

c. Prerequisite. AIC-220, must be a qualified and current AIC.

d. Crew Requirements. One of each of the following personnel: SAD, SCC, AICI, and AIC.

e. Refresher Training. Refresher training is required once a AICS has been absent from a AICS billet for 18 months or longer. Upon return to an appropriate billet, the TADC will complete "R" coded events in the 400 level syllabus.

f. Live and Simulator Event Training. 3 events, 18 hours.

AICS-460 6.0 B TAOC S/L

Goal. Develop instruction techniques.

Requirement. In a simulation capable system and classroom facilities, and under instruction of an AICI, demonstrate ability to:

- (1) Conduct a comprehensive brief with an AIC to include:
 - (a) T&R requirements.
 - (b) Mission/targeting game plan and timeline awareness.
 - (c) Previously identified weak areas.
- (2) Conduct a comprehensive debrief to include:
 - (a) Conduct the mission with an emphasis on comm priority.
 - (b) Lessons learned.
 - (c) Establishing AIC goals and training requirements.
- (3) Instruct the AIC on the phases of an intercept.
- (4) Instruct the AIC on air control communication.

Performance Standard. Complete each item in this event with 80% accuracy.

Prerequisite. AIC-220.

AICS-461	6.0	B	TAOC	L
----------	-----	---	------	---

Goal. Instruct section and division tactics to an AICI.

Requirement. Under instruction of an AICI with an operational TAOC system/radars and aircraft, demonstrate proficiency in the following:

- (1) Instruct the following intercept tactics:
 - (a) Section Tactics
 - (b) Division Tactics
- (2) Instruct intercept control.
- (3) Instruct a student on the phases of an intercept.
- (4) Instruct air control communication.

Performance Standards. Complete each item in this event with 80% accuracy.

Prerequisite. AICS-460, Academics T-747.

AICS-462	6.0	B	TAOC	L
----------	-----	---	------	---

Goal. Instruct, monitor, and debrief an AIC.

Requirement. In an operational TAOC system with radars, aircraft, and classroom facilities, and under instruction of an AICI, demonstrate proficiency as an instructor:

- (1) Instruct AIC personnel on air control and monitor their learning.
- (2) Conduct of a comprehensive flight brief with the AIC prior to controlling the mission.
- (3) Monitor the AIC during the mission focusing on evaluating the student's performance for debriefing purposes ensuring safety of flight considerations are adhered to by the AIC.
- (4) Conduct a comprehensive debrief focusing on air control communications and tactical lessons learned.

Performance Standards. Complete each item in this event with 80% accuracy.

Prerequisite. AICS-461.

External Syllabus Support. Fighter and aggressor aircraft.

308. INSTRUCTOR TRAINING. There are no squadron specific instructor syllabi for TADC. All instructor training is conducted at formal schools. TADC squadron instructors include WTI and AICI that are trained to instruct either MDTI or SFTI but not both.

309. QUALIFICATIONS AND DESIGNATIONS

1. General

a. A TADC will be considered for qualification or designation upon completion of all required events for that specific crew position. Training events consist of academics, practical application and evaluation.

b. A review of the IPR will be conducted by the squadron WTI and a recommendation will be staffed to the commanding officer (or direct representative) for qualification and designation.

c. The TADC shall have a qualification/designation letter, with any waivers deferments or endorsements, filed in the IPR.

2. TADC Qualification

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

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 TADC's IPR, and an entry logged. Requirements for maintaining qualifications are detailed in the Aviation T&R Program Manual.

c. TADC Qualifications

Senior Weapons Director (SWD)
Missile Controller (MC)
Deep Air Controller (DAC)
Air Intercept Controller (AIC)

QUAL-601

Goal. Tracking code for SWD qualification.

Requirement. Satisfactory completion of SWD qualification syllabus. The TADC shall be qualified by a SWD or SAD with and an appropriate entry made in TMS and a letter filed in the IPR.

Prerequisite. SWD-301.

QUAL-603

Goal. Tracking code for MC qualification.

Requirement. Satisfactory completion of MC qualification syllabus. The TADC shall be qualified by a WC or SWD, with and an appropriate entry made in TMS and a letter filed in the IPR.

Prerequisite. MC-203.

QUAL-616

Goal. Tracking code for DAC qualification.

Requirement. Satisfactory completion of SWD qualification

syllabus. The TADC shall be qualified by a DAOC or SAD with and an appropriate entry made in TMS and a letter filed in the IPR.

Prerequisite. DAC-316.

QUAL-620

Goal. Tracking code for AIC qualification.

Requirement. Satisfactory completion of SWD qualification syllabus. The TADC shall be qualified by a SWD, AICS, or SAD with and an appropriate entry made in TMS and a letter filed in the IPR.

Prerequisite. AIC-220.

3. TADC Designations

a. Purpose. To track the designation of combat leaders, control positions and instructors.

b. General. This section enables units to document and track combat leaders and "control position" designations. All syllabus training requirements for a specific designation must be complete prior to being designated. Training management personnel shall log final designation codes once designated by the commanding officer.

c. Crew Requirements. Per the applicable designation syllabus.

d. Academic Training. Per the applicable designation syllabus.

e. TADC Combat Leadership Designations

(1) TAOC combat leadership designations

Crew Chief (CC)

Senior Weapons Director (SWD)

Senior Traffic Director (STD)

Deep Air Operations Coordinator (DAOC)

(2) TAOC designations

Deep Air Controller (DAC)

Surveillance Coordinator (SC)

Air Intercept Control Supervisor (AICS)

Surveillance Identification Director (SID)

Weapons Controller (WC)

Joint Interface Control Officer (JICO)

DESG-602

Goal. Tracking code for SWD designation.

Requirement. Complete SWD syllabus, certified by a TAOC SAD or TAOC CC designated by the Commanding Officer as SWD, make appropriate entry in the TMS and file the signed qualification letter in the IPR.

Prerequisite. SWD-300R, SWD-301R.

DESG-610

Goal. Tracking code for a STD designation.

Requirement. Complete required events in the Core Plus phase of the STD syllabus. This designation will only be given based on unit need and by the direction of the Commanding Officer. The TADC shall be certified by a DAC, STD, or SAD. Designated by the Commanding Officer as STD, appropriate entry made in TMS and a letter filed in the IPR.

Prerequisite. STD-401R.

DESG-611

Goal. Tracking code for a SID designation.

Requirement. Complete required events in the Core Plus phase of the SID syllabus. This designation will only be given based on unit need and by the direction of the Commanding Officer. The TADC shall be certified by a SC, SID, or SAD. Designated by the commanding officer as SID, appropriate entry made in TMS and a letter filed in the IPR.

Prerequisite. SID-417R.

DESG-612

Goal. Tracking code for a WC designation.

Requirement. Complete required AIC and MC events. The TADC shall be certified by an SWD or SAD. Designated by the Commanding Officer as WC, appropriate entry made in TMS and a letter filed in the IPR.

Prerequisite. Be MC and AIC qualified.

DESG-617

Goal. Tracking code for DAC designation.

Requirement. Complete DAC syllabus. Designated by the Commanding Officer as DAC, appropriate entry made in TMS and a letter filed in the IPR.

Prerequisite. DAC-316R.

DESG-631

Goal. Tracking code for a JICO course completion.

Requirement. Graduate from the JMTC JICO course. Appropriate entry made in TMS and completion certificate filed in the IPR.

Prerequisite. Per JMTC JICO course syllabus requirement.

DESG-633

Goal. Tracking code for a Deep Air Operations Coordinator (DAOC).

Requirement. Complete DAC syllabus and DAOC 420-421. Designated by the Commanding Officer as DAOC, appropriate entry made in TMS and letter filed in the IPR.

Prerequisite. Be qualified a DAC and graduate from WTI course.

DESG-640

Goal. Tracking code for SC designation.

Requirement. Complete SC syllabus. Be certified by a qualified SC or SAD. Designated by the commanding officer as SC, appropriate entry made in TMS and a letter filed in the IPR.

Prerequisite. SC-240.

DESG-657

Goal. Tracking code for CC designation.

Requirement. Complete all required events of the Core Basic, Core Advanced, and Core Plus phases of the TADC syllabus. The TADC shall be certified by a Core Plus TAOC SAD or TAOC CC. Designated by the commanding officer as CC, appropriate entry made in TMS and a letter filed in the IPR.

Prerequisite. CC-457.

DESG-662

Goal. Tracking code for AICS designation.

Requirement. Complete AICS syllabus. Be certified and recommended by an AICI. Designated by the commanding officer as AICS, appropriate entry made in TMS and letter filed in the IPR.

Prerequisite. AICS-460, AICS-461 and AIC-462.

4. Instructor Designations (IDESG)

a. Purpose. Track the designation of instructors. TADC instructor designation include Weapons and Tactics Instructor (WTI), and Air Intercept Control Instructor (AICI) with either Marine Division Tactics Instructor (MDTI) training or Strike Fighter Tactics Instructor (SFTI) training. At the completion of each instructor training, the TADC is capable of instructing in a garrison or field environment on the area for which trained.

b. General

(1) Prior to a TADC being designated as an instructor, a review of the individual performance record (IPR) will be conducted by the squadron WTI and a recommendation will be staffed to the commanding officer.

(2) The TADC is eligible to attend either the MDTI or SFTI POI but not both. Upon completion from either course the TADC will be designated as an AICI with the designation focused on either SFTI or MDTI, as applicable.

c. Prerequisites

(1) The TADC will be current in the course of instruction for the area being trained to instruct. The TADC must be experienced enough to be able to instruct others in leadership and supervisory functions.

(2) The appropriate instructor POI is to be completed prior to designation as an instructor in a particular area of training.

- d. Crew Requirements. Per the applicable designation syllabus.
- e. Academic Training. Per the applicable designation syllabus.
- f. TAOC Instructor designations
 - Weapons and Tactics Instructor (WTI)
 - Air Intercept Control Instructor (AICI) trained as Strike Fighter Instructor (SFTI)
 - Air Intercept Control Instructor (AICI) trained as Marine Division Tactics Instructor (MDTI)

DESG-605

Goal. Tracking code for AICI (with SFTI) designation.

Requirement. Be certified by NSAWC as a SFTI. Complete NSAWC SFTI syllabus. Appropriate entry made in TMS, diploma and a letter filed in the IPR.

Prerequisite. Be qualified as AICS before attending the Strike Fighter Instructor (SFTI) Course.

DESG-606

Goal. Tracking code for AICI (with MDTI) designation.

Requirement. Be certified by MAWTS-1 as a MDTI. Complete MDTI syllabus. Appropriate entry made in TMS, Diploma and a letter filed in the IPR.

Prerequisite. Be qualified as AICS before attending the Marine Division Tactics Instructor (MDTI) Course.

DESG-630

Goal. Tracking code for a WTI designation.

Requirement. Be certified by MAWTS-1 as a WTI. Complete WTI syllabus. 7277 MOS run in 3270, appropriate entry made in TMS, diploma and a letter filed in the IPR.

Prerequisite. Be qualified as SWD and graduate from the WTI Course.

310. SYLLABUS SUMMARY MATRIX

MOS 7236: TACTICAL AIR DEFENSE CONTROLLER (TADC)									
100 LEVEL: CORE SKILL INTRODUCTION									
STAGE	TRNG CODE	HRS	REFLY INTERVAL	DEVICE	PREREQ	POI	EVAL	CRP	CHAINING
TADC	100	18	*	L		B		12.0	
TADC	101	51	*	S		B		12.0	
TADC	102	33	*	S		B		12.0	
TADC	103	33	*	S		B		12.0	
TADC	104	33	*	L		B		12.0	
Total Hrs		168						60.0	CRP

MOS 7236: TACTICAL AIR DEFENSE CONTROLLER (TADC)									
200 LEVEL: CORE SKILL BASIC									
STAGE	TRNG CODE	HRS	REFLY INTERVAL (Months)	DEVICE	PREREQ	POI	EVAL	CRP	CHAINING
MC	200	4.0	*	L/S	ASP	B		0.50	
MC	201	4.0	*	L/S	200,ASP	B		0.50	
MC	202	4.0	24	L/S	200,201	B,R	E	0.50	200, 201
AIC	210	0.5	12	S/L	ASP	B,R		0.25	
AIC	211	1.5	*	S	210,ASP	B,R		0.25	
AIC	212	4.0	*	S	ASP	B,R		0.25	211
AIC	213	1.5	*	S	212	B,R		0.25	212
AIC	214	4.0	*	S	213,ASP	B	E	0.50	213
AIC	215	2.0	*	L	210,211,212,213,214	B		1.0	210,211,212,213,214
AIC	216	12.0	*	L	213	B		1.0	210,211,212,213,214
AIC	217	12.0	*	L	213	B,R		1.0	210,211,212,213,214
AIC	218	12.0	*	L	213	B		1.0	210,211,212,213,214
AIC	219	4.0	24	L	215,216,217,218	B,R		1.0	215, 216,217, 218
AIC	220	4.0	*	L	219	B,R	E	1.0	219
SC	230	8.0	*	L/S	ASP	B		0.50	
SC	231	8.0	*	L/S	ASP	B		0.50	
SC	232	8.0	*	L/S	ASP	B		0.25	
SC	233	4.0	*	L	ASP	B		0.25	
SC	234	1.5	*	L	ASP	B		0.25	
SC	235	8.0	*	L/S	232, 233,234, ASP	B		1.0	230,231,232233,234

SC	236	2.0	*	L/S	ASP	B	E	0.25	
SC	237	2.0	*	L/S	ASP	B	E	0.25	
SC	238	8.0	*	L/S	ASP	B		0.75	
SC	239	4.0	*	L/S	ASP	B		1.0	
SC	240	8.0	*	L	ASP	B,R	E	1.0	230, 231, 232 233, 234, 235 237, 238
Total Hrs		131						15.0	CRP

MOS 7236: TACTICAL AIR DEFENSE CONTROLLER (TADC)									
300 LEVEL: CORE SKILL ADVANCE									
STAGE	TRNG CODE	HRS	REFLY INTERVAL (Months)	DEVICE	PREREQ	POI	EVAL	CRP	CHAINING
SWD	300	2.0	24	L/S	612	B,R		1.0	
SWD	301	16.0	*	L	301	B,R	E	2.0	300
DAC	310	8.0	*	L/S	ASP	B		0.37	
DAC	311	8.0	*	S	310	B,R		0.37	310
DAC	312	4.0	*	L/S		B		0.37	310, 311
DAC	313	8.0	*	L/S		B		0.37	310, 311, 312
DAC	314	8.0	*	S		B		0.36	310, 311, 312 313
DAC	315	8.0	*	L/S		B		0.36	310, 311, 312 313, 314
DAC	316	8.0	24	L/S	310, 311, 312, 313, 314, 315,	B,R	E	0.36	310, 311, 312, 313, 314, 315
Total Hrs		82						20.0	CRP

MOS 7236: TACTICAL AIR DEFENSE CONTROLLER (TADC)									
400 LEVEL: CORE PLUS									
STAGE	TRNG CODE	HRS	REFLY INTERVAL (Months)	DEVICE	PREREQ	POI	EVAL	CRP	CHAINING
STD	400	8.0	*	L/S	617	B		0.1	310, 311
STD	401	8.0	*	L/S	617	B,R	E	0.1	316
SID	410	4.0	*	L/S	640, ASP	B		0.1	240
SID	411	2.0	*	L/S	ASP	B		0.1	240
SID	412	8.0	*	L/S	ASP	B		0.2	240
SID	413	2.0	*	L/S	ASP	B		0.1	240
SID	414	8.0	*	L/S	410, 411, 412	B		0.1	240

SID	415	8.0	*	L/S	413	B		0.1	240
SID	416	4.0	*	L/S	ASP	B,R		0.1	240
SID	417	8.0	*	L	410,411,412 413,414,415 416	B,R	E	0.1	410,411,412 413,414,415 416
DAOC	420	4.0	*	L/S	ASP	B		0.25	
DAOC	421	4.0	*	L/S	ASP	B		0.25	
CC	450	8.0	*	L	601,640	B		0.25	240,301
CC	451	24.0	*	L	450	B,R		0.50	240,301
CC	452	8.0	*	L/S	450	B,R		0.25	240,301
CC	453	12.0	*	S	452	B,R		0.50	240,301
CC	454	8.0	*	S/L	453	B		0.25	240,301
CC	455	8.0	*	L	452	B		0.25	240,301
CC	456	16.0	*	L	454	B	E	0.25	240,301
CC	457	8.0	*	L	456	B	E	0.50	240,301
AICS	460	6.0	*	S/L	220	B		0.25	
AICS	461	6.0	*	L	460, ASP	B		0.25	
AICS	462	6.0	*	L	461	B		0.25	
TOTAL HRS	160							5.0	CRP

311. Event Conversion Matrix

ACEO Event Conversion Matrix			
Phase	Old Event	Current Event	Note
Old Core Skill Basic (200 Level) Training			
	GBAD-200	MC-200	Recoded, No change
	GBAD-201	MC-201	Recoded, No change
	GBAD-202	MC-202	Recoded, No change
	AIC-210	AIC-210	No change
	AIC-211	AIC-211	No change
	AIC-212	AIC-212	No change
	AIC-213	AIC-213	No change
	AIC-214	AIC-214	No change
	AIC-215	AIC-215	No change
	AIC-216	AIC-216	No change
	AIC-217	AIC-217	No change
	AIC-218	AIC-218	No change
	AIC-219	AIC-219	No change
	AIC-220	AIC-220	No change
		SC-235	Add
		SC-236	Add
		SC-237	Add
		SC-238	Add
		SC-239	Add
		SC-240	Add
Old Core Skill Advanced (300 Level) Training			
	STD-300	STD-400	Event has been moved to 400 level
	STD-301	STD-401	Event has been moved to 400 level
	STD-302		Event has been deleted
	STD-303		Event has been deleted
	SID-310	SC-230	Renumbered
	SID-311	SC-231	Renumbered
	SID-312	SC-232	Renumbered
	SID-313		Deleted
	SID-314	SC-233	Renumbered
	SID-315	SC-234	Renumbered
	SID-316	SID-410	Renumbered
	SID-317	SID-411	Renumbered
	SID-318	SID-412	Renumbered
	SID-319	SID-416	Renumbered
	SID-320	SID-413	Renumbered
	SID-321		Deleted
	SID-322	SID-417	Renumbered
	SWD-330	SWD-300	Event number has changed
	SWD-331	SWD-301	Event number has changed
	SWD-332		Deleted
	SWD-333		Deleted
		DAC-310	Add
		DAC-311	Add
		DAC-312	Add
		DAC-313	Add
		DAC-314	Add

		DAC-315	Add
		DAC-316	Add
Old Core Plus (400 Level) Training			
	SAD-400	CC-450	Recoded and renumbered
	SAD-401	CC-451	Recoded and renumbered
	SAD-402	CC-452	Recoded and renumbered
	SAD-403	CC-453	Recoded and renumbered
	SAD-404	CC-454	Recoded and renumbered
	SAD-405	CC-455	Recoded and renumbered
	SAD-406	CC-456	Recoded and renumbered
	SAD-407	CC-457	Recoded and renumbered
		SID-414	Add
		SID-415	Add
		DAC-420	Add
		DAC-421	Add
Old Instructor (500 Level) Training			
	INST-500		Delete
	INST-501		Delete
	WTI-500	DESG-630	Renumbered, Recoded, Reworded
	AICI-501	DESG-605 & DESG-606	Rewrote to reflect SFTI and MDTI separately
	AICS-510	AICS-460	Renumbered
	AICS-511	AICS-461	Renumbered
	AICS-512	AICS-462	Renumbered
Old Qualifications and Designations (600- level)			
		QUAL-601	Add
	QUAL-602	QUAL-603	Re-numbered
		QUAL-616	Add
	QUAL-603	QUAL-620	Re-numbered
	DESG-605	DESG-602	Re-numbered
	DESG-632	DESG-605	Replaced AICI
	DESG-632	DESG-606	Replaced AICI
	DESG-600	DESG-610	Re-numbered
	DESG-601	DESG-611	Re-numbered
	DESG-604	DESG-612	Re-numbered
		DESG-617	Add
	DESG-631	DESG-631	No change
	DESG-630	DESG-630	No change
		DESG-633	Add
		DESG-640	Add
	DESG-606	DESG-657	Renamed & re-numbered
	DESG-621	DESG-662	Re-numbered
	DESG-632		Deleted

APPENDIX A
TAOC ACADEMICS

	<u>PAGE</u>
TAOC ACADEMICS	A-2

ACADMEMIC CODE	ACADEMIC TITLE	SPONSOR
SURVEILLANCE		
T-700	Air Defense Communications Platform	MACS-4
T-701	Electronic Protection Capabilities	MACS-4
T-702	Extended Interface	MACS-4
T-703	GBDL	MACS-4
T-704	Identification Procedures	MACS-2
T-705	Interface Coordination	MACS-4
T-706	JREAP	MACS-4
T-707	JTAO Datalink Operations	MACS-4
T-708	JTIDS	MACS-4
T-709	Link 11	MACS-4
T-710	Link 11B	MACS-4
T-711	Link 16	MACS-4
T-712	Link Ops Messages	MACS-4
T-713	National Data Systems	MACS-4
T-714	Radar Employment and Performance	MACS-2
T-715	Remote Radar	MACS-4
T-716	Surveillance Section Communications	MACS-4
T-717	Surveillance Datalink Orders	MACS-2
T-718	Surveillance Section Responsibilities	MACS-4
T-719	TAOC Communications Equipment Capabilities	MACS-2
T-720	TAOC Datalink Capabilities	MACS-4
T-721	TDS Platforms	MACS-4
T-722	TDC Responsibilities	MACS-4
T-723	Theater Air Ground Systems	MACS-2
T-724	Theater Missile Defense	MACS-4
TRAFFIC		
T-725	Airspace Management	MACS-2
T-726	Air Tasking Orders and Frags	MACS-2
T-727	Aviation Ordnance	MACS-1
T-728	Communications Brevity	MACS-2
T-729	Deep Air Support (DAS)	MACS-4
T-730	Emergency Procedures	MACS-2
T-731	Fire Support Coordination Measures	MACS-2
T-732	Joint Close Air Support (JCAS)	MACS-2
T-733	Joint Tactical Air Request (JTAR)	MACS-4
T-734	Offensive Air Support (OAS)	MACS-4
T-735	Personnel Recovery	MACS-2
T-736	Tanker Management	MACS-2
T-737	Traffic Communications	MACS-2
T-738	Traffic Section Responsibilities	MACS-2
T-739	Weaponneering	MACS-4
T-740	Weather	MACS-2

ACADMEMIC CODE	ACADEMIC TITLE	SPONSOR
WEAPONS		
T-741	Anti-Air Warfare	MACS-1
T-742	Air Defense Cell Responsibilities	MACS-1
T-743	Air Intercept Control Terminology	MACS-1
T-744	CAP Management	MACS-1
T-745	Fighter Missions	MACS-1
T-746	Flight Supervisor Responsibilities	MACS-1
T-747	GBAD Operations	MACS-1
T-748	IADS Employment	MACS-1
T-749	Intercept Control	MACS-1
T-750	OPLANS and OPORDERS	MAWTS
T-751	Rules Of Engagement (ROE)	MAWTS
T-752	Threat Analysis	MAWTS
T-753	U.S. and Allied Aircraft	MACS-1
T-754	U.S. and Allied Air-to-Air Missiles	MACS-1
T-755	Weapons Communications	MACS-1
T-756	Weapons Datalink Orders	MACS-2
T-757	Weapons Section Coordination	MACS-1
T-758	Weapons Section Responsibilities	MACS-1
GENERAL		
T-759	ATACC Requirements	MACS-2
T-760	C4I Systems and Agencies	MACS-2
T-761	MACCS Information Flow	MAWTS
T-762	Phasing Control Ashore	MAWTS
T-763	SCC Responsibilities	MACS-1
T-764	System Troubleshooting	MACS-4
T-765	T&R Program	MAWTS
T-766	TAOC Emplacement and Power Requirements	MACS-2

APPENDIX B
EVALUATION FORM

	<u>PAGE</u>
EVALUATION FORM	B-2

T&R EVENT EVALUATION FORM

Event Name: _____

Event / Code(s): _____

Exercise Name: _____

Pre-requisites required Yes No

Pre-requisites complete Yes No If no list:

Recommended for qualification? Yes No N/A If no explain:

SAD Comments:

Supervisor Comments:

WTPP completed date: _____

APPENDIX C

SENIOR WATCH OFFICER TRAINING REQUIREMENTS

	<u>PAGE</u>
SWO TRAINING REQUIREMENTS	C-2

APPENDIX C

SENIOR WATCH OFFICER TRAINING REQUIREMENTS

1. Senior Watch Officer (SWO) Training

a. Purpose To train a 7202 in the duties of a SWO. This includes tactical planning and managing the battle management section of the TAOC.

b. Administrative Notes

(1) A review of the individual performance record (IPR) will be conducted by the squadron's WTTP and a recommendation will be staffed to the Commanding Officer.

(2) For evaluation purposes, an event will consist of a brief, execution and debrief.

c. Prerequisite. The Senior Watch Officer (SWO) is the senior member of the battle management section of the TAOC crew. Ideally, the SWO is a 7202 and has completed all SWO designation requirements in this appendix. Although responsible for tactical planning and execution of the battle management section of the TAOC crew, there is no requirement for the SWO to have a 7210 background. Due to SWO being a 7202 designation, it is not reflected in the ADCO progression model and there is no SWO stage located within the ADCO syllabus.

d. Crew Requirements. Core competent TAOC and crew.

e. Academic Training. Academic training will be conducted prior to and concurrently with required events. An academic training event, once completed, can be credited as a prerequisite for follow-on training events.

f. Refresher Training. Refresher training is not required.

g. Event Training. 3 events, 40 hours.

SWO-400 8.0 TAOC S,L

Goal. Conduct tactical planning as a SWO.

Requirements. With appropriate exercise documentation, perform the following items associated with planning an exercise.

- (1) Provide guidance and direction for planning air defense operations **when designated** a Sector Air Defense Commander (SADC), per applicable directives.
- (2) Approve SADC requirements/layout as developed by the Air Battle Manager (ABM).
- (3) Approve SADC communications plan.
- (4) Provide planning guidance for integration of fighter aircraft and GBAD assets in the destruction area.
- (5) Provide planning guidance for determination of CAP manning/strip alert requirements for fighter aircraft allocated to the destruction area.

- (6) Provide tanker planning guidance.
- (7) Effective coordination and information flow between the TAOC crew and external agencies regarding critical air defense operations and battle management.
- (8) Ensure integration of AAW and C3 agencies within the IADS.
- (9) Approve the plan for assuming the ATACC role.

Performance Standard. Complete each item in this event with 80% accuracy.

Prerequisites. Academics: T-701, T-702, T-704, T-705, T-706, T-707, T-713, T-714, T-718, T-719, T-720, T-721, T-722, T-723, T-724, T-725, T-726, T-727, T-728, T-729, T-730, T-731, T-732, T-734, T-735, T-736, T-738, T-739, T-741, T-742, T-744, T-745, T-747, T-748, T-750, T-751, T-752, T-753, T-757, T-758, T-759, T-760, T-761, and T-762.

SWO-401	16.0	E	TAOC	S,L
---------	------	---	------	-----

Goal. Execute duties as a SWO.

Requirement. During an exercise, demonstrate proficiency in the following:

- (1) Provide guidance and direction for sector air defense operations per applicable directives.
- (2) Interface with the TACC SWO and other external agencies regarding critical air defense operations and battle management
- (3) Effectively manage a TAOC staff performing the SADC and air battle management functions.

Performance Standard. Complete each item in this event with 80% accuracy.

Prerequisite. SWO-401.

External Syllabus Support. External C3 Agencies.

SWO-402	16.0	E	TAOC	L
---------	------	---	------	---

Goal. Designate as SWO.

Requirement. During an exercise, demonstrate proficiency in all requirements listed:

Performance Standards. Complete this event with 80% accuracy.

Prerequisite. SWO-400 and SWO-401.

External Syllabus Support. External C3 Agencies and fighter aircraft.

2. Designations

a. Designation codes do not constitute events themselves. Rather, they will be logged upon being designated by the Commanding Officer or a direct representative; the designation letter shall be filed in the officer's IPR, and other administrative actions taken as appropriate.

DESG-699

Goal. Designate as SWO.

Requirement. Be an officer with MOS 7202, complete SWO syllabus events, be certified a SWO by a designated SWO or MAWTS-1, and designated in writing by the Commanding Officer.

Prerequisite. SWO-400, SWO-401 and SWO-402.