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1. Purpose. To publish standards and regulations regarding the training of F-5 aircrew per the reference

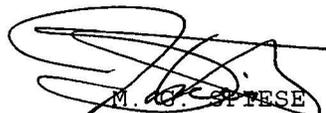
2. Information. Highlights of major training and readiness planning considerations included in this publication are as follows:

- a. Mission Essential Task (MET) incorporation.
- b. Addition of a night syllabus.
- c. Emphasis on Mission Skills versus Core Skills.
- d. Re-naming and re-numbering of Phases from 3 digit to 4 digit codes.
- e. Standardized NATOPS and instrument evaluation policy.

3. Recommendations. Recommended changes to this Manual 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 using standard Naval correspondence or the Automated Message Handling System plain language address: CG TECOM ATB.

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

5. Certification. Reviewed and approved this date.

  
M. G. SPESE  
By direction

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CHAPTER 1

F-5E/F/N TRAINING AND READINESS UNIT REQUIREMENTS

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CHAPTER 1

F-5E/F/N TRAINING AND READINESS UNIT REQUIREMENTS

100. F-5E/F/N TRAINING AND READINESS UNIT REQUIREMENTS. The goal of Marine Aviation is to attain and maintain combat readiness to support Expeditionary Maneuver Warfare while conserving resources. The standards established in this program are validated by subject matter experts to maximize combat capabilities for assigned METs. These standards describe and define unit capabilities and requirements necessary to maintain proficiency in mission skills and combat leadership. Training events are based on specific requirements and performance standards to ensure a common base of training and depth of combat capability.

101. MISSION. The VMFT Mission is to provide safe, professional adversary support to enhance the combat readiness of Marine aviation and ground units. Additionally, support non-USMC units on a not-to-interfere basis.

102. TABLE OF ORGANIZATION

Refer to Table of Organization 8830 managed by Total Force Structure, MCCDC, for current authorized organizational structure and personnel strength for VMFT-401. As of this publication date, VMFT-401 is authorized:

Squadron  
13 aircraft  
20 Pilots (5 AD, 5 AR, 10 SMCR)

103. CORE SKILL AND MISSION SKILL ABBREVIATIONS

Core Skill/Mission Skill Abbreviations	
CORE SKILL	ABBREVIATION
Familiarization	FAM
Instrument	INST
All-Weather Intercept	AWI
Basic Fighter Maneuvering	BFM
Air-to-Ground	AG
Low Altitude Tactics	LAT
Helicopter Attack	HA
Fighter Intercept	FI
Surface Attack	SA
Air-to-Air	AA
Anti-Air Warfare	AAW
MISSION SKILL	ABBREVIATION
Anti-Air Warfare (FW)	AA
Anti-Air Warfare (RW)	HA
Surface-to-Air Warfare	SA
Command and Control	CC

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104. CORE METL AND CORE METL OUTPUT STANDARDS.

1. Core Mission Essential Task List (METL). The unit Core METL is a standardized list of tasks an adversary squadron must be able to accomplish during normal operations. The unit Core METL is as follows:

Marine Corps Task (MCT) A: Provide Antiair Warfare (AAW) training capability to fixed wing aviation units by simulating threat aircraft, weapons systems, and tactics (AA).

Marine Corps Task (MCT) B: Provide Antiair Warfare (AAW) training capability to rotary wing aviation units by simulating threat aircraft, weapons systems, and tactics (HA).

Marine Corps Task (MCT) C: Provide Surface-to-Air Warfare (SA) training capability to ground units by simulating threat aircraft, weapons systems, and tactics (SA).

Marine Corps Task (MCT) D: Provide Command and Control training capability by being prepared to plan and execute the airborne portion of a non-U.S. or threat IADS (CC).

2. Command and Control (C2) is a supporting function for both blue and red aviation assets engaging in AAW type training. C2 training is normally conducted concurrently with the blue and red missions. Since the control of aircraft is an inherent requirement for most adversary missions there are no specific C2 skills that an adversary pilot will be required to maintain. As a result, there is not a C2 skill listed against MCT D and is why there are no T&R support codes that delineate when C2 training is conducted. Events where adversaries are required to support specific C2 functions, the squadron will use the TMR code 2K5 to quantify the amount of support provided to a ground unit. The 2K5 TMR code is used to account for bogey support for any ground unit. Determining which type of ground unit was supported is reflected in the mission scheduled for events with a TMR of 2K5. For example; support specifically for Air Defense units would be scheduled as a SA mission with a 2K5 TMR code. Support provided to a C2 unit would be scheduled as a FI, AA or AAW mission with the TMR of 2K5. VMFT-401 will additionally track specific tasking by a C2 unit with a tracking code of TRK 6200.

3. Core METL Output Standards. An adversary F-5 Squadron is able to safely provide 22 sorties during Normal Operations, 34 sorties during Surge Operations (with appropriate coordination) in support of requesting units. The sortie rates are based on .85 hour average sortie duration and assumes >70 percent FMC aircraft and >90 percent T/O pilots on hand. If unit FMC aircraft <70 percent or T/O pilots <90 percent, core capability will be degraded by a like percentage. A core capable unit is able to accomplish all tasks designated in the unit METL from a home base, or established detachment support base.

Core METL Output Standards VMFT Squadron (13 Aircraft)				
MCT	MET	OUTPUT STANDARD		
		MAXIMUM DAILY SORTIES*	MAXIMUM MCT SORTIES	CMMR CREWS
MCT A AA	Provide AAW training to FW units	22/34	22/34	16
MCT B HA	Provide AAW training to RW units		22/34	14
MCT C SA	Provide SA training to ground units		22/34	10
MCT D CC	Provide C2 training capability		22/34	16

105. METL TO CORE SKILLS/MISSIONS AND CORE PLUS SKILLS MATRIX

F-5 Core METL to Core Skills/Core Plus Skills/Mission Skills Matrix																
	Core Skills							Mission Skills				Core Plus Skills				
	FAM	INST	AG	LAT	HA	BFM	FI	AA	HA	SA	CC	AA	AAW	SA	HA	NSPT
a. Provide AAW training to FW aviation units (AA)	X	X		X		X	X	X				X	X		X	X
b. Provide AAW training to RW aviation units (HA)	X	X		X	X	X			X			X	X		X	
c. Provide SA training to ground units (SA)	X	X	X	X						X				X		
d. Provide C2 training capability (CC)	X	X		X		X	X				X	X	X	X		X

106. CMMR CORE AND MISSION SKILLS CREW DEFINITION AND PROFICIENCY REQUIREMENTS. This table delineates pilot proficiency requirements for each core and Mission Skill. The right column represents the number of Core and Mission Skill Proficient individuals required.

CMMR Core and Mission Skills	
CORE SKILLS	SQDN Pilots
FAM	16
INST	16
AG	14
LAT	14
HA	14
BFM	16
FI	16
MISSION SKILLS	SQDN Pilots
AA	16
HA	14
SA	10
CC	16

107. CMMR CORE PLUS SKILL CREW DEFINITION AND PROFICIENCY REQUIREMENTS. This table delineates pilot proficiency requirements for each Core Plus Skill. The right column represents the number of Core Plus Skill Proficient individuals required.

CMMR Core Plus Skills	
CORE PLUS SKILLS	SQDN Pilots
AA	12
AAW	12
SA	8
HA	8
NSPT	6

108. CMMR COMBAT LEADERSHIP REQUIREMENTS. At a minimum, in order to be considered Core Competent, an F-5 adversary squadron must possess the following numbers of pilots with the listed combat leadership designations.

Unit CMMR Combat Leadership	
DESIGNATION	SQDN PILOTS
SEC LDR	14
DIV LDR	10
MSN CMDR	6

109. UNIT INSTRUCTOR REQUIREMENTS. An F-5 adversary squadron should possess the following numbers of personnel with the instructor designations listed in the matrix.

CMMR Instructors	
INSTRUCTOR DESIGNATION	SQDN PILOTS
NATOPS	1
Asst NATOPS	2
Instrument	3
LATI	4
FAMI	3
ATI	10
PMCF	3

110. ORDNANCE REQUIREMENTS. The basis for the ordnance requirements for the F-5E/F/N Adversary community is unique. Expendable IR countermeasures (flares) are a training aid for the adversary's customer (the Fleet unit supported). Those requirements in the table below are required to train the F-5 pilot in their use, and should be considered a minimum. Because of the benefit to the customer, the NCEA should reflect a number greater than that derived for training F-5 pilots.

	BASIC POI (1)	REFRESHER POI (2)	FLIGHT LEAD UPGRADE (3)	INSTRUCTOR UPGRADE (4)
CATM-9	ALL BFM, AA, AAW, HA	ALL BFM, AA, AAW, HA	ALL	ALL
FLARES	1730	920	210	420
PILOTS (20)	6	14	6	6
General: Requirements are per individual.				
1. Initial transition crews shall fly all 1000-, 2000-, and 3000-level events.				
2. Refresher pilots shall fly all R-coded events.				
3. Must annually train one third of Unit CMMR Combat Leadership level in each of SL, DL, MC.				
4. Must annually train one third of CMMR Instructors.				

F-5 E/F/N ANNUAL SQUADRON REQUIREMENTS					
	BASIC POI	REFRESHER POI	FLIGHT LEAD UPGRADE	IP UPGRADE	ANNUAL SQUADRON TOTAL
FLARES	10350	12870	1960	420	25600

111. TRAINING RESOURCE REQUIREMENTS. The training resources required for an adversary squadron are primarily sufficient range airspace to execute appropriate threat presentations, a TACTS/TCTS/ACMI tracking and recording capability for debrief validation, external Ground Controlled Intercept (GCI) controllers (or Airborne Intercept Controller capability) and occasionally dissimilar fighters to complete Core Skill Introduction training. Secondary requirements include expendables (chaff/flare) to replicate applicable threats, threat representative captive carry Air-to-Air weapons (CATM-X) and a threat representative avionics suite to include RADAR and EA.

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CHAPTER 2

F-5E/F/N PILOT INDIVIDUAL TRAINING AND READINESS REQUIREMENTS

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CHAPTER 2

F-5E/F/N PILOT INDIVIDUAL TRAINING AND READINESS REQUIREMENTS

200. F-5E/F/N INDIVIDUAL TRAINING AND READINESS REQUIREMENTS. This T&R Syllabus is based on specific goals and performance standards designed to ensure individual proficiency in Core and Mission Skills. The goal of this chapter is to develop individual and unit capabilities.

201. F-5E/F/N TRAINING PROGRESSION MODEL. This model represents the recommended training progression for the average F-5 pilot in terms of Core Skills, qualifications, and designation attainment. (See figure 2-1). Units should use the model as a point of departure to generate individual training plans.

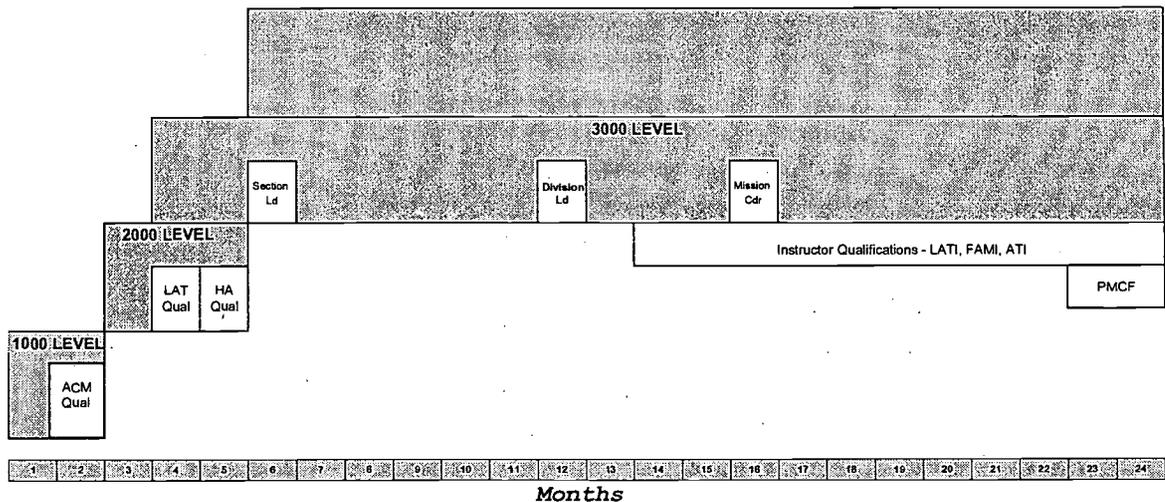


Figure 2-1

202. INDIVIDUAL CORE SKILL PROFICIENCY (CSP) REQUIREMENTS. In order to be considered proficient in a Core Skill, an individual pilot must attain and maintain proficiency in Core Skill events as delineated in the below paragraphs.

1. Events Required to Attain Individual CSP. To initially attain CSP in a Core Skill, an individual must simultaneously have a proficient status in all 2000 level T&R events listed for that Core Skill.

Individual CSP Attain Table							
F-5E/F/N Pilot	FAM	INST	AG	LAT	HA	BFM	FI
T&R event requirements to attain CSP	2101R	2201R	2301R	2401R	2501R	2601R	2701R
				2402	2502R	2602R	2702
				2403R		2603R	
						2604	
						2605	
						2606R	
R = Refresher POI							

2. Events Required to Maintain Individual CSP. To maintain CSP in a Core Skill, an individual must maintain proficiency in all 2000 level T&R events listed for that Core Skill.

Individual CSP Maintain Table							
F-5E/F/N Pilot	FAM	INST	AG	LAT	HA	BFM	FI
T&R event requirements to maintain CSP	2101R	2201R	2301R	2403R	2502R	2601R	2701R
						2602R	
						2603R	
						2606R	
R = Refresher POI							

203. INDIVIDUAL MISSION SKILL PROFICIENCY (MSP) REQUIREMENTS. In order to be considered proficient in a Mission Skill, an individual pilot must attain and maintain proficiency in Mission Skill events as delineated in the below paragraphs.

1. Events Required to Attain Individual MSP. To initially attain MSP in a Mission Skill, an individual must simultaneously have a proficient status in all 3000 level T&R events listed for that Mission Skill:

Individual MSP Attain Table				
F-5E/F/N Pilot	AA	HA	SA	CC
T&R event requirements to attain MSP	3101R	3201R	3301R	3401R
	3102	3202		
	3103R	3203		
	3104R			
	3105R			
R = Refresher POI				

2. Events Required to Maintain Individual MSP. To maintain MSP in a Core Skill, an individual must maintain proficiency in all 3000 level T&R events listed for that Mission Skill:

Individual MSP Maintain Table				
F-5E/F/N Pilot	AA	HA	SA	CC
T&R event requirements to attain MSP	3101R	3201R	3301R	3401R
	3103R			
	3104R			
	3105R			
R = Refresher POI				

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, but it should be noted that there are events in the Core Plus Phase which are required of adversaries from time to time. So, unlike many other T/M/S T&R manuals, it is a requirement to maintain some Core Plus Skill proficiency in the Adversary Squadron. To initially attain proficiency in a Core Plus Skill, an individual must simultaneously have a proficient status in all T&R events listed for that Core Skill:

Individual Core Plus Skill Attain Table						
F-5E/F/N Pilot	AA	AAW	HA	SA	NSPT	
T&R event requirements to attain Core+ Skill Proficiency	4101R	4201R	4301R	4401R	4501R	4505R
	4102R	4202R			4502R	4506
					4503R	4507
					4504R	4508
R = Refresher POI						

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 T&R events listed for that Core Skill:

Individual Core Plus Skill Maintain Table					
F-5E/F/N Pilot	AA	AAW	HA	SA	NSPT
T&R event requirements to maintain Core+ Skill Proficiency	4101R	4201R	4301R	4401R	4501R
	4102R	4202R			
R = Refresher POI					

204. QUALIFICATION AND DESIGNATION TABLES. The tables below delineate T&R events required to be completed to attain proficiency, and for initial qualifications and designations. In addition to event requirements, all required stage lectures, briefs, squadron training, prerequisites, and other criteria shall be completed prior to completing final events. Qualification and designation letters signed by the Commanding Officer shall be placed in Individual Performance Records (IPR). Loss of proficiency in all qualification events causes the associated qualification to be lost. Regaining a qualification requires completing all R-coded syllabus events associated with that qualification or designation.

INDIVIDUAL QUALIFICATION REQUIREMENTS	
Qualification	Event Requirements
NATOPS	IAW OPNAVINST 3710.7
INST	IAW OPNAVINST 3710.7
ACM QUAL	1301, 1302R, 1401R, 1402R, 1403, 1404, 1405R, 1601R, 1602, 1603, 1701, 1702R, 1801R, 1802, 1803R, 1804, 1805, 1806R
LAT QUAL	2401R, 2402
HA QUAL	2501R, 2502

INDIVIDUAL DESIGNATION REQUIREMENTS	
Qualification	Event Requirements
SECT LD	6201R, 6202R, 6203, 6204R, 6205, 6206R, 6207R
DIV LD	6301, 6302R, 6303R, 6304R
MSN CDR	6401, 6402R, 6403R
ATI	5101R, 5102R, 5103R, 5104R
LATI	5201R, 5202R
PMCF	6501R, 6502R
FAMI	5301R, 5302R

205. F-5E/F/N PROGRAMS OF INSTRUCTION.

a. Even though all pilots assigned to fly the F-5 are from other communities, they will still be assigned to the F-5E/F/N Basic POI. Once complete with the Basic POI, they will be assigned to the Refresher POI. Pilots returning to the F-5 after time away from it will be assigned to the Refresher POI.

b. All pilots desiring orders to VMFAT-401 shall be ACTI or ACTI-equivalent qualified per their respective T/M/S in order to be eligible for assignment to 401.

1. Basic POI. The transition POI is based on the assumption that the PUI is either on active duty, or if an SMCR, on active duty orders for the time required to complete the syllabus through the Core Skill Introduction Training. In the case that an SMCR pilot is not on active duty orders during this POI, the time to train will be significantly longer. For subsequent phases (Core Skill and later), the time-to-train is based on a normal SMCR participation schedule. Active duty pilots will likely progress faster through these phases.

<u>WEEKS</u>	<u>COURSE/PHASE</u>	<u>ACTIVITY</u>
1-2	FAM	Adversary Squadron
3-5	AWI/BFM	Adversary Squadron
6-7	AA (Core Skills Intro)	Adversary Squadron
8-10	BFM/FI	Adversary Squadron
11-12	AA	Adversary Squadron
13	AG/LAT	Adversary Squadron
14-15	HA/SA	Adversary Squadron
16-20	NSPT	Adversary Squadron

2. Refresher POI

<u>WEEKS</u>	<u>COURSE/PHASE</u>	<u>ACTIVITY</u>
1-2	FAM	Adversary Squadron
3	AWI/BFM	Adversary Squadron
4	AA (Core Skills Basic)	Adversary Squadron
5-6	BFM/FI	Adversary Squadron
7	AA	Adversary Squadron
8	AG/LAT	Adversary Squadron
9	HA/SA	Adversary Squadron
10-14	NSPT	Adversary Squadron

206. ACADEMIC/GROUND TRAINING

1. Academic training shall be conducted for each phase/stage of the syllabus. Applicable training codes for these academic events are located in the description for each phase. As a general rule, these academic events are all listed at the beginning of each block (e.g. 1000-, 2000-, etc.), except in cases where the academic event fits better alongside the applicable flight event (e.g. Open Book NATOPS test has a code adjacent to the NATOPS check ride sortie). Where indicated, standardized academic training materials exist and may be obtained from the sponsoring activity.

2. Aviation Career Progression Model (ACPM). All tactical T/M/S T&R manuals have ACPM training requirements embedded within the progressive training phases, including the flight leadership POI. If not already completed prior to assignment to VMFT-401, pilots assigned to VMFT-401 shall complete ACPM training requirements as outlined per their original T/M/S MOS T&R manual. Refer to NAVMC 3500.14, Aviation T&R Program Manual, as a primary reference for ACPM training requirements.

207. T&R SYLLABUS NOTES. For the purposes of this Manual, the qualification to fly the F-5 E/F/N series is interchangeable. There is no MOS for F-5 E/F/N pilots, so the qualification will be recorded in the qualification record in the NATOPS jacket and logbook.

1. Event Conditions. Indicate the environmental (Day or Night) conditions required. Applicable options include:

Code	Requirement
D	Shall be flown or conducted during day.
N*	Event Shall be flown or conducted at night unaided.
N	Shall be flown or conducted at night (using available night vision devices or flown unaided).

208. CORE SKILL INTRODUCTION PHASE. This training includes fundamental system/equipment operation familiarization, initial procedures, and initial exposure to Core Skills. Because all pilots assigned to the F-5 as Adversary Pilots must already be designated ACTIs in other aircraft, the Core Skill Introduction Phase is designed to allow the transition pilot to progress through ACM Qualification in the F-5 by the completion of this phase.

1. General

a. Stages. The stages in the Core Skill Introduction Phase are: Familiarization (FAM), Instrument (INST), All-Weather Intercept (AWI), Basic Fighter Maneuvers (BFM), and Air-to-Air (AA).

b. Academics. The following table lists the academic events and their training codes which apply to the Core Skill Introduction Phase.

Training Code	Event	Source
ACAD-1001	F-5 Systems	Self paced CAI
ACAD-1002	F-5 Ground School	FAMI
ACAD-1003	Parachute Brief / Seat Brief / Cockpit FAM	Maintenance-FE, Seat Shop/FAMI
ACAD-1004	Departure/Spin Video	PTO
ACAD-1005	SOP Test	PTO
ACAD-1006	RADAR lecture and hardware demo	PTO
ACAD-1010	TopGun Manual ch 1 "Communications Brevity"	PTO
ACAD-1011	TopGun Manual ch 39 "Command and Control"	PTO
ACAD-1020	TopGun Manual ch 38 "lvl Air Combat"	PTO

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ACAD-1030	TACSOP Review	PTO
ACAD-1031	TopGun Manual ch 15 "Threat Pilot"	PTO
ACAD-1032	ACMQ Test	PTO

### 3. Familiarization (FAM) Stage

a. Purpose. The FAM stage is designed to take a PUI through the initial introduction to the F-5 aircraft, its systems, and its flight characteristics. Safe operation and compliance with NATOPS from chocks to chocks is the focus of this stage.

b. General. This stage is intended to be completed in order, and shall be flown with a FAMI, both for dual sorties (F-5F), and the chased sorties (in the F-5E/N). By the end of this stage, the PUI should be competent to safely operate the F-5 series aircraft as a single ship, a wingman in a section, and as a backup flight leader in the event of an in-flight emergency.

c. Crew Requirements. Dual sorties require a FAMI in the back seat. Solo sorties are flown as a section, with a FAMI in lead role. PUI must be FAM Stage complete before flying a solo sortie in any other stage.

d. Academic/Ground Training. PUI shall complete ACAD-1001 through ACAD-1005 and NTPS-6701 and 6702 (Open and Closed Book Tests) prior to beginning the flight phase.

FAM-1101 0.0 \* B,R E 1 F-5F or 1 F-5N D

Goal. Taxi FAM. Introduce F-5 Line Procedures (preflight, start, post start, pre-taxi, post flight and shutdown checks in addition to Plane Captain signals). Introduce taxiing technique.

Requirement. PUI completes start checks in the F-5F with the FAMI in the back seat, or in an F-5N under supervision of a FAMI. Taxi out of the line, complete all checks up through takeoff checks. Taxi back into line, complete all post flight and shutdown checks.

Performance Standard. Safe conduct in the opinion of the FAMI.

Prerequisite. Ground School complete (ACAD-1001 through 1005), and the Open/Closed Book NATOPS exams (NTPS-6701, 6702). Watch a minimum of one launch with a FAMI.

References. VMFT-401 Sortie Syllabus Guide.

FAM-1102 1.0 \* B,R E 1 F-5F D

Goal. First Flight. Practice line and taxi procedures. Introduce takeoff, area work (aircraft handling, stalls, manual gear release), and full-flap landings from the front seat of the F-5F. Introduce Inverted-Pitch Hangup (IPH) Demo.

Requirement. Dual sortie with FAMI. PUI complete minimum of five full-flap landings from the front seat of an F-5F.

Performance Standard. Complete sortie safely in the opinion of the FAMI. Land within first 1000 feet of runway by end of sortie. Compliance with Course Rules and ATC instructions. Compliance with NATOPS.

Prerequisite. FAM-1101.

Range Requirement. RSTD SFC-FL300.

References. VMFT-401 Sortie Syllabus Guide.

FAM-1103 1.0 \* B,R E 1 F-5F D

Goal. Practice F-5 ground procedures, takeoffs, and landings. Practice air work (aircraft handling, acrobatics, and stalls). Introduce no-flap landing, GCA, and drag-chute full stop landing.

Requirement. PUI conducts GCA for recovery. PUI completes 1 no-flap landing and 4 full-flap landings. PUI conduct drag-chute full-stop landing.

Performance Standard. Safe conduct in the opinion of the FAMI who will make "safe-for-solo" determination. 75 percent of landings in first 1000 feet of runway. Drag chute deployed within 3000 feet of runway threshold. Instrument approach must terminate in a manner which would allow for a safe landing.

Prerequisite. FAM-1102.

Range Requirement. RSTD SFC-FL300.

External Support. Ground-Controlled Approach.

References. VMFT-401 Sortie Syllabus Guide.

FAM-1104 1.0 \* B E 2 F-5E/N D

Goal. Introduce solo flight operations in a section of aircraft. Introduce "N" model avionics and recovery via course rules as lead aircraft with a FAMI chase. Practice all line procedures, air work (aircraft handling, acrobatics), course rules, and landings. Introduce formation flight (join up, position-keeping, overhead recovery).

Requirement. Flown with FAMI. Minimum of five (5) landings total - 1 x no-flap, and 4 x full-flap.

Performance Standard. Safe conduct in the opinion of the FAMI.

Prerequisite. FAM-1103.

Range Requirement. RSTD SFC-FL300.

References. VMFT-401 Sortie Syllabus Guide.

FAM-1105 1.0 \* B,R E 2 F-5E/N D

Goal. Introduce recovery by GCA as -2 in a section. Practice all line procedures, aircraft handling, and landings.

Requirement. Flown with FAMI. Minimum of four (4) landings total - 1 x No-flap, and 3 x Full-flap.

Performance Standard. Safe conduct in the opinion of the FAMI. Instrument approach must terminate in a manner which would allow for a safe landing.

Prerequisite. FAM-1104.

Range Requirement. RSTD SFC-FL300.

References. VMFT-401 Sortie Syllabus Guide.

FAM-1106 1.0 \* B E 2 F-5E/N D

Goal. Introduce recovery via VFR Course Rules as -2 in a section. Practice all line procedures, aircraft handling, and landings.

Requirement. Flown with FAMI. Minimum of Four (4) landings total - 1 x No-flap, and 3 x Full-flap.

Performance Standard. Safe conduct in the opinion of the FAMI.

Prerequisite. FAM-1105.

Range Requirement. RSTD SFC-FL300.

References. VMFT-401 Sortie Syllabus Guide.

FAM-1107 1.0 \* B,R E 2 F-5E/N D

Goal. FAM stage check ride. Introduce section GCA recovery as the lead aircraft of the section. Practice all procedures, airwork, and landings introduced in the FAM stage.

Requirement. Section GCA recovery as section leader. Minimum of four (4) landings.

Performance Standard. Compliance with all ATC instructions when IFR. Safe conduct in the opinion of the FAMI. FAMI determination that the PUI is safe for solo operations beyond the FAM stage. Instrument approach must terminate in a manner which would allow for a safe landing.

Prerequisite. FAM-1106. ACAD-1006 (RADAR lecture and RADAR hardware demo on I-level test bench with the PTO).

Range Requirement. RSTD SFC-FL300.

External Support. Ground-Controlled Approach.

References. VMFT-401 Sortie Syllabus Guide.

4. Instrument (INST) Stage

a. Purpose. The INST stage is designed to introduce the PUI to operation of the F-5 aircraft under instrument flight rules. The PUI will develop an effective instrument scan in the F-5 for use in airways navigation and in the conduct of both precision and non-precision approaches. An additional goal is to build toward the instrument flight hour and approach requirements for annual instrument qualification per OPNAVINST 3710.7.

b. General. This phase is intended to be completed in order once the PUI is FAM stage complete. These sorties will be flown solo as a single ship and do not require an instructor. By the end of this stage the PUI should be competent to safely operate the F-5 series aircraft under IFR, as a single ship or as a backup flight leader in the event of an in-flight emergency. These sorties are flown IFR, but in VMC. The PUI will not be instrument-rated in the F-5 at this point in the syllabus.

c. Crew Requirements. These events are intended to be flown as a single aircraft with a single pilot. In the case that an F-5F is substituted for an F-5E/N, the PUI should fly it from the front seat in the solo configuration. If weather is a training inhibitor, the sorties can be flown in the F-5F in IMC conditions if there is a current, qualified F-5 pilot in the back seat as a weather "shotgun."

d. Academic/Ground Training. Complete Instrument Ground School and Instrument Test (INST-6801, 6802) if NATOPS Instrument Rating is not current.

INST-1201 1.0 \* B 1 F-5E/N D

Goal. Familiarization with the GCA pattern and TACAN approach.

Requirement. Complete one TACAN approach, one ASR, and three PAR approaches.

Performance Standard. Compliance with all ATC directions and appropriate directives governing instrument flight. All approaches must terminate in a manner which would allow for a safe landing.

Prerequisite. FAM-1107.

External Support. Ground-Controlled Approach. An airfield with suitable precision and non-precision approaches available for practice approaches. If no precision approach radar is available, substitute ASR for the PAR requirements.

References. OPNAVINST 3710.7. NATOPS Manual.

INST-1202 1.0 \* B,R 1 F-5E/N D

Goal. Familiarization with airways navigation in the F-5 series aircraft.

Requirement. Complete IFR round-robin sortie to include flight plan filing. The intent of this event is to conduct airways navigation to an unfamiliar field (not home base), conduct an approach there, and navigate back to home base. Conduct another instrument approach at home base.

Performance Standard. DD-175 properly filed. Airways navigation IAW FAA rules and regulations. One each: precision and non-precision approach. All approaches must terminate in a manner which would allow for a safe landing.

Prerequisite. FAM-1107.

External Support. Ground-Controlled Approach. An airfield with suitable precision and non-precision approaches available for practice approaches. If no precision approach radar is available, substitute ASR for the PAR requirements.

References. OPNAVINST 3710.7. NATOPS Manual.

5. All Weather Intercept (AWI) Stage.

a. Purpose. The AWI stage is to develop the PUI's skills in the use of the APQ-159 RADAR system to find other FW aircraft that are beyond visual range (BVR).

b. General. This stage is intended to be completed in order and may be flown concurrently with other stages. The first two sorties in the stage will be required before beginning the BFM stage. The AWI phase must be completed prior to beginning section dissimilar air-combat maneuvering (AA-1801). An ATI is required as an instructor for all of the sorties in this stage. By the end of this stage, the PUI should be able to find look-up radar contacts on the APQ-159, and convert them to a "tally" at least half the time, and be able to share time between RADAR work and section position-keeping so as not to lose sight of the section leader. If a PUI is unable to meet performance standards due to a poor performing RADAR, the PUI shall refly the event in another aircraft.

c. Crew Requirements. This stage is flown with an ATI as an instructor in another aircraft.

d. Academic/Ground Training. Prior to being scheduled in this stage, the PUI will have completed ACAD-1010 and 1011.

AWI-1301 0.8 \* B E 2 F-5E/N D

Goal. Review F-5 canopy gouge and APQ-159 controls and displays. Review SRR. Introduce forward quarter intercepts to tally with lookup.

Requirement. Perform six Forward Quarter intercepts with lookup (at medium altitude). Weather permitting, the PUI will be in the 15-19k ft block, and the IP will be in the 20-24k ft block.

Performance Standard. Intercept to tally on 50% of attempts; using GCI (Tac-BRAA) or Reverse-GCI (B/E to Tac-BRAA) to guide RADAR usage. PUIs unable to achieve this standard shall re-fly the event.

Prerequisite. FAM-1107, ACAD-1010, 1011.

Range Requirement. RSTD SFC-FL300.

External Support. GCI desired.

References. TOPGUN Manual.

AWI-1302    0.8           \*           B,R           E           2 F-5E/N    D

Goal. Review. Intro lookup intercepts from lower altitudes (i.e. the 5-9 MSL block (weather permitting)). Intro lookdown intercepts (at medium altitude). Review APQ-159 controls and displays, and F-5 canopy gouge.

Requirement. Complete six FQ intercepts (three with lookdown and three with lookup).

Performance Standard. Conduct intercept to tally at least once with lookdown and once with lookup from lower altitude. PUIs unable to achieve this standard shall re-fly the event.

Prerequisite. AWI-1301.

Range Requirement. RSTD SFC-FL300.

External Support. GCI desired.

References. TOPGUN Manual.

AWI-1701    0.8           \*           B           E           2 F-5E/N    D

Goal. Introduce section (2v2) intercepts as a wingman, sorting vs. non-maneuvering targets. Introduce SSO and bracket geometry. Review RADAR controls and displays. Emphasize keeping sight of the flight leader and intercept mechanics (formation, comm, and RADAR).

Requirement. Perform five section intercepts as the dash-2 against two non-maneuvering targets (either similar or dissimilar).

Performance Standard. PUI should be tally-one minimum at each merge.

Prerequisite. AWI-1302.

Range Requirement. RSTD SFC-FL300.

External Support. Two fighters (if flown dissimilar). GCI required.

References. TOPGUN Manual.

AWI-1702      0.8            \*            B,R            E            2 F-5E/N      D

Goal. Practice section (2v2) intercepts. Introduce sorting vs. maneuvering targets and split targeting. Review RADAR controls and displays. Emphasize keeping sight of the flight leader, and intercept mechanics (formation, comm, and RADAR).

Requirement. Five section intercepts vs. maneuvering targets (either similar or dissimilar). Intercepts to include one section beam with lookup, one section beam with lookdown, one section drag with a recommit, and 2 mirror beam maneuvers both with lookup.

Performance Standard. Block adherence on all runs, else repeat sortie. Maintain visual on all runs (except for those requiring split targeting). PUI finds visual merge on half of runs when split-targeting.

Prerequisite. AWI-1701.

Range Requirement. RSTD SFC-FL300.

External Support. Two fighters (if flown with dissimilar adversaries). GCI required.

References. TOPGUN Manual.

## 6. Basic Fighter Maneuvers (BFM) Stage

a. Purpose. The BFM stage is designed to introduce the PUI to maneuvering the F-5 aircraft against both similar and dissimilar adversaries. Use of the F-5 weapons system with regard to the eventual simulation of various gun and missile systems in threat fighters will be emphasized. Safe operation and compliance with the Air-to-Air training rules as put forth in the OPNAVINST 3710.7 will be stressed. Focus in this phase is on competence in F-5 BFM skills, and in its ultimate use as a training aid for other fighters, who are the customers of the Adversary community.

b. General. This phase is intended to be completed in order and shall be flown with an ATI for similar events, and with an ACTI (or equivalent IP (USAF), or Level 4 Adversary (USN)) for dissimilar events. By the end of this stage, the PUI should have been exposed to the basic capabilities and limitations of the F-5 in a maneuvering environment against fighters with similar and dissimilar (both superior and inferior) maneuvering capabilities. The PUI should understand those characteristics sufficiently to be able to continue to develop adversary skills when flying with flight leaders who are not designated

instructors. Safe operation and adherence to the training rules shall be strictly enforced.

c. Crew Requirements. All sorties in stage are flown solo, and are flown with an ATI or dissimilar equivalent. BFM 1406 and 1407 require an ACTI (or equivalent) in the dissimilar aircraft.

d. Academic/Ground Training. The PUI shall complete ACAD-1020 prior to commencing this phase.

BFM-1401    0.8            \*            B,R            E            2 F-5E/N    D

Goal. Introduce offensive perch BFM in the F-5. (1vl similar with IP as flight leader). IP review EM diagram with PUI.

Requirement. Perform one Snapshot Drill (aka SSD; Guns Weave), and three BFM Perch sets (minimum of one each with PUI on perch inside the defender's turn circle and with PUI on perch outside the defender's turn circle).

Performance Standard. Strict adherence to ACM Training Rules (OPNAVINST 3710.7). On at least two of the perch setups, the PUI keeps neutral or better positioning (no role reversal) for at least 45 seconds.

Prerequisite. ACAD-1020, AWI-1302.

Ordinance. One (1) CATM-9 and ten (10) flares per aircraft.

Range Requirement. RSTD SFC-FL310.

External Support. TACTS desired.

References. VMFT-401 Sortie Syllabus Guide.

BFM-1402    0.8            \*            B,R            E            2 F-5E/N    D

Goal. 1vl similar defensive perch BFM. (1vl similar with IP as flight leader). Introduce defensive perch setups in the F-5. Introduce guns defense. Emphasize WEZ recognition by the PUI, and the timely decision to use the correct counter when presented with an IP approaching an imminent WEZ.

Requirement. Perform three BFM perch sets (minimum of one each with IP on perch inside the PUI/defender's turn circle and with IP on perch outside the PUI/defender's turn circle). Perform one guns defense canned setup.

Performance Standard. Strict adherence to ACM Training Rules (OPNAVINST 3710.7). On at least two of the perch setups, the PUI keeps sight of the IP throughout the engagement. During the Guns Defense setup, the PUI must regain sight of the IP after his out-of-plane maneuver. When IP generates an overshoot of the PUI flight path, the PUI must counter to effectively neutralize the attacker's advantage.

Prerequisite. BFM-1401.

Ordinance. One (1) CATM-9 and ten (10) flares per aircraft.

Range Requirement. RSTD SFC-FL310.

External Support. TACTS desired.

References. VMFT-401 Sortie Syllabus Guide.

BFM-1403 0.8 \* B E 2 F-5E/N D

Goal. 1v1 neutral (beam) BFM sets. (1v1 similar with IP as flight leader). Introduce Neutral Beam setups. Emphasize WEZ recognition and counter-maneuvers. Practice Snapshot Drill.

Requirement. Perform one SSD. Perform a minimum of 2 neutral setups to complete this sortie.

Performance Standard. Strict adherence to ACM Training Rules (OPNAVINST 3710.7). On one of the neutral setups, the PUI must deny the IP a gun WEZ for a minimum of 90 seconds.

Prerequisite. BFM-1402.

Ordinance. One (1) CATM-9 and ten (10) flares per aircraft.

Range Requirement. RSTD SFC-FL310.

External Support. TACTS desired.

References. VMFT-401 Sortie Syllabus Guide.

BFM-1404 0.8 \* B E 2 F-5E/N D

Goal. 1v1 neutral (butterfly) BFM sets. Introduce butterfly setups. Emphasize WEZ recognition and AA weapon switchology.

Requirement. Minimum of 2 butterfly sets to complete

Performance Standard. Strict adherence to ACM Training Rules (OPNAVINST 3710.7). On one of the neutral (butterfly) setups, the PUI must deny the IP a Gun WEZ for a minimum of 90 seconds.

Prerequisite. BFM-1403.

Ordinance. One (1) CATM-9 and ten (10) flares per aircraft.

Range Requirement. RSTD SFC-FL310.

External Support. TACTS desired.

References. VMFT-401 Sortie Syllabus Guide.

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BFM-1405    0.8            \*            B,R            E            2 F-5E/N    D

Goal.    1vl similar neutral BFM Review.    Safe for dissimilar ACM check.    Practice neutral start, similar BFM.

Requirement.    Complete a minimum of one beam setup and one butterfly setup.

Performance Standard.    PUI deny IP guns WEZ for 90 sec on a minimum of two setups.

Prerequisite.    BFM-1404.

Ordnance.    One (1) CATM-9 and ten (10) flares per aircraft.

Range Requirement.    RSTD SFC-FL310.

External Support.    TACTS desired.

References.    VMFT-401 Sortie Syllabus Guide.

BFM-1406    0.8            \*            B,R            E            1 F-5E/N    D

Goal.    1vl dissimilar BFM vs. any CAT fighter.    Introduce dissimilar BFM.    Review (with ATI) briefing and debriefing techniques and procedures.    Emphasize BFM game plans and training rules.

Requirement.    Perform two BFM setups with any dissimilar adversary ACTI or equivalent.    An ACTI or equivalent in the dissimilar aircraft.

Performance Standard.    Safe operation in the opinion of the instructor (ACTI or equivalent in dissimilar fighter).

Prerequisite.    NATOPS qualified (NTPS-6703).    BFM-1405.

Ordnance.    One (1) CATM-9 and ten (10) flares per aircraft.

Range Requirement.    RSTD SFC-FL310.

External Support.    One dissimilar fighter with ACTI or equivalent pilot.    TACTS desired.

References.    VMFT-401 Sortie Syllabus Guide.

BFM-1407    0.8            \*            B            E            1 F-5E/N    D

Goal.    1vl dissimilar BFM vs. CAT IV fighter.    Practice dissimilar BFM against a superior fighter aircraft.    Review (with ATI) briefing and debriefing techniques and procedures.    Emphasize BFM game plans vs. CAT IV fighters.    Emphasize training rules.

Requirement. Perform two BFM setups with any CAT IV adversary. An ACTI or equivalent in the dissimilar aircraft.

Performance Standard. Safe operation in the opinion of the instructor (ACTI or equivalent in dissimilar fighter).

Prerequisites. NATOPS qualified (NTPS-6703). BFM-1405.

Ordnance. One (1) CATM-9 and ten (10) flares per aircraft.

Range Requirement. RSTD SFC-FL310.

External Support. One CAT IV dissimilar fighter with ACTI or equivalent pilot. TACTS desired.

References. VMFT-401 Sortie Syllabus Guide.

## 7. Air-to-Air (AA) Stage

a. Purpose. The Air-to-Air (AA) stage is designed to give a PUI an introduction to the use of the F-5 as an adversary. At the end of this stage, the PUI will be considered ACM Qualified in the F-5, will move into the Core Skills (2000-Level) Phase, and will be able to fly adversary sorties without an Adversary Tactics Instructor (ATI).

b. General. This phase is intended to be completed in order, and shall be flown with an ATI. It may be flown concurrently with the AWI stage, with AWI 1701 and 1702 required before AA-1801. Instructors will place a great deal of emphasis on both safety (compliance with NATOPS and OPNAV training rules) and compliance with fighter tasking. Additionally, since many of these events will be flown as adversaries for blue fighter training (taking some control of the sortie's content out of the instructor's hands), giving the VMFT squadron little control about the specifics of each sortie, the requirements of Figure 2-2 must be met. A copy of the Core Skill Introduction Air-to-Air Phase Task List (Appendix A) shall be placed in each PUI's training jacket, and the individual items signed off by each instructor as each is performed. This is an additional requirement on top of completion of the gradesheet for each event. The intent of this additional tracking measure is to ensure that each PUI meets the minimum standards for exposure events during this stage. If the stage is complete without completing all of the requirements of the Core Skill Introduction Air-to-Air Phase Task List, the PUI shall be scheduled for additional AA-1806 events until all of the requirements are met.

c. Crew Requirements. Sorties are flown in section or division, with the PUI solo, and shall be led by an ATI. AA-1602 requires an ACTI (or equivalent) in the fighter section.

d. Academic/Ground Training. The PUI shall complete ACAD-1030 and 1031 prior to commencing this phase. ACAD-1032 must be complete prior to scheduling for AA-1801.

AA-1601      0.8      \*      B,R      E      3 F-5E/N      D

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Goal. 1v1v1 similar. Introduce 1v1v1 maneuvering. This event is a stepping stone toward BFM in a multi-bogey environment. Emphasize training rule adherence, WEZ recognition, and energy management.

Requirement. Begin engagements from BVR and WVR setups (at least one of each).

Performance Standard. Strict adherence to training rules.

Prerequisite. ACAD-1030, 1031. BFM-1405.

Ordnance. One (1) CATM-9 and ten (10) flares per aircraft.

Range Requirement. RSTD SFC-FL310.

External Support. TACTS desired.

References. VMFT-401 Sortie Syllabus Guide.

AA-1602      0.8      \*      B      E      1 F-5E/N      D

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Goal. 1v2 dissimilar. Introduce 1v2 maneuvering as an adversary for the fighters' 2v1 training.

Requirement. Perform a minimum of two engagements with a section of dissimilar fighters. These engagements may be from BVR or visual setups.

Performance Standard. Compliance with training rules and fighter tasking.

Prerequisite. BFM-1406, 1407.

Ordnance. One (1) CATM-9 and ten (10) flares.

Range Requirement. RSTD SFC-FL310.

External Support. Two dissimilar fighters. One member of the flight of two fighters must be an ACTI. (If dissimilar fighters are not available, CO, VMFT can authorize this sortie to be flown with similar fighters. In this case, consider the dissimilar requirement "deferred" until the 2000-level or until suitable fighters can be scheduled. If flown "similar", ensure that the PUI also logs the TRK-6104 code.) TACTS desired.

References. VMFT-401 Sortie Syllabus Guide.

AA-1603      0.8      \*      B      E      2 F-5E/N      D

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Goal. 2v1 dissimilar. Introduce 2v1 visual maneuvering against a dissimilar fighter.

Requirement. Perform a minimum of two 2v1 engagements. These engagements can be entered from BVR or visual setups.

Performance Standard. Compliance with training rules. Valid WEZ achieved by one of the members of PUI's flight in 50% of setups.

Prerequisite. BFM-1406, 1407.

Ordnance. One (1) CATM-9 and ten (10) flares per aircraft.

Range Requirement. RSTD SFC-FL310.

External Support. One dissimilar fighter. (If dissimilar fighters are not available, CO, VMFT-401 can authorize this sortie to be flown with similar fighters. In this case, consider the dissimilar requirement "deferred" until the 2000-level or until suitable fighters can be scheduled. If flown "similar", ensure that the PUI also logs the TRK-6104 code). TACTS desired.

References. VMFT-401 Sortie Syllabus Guide.

AA-1801      0.8      \*      B,R      E      2 F-5E/N      D

Goal. 2v2. Introduce section tactics as an adversary. Practice formation, communication, and RADAR work.

Requirement. Two BVR setups minimum as a wingman. Maintain visual with flight leader.

Performance Standard. Compliance with training rules and fighter tasking.

Prerequisite. ACAD-1032. AWI-1702, AA-1602, AA-1603.

Ordnance. One (1) CATM-9 and ten (10) flares per aircraft.

Range Requirement. RSTD SFC-FL310.

External Support. Two dissimilar fighters. TACTS desired. GCI required.

References. VMFT-401 Sortie Syllabus Guide.

AA-1802      0.8      \*      B      E      2 F-5E/N      D

Goal. 2v2. Practice section tactics as an adversary. Practice formation, communication, and RADAR work.

Requirement. Two BVR setups minimum as a wingman in a section.

Performance Standard. Compliance with training rules and fighter tasking. PUI keep sight of lead aircraft.

Prerequisite. AA-1801.

Ordnance. One (1) CATM-9 and ten (10) flares per aircraft.

Range Requirement. RSTD SFC-FL310.

External Support. Two dissimilar fighters. TACTS desired. GCI required.

References. VMFT-401 Sortie Syllabus Guide.

AA-1803      0.8           \*           B,R           E           4 F-5E/N      D

Goal. 4vX. Introduce division tactics against an unknown number of adversaries. Introduce division SOP items.

Requirement. Two BVR setups minimum as a wingman in a division.

Performance Standard. Compliance with training rules and fighter tasking. PUI keep sight of lead aircraft.

Prerequisite. AA-1802.

Ordnance. One (1) CATM-9 and ten (10) flares per aircraft.

Range Requirement. RSTD SFC-FL310.

External Support. Minimum of two dissimilar fighters (four desired). TACTS desired. GCI required.

References. VMFT-401 Sortie Syllabus Guide.

AA-1804      0.8           \*           B           E           2 F-5E/N      D

Goal. 2vX. Practice section tactics against an unknown number of adversaries.

Requirement. Two BVR setups minimum as a wingman in a section.

Performance Standard. Compliance with training rules and fighter tasking. PUI keep sight of lead aircraft.

Prerequisite. AA-1801.

Ordnance. One (1) CATM-9 and ten (10) flares per aircraft.

Range Requirement. RSTD SFC-FL310.

External Support. Minimum of two dissimilar fighters. TACTS desired. GCI required.

References. VMFT-401 Sortie Syllabus Guide.

AA-1805      0.8      \*      B      E      2 F-5E/N      D

Goal. 2vX Tap the Cap (or visual setups). Introduce Tap the Cap (and/or 2v2 WVR setups). The intent of this event is to expose the PUI to a Tap the Cap setup both as a wingman and an autonomous single. Because of difficulty of scheduling and PUI training timelines, the PTO may substitute a sortie with visual setups, but that should be noted in the PUI's training jacket. Exposure to the Tap the Cap must then happen prior to section lead upgrade (at a minimum).

Requirement. Complete a minimum of two visual attacks on an element of capping fighters. It is desired to have at least one attack as a single ship and at least one attack as a section for the Tap the Cap.

Performance Standard. Compliance with training rules and fighter tasking. Block adherence is mandatory until establishing "tally all." Complete a minimum of one attack as a single and one attack as a section.

Prerequisite. AWI-1702, AA-1602, AA-1603.

Ordnance. One (1) CATM-9 and ten (10) flares per aircraft.

Range Requirement. RSTD SFC-FL310.

External Support. Minimum of two dissimilar fighters. TACTS desired. GCI desired.

References. VMFT-401 Sortie Syllabus Guide.

AA-1806      0.8      \*      B,R      E      2 F-5E/N      D

Goal. 2v ANY. ACM Qual check ride. Review section tactics in the adversary role.

Requirement. PTO shall ensure that the 1000-level Air-to-Air stage requirements are all complete, including the requirements of the Core Skill Introduction Phase Task List, prior to scheduling for this sortie. Additionally, the IP shall conduct a jacket review prior to the brief for this sortie. PUI will complete a minimum of two BVR setups to meet the requirements of this sortie.

Performance Standard. Compliance with training rules and fighter tasking. This check ride will enable the PUI to proceed in the syllabus without the presence of an ATI in the flight, and should therefore demonstrate mastery of the training rules and their application. The PUI should also demonstrate a comprehensive understanding of fighter tasking and use of the F-5 to simulate red fighters.

Prerequisite. AA-1801,1802,1803,1804,1805. AA Phase Task List complete.

Ordinance. One (1) CATM-9 and ten (10) flares per aircraft.

Range Requirement. RSTD SFC-FL310.

External Support. Minimum of two dissimilar fighters. TACTS desired. GCI required.

References. VMFT-401 Sortie Syllabus Guide.

## 209. CORE SKILL PHASE

1. After completing the entire Core Skill Intro phase, the PUI will progress to the Core Skill Basic Phase. The focus of this phase is to train the PUI in the skills needed for progression into adversary missions in the 3000 and 4000-level phases of training. These skills will have already been mastered in another aircraft type/model/series, so the training focus in this phase will be on F-5 specifics and the adversary role. Upon completion of this phase, the PUI will understand F-5's strengths and weaknesses in each of the regimes in which we train. As the PUI is already ACM Qualified upon completion of the Core Skill Introduction phase, the adversary tasking may be fulfilled in many areas while training in this phase. The training events in this phase also include the Refresher POI events for those pilots who are returning to the squadron after an extended period away. Blue forces are listed below as 'External Support Required', but keep in mind that it is the adversary aircraft (F-5) that is the actual support asset for the Operating Forces' training.

### 2. General

a. Stages. The stages in the Core Skill Phase are: Familiarization (FAM), Instrument (INST), Air-to-Aground (AG), Low Altitude Tactics (LAT), Helo Attack (HA), Basic Fighter Maneuvers (BFM), and Fighter Intercept (FI).

b. Instructors. Several skills within this phase are built upon those attained in the Core Skills Introduction Phase (FAM, INST, BFM and FI) and therefore do not require an instructor within the event. The other skills (AG, LAT and HA) and considered new skills where an instructor is required for the event if it is the first time the event is flown or if the PUI is no longer current in the skill. Many of these events may also be scheduled in response to specific tasking from aviation or ground units and may be completed while in a support role to attain credit within a syllabus or to maintain proficiency.

### 2. Academics

The following table lists the academic events and associated training codes which apply to the Core Skill Phase.

Training Code	Event	Source
ACAD-2001	MAWTS-1 TACAIR Common ASP, "Low Altitude Tactics"	PTO

3. Familiarization (FAM) Stage

a. Purpose. This event is included in the Core Skills Phase primarily to provide flight currency tracking but also as a vehicle to gain currency for the F-5 pilot who is delinquent as defined by the squadron SOP.

b. Crew Requirements. This sortie is normally flown solo, but can be flown dual with a FAMI at the discretion of the Commanding Officer.

c. Academic/Ground Training. Compliance with any currency/proficiency paperwork requirements is the responsibility of the individual pilot (immediate action exams, open/closed book tests etc.), assisted by the Operations and Safety Departments.

FAM-2101 0.8 14 B,R 1 F-5E/F/N D

Goal. Practice all normal F-5 procedures. This event is used to track basic flight currency, and is scheduled normally for pilots who are not current by squadron SOP.

Requirement. PUI completes sortie from start to shutdown, with a minimum sortie duration of 0.5 flight hours.

Performance Standard. Safe conduct IAW all applicable directives.

Prerequisite. AA-1806.

References. NATOPS Manual.

4. Instrument (INST) Stage

a. Purpose. This training event is included in the Core Skills Phase primarily to provide currency tracking for instrument flight rules (IFR) flight. This event will also be used for ferry flights, and for individual pilots who are working toward annual and semi-annual minimums for instrument flight as defined by OPNAVINST 3710.7.

b. Crew Requirements. This sortie is normally flown solo, either single ship, or in section. It can also be flown dual (in the F-5F) at the discretion of the Commanding Officer.

INST-2201 1.0 90 B,R 1 F-5E/F/N D

Goal. Practice all normal F-5 IFR procedures. This event is used to track basic instrument flight currency, and is normally scheduled for ferry flights and for periodic instrument training toward annual instrument minimums.

Requirement. PUI completes sortie under IFR conditions for the majority of the sortie. A minimum of 0.5 hours under actual or simulated IFR conditions and one instrument approach must be completed.

Performance Standard. Safe conduct IAW all applicable directives. Compliance with all FARs and OPNAVINST requirements.

Prerequisite. AA-1806.

External Support. An airfield with suitable precision and non-precision approaches available for practice approaches.

References. OPNAVINST 3710.7.

5. Air-to-Ground (AG) Stage

a. Purpose. Adversary tasking occasionally encompasses using the F-5 to provide air-to-ground profiles for training of GCE units, MACCS units, and some ACE units. This stage provides the building block for these missions, and provides training that will lead into the Low Altitude Tactics (LAT) and Helo Attack (HA) phases.

b. General. The F-5 is not equipped with many of the systems that modern fighters use for delivering air-to-ground weapons (HUD, RADALT, computed bombing solutions, etc.). Therefore the focus of this phase is to be able to simulate air-to-ground profiles safely, with minimum risk to ourselves and our customers. The AG phase will focus on medium altitude delivery profiles.

c. Crew Requirements. This sortie is normally flown solo or in section. An ATI shall lead this event if it is the first time the event is flown as a part of a basic or refresher syllabus. It can also be flown dual (in the F-5F) at the discretion of the Commanding Officer.

AG-2301    0.8        180        B,R                    2 F-5E/N                    D

Goal. Introduce and/or practice air-to-ground profiles from medium altitude in the F-5.

Requirement. Complete simulated single-ship and section target attacks against stationary targets.

Performance Standard. Safe operation of the F-5.

Prerequisite. AA-1806.

Range Requirement. RSTD SFC-30K

References. VMFT-401 Sortie Syllabus Guide.

6. Low Altitude Tactics (LAT) Stage

a. Purpose. The Low Altitude Tactics phase is designed to take a pilot already qualified in LAT in another aircraft, and transition him to the F-5 with its peculiarities. The objective is to be able to safely operate the F-5 in the low altitude regime for the purpose of providing adversary support to both ACE, GCE and CSSE units.

b. General. Completion of this phase will allow safe operation of the F-5 in the low altitude regime as a single ship or in multi-ship

formations. Upon initial completion the PUI may be designated LAT Qualified. A LATI shall lead/chase these events if they are the first time the code is flown as a part of the basic or refresher syllabus or a pilot has exceeded LAT currency requirements.

c. Crew Requirements. These sorties are normally flown solo, in section or with a LATI chase/lead. They can also be flown dual (in the F-5F) at the discretion of the Commanding Officer.

d. Academic/Ground Training. ACAD-2001 complete prior to scheduling in this phase.

LAT-2401 0.8 \* B,R E 2 F-5E/N D

Goal. Intro or practice F-5 low altitude tactics. Fly chased and in section as a wingman for a PUI in the basic or refresher syllabi.

Requirement. Complete LAT checklist. Demonstrate ability to fly at comfort level as a single ship, to include navigation, turns, ridgeline crossings, dive recovery, and target attacks. Demonstrate ability to fly in section at low altitude, using both combat spread formation (with called turns), and deployed echelon formation. Conduct target attacks in section.

Performance Standard. Full compliance with LAT training rules. Safe operation of the F-5 in the low altitude regime.

Prerequisite. ACAD 2001. AG-2301.

Range Requirement. RSTD SFC-5K.

References. VMFT-401 Sortie Syllabus Guide.

LAT-2402 0.8 \* B E 2 F-5E/N D

Goal. Intro to helo attack (HA) profiles in the LAT environment. LAT Qualification sortie.

Requirement. Complete LAT checklist. Review LAT procedures in the F-5. Conduct simulated attacks in section on notional helicopters. Emphasize deconfliction between F-5s and compliance with the restrictions in the FW vs. RW ACM training rules. Upon successful completion of this sortie and the recommendation of the LATI the CO may designate the PUI as LAT Qualified.

Performance Standard. Full compliance with LAT training rules. Safe operation of the F-5 in the low altitude regime. Demonstrate understanding of squadron SOP for HA deconfliction.

Prerequisite. LAT-2401.

Range Requirement. RSTD SFC-5K.

References. VMFT-401 Sortie Syllabus Guide.

LAT-2403      0.8      180                      B,R                      1+ F-5E/N                      D

Goal. Practice LAT or (HA) profiles in the LAT environment. LAT currency refresh sortie.

Requirement. Complete LAT checklist. Review LAT procedures in the F-5. Operate safely in the LAT environment and complete at least one attack on a stationary target.

Performance Standard. Operate safely in the LAT environment and complete at least one attack on a stationary target.

Prerequisite. LAT-2402.

Range Requirement. RSTD SFC-5K.

References. VMFT-401 Sortie Syllabus Guide. LAT Proficiency training.

#### 7. Helo Attack (HA) Stage

a. Purpose. The HA stage of the Core Skill phase is designed to provide the PUI with the skills required to safely execute adversary tasking for all missions involving FW vs. RW ACM.

b. General. This stage shall be flown with an LATI. Upon completion of this phase, the PUI will be designated HA Qualified, and will therefore be able to conduct FW vs. RW ACM tasking as an adversary without an instructor in the flight. HA sorties are a significant requirement of the Marine Adversary Program. This stage offers the baseline for RW support standardization, is a building block for the safe execution of these missions, and establishes skills to provide quality instruction for the RW customers.

c. Crew Requirements. The PUI shall fly these sorties with an LATI. These sorties are normally flown solo in section. They can also be flown dual (in the F-5F) at the discretion of the commanding officer.

HA-2501      0.8                      \*                      B,R                      E                      2 F-5E/N                      D

Goal. Intro HA. 2v1-2 HA as wingman.

Requirement. Complete a minimum of four (4) section attacks on a flight of one or two helicopters with an LATI in the FW flight.

Performance Standard. Safe operation of the F-5 at low altitude. Strict compliance with ACM training rules.

Prerequisite. LAT-2402. LAT Qualified.

Ordinance. One (1) CATM-9 and ten (10) flares per aircraft.

Range Requirement. RSTD SFC-5K.

External Support. One or two helicopters. This sortie may be flown as an adversary support sortie for the benefit of the RW training.

References. VMFT-401 Sortie Syllabus Guide.

HA-2502    0.8            365            B,R            E            2 F-5E/N            D

Goal. 1v1-2 HA (chased by LATI). HA Qual check.

Requirement. Complete a minimum of four (4) attacks on one or two helicopters as a single adversary. This sortie shall be chased by a LATI. Upon successful completion of this sortie and the recommendation of the LATI the CO may designate the PUI as HA Qualified.

Performance Standard. Safe operation of the F-5 at low altitude. Strict compliance with ACM training rules. PUI shall conduct the sortie (in coordination with the RW assets) to provide a quality training opportunity for the RW aircraft (in the opinion of the LATI).

Prerequisite. HA-2501.

Ordnance. One (1) CATM-9 and ten (10) flares per aircraft.

Range Requirement. RSTD SFC-5K.

External Support. One or two helicopters. This sortie may be flown as an adversary support sortie for the benefit of the RW fighters.

References. VMFT-401 Sortie Syllabus Guide.

## 8. Basic Fighter Maneuvers (BFM) Stage

a. Purpose. The BFM stage of the Core Skills Phase is designed to refine the PUI's skills in maneuvering the F-5 aircraft against both similar and dissimilar adversaries. Use of the F-5 weapons system to simulate a variety of threat weapons systems is the focus of this stage. As in all aspects of the Marine Adversary Program, continued safe operation and compliance with the Air-to-Air training rules as put forth in the OPNAVINST 3710.7 will be stressed. The codes in this stage will provide continued improvement in BFM skills, and provide a means to track an adversary pilot's proficiency.

b. General. The PUI, having completed the Core Skills Introduction phase, is ACM Qualified before beginning this stage. Therefore, these sorties may be flown without an instructor (ATI or ACTI). The PUI should understand the F-5 characteristics and BFM principles sufficiently and be able to continue to develop his skills when flying with flight leaders who are not designated instructors. Safe operation and adherence to the training rules shall be strictly enforced.

c. Crew Requirements. All sorties in stage will normally be flown solo and do not require an ATI or ACTI. A designated Section Lead or higher is required.

BFM-2601    0.8            30            B,R                            2 F-5E/N    D

Goal. 1v1 similar. Practice BFM skills against a similar adversary.

Requirement. Complete at least one visual engagement with another F-5. This engagement can be the result of a BVR setup taken to a merge, or a visual setup (neutral, perch, guns "D", or canned scissors setup). The simulated load out can be any (as designated by the flight leader).

Performance Standard. Safe compliance with ACM training rules.

Prerequisite. AA-1806.

Ordnance. One (1) CATM-9 and ten (10) flares per aircraft.

Range Requirement. RSTD SFC-FL310.

External Support. TACTS desired.

BFM-2602    0.8            60            B,R                            1 F-5E/N    D

Goal. 1v1 dissimilar. Practice BFM skills against a dissimilar adversary.

Requirement. Complete at least one visual engagement with a dissimilar adversary. This engagement can be the result of a BVR setup taken to a merge, or a visual setup (neutral, perch, guns "D", or canned scissors setup). The simulated load out can be any (as designated by the flight leader/fighter lead).

Performance Standard. Safe compliance with ACM training rules. Accurate replication of threat as defined by the blue flight lead (if applicable).

Prerequisite. AA-1806.

Ordnance. One (1) CATM-9 and ten (10) flares per aircraft.

Range Requirement. RSTD SFC-FL310.

External Support. TACTS desired.

BFM-2603    0.8            90            B,R                            3 F-5E/N    D

Goal. 1v1v1. Practice BFM skills in a three-ship engagement where each of the three is fighting against the other two.

Requirement. Complete at least one visual 1v1v1 engagement. This engagement can be the result of a BVR setup taken to a merge

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or a visual setup. The simulated load out can be any (as designated by the flight leader/fighter lead).

Performance Standard. Safe compliance with ACM training rules. Maintenance of high situational awareness and clear and concise communication are mandatory.

Prerequisite. AA-1806.

Ordnance. One (1) CATM-9 and ten (10) flares per aircraft.

Range Requirement. RSTD SFC-FL310.

External Support. TACTS desired. GCI desired for BVR setups.

BFM-2604 0.8 \* B 1 F-5E/N D

Goal. 1v2 WVR. Practice visual maneuvering against a section of dissimilar fighters.

Requirement. Complete at least one visual engagement against a section of dissimilar fighters. This engagement can be the result of a BVR setup taken to a merge or a visual setup. The simulated load out can be any (as designated by the blue flight leader).

Performance Standard. Safe compliance with ACM training rules.

Prerequisite. AA-1806.

Ordnance. One (1) CATM-9 and ten (10) flares per aircraft.

Range Requirement. RSTD SFC-FL310.

External Support. TACTS desired.

BFM-2605 0.8 \* B 2 F-5E/N D

Goal. 2v1 WVR. Practice section engaged maneuvering against a dissimilar fighter.

Requirement. Complete at least one section visual engagement against a dissimilar fighter. This engagement can be the result of a BVR setup taken to a merge or a visual setup. The simulated load out can be any (as designated by the blue flight leader).

Performance Standard. Safe compliance with ACM training rules.

Prerequisite. AA-1806.

Ordnance. One (1) CATM-9 and ten (10) flares per aircraft.

Range Requirement. RSTD SFC-FL310.

External Support. TACTS desired.

BFM-2606 0.8 90 B,R 2 F-5E/N D

Goal. 2v2 WVR dissimilar. Practice section engaged maneuvering against a section of dissimilar fighters.

Requirement. Complete at least one section visual engagement against a section of dissimilar fighters. This engagement can be the result of a BVR setup taken to a merge or a visual setup. The simulated load out can be any (as designated by the blue flight leader).

Performance Standard. Safe compliance with ACM training rules.

Prerequisite. AA-1806.

Ordnance. One (1) CATM-9 and ten (10) flares per aircraft.

Range Requirement. RSTD SFC-FL310.

External Support. TACTS desired.

9. Fighter Intercept (FI) Stage

a. Purpose. The training codes in this stage are used for adversary tasking which involves BVR intercepts (of a tactical nature), but do not incorporate engaged maneuvering. The reasons for using this type of training are varied - maintaining proficiency or regaining currency for the blue fighters, lack of qualified instructors (ATI/ACTI) for the flight, weather restrictions due to training rules, or other types of building block training.

b. General. Any tasking which results in tactical intercepts without engaged maneuvering would result in using these training codes instead of the 3000-level AA codes. A pilot, having completed the Core Skills Introduction phase, is ACM Qualified before beginning this stage. Therefore, these sorties may be flown without an instructor (ATI/ACTI).

c. Crew Requirements. Normally, these sorties will be flown solo either as a single ship or in a formation of 2 or more aircraft. These sorties may be flown dual (in the F-5F) at the discretion of the Commanding Officer.

FI-2701 0.8 90 B,R 1 F-5E/N D

Goal. 1vX Fighter Intercepts. Conduct single-ship tactical intercepts of a single or flight of multiple other fighters.

Requirement. Complete at least one tactical intercept.

Performance Standard. Training rule adherence (especially establishment of altitude deconfliction with the intercepted flight) is mandatory. Compliance with blue fighter tasking.

Prerequisite. AA-1806.

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Range Requirement. Restricted airspace with sufficient altitude to allow for altitude deconfliction between flights. Since full engaged maneuvering is not required, the airspace requirements are minimal.

External Support. At least one blue fighter. The normal reason for completing this training event is to support blue fighter requirements. GCI desired.

FI-2702 0.8 \* B 2+ F-5E/N D

Goal. 2+vX Fighter Intercepts. Conduct multi-ship tactical intercepts of a single or flight of multiple other fighters.

Requirement. Complete at least one tactical intercept.

Performance Standard. Training rule adherence (especially establishment of altitude deconfliction with the intercepted flight) is mandatory. Compliance with blue fighter tasking.

Prerequisite. AA-1806.

Range Requirement. Restricted airspace with sufficient altitude to allow for altitude deconfliction between flights. Since full engaged maneuvering is not required, the airspace requirements are minimal.

External Support. At least one blue fighter. The normal reason for completing this training event is to support blue fighter requirements. GCI desired.

## 210. MISSION SKILL PHASE

1. These training events are designed to be in support of USMC and other DOD service training. The main reason for tracking the types of missions that an adversary pilot has flown is to manage progression through advanced qualifications (as a flight leader and instructor). Blue forces are listed below as 'External Support Required', but keep in mind that it is the adversary aircraft (F-5) that is the actual support asset for the Operating Forces' training. The Marine adversary squadron will schedule its pilots for these events based on the Fleet's requirements, vice scheduling these events for the adversary pilot's requirements.

### 2. General

a. Stages. The stages in the Mission Skill Phase are: Air-to-Air (AA), Helo Attack (HA), and Surface Attack (SA).

b. Instructors. The skills within this phase are built upon those attained in the Core Skills Introduction and Core Skills Phases (AA, HA and SA) and therefore do not require an instructor within the event. These events will be scheduled in response to specific tasking from aviation or ground units and may be completed while in a support role to attain credit within a syllabus or to maintain proficiency.

2. Air-to-Air (AA) Stage

a. Purpose. The Air-to-Air stage of the Mission Skill phase encompasses the large majority of events for which a professional adversary capability exists. Tracking these codes provides the adversary squadron an ability to track the experience and exposure of its pilots with a mind toward managing the progression of its pilots through advanced qualifications (as a flight leader and instructor).

b. General. The flight events in this stage are based on the number of aircraft on the red and blue sides of a fight. The types of tasking and adversary simulation will be captured by tracking codes in the 6000-level.

c. Crew Requirements. All sorties in stage will normally be flown solo, and do not require an ATI or ACTI. Specific events such as an ATI requirement because of a blue air training requirement (i.e. dissimilar single aircraft ACMQ work up events) will be scheduled accordingly at the squadron level.

AA-3101    0.8        90        B,R                    2 F-5E/F/N        D

Goal. 2v2 dissimilar. Practice section ACM versus a section of dissimilar fighters.

Requirement. Complete a minimum of one BVR ACM setup.

Performance Standard. Flight shall be conducted IAW the ACM training rules in OPNAVINST 3710.7. Flight leads shall ensure that threat simulation/replication is in accordance with the blue air tasking.

Prerequisite. AA-1806.

Ordinance. One (1) CATM-9 and ten (10) flares per aircraft.

Range Requirement. RSTD SFC-FL400.

External Support. 2 dissimilar fighters. TACTS desired. GCI required.

AA-3102    0.8        \*        B                    2 F-5E/F/N        D

Goal. 2v3+ dissimilar. Practice section ACM versus a flight of three or more dissimilar fighters.

Requirement. Complete a minimum of one BVR ACM setup.

Performance Standard. Flight shall be conducted IAW the ACM training rules in OPNAVINST 3710.7. Flight leads shall ensure that threat simulation/replication is in accordance with the blue air tasking.

Prerequisite. AA-1806.

Ordinance. One (1) CATM-9 and ten (10) flares per aircraft.

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Range Requirement. RSTD SFC-FL400.

External Support. 3 or more dissimilar fighters. TACTS desired. GCI required.

AA-3103    0.8        90        B,R                    3-4 F-5E/F/N        D

Goal. 3-4v2 dissimilar. Practice division ACM tactics against a section of dissimilar fighters.

Requirement. Complete a minimum of one BVR ACM setup, with a flight of 3-4 F-5s against a section of dissimilar fighters.

Performance Standard. Flight shall be conducted IAW the ACM training rules in OPNAVINST 3710.7. Flight leads shall ensure that threat simulation/replication is in accordance with the blue air tasking.

Prerequisite. AA-1806.

Ordnance. One (1) CATM-9 and ten (10) flares per aircraft.

Range Requirement. RSTD SFC-FL400.

External Support. 2 dissimilar fighters. TACTS desired. GCI required.

AA-3104    0.8        120       B,R                    3-4 F-5E/F/N        D

Goal. 3-4v3+ dissimilar. Practice division ACM tactics against a division of dissimilar fighters.

Requirement. Complete a minimum of one BVR ACM setup, with a flight of 3-4 F-5s against a flight of at least 3 dissimilar fighters.

Performance Standard. Flight shall be conducted IAW the ACM training rules in OPNAVINST 3710.7. Flight leads shall ensure that threat simulation/replication is in accordance with the blue air tasking.

Prerequisite. AA-3101.

Ordnance. One (1) CATM-9 and ten (10) flares per aircraft.

Range Requirement. RSTD SFC-FL400.

External Support. 3 or more dissimilar fighters. TACTS desired. GCI required.

AA-3105    0.8        365       B,R                    5+ F-5E/F/N        D

Goal. 5 or more v X dissimilar. Practice multi-flight ACM tactics against dissimilar fighters. Ideally, the red air (F-5 force) for this sortie is multi-division, but a single heavy

division of 5 or more, employed as two or more groups, is sufficient to complete this training event.

Requirement. Complete a minimum of one BVR ACM setup, with a flight of 5 or more F-5s against any flight of dissimilar fighters.

Performance Standard. Flight shall be conducted IAW the ACM training rules in OPNAVINST 3710.7. Flight leads shall ensure that threat simulation/replication is in accordance with the blue air tasking.

Prerequisite. AA-3101.

Ordnance. One (1) CATM-9 and ten (10) flares per aircraft.

Range Requirement. RSTD SFC-FL400.

External Support. Dissimilar fighters. TACTS desired. GCI required.

### 3. Helo Attack (HA) Stage

a. Purpose. The Helo Attack (HA) stage of the Mission Skill (3000-level) phase exists to provide training events that allow the F-5 pilot to fill tasking requirements from the Operating Forces in the area of FW vs. RW ACM. These events also allow the Marine Adversary squadron to track the experience and exposure of its pilots with a mind toward managing their progression through advanced qualifications (as a flight leader and instructor).

b. General. The differences in the requirements for the events in this stage are due to the numbers of aircraft involved (one or two F-5s versus one or two RW fighters).

c. Crew Requirements. All F-5 pilots in the Helo Attack (HA) stage of the Mission Skills (3000-level) phase will already be HA Qualified and therefore do not need to have an instructor (LATI) in the flight. The sorties in this stage will normally be flown solo as a single ship or in a section, but may be flown dual (in the F-5F) at the discretion of the Commanding Officer.

HA-3201    0.8            180            B,R                            1 F-5E/F/N                    D

Goal. 1v1 HA. Practice FW vs. RW ACM as a single F-5 against a single helicopter.

Requirement. Complete at least two simulated attacks/engagements as a single ship against a single helicopter.

Performance Standard. Flight shall be conducted IAW the FW vs. RW ACM training rules in OPNAVINST 3710.7. Flight leads shall ensure that threat simulation/replication is in accordance with the blue air tasking.

Prerequisite. HA-2502.

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Ordnance. One (1) CATM-9 and ten (10) flares per aircraft.

Range Requirement. RSTD SFC-5K.

External Support. One helicopter. The normal reason for completing this training event is to support the RW fighter requirements.

HA-3202    0.8    \*    B    1 F-5E/F/N    D

Goal. 1v2 HA.

Requirement. Complete at least two simulated attacks/engagements as a single ship against a section of helicopters.

Performance Standard. Flight shall be conducted IAW the FW vs. RW ACM training rules in OPNAVINST 3710.7. Flight leads shall ensure that threat simulation/replication is in accordance with the blue air tasking.

Prerequisite. HA-2502.

Ordnance. One (1) CATM-9 and ten (10) flares per aircraft.

Range Requirement. RSTD SFC-5K.

External Support. Two helicopters. The normal reason for completing this training event is to support the RW fighter requirements.

HA-3203    0.8    \*    B    2 F-5E/F/N    D

Goal. 2v2 HA.

Requirement. Complete at least two simulated attacks/engagements as a section against a section of helicopters.

Performance Standard. Flight shall be conducted IAW the FW vs. RW ACM training rules in OPNAVINST 3710.7. Flight leads shall ensure that threat simulation/replication is in accordance with the blue air tasking.

Prerequisite. HA-2502.

Ordnance. One (1) CATM-9 and ten (10) flares per aircraft.

Range Requirement. RSTD SFC-5K.

External Support. Two helicopters. The normal reason for completing this training event is to support the RW fighter requirements.

#### 4. Surface Attack (SA) Stage

a. Purpose. The training event in this stage is to allow to adversary pilot to support tasking for attack of surface targets. This



Performance Standard. Flight shall be conducted IAW the ACM training rules in OPNAVINST 3710.7. Flight leads shall ensure that controllers under training are briefed and debriefed on the mission and that the control was adequate and consistent with the mission executed. Controller training may be completed independently of, or simultaneously with any other adversary mission.

Prerequisite. AA-1603.

External Support. GCI/AIC required.

211. CORE PLUS PHASE

1. This training includes skills which are not often requested. The intent of these training events is for the Marine Adversary community to have the ability to meet more complex tasking from the Operating Forces when it is requested. These events represent participation in training events which happen less often and are more complex than the normal day-to-day mission tasking. Blue forces are listed below as 'External Support Required', but keep in mind that it is the adversary aircraft (F-5) that is the actual support asset for the Operating Forces' training.

2. General

a. Stages. The stages in the Core Plus phase are: Air-to-Air (AA), Anti-Air Warfare (AAW), Helo Attack (HA), Surface Attack (SA) and Night Support (NSPT).

b. Instructors. The majority of the skills within this phase are built upon those attained in the previous Phases (AA, AAW, HA, and SA) and therefore do not require an instructor within the event. These events are scheduled in response to specific tasking from aviation or ground units and may be completed while in support role to attain credit within a syllabus or to maintain proficiency. Only the first five events within the NSPT stage (NSPT 4501-4505) are considered new skills and are required to be flown with a night current ATI for any PUI attaining initial or refresher syllabus credit.

3. Academics. The following table lists the academic events and associated training codes which apply to the Core Plus Phase.

Training Code	Event	Source
ACAD-4001	Brief on Night Procedures with a night current ATI	ATI

4. Air-to-Air (AA) Stage

a. Purpose. The Air to Air stage of the Core Plus phase applies to the more complex training requirements from the Fleet, specifically the employment as a part of a mixed red air package. It is important that the Marine Adversary program maintain an ability to fulfill this type of tasking,, so that the Operating Forces' Core Plus training requirements can be met when they are requested.

b. General. The flight events in this stage are based on the number of aircraft on the red and blue sides of a fight. The types of tasking and adversary simulation will be captured by tracking codes in the 6000-level.

c. Crew Requirements. These events will normally be flown solo, as part of a large formation of aircraft. They can be flown dual (in the F-5F) at the discretion of the Commanding Officer.

AA-4101    0.8            365            B,R                            2+ F-5E/F/N            D

Goal. Mixed red air against a large blue force. Practice complex tactics as part of a mixed red-air presentation (up to 7 mixed red air) against a blue force.

Requirement. Complete at least one setup as part of a mixed (multiple aircraft type) red air force (which includes a minimum of 2 F-5s and some number of other bandits (up to 7 bandits in total)) against a large blue air force.

Performance Standard. Flight shall be conducted IAW the ACM training rules in OPNAVINST 3710.7. Flight leads shall ensure that threat simulation/replication is in accordance with the blue air tasking.

Prerequisite. AA-3105.

Ordnance. One (1) CATM-9 and ten (10) flares per aircraft.

Range Requirement. RSTD SFC-FL400.

External Support. TACTS desired. GCI required. Additional red forces from non-F-5 unit. Dissimilar fighters.

AA-4102    0.8            365            B,R                            2+ F-5E/F/N            D

Goal. Mixed red air against a large blue force. Practice complex tactics as part of a mixed red-air presentation (8 or more mixed red air) against a blue force.

Requirement. Complete at least one setup as part of a mixed (multiple aircraft type) red air force (which includes a minimum of 2 F-5s and some number of other bandits (8 or more bandits in total)) against a large blue air force.

Performance Standard. Flight shall be conducted IAW the ACM training rules in OPNAVINST 3710.7. Flight leads shall ensure that threat simulation/replication is in accordance with the blue air tasking.

Prerequisite. AA-3105.

Ordnance. One (1) CATM-9 and ten (10) flares per aircraft.

Range Requirement. RSTD SFC-FL400.

External Support. TACTS desired. GCI required. Additional red forces from non-F-5 unit. Dissimilar fighters.

5. Anti-Air Warfare (AAW) Stage

a. Purpose. This stage includes training events used to meet adversary tasking involving participation in an integrated air defense system (IADS) as a fighter element. This training is normally in support of Operating Forces' training requirements, and will normally be flown only when tasked by those Operating Forces.

b. General. Participation in an IADS will often involve training and planning in conjunction with elements of the MACCS and the associated Marine and Joint Force ground-based air defense systems. This training and planning is often part of the adversary tasking which does not rate a training code, but is vitally important for the supported units' training.

c. Crew Requirements. The flying portion of these events will normally be flown solo as part of a larger flight of fighter aircraft. These events may be flown dual (in the F-5F) at the discretion of the Commanding Officer.

AAW-4201 0.8 365 B,R 2+ F-5E/F/N D

Goal. As part of an IADS, conduct 2+ v X. Practice ACM tactics as a section or more of F-5s in conjunction with an IADS, either employing FEZ/MEZ or JEZ doctrine.

Requirement. Participate in a VUL period as an airborne air defense asset participating in an IADS. Planning, briefing, and debriefing support shall be provided to the supported unit as required.

Performance Standard. Flight shall be conducted IAW the ACM training rules in OPNAVINST 3710.7. Flight leads shall ensure that threat simulation/replication is in accordance with the blue air tasking.

Prerequisite. AA-3105.

Ordnance. One (1) CATM-9 and ten (10) flares per aircraft.

Range Requirement. RSTD SFC-FL400.

External Support. IADS assets in place. Dissimilar fighters. TACTS desired. GCI required. RTO required.

AAW-4202 0.8 365 B,R 2+ F-5E/F/N D

Goal. As part of an IADS, conduct 4+ (2 or more F5s + 2 or more mixed Red Air) v X. Practice ACM tactics as a section or more of F-5s, combined with a section or more of other TMS aircraft, in conjunction with an IADS, either employing FEZ/MEZ or JEZ doctrine.

Requirement. Participate in a VUL period as a mixed-aircraft type airborne air defense asset participating in an IADS. Planning, briefing, and debriefing support shall be provided to the supported unit as required.

Performance Standard. Flight shall be conducted IAW the ACM training rules in OPNAVINST 3710.7. Flight leads shall ensure that threat simulation/replication is in accordance with the blue air tasking.

Prerequisite. AA-3105.

Ordnance. One (1) CATM-9 and ten (10) flares per aircraft.

Range Requirement. RSTD SFC-FL400.

External Support. IADS assets in place. Additional Red Air (non-F-5) required. Dissimilar fighters. TACTS desired. GCI required. RTO required.

6. Helo Attack (HA) Stage

a. Purpose. This stage includes a training code for the FW vs. RW ACM tasks that are asked for the least frequently and involves division tactics against an unknown-sized force of helicopters.

b. General. While this is the least-requested FW vs. RW ACM training support, the professional adversary community must be prepared to provide this support to the Operating Forces when it is requested.

c. Crew Requirements. This sortie will normally be flown solo, as a single ship or as part of a formation of three or more aircraft. It can be flown dual (in the F-5F) at the discretion of the Commanding Officer.

HA-4301    0.8            365            B,R                            3+ F-5E/F/N            D

Goal. HA with 3 or more F-5s vs. X.

Requirement. Complete at least two simulated attacks/engagements as a division of F-5s against a unknown-sized force of helicopters.

Performance Standard. Flight shall be conducted IAW the FW vs. RW ACM training rules in OPNAVINST 3710.7. Flight leads shall ensure that threat simulation/replication is in accordance with the blue air tasking.

Prerequisite. HA-3203.

Ordnance. One (1) CATM-9 and ten (10) flares per aircraft.

Range Requirement. RSTD SFC-5K.

External Support. Helicopters.



support of the tasking received from Operating Forces and will normally be flown only when tasked by those Operating Forces. By the end of the five training events within this stage and with the attainment of OPNAV night currency, the PUI should be competent to safely operate the F-5 series aircraft at night, as a single ship or in section.

c. Crew Requirements. These sorties will normally be flown solo, as a single ship or as part of a formation of two aircraft. It can be flown dual (in the F-5F) at the discretion of the Commanding Officer. NSPT 4503-4505 shall be flown with a night current ATI as the flight lead if flown for the first time as a part of the initial or refresher syllabi.

d. Academic/Ground Training. PUI shall complete ACAD-4001.

NSPT-4501 0.8 30 B,R 1 F-5E/F/N N

Goal. Practice all normal F-5 procedures at night. This event is used to track basic night currency, and is normally scheduled for pilots who are not night current by squadron SOP. It may also be scheduled for pilots needing to maintain or update night proficiency/currency.

Requirement. Complete a night sortie from start to shutdown, with a minimum sortie duration of 0.5 flight hours.

Performance Standard. Safe conduct IAW all applicable directives.

Prerequisite. AA-1806, ACAD-4001.

Range Requirement. RSTD airspace 6k-25k MSL.

References. VMFT-401 Sortie Syllabus Guide. NATOPS Manual.

NSPT-4502 1.0 \* B,R 1 F-5E/F/N N

Goal. Practice all normal F-5 IFR procedures at night. This event updates basic instrument and night flight currency, and is normally scheduled for ferry flights and training towards annual minimums or night training/currency. It may also be scheduled for pilots needing to maintain or update night proficiency/currency.

Requirement. Complete a sortie under night conditions for the majority of the sortie. A minimum of 0.5 night hours and one instrument approach must be completed.

Performance Standard. Safe conduct iaw all applicable directives. Compliance with all FARs and OPNAVINST requirements.

Prerequisite. AA-1806, ACAD-4001.

References. VMFT-401 Sortie Syllabus Guide. OPNAVINST 3710.7.

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NSPT-4503 0.8 \* B,R 2 F-5E/F/N N

Goal. Practice 2 ship F-5 formation procedures at night. This event is used to train and practice section formation principles. It may also be scheduled for pilots needing to maintain or update night proficiency/currency.

Requirement. Complete a night sortie from start to shutdown, with a minimum sortie duration of 0.5 flight hours.

Performance Standard. Safe conduct IAW all applicable directives. Two (2) medium altitude break-up and rendezvous and two (2) TACAN rendezvous required for completion.

Prerequisite. NSPT-4501, NSPT-4502.

Range Requirement. RSTD airspace 6k-25k MSL.

References. VMFT-401 Sortie Syllabus Guide. NATOPS Manual.

NSPT-4504 0.8 \* B,R 2 F-5E/N N

Goal. 1v1 fighter intercepts at night of another F-5. Conduct single-ship tactical intercepts of a single fighter at night. It may also be scheduled for pilots needing to maintain or update night proficiency/currency.

Requirement. Complete a night sortie from start to shutdown, with a minimum sortie duration of 0.5 flight hours. Complete four FQ intercepts (two with lookdown and two with lookup).

Performance Standard. Achieve RADAR situational awareness at tactically significant ranges and conduct intercept to valid weapons employment at least 50% of the time. Training rule adherence (especially establishment of altitude deconfliction with the intercepted flight) is mandatory.

Prerequisite. NSPT-4503.

Range Requirement. Restricted airspace with sufficient altitude to allow for altitude deconfliction between flights.

External Support. TACTS desired. GCI desired.

References. VMFT-401 Sortie Syllabus guide.

NSPT-4505 0.8 \* B,R 2 F-5E/N N

Goal. 2vX fighter intercepts at night. Conduct section tactical intercepts of a single or flight of other F-5s. This event may be completed as a 2v2 internal event where wingmen of each section are receiving initial credit for the code. This event may also be conducted as a 2v1 similar for the wingman in the section, at the discretion of the CO. It may also be scheduled

for pilots needing to maintain or update night proficiency/currency.

Requirement. Complete two FQ intercepts.

Performance Standard. Complete a night sortie from start to shutdown, with a minimum sortie duration of 0.5 flight hours. Achieve RADAR situational awareness at tactically significant ranges and conduct intercept to valid weapons employment at least 50% of the time. Training rule adherence (especially establishment of altitude deconfliction with the intercepted flight) is mandatory.

Prerequisite. NSPT-4504.

Range Requirement. Restricted airspace with sufficient altitude to allow for altitude deconfliction between flights.

External Support. TACTS desired. GCI desired.

References. VMFT-401 Sortie Syllabus guide.

NSPT-4506 0.8 \* B 1 F-5E/N N

Goal. 1vX dissimilar tactical intercepts at night. Conduct single-ship, single group tactical intercepts at night against an unknown number of fighters.

Requirement. Complete at least one tactical intercept at night in support of blue tasking.

Performance Standard. Training rule adherence (especially establishment of altitude deconfliction with the intercepted flight) is mandatory. Threat simulation/replication in accordance with the blue air tasking.

Prerequisite. NSPT-4505 and night current per squadron SOP.

Ordnance. One (1) CATM-9.

Range Requirement. Restricted airspace with sufficient altitude to allow for altitude deconfliction between flights.

External Support. Dissimilar fighters. TACTS desired. GCI desired.

NSPT-4507 0.8 \* B 2 F-5E/N N

Goal. 2vX dissimilar tactical intercepts at night. Conduct section tactical intercepts of a flight or of multiple flights of dissimilar fighters. The intent of this is to provide a single group presentation of no more than 2 F5s against an unknown number of fighters.

Requirement. Complete at least one tactical intercept at night in support of blue tasking.

Performance Standard. Training rule adherence (especially establishment of altitude deconfliction with the intercepted flight) is mandatory. Threat simulation/replication in accordance with the blue air tasking.

Prerequisite. NSPT-4505 and night current per squadron SOP.

Ordnance. One (1) CATM-9 per aircraft.

Range Requirement. Restricted airspace with sufficient altitude to allow for altitude deconfliction between flights.

External Support. Dissimilar fighters. TACTS desired. GCI desired.

NSPT-4508 0.8 \* B 2+ F-5E/N N

Goal. 2+vX dissimilar tactical intercepts at night. Conduct coordinated multi-section or multi-element (as singles or sections) tactical intercepts of an unknown number of fighters. The intent of this is to present at least a two group picture while operating in no more than two ship coordinated elements.

Requirement. Complete at least one tactical intercept at night in support of blue tasking.

Performance Standard. Training rule adherence (especially establishment of altitude deconfliction with the intercepted flight) is mandatory. Threat simulation/replication in accordance with the blue air tasking.

Prerequisite. NSPT-4505 and night current per squadron SOP.

Ordnance. One (1) CATM-9 per aircraft.

Range Requirement. Restricted airspace with sufficient altitude to allow for altitude deconfliction between flights.

External Support. Dissimilar fighters. TACTS desired. GCI required.

## 212. INSTRUCTOR TRAINING

### 1. Adversary Tactics Instructor (ATI) POI

a. Purpose. The ATI Qualification serves two purposes to the adversary community. The designated ATI is the primary instructor in a number of phases of the F-5 syllabus as defined in this order. As such, the ATI shall be capable of conducting classroom and airborne instruction in flying the F-5, performing the adversary mission, and simulation of threat aircraft and weapons systems using the F-5. The second major purpose of the ATI qualification program is defined in the Training and Readiness Program Manual -- to serve as an airborne instructor during DACT training with non-ACM qualified pilots in other T/M/S aircraft. An ATI fulfills the safety, ORM and leadership

requirements per the T&R Program Manual, OPNAVINST 3710.7 and unit Standard Operating Procedures (SOPs). Blue forces are listed below as 'External Support Required', but keep in mind that it is the adversary aircraft (F-5) that is the actual support asset for the Operating Forces' training.

b. General. Prospective ATIs ((P)ATIs), nominated by the Stan Board and approved by the Commanding Officer, shall complete the following POI to prepare them for certification as an ATI. Each of these sorties shall be evaluated by an ATI. Meeting the performance standards and receiving a positive endorsement from the sortie evaluator allows the (P)ATI to move on to the next event. Successful completion of all of the events means that the minimum requirement has been completed and the individual may be designated as an ATI by the Commanding Officer.

c. Prerequisites. The (P)ATI must be at least a designated Division Leader.

d. Academic/Ground Training. All requirements delineated in the matrix below shall be completed prior to commencing the flight syllabus.

TRAINING CODE	EVENT	Source
ACAD-5001	TopGun Manual ch 10 "Adversary Instructor"	PTO
ACAD-5002	TopGun Manual ch 11 "Threat Aircraft"	PTO
ACAD-5003	TopGun Manual ch 12 "Threat Radar Missiles"	PTO
ACAD-5004	TopGun Manual ch 13 "Threat IR Missiles"	PTO
ACAD-5005	TopGun Manual ch 14 "Threat Pilot and Tactics"	PTO

ATI-5101    0.8    \*    B,R    E    2 F-5E/N/F    D

Goal. Evaluate the (P)ATI's ability to brief, conduct and debrief a lvl (F5 v Dissimilar) BFM flight. The PUI should tailor the event to a non-ACMQ dissimilar wingman (F-18, AV-8B) and demonstrate expertise in PADS set up, deconfliction, training rules adherence, recall and debrief analysis.

Requirement. Conduct 2 perch sets (one with (P)ATI offensive from outside the defender's turn circle and one with (P)ATI defensive with offender on (P)ATIs turn circle), and one neutral BFM set (butterfly with cooperative start).

Performance Standard. Effectively brief F-5 dissimilar BFM concepts, with brief tailored to a non-ACMQ dissimilar (F-18, AV8B) wingman PUI (ATI evaluator acting as PUI). Effectively manage wingman, time, and airspace as flight lead during execution of the flight. Conduct debrief with accurate recall and reconstruction of all sets, tailoring debrief to a new non-ACMQ dissimilar wingman. PUI (ATI evaluator acting as PUI). Debrief should include full white board reconstruction with subsequent validation at the TACTS Range. Examples of BFM errors and decisions resulting in a kill or another disadvantage should be identified and debriefed.

Prerequisites. ACAD-5001 through 5005.

Ordnance. One (1) CATM-9 and ten (10) flares per aircraft.

Range Requirement. RSTD SFC-FL310.

External Support. TACTS desired.

References. VMFT-401 Sortie Syllabus Guide.

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ATI-5102    0.8            \*            B,R            E            2 F-5E/N/F            D

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Goal. Evaluate the (P)ATI's ability to brief, conduct and debrief a 1v1 similar (F5 v F5) BFM flight. The PUI should tailor the event to a new wingman and demonstrate expertise in PADS set up, deconfliction, training rules adherence, recall and debrief analysis.

Requirement. Conduct 2 perch sets (one with (P)ATI offensive inside the defender's turn circle and one (P)ATI defensive with the offender outside (P)ATI's turn circle), and one neutral BFM set (abeam with cooperative start).

Performance Standard. Effectively brief F-5 similar BFM concepts, with brief tailored to a new F-5 PUI (ATI evaluator acting as PUI). Effectively manage wingman, time, and airspace as flight lead during execution of the flight. Conduct debrief with accurate recall and reconstruction of all sets, tailoring debrief to a new F-5 PUI (ATI evaluator acting as PUI). Debrief should include full white board reconstruction with subsequent validation at the TACTS Range. Examples of BFM errors and decisions resulting in a kill or another disadvantage should be identified and debriefed.

Prerequisites. ATI-5101.

Ordnance. One (1) CATM-9 and ten (10) flares per aircraft.

Range Requirement. RSTD SFC-FL310.

External Support. TACTS desired.

References. VMFT-401 Sortie Syllabus Guide.

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ATI-5103    0.8            \*            B,R            E            2 F-5E/N/F            D

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Goal. Evaluate the (P)ATI's ability to safely and effectively conduct and control a non-FRS dissimilar 2v2 support mission as an adversary flight lead and instructor. The focus should be on the (P)ATI's ability to brief, lead, and debrief a new F-5 PUI (ATI evaluator acting as PUI). The PUI should tailor the adversary presentations, formations, tactics and weapons employment to the blue tasking, ensuring deconfliction and training rules adherence. The (P)ATI should emphasize leadership

and instruction to a new F-5 wingman (ATI evaluator acting as PUI).

Requirement. Conduct at least two BVR ACM setups.

Performance Standard. Effectively brief an adversary mission including F-5 RADAR mechanics, weapons employment and merge considerations while tailoring the brief to a new F-5 PUI (ATI evaluator acting as PUI). Effectively manage wingman, time, and airspace as flight lead during execution of the flight. Conduct debrief with accurate recall and reconstruction of all sets, tailoring debrief to a new F-5 PUI (ATI evaluator acting as PUI). Debrief should include full reconstruction with subsequent validation at the TACTS Range. Examples of execution errors and decisions resulting in a kill or another disadvantage should be identified and debriefed. Blue and red mission level errors should also be debriefed.

Prerequisite. ATI-5102.

Ordnance. One (1) CATM-9 and ten (10) flares per aircraft.

Range Requirement. RSTD SFC-FL310.

External Support. TACTS desired. GCI required. 2 dissimilar fighters.

References. VMFT-401 Sortie Syllabus Guide.

ATI-5104    0.8    \*    B,R    E    3-4 F-5E/N/F    D

Goal. Evaluate the (P)ATI's ability to safely and effectively conduct and control a non-FRS dissimilar XvX support mission as an adversary flight lead and instructor. The focus should be on the (P)ATI's ability to brief, lead, and debrief a new F-5 PUI (ATI evaluator acting as PUI). The PUI should tailor the adversary presentations, formations, tactics and weapons employment to the blue tasking, ensuring deconfliction and training rules adherence. The (P)ATI should emphasize leadership and instruction to a new F-5 wingman (ATI evaluator acting as PUI).

Requirement. Conduct at least two BVR ACM setups.

Performance Standard. Effectively brief an adversary mission, tailoring brief to a new F-5 PUI (ATI evaluator acting as PUI). Effectively manage wingman, time, and airspace as flight lead during execution of the mission. Conduct debrief with accurate recall and reconstruction of all sets, tailoring debrief to a new F-5 PUI (ATI evaluator acting as PUI). Debrief shall include full reconstruction with subsequent validation at the TACTS Range. Examples of execution errors and decisions resulting in kills or another disadvantage should be identified and debriefed. Blue and red mission level errors should also be debriefed.

Prerequisite. ATI-5103.

Ordnance. One (1) CATM-9 and ten (10) flares per aircraft.

Range Requirement. RSTD SFC-FL310.

External Support. TACTS required. GCI required. Dissimilar fighters.

References. VMFT-401 Sortie Syllabus Guide.

2. Low Altitude Tactics Instructor (LATI) POI

a. Purpose. To certify pilots capable of instructing in F-5 Low Altitude Tactics (LAT) and FW vs. RW (Helo Attack (HA)) adversary support missions. As such, a designated LATI shall be capable of conducting classroom and airborne instruction in the use of an F-5 as a low altitude threat simulator, general low altitude tactical concepts, F-5 maneuvering envelopes, air to ground target attack profiles and RW attack profiles. A LATI fulfills the safety, ORM and leadership requirements per T&R Program Manual, OPNAVINST 3710.7 and unit Standard Operating Procedures.

b. General. Prospective LATIs ((P)LATI) are nominated by the Stan Board and approved by the Commanding Officer. The following minimum POI shall be completed in order to prepare for designation as a LATI. Each flight event shall be evaluated by a designated LATI. Meeting the performance standards and receiving a positive endorsement from the sortie evaluator allows the (P)LATI to move on to the next event. Individuals may be designated as a LATI by the Commanding Officer after successful completion of all events.

c. Prerequisites. The (P)LATI must be at least a designated ATI.

d. Academic/Ground Training. All requirements delineated in the matrix below shall be completed prior to commencing the flight syllabus.

TRAINING CODE	EVENT	Source
ACAD-5011	USMC T&R Program Manual - LAT Training Rules	PTO
ACAD-5012	MAWTS-1 TACAIR Common ASP - "Low Altitude Training"	PTO

LATI-5201 0.8 \* B,R E 2 F-5N/F D

Goal. Evaluate the (P)LATI's ability to safely and effectively conduct and control single ship LAT from a chase position and section LAT as the lead. The PUI should emphasize deconfliction and attack considerations focusing on F-5 specific differences to other platforms and F-5 missions involving LAT.

Requirement. Conduct LAT circuit warm-up as required and two follow-on LAT circuits on an approved range.. Perform first LAT circuit with (P)LATI as chase to a single ship chased target

attack. Perform second LAT circuit as a section with (P)LATI as lead. All LAT circuits should include terrain masking, navigation turns (check, tac, in-place, and cross turns), defensive turns (hard and break), ridgeline crossings and a target attack.

Performance Standard. Effectively and safely brief, lead and debrief a LAT mission. Effectively manage terrain avoidance, wingman, time, airspace and target attacks as flight lead and chase. Complete two LAT circuits and all required items.

Prerequisite. ACAD-5011 and 5012.

Range Requirement. RSTD SFC-5K.

References. VMFT-401 Sortie Syllabus Guide.

LATI-5202 0.8 \* B,R E 2 F-5N/F D

Goal. Evaluate the (P)ATI's ability to safely and effectively conduct section LAT and 2vX Helo Attack (HA) as the lead. The PUI should emphasize deconfliction, attack considerations on a moving target and how to employ the F-5 in the HA adversary mission.

Requirement. Conduct one section LAT circuit on an approved LAT range, completing the section LAT required items from LATI-5201. Conduct simulated 2vX HA mission on a set of stationary targets. HA profiles should include forward quarter, beam and rear quarter section attack profiles. HA re-attack profiles should include arcing, BVR extension and vertical re-attacks.

Performance Standard. Effectively and safely brief, lead and debrief a simulated HA mission. Effectively manage terrain avoidance, wingman, time, airspace and simulated helo attacks as flight lead. Complete one LAT circuit and three HA profiles (one of each attack and re-attack combinations).

Prerequisite. LATI-5201.

Range Requirement. RSTD SFC-5K.

References. VMFT-401 Sortie Syllabus Guide.

### 3. Familiarization Instructor (FAMI) POI

a. Purpose. To qualify pilots capable of instructing new F-5 transition pilots in the FAM stage of the Core Skill Introduction phase of training. As such, a FAMI shall be capable of conducting ground and airborne instruction in unit SOP, T&R syllabus, F-5 systems, flight characteristics, landing techniques, aircraft limitations, and NATOPS procedures. A FAMI fulfills the safety, ORM and leadership requirements per T&R Program Manual, OPNAVINST 3710.7 and unit Standard Operating Procedures.

b. General. Prospective FAMIs ((P)FAMI) are nominated by the Stan Board and approved by the Commanding Officer. The following minimum POI shall be completed in order to prepare them for designation as a FAMI. All events shall be evaluated by a designated FAMI. The (P)FAMI shall complete 2 flight sorties in an F-5F, instructing from the rear cockpit. The evaluator shall act as a new F-5 transition pilot and fly from the front cockpit. Meeting the performance standards and receiving a positive endorsement from the sortie evaluator allows the (P)FAMI to move on to the next event. Individuals may be designated as a FAMI by the Commanding Officer after successful completion of all events.

c. Prerequisites. A designated ATI.

d. Academic/Ground Training. All requirements delineated in the matrix below shall be completed prior to commencing the flight syllabus.

TRAINING CODE	EVENT	DATE COMPLETE
ACAD-5021	Observe Ground School given by FAMI	FAMI
ACAD-5022	VMFT-401 Lecture, "FAMI Instructional Techniques"	FAMI

FAMI-5301 1.0 \* B,R E 1 F-5F D

Goal. Evaluate the (P)FAMI's ability to safely and effectively instruct in F-5 ground and airborne procedures, flight characteristics, limitations and the landing pattern from the aft cockpit (designated FAMI evaluator acting as PUI from the front seat). (P)FAMI instructs from the aft cockpit. Instructional emphasis placed on flying quality differences and how to land and flare the F-5.

Requirement. Conduct a FAM instructional sortie in an F-5F. Conduct normal ground operations, A/B takeoff and normal range entry procedures. Aerobatics to include: aileron roll, rudder roll, half-cuban eight, loop, immelman and split-s. (P)FAMI demonstrate and then evaluate IPH maneuver. Introduce ((P)FAMI instructing) pushover, clean and dirty stall recoveries, engine shutdown and re-start, and emergency gear extension. Conduct field entry to landing pattern to complete a minimum of five full flap landings from the backseat and evaluate at least two completed by the FAMI (front seat).

Performance Standard. Safe and effective conduct of a FAM instructional sortie. (P)FAMI should be able to safely land from the aft cockpit, instruct a PUI in the landing pattern, aerobatics and ensure safe recoveries from all maneuvers. (P)FAMI should be able to effectively brief and debrief all items in-flight and in the classroom.

Prerequisite. ACAD-5021 and 5022.

Range Requirement. RSTD SFC-FL300.

References. VMFT-401 Sortie Syllabus Guide.

FAMI-5302 1.0 \* B,R E 1 F-5F D

Goal. Evaluate the (P)FAMI's ability to safely and effectively instruct in F-5 ground and airborne procedures, flight characteristics, limitations and the landing pattern from the aft cockpit (designated FAMI evaluator acting as PUI from the front seat). (P)FAMI instructs from the aft cockpit. Instructional emphasis placed on flying quality differences in single engine and no flap scenarios.

Requirement. Conduct a FAM instructional sortie in an F-5F. Conduct normal ground operations, A/B takeoff and normal range entry procedures. Aerobatics to include: loop, immelman and split-s. PUI complete IPH, pushover and dirty stall recoveries. Practice ((P)FAMI instructing) aerobatics, engine shutdown, engine re-start and emergency gear extension. Conduct field entry to a PAR/ ASR simulated single engine (SE) and simulated SE wave off. Complete instruction in no flap landings and practice full flap landings. Complete a minimum of three landings from the back seat and evaluate at least two completed by the FAMI (front seat).

Performance Standard. Safe and effective conduct of a FAM instructional sortie. (P)FAMI should be able to safely land from the aft cockpit, instruct in the landing pattern, instruct in aerobatics and ensure safe recoveries from all maneuvers. (P)FAMI should be able to effectively brief and debrief all items in-flight and in the classroom.

Prerequisite. FAMI-5301.

Range Requirement. RSTD SFC-FL300.

References. VMFT-401 Sortie Syllabus Guide.

### 213. FLIGHT LEADERSHIP AND SPECIAL INTEREST TRACKING

1. VMFT-401 is the only USMC F-5 Adversary Squadron. Due to the unique nature of the unit, all transitional pilot training (FRS type) and all flight leadership designations are standardized within the squadron. There is no external standardization or formal certification for VMFT-401 flight leads undergoing the flight lead or instructor syllabi. Pilots joining VMFT-401 must also have been previously certified as an ACTI or ACTI equivalent as prerequisite. Blue forces are listed below as 'External Support Required', but keep in mind that it is the adversary aircraft (F-5) that is the actual support asset for the Operating Forces' training.

2. Tracking codes for documenting the types of support provided to the requesting units are found in the range from 6011-6044. The first two digits of these tracking codes are "60", as they are in the 6000-level series. The third digit applies to the complexity level of the tasking, and uses the MAWTS-1 standard threat tasking levels, found in

the F/A-18A/C/D Tactical SOP. The third digit of the tracking code will be a 1 through 4, to indicate Level 1-4 tasking by the supported unit. The fourth digit will represent the simulated load out of the threat (adversary) aircraft, using the TopGun threat missile ROTs as follows: 1=IR only; 2=SAR-1; 3=SAR-2; and 4=AR-1/2. So, in total, the following table indicates the tracking code that will be logged for every AA sortie:

3rd digit: Threat Sim Level	4th digit: Simulated Weapons Load Out			
	IR only (1)	SAR-1 (2)	SAR-2 (3)	AR-1/2 (4)
Level 1	6011	6012	6013	6014
Level 2	6021	6022	6023	6024
Level 3	6031	6032	6033	6034
Level 4	6041	6042	6043	6044

For example, if the adversaries are tasked with being a Level-3 Adversary with SAR-1 missiles, the adversaries will log the code 6032.

3. Additional tracking codes. The following tracking codes are also to be used for the following reasons:

CODE	PURPOSE
6101	Backseat Landing. Logged by FAMI to track currency.
6102	Drag Chute Landing. Track proficiency.
6103	Insufficient Ordnance. Logged when required ordnance was unavailable for training or support, but all other requirements were met.
6104	Dissimilar aircraft not available. Usually this will be used for 1000 and 2000 level training, when similar aircraft are substituted for unavailable dissimilar fighters.
6154	Flight Lead tracking. Logged by flight lead of four-ship or greater.

4. Section Lead Work-Up (SLWU) POI

a. Purpose. To designate two ship flight leads capable of conducting safe and standardized ground and airborne adversary support missions. The SLWU syllabus is the first step in the unit flight leadership phase and a designated Section Lead (SL) pilot is the primary trainer of supported ground and aviation unit level training. A SL pilot shall be capable of conducting classroom and airborne instruction in unit standardized ground and airborne procedures, threat tactics and adversary support operations. A SLWU shall not be designated a SL pilot until he has briefed, led and debriefed all expected two ship adversary support missions VMFT-401 may be tasked with. This ensures consistent and professional adversary support. A SL pilot fulfills the safety, ORM and leadership requirements per T&R Program Manual, OPNAVINST 3710.7 and unit Standard Operating Procedures.

b. General. SLWU pilots are nominated by the Stan Board and approved by the Commanding Officer. The following minimum POI should be completed in order to prepare for designation as an Adversary

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Section Lead. Each flight event shall be evaluated by a designated Division Leader. Meeting the performance standards and receiving a positive endorsement from the sortie evaluator allows the SLWU pilot to move on to the next event. Individuals may be designated as a Section Lead by the Commanding Officer after successful completion of all events.

c. Prerequisites. The SLWU pilot must be at least an ACMQ, LATQ, HAQ and have a minimum of 50 hours in the F-5.

d. Academic/Ground Training. All requirements delineated in the matrix below shall be completed prior to commencing the flight syllabus.

TRAINING CODE	EVENT	SOURCE
ACAD-6051	SOP / TACSOP review	PTO
ACAD-6052	OPNAVINST 3710.7T section 5.1.10 (ACM Training Rules)	PTO
ACAD-6053	TopGun Manual ch 2 "Briefing and Debriefing"	PTO
ACAD-6054	TopGun Manual ch 27 "FA-18 Shot Validation"	PTO
ACAD-6055	TopGun Manual ch 44 "FA-18 Air-to-Air Employment"	PTO
ACAD-6056	TopGun Manual ch 49 "Section Engaged Maneuvering"	PTO
ACAD-6057	VMFT-401 Brief, "Effective Bandit Tasking"	PTO

e. Required Flight Exposure Items. The following listed items shall be completed during the flight phase. The order by which they are completed is at the discretion of the WU pilot and evaluator. All items shall be completed prior to designation. A copy of this table will be placed in the training jacket of the prospective Section Leader.

Flight Exposure Items	DATE	INSTRUCTOR
Section Go		
10 Second Go		
4 Second Break		
Fan Break		
Section Approach (TACAN or PAR)		
Section Missed Approach		
Section Landing		
Simulated NORDO Approach (as lead)		
Dash 3 of a Sniper Go		
2v2 Visual Set (SEM)		
2v2 Tap the Cap (TTC) Scenario and SEM		

SLWU-6201 0.8 \* B,R E 2 F-5N/F D

Goal. SLWU 1v1 Similar BFM. Evaluate the SLWU pilot's ability to brief, lead, and debrief a 1v1 similar BFM flight.

Requirement. Complete a SSD and three BFM sets; one with SLWU offensive on the turn circle, one with SLWU defensive with offender outside the turn circle and one neutral BFM set. The neutral set should be a butterfly set to a cooperative merge.

Performance Standard. Effectively brief, lead and debrief F-5 similar BFM. Effectively manage wingman, time, and airspace as flight lead during execution of the event. Conduct debrief with accurate recall and reconstruction of all sets. Debrief should include full white board reconstruction. Examples of BFM errors and decisions resulting in a kill or another disadvantage should be identified and debriefed.

Prerequisite. ACAD-6051 through 6057.

Ordnance. One (1) CATM-9 and ten (10) flares per aircraft.

Range Requirement. RSTD SFC-FL300.

External Support. TACTS desired.

SLWU-6202 0.8 \* B,R E 2 F-5N/F D

Goal. SLWU Section Engaged Maneuvering (SEM). Evaluate the SLWU pilot's ability to safely and effectively conduct and control a dissimilar 2v2 SEM support mission as an adversary flight lead and instructor. Emphasis should be placed on adversary presentations, formations, tactics and weapons employment for the tasking. Further emphasis should be on deconfliction, training rules adherence, F-5 RADAR mechanics, weapons employment and merge considerations.

Requirement. Complete at least two 2V2 SEM setups (SEM or TTC). Threat simulations should be consistent with tasking and mindset.

Performance Standard. Effectively conduct an adversary 2v2 engaged maneuvering mission. Effectively manage wingman, time, airspace and threat presentations as flight lead. Debrief with accurate recall and reconstruction of all sets. Debrief should include full white board reconstruction with subsequent validation at the TACTS Range if available. Examples of employment and decision errors resulting in a kill or another disadvantage should be identified and debriefed.

Prerequisite. SLWU-6201.

Ordnance. One (1) CATM-9 and ten (10) flares per aircraft.

Range Requirement. RSTD SFC-FL300.

External Support. TACTS desired. GCI desired. Dissimilar fighters.

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SLWU-6203 0.8 \* B E 2 F-5N/F D

Goal. SLWU 2vX. Evaluate the SLWU pilot's ability to safely and effectively conduct and control a dissimilar 2vX(2/2+) support mission as an adversary flight lead and instructor. Emphasis should be placed on adversary presentations, formations, tactics and weapons employment for the tasking. Further emphasis should be on deconfliction, training rules adherence, F-5 RADAR mechanics, weapons employment and merge considerations.

Requirement. Conduct at least two beyond visual range (BVR) setups utilizing dedicated GCI. Threat presentations should be tailored to the specific blue tasking and threat simulation.

Performance Standard. Effectively brief an adversary 2vX(2/2+) mission. Effectively manage wingman, time, airspace and threat presentations as flight lead during execution of the mission. Debrief with accurate recall and reconstruction of all sets. Debrief shall include full white board reconstruction with subsequent validation at the TACTS Range. Examples of employment and decision errors resulting in a kill or another disadvantage should be identified and debriefed. Blue and red mission level errors should also be debriefed.

Prerequisite. SLWU-6201.

Ordinance. One (1) CATM-9 and ten (10) flares per aircraft.

Range Requirement. RSTD SFC-FL500.

External Support. TACTS required. GCI required. Dissimilar fighters.

SLWU-6204 0.8 \* B,R E 4 F-5N/F D

Goal. SLWU 4vX as Dash-3. Evaluate the SLWU pilot's ability to employ as an element lead during a dissimilar XvX(2/2+) support mission. The focus should be on the SLWU pilot's ability to adhere to the brief and execute tasking as a Dash three flight lead of a division adversary mission. Emphasis should be placed on adversary presentations, formations, tactics and weapons employment for the tasking. Further emphasis should be on deconfliction, training rules adherence, F-5 RADAR mechanics, weapons employment and merge considerations.

Requirement. Conduct at least two BVR ACM setups utilizing TACTS and dedicated GCI as a element lead (dash 3) within a division support mission. Presentations should be tailored to specific blue tasking with emphasis on leadership and instruction in the 2vX adversary support mission.

Performance Standard. Effectively lead and debrief as Dash 3 in a 2vX (2+) adversary support mission. Effectively manage wingman, time, airspace and presentation as element lead during execution of the mission. Debrief with accurate recall and reconstruction of all sets.

Prerequisite. SLWU-6201.

Ordnance. One (1) CATM-9 and ten (10) flares per aircraft..

Range Requirement. RSTD SFC-FL500.

External Support. TACTS desired. GCI required. Dissimilar fighters.

SLWU-6205 0.8 \* B E 2 F-5N/F D

Goal. SLWU 2vX with Level 3 or 4 tasking. Evaluate the SLWU pilot's ability to safely and effectively conduct and control a non-FRS dissimilar 2vX(2/2+) support mission as a Level 3 or 4 adversary. Emphasis should be placed on adversary presentations, formations, tactics and weapons employment for the tasking. Further emphasis should be on deconfliction, training rules adherence, F-5 RADAR mechanics, weapons employment and merge considerations.

Requirement. Conduct at least two beyond visual range (BVR) setups utilizing dedicated GCI. Threat presentations should be tailored to the specific blue tasking and threat simulation.

Performance Standard. Effectively brief an adversary 2vX(2/2+) mission. Effectively manage wingman, time, airspace and threat presentations as flight lead during execution of the mission. Debrief with accurate recall and reconstruction of all sets. Debrief shall include full white board reconstruction with subsequent validation at the TACTS. Examples of employment and decision errors resulting in a kill or another disadvantage should be identified and debriefed. Blue and red mission level errors should also be debriefed.

Prerequisite. SLWU-6201.

Ordnance. One (1) CATM-9 and ten (10) flares per aircraft.

Range Requirement. RSTD SFC-FL500.

External Support. TACTS required. GCI required. Dissimilar fighters.

SLWU-6206 0.8 \* B,R E 2 F-5N/F D

Goal. SLWU 2vX HA. Evaluate the SLWU pilot's ability to safely and effectively conduct and control a dissimilar 2vX(1/2/2+) Helo Attack (HA) mission. Emphasis should be placed on adversary presentations, formations, tactics and weapons employment for the tasking. Further emphasis should be on deconfliction, training rules adherence, F-5 RADAR mechanics, weapons employment and merge considerations.

Requirement. Safely and effectively complete any 2vX HA mission as the flight lead.

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Performance Standard. Effectively conduct an adversary 2vX(1/2/2+) Helo Attack (HA) mission. Effectively manage wingman, time, airspace and threat presentations as flight lead during execution of the mission. Debrief with accurate recall and reconstruction of all sets; Debrief should include appropriate adversary comments during the in-flight debrief. Examples of employment and decision errors resulting in ineffective adversary support to the RW assets should be identified and debriefed.

Prerequisite. SLWU-6201.

Ordnance. One (1) CATM-9 and ten (10) flares per aircraft.

Range Requirement. RSTD SFC-10K.

External Support. Helicopters.

SLWU-6207 0.8 \* B,R E 2 F-5N/F D

Goal. SL Check Ride 2vX with Level 3/4 tasking. Final SLWU event and SLWU check flight prior to designation. Evaluate the SLWU pilot's ability to safely and effectively conduct and control a non-FRS dissimilar 2vX(2/2+) support mission as a Level 3 or 4 adversary. Emphasis should be placed on adversary presentations, formations, tactics and weapons employment for the tasking. Further emphasis should be on deconfliction, training rules adherence, F-5 RADAR mechanics, weapons' employment and merge considerations.

Requirement. Conduct at least two beyond visual range (BVR) setups utilizing dedicated GCI. Threat presentations should be tailored to the specific blue tasking and threat simulation.

Performance Standard. Effectively brief an adversary 2vX(2/2+) mission. Effectively manage wingman, time, airspace and threat presentations as flight lead during execution of the mission. Debrief with accurate recall and reconstruction of all sets. Debrief shall include full white board reconstruction with subsequent validation at the TACTS Range. Examples of employment and decision errors resulting in a kill or another disadvantage should be identified and debriefed. Blue and red mission level errors should also be debriefed.

Prerequisite. SLWU-6201 through 6206.

Ordnance. One (1) CATM-9 and ten (10) flares per aircraft.

Range Requirement. RSTD SFC-FL500.

External Support. TACTS required. GCI required. Dissimilar fighters.

5. Division Lead Work-Up (DLWU) POI

a. Purpose. To designate four ship flight leads capable of conducting safe and standardized ground and airborne adversary support missions. The DLWU syllabus is the second step in the unit flight leadership phase and a designated Division Lead (DL) pilot is the primary trainer of force on force level aviation training. A DL pilot shall be capable of conducting classroom and airborne instruction in unit standardized ground and airborne procedures, threat tactics and adversary support operations. A DLWU shall not be designated a DL pilot until he has briefed, led and debriefed a minimum of three division level adversary missions. This ensures consistent and professional adversary support. A DL pilot fulfills the safety, ORM and leadership requirements per T&R Program Manual, OPNAVINST 3710.7 and unit Standard Operating Procedures.

b. General. DLWU pilots are nominated by the Stan Board and approved by the Commanding Officer. The following minimum POI shall be completed in order to prepare for designation as an Adversary Division Lead. Each flight event shall be evaluated by a designated ATI. Meeting the performance standards and receiving a positive endorsement from the sortie evaluator allows the DLWU pilot to move on to the next event. Individuals may be designated as a Division Lead by the Commanding Officer after successful completion of all events.

c. Prerequisites. The DLWU pilot must be at least a designated Section Leader and must have a minimum of 75 hours in the F-5.

d. Academic/Ground Training. All requirements delineated in the matrix below shall be completed prior to commencing the flight syllabus.

TRAINING CODE	EVENT	SOURCE
ACAD-6061	SOP / TACSOP review	PTO
ACAD-6062	OPNAVINST 3710.7T section 5.1.10 (ACM Training Rules)	PTO
ACAD-6063	TopGun Manual ch 41 "AA Mission Planning"	PTO
ACAD-6064	AFTTP 3-1 vol 2 ch 9 "Adversary Air and Air Defense Employment, Operation, and Training"	PTO

e. Required Flight Exposure Items. The following listed items should be completed during the flight phase. The order by which they are completed is at the discretion of the WU pilot and evaluator. All items shall be completed prior to designation.

Flight Exposure Items	DATE	INSTRUCTOR
Sniper Go		
10 Second Go		
4 second Break as a Division		
Straight-in recovery with Flight-Lead		
Breakup of Flight		

DLWU-6301 0.8 \* B E 4 F-5N/F D

Goal. Evaluate the DLWU pilot's ability to safely and effectively conduct and control an FRS dissimilar 4vX(2/2+) support mission. Emphasis should be placed on adversary presentations, formations, tactics and weapons employment for the tasking. Further emphasis should be on deconfliction, training rules adherence, F-5 RADAR mechanics, weapons employment and merge considerations.

Requirement. Conduct at least two beyond visual range (BVR) setups utilizing dedicated GCI. Execute at least two pre-planned 3-1 threat presentations tailored to the specified blue tasking and threat simulation.

Performance Standard. Effectively brief an FRS adversary 4vX(2/2+) mission. Effectively manage wingmen, time, airspace and threat presentations as flight lead during execution of the mission. Debrief with accurate recall and reconstruction of all sets. Debrief should include full white board reconstruction with subsequent validation at the TACTS Range. Examples of employment and decision errors resulting in a kill or another disadvantage should be identified and debriefed. Blue and red mission level errors should also be debriefed.

Prerequisites. ACAD 6061-6064.

Ordnance. One (1) CATM-9 and ten (10) flares per aircraft.

Range Requirement. RSTD SFC-FL500.

External Support. TACTS desired. GCI required. Dissimilar fighters.

DLWU-6302 0.8 \* B,R E 4 F-5N/F D

Goal. Evaluate the DLWU pilot's ability to safely and effectively conduct and control a non-FRS dissimilar 4vX(2/2+) support mission as a Level 3 or 4 adversary. Emphasis should be placed on adversary presentations, formations, tactics and weapons employment for the tasking. Further emphasis should be on deconfliction, training rules adherence, F-5 RADAR mechanics, weapons employment and merge considerations.

Requirement. Conduct at least two beyond visual range (BVR) setups utilizing dedicated GCI. Execute at least two pre-planned 3-1 threat presentations tailored to the specified blue tasking and threat simulation.

Performance Standard. Effectively brief an adversary 4vX(2/2+) mission as a Level 3 or 4 adversary. Effectively manage wingmen, time, airspace and threat presentations as flight lead during execution of the mission. Debrief with accurate recall and reconstruction of all sets. Debrief shall include full white board reconstruction with subsequent validation at the TACTS Range. Examples of employment and decision errors resulting in a

kill or another disadvantage should be identified and debriefed. Blue and red mission level errors should also be debriefed.

Prerequisite. DLWU-6301.

Ordnance. One (1) CATM-9 and ten (10) flares per aircraft.

Range Requirement. RSTD SFC-FL500.

External Support. TACTS required. GCI required. Dissimilar fighters.

DLWU-6303 0.8 \* B,R E 4 F-5N/F D

Goal. Evaluate the DLWU pilot's ability to safely and effectively conduct and control an element within a LFE. Emphasis should be placed on adversary presentations, formations, tactics and weapons employment for the tasking. Further emphasis should be on deconfliction, training rules adherence, F-5 RADAR mechanics, weapons employment, merge considerations and effective integration into an LFE package.

Requirement. Conduct at least one beyond visual range (BVR) setup in an LFE utilizing dedicated GCI. Execute at least one pre-planned 3-1 threat presentations followed by reactions according to tasking and tailored to the specified threat simulation.

Performance Standard. Effectively brief an adversary element of at least four aircraft in an LFE. Effectively manage wingmen, time, airspace and threat presentations as an element lead during execution of the mission. Debrief with accurate recall and reconstruction of all sets. Debrief should include validation at the TACTS Range. Examples of employment and decision errors resulting in a kill or another disadvantage should be identified and debriefed. Blue and red mission level errors should also be debriefed.

Prerequisite. DLWU-6301.

Ordnance. One (1) CATM-9 and ten (10) flares per aircraft.

Range Requirement. RSTD SFC-FL500.

External Support. TACTS desired. GCI required. Dissimilar fighters.

DLWU-6304 0.8 \* B,R E 4 F-5N/F D

Goal. Final DLWU event and DLWU check flight prior to designation. Evaluate the DLWU pilot's ability to safely and effectively conduct and control a non-FRS dissimilar 4vX(2/2+) support mission as a Level 3 or 4 adversary. Emphasis should be placed on adversary presentations, formations, tactics and weapons employment for the tasking. Further emphasis should be

on deconfliction, training rules adherence, F-5 RADAR mechanics, weapons employment and merge considerations.

Requirement. Conduct at least two beyond visual range (BVR) setups utilizing dedicated GCI. Execute at least two pre-planned 3-1 threat presentations tailored to the specified blue tasking and threat simulation.

Performance Standard. Effectively brief an adversary 4vX(2/2+) mission as a Level 3 or 4 adversary. Effectively manage wingmen, time, airspace and threat presentations as flight lead during execution of the mission. Debrief with accurate recall and reconstruction of all sets. Debrief shall include full white board reconstruction with subsequent validation at the TACTS Range. Examples of employment and decision errors resulting in a kill or another disadvantage should be identified and debriefed. Blue and red mission level errors should also be debriefed.

Prerequisite. DLWU-6301, 6302, 6303.

Ordnance. One (1) CATM-9 and ten (10) flares per aircraft.

Range Requirement. RSTD SFC-FL500.

External Support. TACTS required. GCI required.

#### 7. Mission Commander Work-Up (MCWU) POI

a. Purpose. To designate multi-element flight leads capable of conducting safe and standardized adversary large force evolution (LFE) support missions. The MCWU syllabus is the final step in the unit flight leadership phase and a designated Mission Commander (MC) pilot is the primary trainer for adversary LFEs. A MC pilot shall be capable of conducting classroom and airborne instruction in unit standardized ground and airborne procedures, threat tactics and adversary support missions. A MCWU pilot shall not be designated a MC pilot until he has briefed, led and debriefed a minimum of two LFE missions. This ensures consistent and professional adversary support. A MC pilot fulfills the safety, ORM and leadership requirements per T&R Program Manual, OPNAVINST 3710.7 and unit Standard Operating Procedures.

b. General. MCWU pilots are nominated by the Stan Board and approved by the Commanding Officer. The following minimum POI shall be completed in order to prepare for designation as an Adversary Mission Commander. Each flight event shall be evaluated by a designated Mission Commander. Meeting the performance standards and receiving a positive endorsement from the sortie evaluator allows the MCWU pilot to move on to the next event. Individuals may be designated as a Mission Commander by the Commanding Officer after successful completion of all events.

c. Prerequisites. The MCWU pilot must be at least an ATI and must have a minimum of 100 hours in the F-5. A MCWU pilot must have also participated in at least one WTI course and two major WTI LFEs.

d. Academic/Ground Training. All requirements delineated in the matrix below shall be completed prior to commencing the flight syllabus.

TRAINING CODE	EVENT	SOURCE
ACAD-6071	SOP / TACSOP review	PTO
ACAD-6072	OPNAVINST 3710.7T section 5.1.10 (ACM Training Rules)	PTO

e. Required Flight Exposure Items. The following listed items should be completed during the flight phase. The order by which they are completed is at the discretion of the WU pilot and evaluator. All items should be completed prior to designation.

Flight Exposure Items	DATE	INSTRUCTOR
Mixed Red Air Package (non-F-5)		
All F-5 Red Air Package (minimum 6xF-5)		

MCWU-6401 0.8 \* B E 6-8 F-5N/F D

Goal. Evaluate the MCWU pilot's ability to brief, lead, and debrief any multi-element adversary package in a LFE. PUI should emphasize threat presentations, weapons employment, element deconfliction and training rules.

Requirement. Coordinate and brief at least one BVR presentation in an LFE. Threat presentations and subsequent element tasking should be in accordance with the 3-1 and specified blue training objectives. MCWU should act as overall Red Mission Commander and as the division lead of the F-5 players.

Performance Standard. Effectively brief, lead and debrief any LFE adversary mission. Effectively manage presentation, tasking, timing and airspace as overall Mission Commander during execution of the LFE. Conduct debrief with accurate recall and reconstruction. Debrief should include any applicable white board reconstruction and should be completed at the TACTS Range. Examples of mission level errors and tactical decisions which result in a disadvantage by either blue or red forces should be identified and debriefed.

Prerequisites. ACAD-6071, 6072.

Ordnance. One (1) CATM-9 and ten (10) flares per aircraft.

Range Requirement. RSTD SFC-FL500.

External Support. TACTS desired. GCI required. Dissimilar fighters.

MCWU-6402 0.8 \* B,R E 6-8 F-5N/F D

Goal. Evaluate the MCWU pilot's ability to brief, lead, and debrief a multi-element adversary package as part of a WTI

Course. PUI should emphasize threat presentations, weapons employment, element deconfliction and training rules.

Requirement. Coordinate and brief at least one BVR presentation in a WTI support LFE. Threat presentations and subsequent element tasking should be in accordance with the 3-1 and specified WTI training objectives. MCWU should act as overall Red Mission Commander and as the division lead of the F-5 players.

Performance Standard. Effectively brief, lead and debrief a WTI LFE adversary mission. Effectively manage presentation, tasking, timing and airspace as overall Mission Commander during execution of the WTI event. Conduct debrief with accurate recall and reconstruction. Debrief should include any applicable white board reconstruction and should be completed at the TACTS Range. Examples of mission level errors and tactical decisions which result in a disadvantage by blue or red forces should be identified and debriefed.

Prerequisite. ACAD-6071, 6072.

Ordnance. One (1) CATM-9 and ten (10) flares per aircraft.

Range Requirement. RSTD SFC-FL500.

External Support. TACTS desired. GCI required.

MCWU-6403 0.8 \* B,R E 8 F-5N/F D

Goal. Final MCWU event and MCWU check flight prior to designation. Evaluate the MCWU pilot's ability to brief, lead, and debrief any multi-element adversary LFE package. PUI should emphasize threat presentations, weapons employment, element deconfliction and training rules.

Requirement. Coordinate and brief at least one BVR adversary presentation in any LFE. Threat presentations and subsequent element tasking should be in accordance with the 3-1 and specified blue training objectives. MCWU should act as overall Red Mission Commander and as the division lead of the F-5 players.

Performance Standard. Effectively brief, lead and debrief any LFE adversary mission. Effectively manage presentation, tasking, timing and airspace as overall Mission Commander during execution of the LFE. Conduct debrief with accurate recall and reconstruction. Debrief should include any applicable white board reconstruction and should be completed at the TACTS Range. Examples of mission level errors and tactical decisions which result in a disadvantage by either blue or red forces should be identified and debriefed.

Prerequisite. MCWU-6401, 6402.

Ordnance. One (1) CATM-9 and ten (10) flares per aircraft.

Range Requirement. RSTD SFC-FL500.

External Support. TACTS desired. GCI required. Dissimilar fighters.

8. Post-Maintenance Check Flight Qualification (PMCFQ) POI

a. Purpose. To qualify pilots capable of performing PMCF flights in the F-5. PMCFQ pilots shall be capable of instructing follow-on (P)PMCFQ pilots and fulfilling the safety, ORM and leadership requirements per T&R Program Manual, OPNAVINST 3710.7 and unit Standard Operating Procedures.

b. General. Prospective PMCFQ pilots ((P)PMCFQ) are nominated by the Stan Board and approved by the Commanding Officer. The following minimum POI shall be completed in order to prepare for qualification as a PMCFQ pilot. The first flight event shall be evaluated by a qualified PMCF pilot from the aft cockpit. Meeting the performance standards and receiving a positive endorsement from the sortie evaluator allows the (P)PMCFQ to move on to the next event. Individuals may be designated as a PMCFQ by the Commanding Officer after successful completion of all events.

c. Prerequisites. The (P)PMCFQ must be at least a designated Division Leader.

d. Academic/Ground Training. All requirements delineated in the matrix below shall be completed prior to commencing the flight syllabus.

TRAINING CODE	EVENT	SOURCE
ACAD-6081	VMFT-401 lecture, "PMCF Techniques"	PMCFP

PMCF-6501 1.0 \* B,R E 1 F-5F D

Goal. Evaluate the (P)PMCFQ pilot's ability to effectively and accurately complete a PMCF profile A card deck. (P)PMCFQ flies the FCF profile from the front seat with a PMCF Qualified pilot instructing from the aft cockpit.

Requirement. Complete a PMCF A card in an up status F model aircraft with the (P)PMCFQ in the front cockpit and an qualified PMCF pilot in the rear cockpit. Complete PMCF A card procedures including ground checks, in-flight checks and data recording. Drag chute landing should be completed upon final landing, winds permitting.

Performance Standard. Successfully complete a dual PMCF A card.

Prerequisite. ACAD-6081.

Range Requirement. RSTD SFC-FL500.

References. NATOPS Manual.

PMCF-6502 1.0 \* B,R E 1 F-5N/F D

Goal. Allow the (P)PMCFQ to practice the PMCF A card in an up status aircraft. Practice PMCF checklists.

Requirement. Complete a solo PMCF A card in an up status F-5 aircraft. Complete PMCF ground and in-flight procedures including ground checks, in-flight checks and data recording.

Performance Standard. Successfully complete a solo PMCF A card.

Prerequisite. PMCF-6501.

Range Requirement. RSTD SFC-FL500.

References. NATOPS Manual.

PMCF-6503 1.0 \* 1 F-5N/F D

Goal. Conduct a PMCF.

Requirement. Complete a PMCF in accordance with maintenance requirements.

Performance Standard. Successfully complete a PMCF including any/all ground and in-flight work required.

Prerequisite. PMCF-6502.

Range Requirement. RSTD SFC-FL500.

References. NATOPS Manual and applicable maintenance publications.

#### 9. NATOPS Qualification POI

a. Purpose. To designate pilots as NATOPS-qualified in the F-5E/F/N series aircraft IAW OPNAVINST 3710.7.

b. General. Prospective NATOPS qualifications, either initial quals or refresher quals, must complete the following syllabus.

c. Prerequisites. Reference the F-5E/F/N NATOPS for further guidance, but at a minimum, the PUI must have 10 flight hours in the preceding 90 days before completing the academic and flight training listed below.

d. Academic/Ground Training. All requirements delineated in the matrix below shall be completed prior to commencing the flight syllabus.

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Training Code	Event
NTPS-6701	Open Book NATOPS test
NTPS-6702	Closed Book NATOPS test
	Oral NATOPS test (completed in conjunction with NTPS-6703 Flight Brief)

NTPS-6703 1.0 365 B,R E 1 F-5F or 2 F-5E/N D

Goal. Evaluate the PUI's ability to safely operate the F-5 series of aircraft as a pilot. Oral NATOPS test completed in conjunction with flight brief.

Requirement. Complete this sortie safely in the opinion of the NATOPS instructor pilot. Sortie will be completed in accordance with OPNAV, and the sortie content will be as laid out in the VMFT-401 Briefing Guide.

Performance Standard. All procedures in accordance with NATOPS, SOPs and local Course Rules.

Prerequisites: NTPS 6701, 6702.

Range Requirement. RSTD SFC-FL300.

References. NATOPS Manual.

NTPS-6704 1.0 365 B,R E 1 F-5F or 2 F-5E/N D

Goal. Evaluate the PUI's ability to effectively utilize CRM principles.

Requirement. Complete this sortie safely in the opinion of the NATOPS instructor pilot. CRM evaluation should be completed in conjunction with the NATOPS evaluation to the maximum extent possible.

Performance Standard. Effective utilization of CRM in all aspects of flight, including simulated emergencies.

Prerequisites: NTPS 6701, 6702.

References. NATOPS Manual.

#### 10. Instrument Rating Syllabus

a. Purpose. To designate pilots as Instrument-rated in the F-5E/F/N series aircraft IAW OPNAVINST 3710.7.

b. General. PUIs requiring annual renewal of Instrument rating shall complete the following syllabus.

c. Prerequisites. Instrument rating requires that instrument prerequisites are met IAW OPNAVINST 3710.7.

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d. Academic/Ground Training. All requirements delineated in the matrix below shall be completed prior to commencing the flight syllabus.

Training Code	Event
INST-6801	Instrument Ground School
INST-6802	Instrument Written Exam

INST-6803    1.0                    365                    B,R                    E                    1 F-5F or 2 F-5E/N D

Goal. Evaluate the PUI's ability to safely operate the F-5 series of aircraft as a pilot under Instrument Flight Rules.

Requirement. Complete this sortie safely in the opinion of the instrument-checker instructor pilot. Sortie will be completed in accordance with OPNAVINST 3710.7, and the sortie content will be as laid out in the VMFT-401 Briefing Guide.

Performance Standard. All procedures in accordance with NATOPS, SOPs and local Course Rules.

Prerequisites: INST-6801, 6802

External Support. An airfield with suitable precision and non-precision approaches available for practice approaches.

References. OPNAVINST 3710.7.

214. T&R SYLLABUS MATRIX

STAGE	TRAINING CODE CURRENT	TRAINING CODE NEW	GOAL / DESCRIPTION	NUM ACAD EVENTS	ACAD HOURS	NUM FLT EVENTS	FLT HOURS	REFLY INTERVAL	CONDITIONS	# OF AIRCRAFT	NIGHT SYSTEMS	BASIC	REFRESHER	EVAL	PREREQUISITE TRAINING CODES	PREREQUISITE NOTES	ORDNANCE TYPE	ORDNANCE QUANTITY	NOTES	EXTERNAL SYLLABUS SUPPORT	CHAINING FLIGHT TRAINING CODES
<b>CORE SKILL INTRODUCTION (1000 SERIES EVENTS)</b>																					
<b>ACADEMICS 1000 SERIES</b>																					
ACAD	1001		F-5 Systems		1.0			*													
ACAD	1002		F-5 Ground School		4.0			*													
ACAD	1003		Parachute Brief / Seat Brief / Cockpit FAM		1.0			*													
ACAD	1004		Departure/Spin Video		1.0			*													
ACAD	1005		SOP Test		1.0			*													
ACAD	1006		RADAR lecture and hardware demo		1.0			*													
ACAD	1010		TopGun Manual ch 1 "Communications Brevity"		1.0			*													
ACAD	1011		TopGun Manual ch 39 "Command and Control"		1.0			*													
ACAD	1020		TopGun Manual ch 38 "1v1 Air Combat"		1.0			*													
ACAD	1030		TACSOP Review		1.0			*													
ACAD	1031		TopGun Manual ch 15 "Threat Pilot"		1.0			*													
ACAD	1032		ACMQ Test		1.0			*													
<b>ACADEMICS TOTAL</b>				<b>12</b>	<b>15.0</b>	<b>0</b>	<b>0</b>														

STAGE	TRAINING CODE CURRENT	TRAINING CODE NEW	GOAL / DESCRIPTION	NUM ACAD EVENTS	ACAD HOURS	NUM FLT EVENTS	FLT HOURS	REFLY INTERVAL	CONDITIONS	# OF AIRCRAFT	NIGHT SYSTEMS	BASIC	REFRESHER	EVAL	PREREQUISITE TRAINING CODES	PREREQUISITE NOTES	ORDNANCE TYPE	ORDNANCE QUANTITY	NOTES	EXTERNAL SYLLABUS SUPPORT	CHAINING FLIGHT TRAINING CODES
<b>FAMILIARIZATION (FAM)</b>																					
FAM	1101		TAXI FAM				0.0	*	A	1 F		X	X	X	1001,1002,1003,1004,1005,6701,6702	Taxi only no flight time.	None				
FAM	1102		FIRST FAM				1.0	*	A	1 F		X	X	X	1101		None		RSTD SFC-30K		
FAM	1103		FLAP LANDINGS				1.0	*	A	1 F		X	X	X	1102		None		RSTD SFC-30K	GCI	
FAM	1104		INTRO SOLO OPS				1.0	*	A	2		X		X	1103		None		RSTD SFC-30K		
FAM	1105		GCA RECOVERY				1.0	*	A	2		X	X	X	1104		None		RSTD SFC-30K		
FAM	1106		VFR COURSE RULES				1.0	*	A	2		X		X	1105		None		RSTD SFC-30K		
FAM	1107		FAM CHECK RIDE				1.0	*	A	2		X	X	X	1106,1006		None		RSTD SFC-30K	GCI	
<b>FAM TOTAL</b>				<b>0</b>	<b>0.0</b>	<b>6</b>	<b>6.0</b>														
<b>INSTRUMENT (INST)</b>																					
INST	1201		GCA & TACAN				1.0	*	A	1		X			1107		None			AFLD W/ PRECISION AND NON-PRECISION APPROACHES (PAR/ASR)	
INST	1202		AIRWAYS NAV				1.0	*	A	1		X	X		1107		None			AFLD W/ PRECISION AND NON-PRECISION APPROACHES (PAR/ASR)	
<b>INST TOTAL</b>				<b>0</b>	<b>0.0</b>	<b>2</b>	<b>2.0</b>														

STAGE	TRAINING CODE CURRENT	TRAINING CODE NEW	GOAL / DESCRIPTION	NUM ACAD EVENTS	ACAD HOURS	NUM FLT EVENTS	FLT HOURS	REFLY INTERVAL	CONDITIONS	# OF AIRCRAFT	NIGHT SYSTEMS	BASIC	REFRESHER	EVAL	PREREQUISITE TRAINING CODES	PREREQUISITE NOTES	ORDNANCE TYPE	ORDNANCE QUANTITY	NOTES	EXTERNAL SYLLABUS SUPPORT	CHAINING FLIGHT TRAINING CODES
<b>ALL WEATHER INTERCEPT (AWI)</b>																					
AWI	1301		REVIEW SSR				0.8	*	A	2		X		X	1107, 1010, 1011		None		RSTD SFC-FL300	GCI	
AWI	1302		REVIEW AWI				0.8	*	A	2		X	X	X	1301		None		RSTD SFC-FL300	GCI	
AWI	1701		2V2 WINGMAN				0.8	*	A	2		X		X	1302		None		RSTD SFC-FL300	GCI,2 FTRS,TACTS	
AWI	1702		PRACTICE 2V2				0.8	*	A	2		X	X	X	1701		None		RSTD SFC-FL300	GCI,2 FTRS,TACTS	
<b>AWI TOTAL</b>				<b>0</b>	<b>0.0</b>	<b>4</b>	<b>3.2</b>														
<b>BASIC FIGHTER MANEUVERS (BFM)</b>																					
BFM	1401		OFFENSIVE PERCH				0.8	*	A	2		X	X	X	1020,1302			1,10	RSTD SFC-FL310	TACTS	
BFM	1402		1V1 SIMILAR				0.8	*	A	2		X	X	X	1401			1,10	RSTD SFC-FL310	TACTS	
BFM	1403		1V1 NEUTRAL				0.8	*	A	2		X		X	1402			1,10	RSTD SFC-FL310	TACTS	
BFM	1404		1V1 BUTTERFLY				0.8	*	A	2		X		X	1403			1,10	RSTD SFC-FL310	TACTS	
BFM	1405		SAFE FOR DISSIMILAR CHECK				0.8	*	A	2		X	X	X	1404			1,10	RSTD SFC-FL310	TACTS	
BFM	1406		INTRO 1V1 DISSIMILAR				0.8	*	A	1		X	X	X	1405,6703	NATOPS Qualified		1,10	RSTD SFC-FL310	FTR W/ ACTI,TACTS	
BFM	1407		1V1 DISSIMILAR CAT IV				0.8	*	A	1		X		X	1405,6703	NATOPS Qualified		1,10	RSTD SFC-FL310	CAT IV FTR W/ ACTI,TACTS	
<b>BFM TOTAL</b>				<b>0</b>	<b>0.0</b>	<b>7</b>	<b>5.6</b>														

STAGE	TRAINING CODE CURRENT	TRAINING CODE NEW	GOAL / DESCRIPTION	NUM ACAD EVENTS	ACAD HOURS	NUM FLT EVENTS	FLT HOURS	REFLY INTERVAL	CONDITIONS	# OF AIRCRAFT	NIGHT SYSTEMS	BASIC	REFRESHER	EVAL	PREREQUISITE TRAINING CODES	PREREQUISITE NOTES	ORDNANCE TYPE	ORDNANCE QUANTITY	NOTES	EXTERNAL SYLLABUS SUPPORT	CHAINING FLIGHT TRAINING CODES
<b>AIR-TO-AIR (AA)</b>																					
AA	1601		1V1V1 SIMILAR				0.8	*	A	3		X	X	X	1405,1030,1031		CATM-9,Flares	1,10	RSTD SFC-FL310	TACTS	
AA	1602		1V2 DISSIMILAR				0.8	*	A	1		X		X	1406,1407		CATM-9,Flares	1,10	RSTD SFC-FL310	2 FTR W/ ACTI,TACTS	
AA	1603		2V1 DISSIMILAR				0.8	*	A	2		X		X	1406,1407		CATM-9,Flares	1,10	RSTD SFC-FL310	FTR,TACTS	
AA	1801		INTRO.2V2				0.8	*	A	2		X	X	X	1032,1702,1602,1603		CATM-9,Flares	1,10	RSTD SFC-FL310	2 FTR,GCI,TACTS	
AA	1802		PRAC 2V2				0.8	*	A	2		X		X	1801		CATM-9,Flares	1,10	RSTD SFC-FL310	2 FTR,GCI,TACTS	
AA	1803		4VX				0.8	*	A	4		X	X	X	1802		CATM-9,Flares	1,10	RSTD SFC-FL310	2+ FTR,GCI,TACTS	
AA	1804		2VX				0.8	*	A	2		X		X	1801		CATM-9,Flares	1,10	RSTD SFC-FL310	2+ FTR,GCI,TACTS	
AA	1805		2VX TAP THE CAP				0.8	*	A	2		X		X	1702,1602,1603		CATM-9,Flares	1,10	RSTD SFC-FL310	2+ FTR,GCI,TACTS	
AA	1806		ACM QUAL CHECK RIDE				0.8	*	A	2		X	X	X	1801,1802,1803,1804,1805	AA Phase Task List complete.	CATM-9,Flares	1,10	RSTD SFC-FL310	2+ FTR,GCI,TACTS	
<b>AA TOTAL</b>				<b>0</b>	<b>0.0</b>	<b>9</b>	<b>7.2</b>														
<b>CORE SKILL INTRODUCTION TOTAL</b>				<b>12</b>	<b>0.0</b>	<b>28</b>	<b>24.0</b>														

STAGE	TRAINING CODE CURRENT	TRAINING CODE NEW	GOAL / DESCRIPTION	NUM ACAD EVENTS	ACAD HOURS	NUM FLT EVENTS	FLT HOURS	REFLY INTERVAL	CONDITIONS	# OF AIRCRAFT	NIGHT SYSTEMS	BASIC	REFRESHER	EVAL	PREREQUISITE TRAINING CODES	PREREQUISITE NOTES	ORDNANCE TYPE	ORDNANCE QUANTITY	NOTES	EXTERNAL SYLLABUS SUPPORT	CHAINING FLIGHT TRAINING CODES
<b>CORE SKILLS (2000 SERIES EVENTS)</b>																					
<b>ACADEMICS 2000 SERIES (ACAD)</b>																					
ACAD	2001		MAWTS-1 TACAIR Common ASP, "Low Altitude Tactics"		1.0			*													
<b>ACADEMICS TOTAL</b>				1	0.0	0	0.0														
<b>FAMILIARIZATION (FAM)</b>																					
FAM	2101		FAM				0.8	14	A	1		X	X		1806	CORE SKILL INTRO COMPLETE	None		RSTD SFC-30K		
<b>FAM TOTAL</b>				0	0.0	1	0.8														
<b>INSTRUMENTS (INST)</b>																					
INST	2201		INST				1.0	90	A	1		X	X		1806	CORE SKILL INTRO COMPLETE	None				2101
<b>INST TOTAL</b>				0	0.0	1	1.0														
<b>AIR-TO-GROUND (AG)</b>																					
AG	2301		AG				0.8	180	A	2		X	X		1806	CORE SKILL INTRO COMPLETE	None		RSTD SFC-30K		2101
<b>AG TOTAL</b>				0	0.0	1	0.8														
<b>LOW ALTITUDE TACTICS (LAT)</b>																					
LAT	2401		INTRO LAT				0.8	*	A	2		X	X	X	2001,2301		None		RSTD SFC-5K		2101
LAT	2402		LAT QUAL				0.8	*	A	2		X		X	2401		None		RSTD SFC-5K		2101,2401
LAT	2403		LAT CURRENCY				0.8	180	A	1+		X	X		2402		None		RSTD SFC-5K		2101,2401,2402
<b>LAT TOTAL</b>				0	0.0	2	2.4														
<b>HELO ATTACK (HA)</b>																					
HA	2501		2V1-2 HA				0.8	*	A	2		X	X	X	2402	LAT Qual	CATM-9,Flare	1,10	RSTD SFC-5K	1-2 HELO	2101,2401
HA	2502		1V1-2 HA - HA QUAL CK				0.8	365	A	2		X	X	X	2501		CATM-9,Flare	1,10	RSTD SFC-5K	1 HELO	2101,2401,2501

STAGE	TRAINING CODE CURRENT	TRAINING CODE NEW	GOAL / DESCRIPTION	NUM ACAD EVENTS	ACAD HOURS	NUM FLT EVENTS	FLT HOURS	REFLY INTERVAL	CONDITIONS	# OF AIRCRAFT	NIGHT SYSTEMS	BASIC	REFRESHER	EVAL	PREREQUISITE TRAINING CODES	PREREQUISITE NOTES	ORDNANCE TYPE	ORDNANCE QUANTITY	NOTES	EXTERNAL SYLLABUS SUPPORT	CHAINING FLIGHT TRAINING CODES
<b>HA TOTAL</b>				0	0.0	2	1.6														
<b>BASIC FIGHTER MANEUVERS (BFM)</b>																					
BFM	2601		1V1 SIMILAR				0.8	30	A	2		X	X		1806		CATM-9,Flares	1,10	RSTD SFC-FL310	TACTS	2101
BFM	2602		1V1 DISSIMILAR				0.8	60	A	1		X	X		1806		CATM-9,Flares	1,10	RSTD SFC-FL310	TACTS	2101
BFM	2603		1V1V1				0.8	90	A	3		X	X		1806		CATM-9,Flares	1,10	RSTD SFC-FL310	TACTS,GCI	2101,2601
BFM	2604		1V2 WVR				0.8	*	A	1		X			1806		CATM-9,Flares	1,10	RSTD SFC-FL310	TACTS	2101
BFM	2605		2V1 WVR				0.8	*	A	2		X			1806		CATM-9,Flares	1,10	RSTD SFC-FL310	TACTS	2101
BFM	2606		2V2 WVR				0.8	90	A	2		X	X		1806		CATM-9,Flares	1,10	RSTD SFC-FL310	TACTS	2101,2602,2604,2605
<b>BFM TOTAL</b>				0	0.0	6	4.8														
<b>FIGHTER INTERCEPT (FI)</b>																					
FI	2701		1VX INTERCEPTS				0.8	90	A	1		X	X		1806	CORE SKILL INTRO COMPLETE	None		RSTD SUFFICIENT FOR ALT DECONFLICT	1+ FTR,GCI	2101
FI	2702		2+VX INTERCEPTS				0.8	*	A	2+		X			1806	CORE SKILL INTRO COMPLETE	None		RSTD SUFFICIENT FOR ALT DECONFLICT	1+ FTR,GCI	2101,2701
<b>FI TOTAL</b>				0	0.0	2	1.6														
<b>CORE SKILL TOTAL</b>				1	0.0	15	13.0														

STAGE	TRAINING CODE CURRENT	TRAINING CODE NEW	GOAL / DESCRIPTION	NUM ACAD EVENTS	ACAD HOURS	NUM FLT EVENTS	FLT HOURS	REFLY INTERVAL	CONDITIONS	# OF AIRCRAFT	NIGHT SYSTEMS	BASIC	REFRESHER	EVAL	PREREQUISITE TRAINING CODES	PREREQUISITE NOTES	ORDNANCE TYPE	ORDNANCE QUANTITY	NOTES	EXTERNAL SYLLABUS SUPPORT	CHAINING FLIGHT TRAINING CODES
<b>MISSION SKILLS (3000 SERIES EVENTS)</b>																					
<b>AIR-TO-AIR (AA)</b>																					
AA	3101		2V2 DISSIMILAR				0.8	90	A	2		X	X		1806		CATM-9,Flares	1,10	RSTD SFC-FL400	TACTS,GCI	2101,3401
AA	3102		2V3+ DISSIMILAR				0.8	*	A	2		X			1806		CATM-9,Flares	1,10	RSTD SFC-FL400	TACTS,GCI	2101,3101,3401
AA	3103		3+V2 DISSIMILAR				0.8	*	A	3-4		X	X		1806		CATM-9,Flares	1,10	RSTD SFC-FL400	TACTS,GCI	2101,3101,3401
AA	3104		3+V3+ DISSIMILAR				0.8	120	A	3-4		X	X		3101		CATM-9,Flares	1,10	RSTD SFC-FL400	TACTS,GCI	2101,3101,3103,3401
AA	3105		5+VX DISSIMILAR				0.8	365	A	5+		X	X		3101		CATM-9,Flares	1,10	RSTD SFC-FL400	TACTS,GCI	2101,3101,3103,3104,3401
<b>AA TOTAL</b>				0	0.0	5	4.0														
<b>HELO ATTACK (HA)</b>																					
HA	3201		1V1 HA				0.8	180	A	1		X	X		2502		CATM-9,Flares	1,10	RSTD SFC-5K	1 HELO	2101,2401,2502
HA	3202		1V2 HA				0.8	*	A	1		X			2502		CATM-9,Flares	1,10	RSTD SFC-5K	2 HELO	2101,3201,2401
HA	3203		2V2 HA				0.8	*	A	2		X			2502		CATM-9,Flares	1,10	RSTD SFC-5K	2 HELO	2101,3201,2401
<b>HA TOTAL</b>				0	0.0	3	2.4														
<b>SURFACE ATTACK (SA)</b>																					
SA	3301		SURFACE ATTACK				0.8	180	A	1+		X	X		2301		None		RSTD SFC-20K	UHF COMM	2101,2301
<b>CC TOTAL</b>				0	0.0	1	0.8														
CC	3401		COMMAND AND CONTROL				0.8	365	A	1		X	X		1603		None			GCI/AIC REQUIRED	
<b>SA TOTAL</b>				0	0.0	1	0.8														
<b>MISSION SKILL TOTAL</b>				0	0.0	10	8.0														

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<b>CORE+ (4000 SERIES EVENTS)</b>																					
<b>ACADEMICS 4000 SERIES (ACAD)</b>																					
ACAD	4001		Brief on Night Procedures with a night current AT1		1.0			*													
<b>ACADEMICS TOTAL</b>				1	1.0	0	0.0														
<b>AIR-TO-AIR (AA)</b>																					
AA	4101		2+ w/2+ v X DISSIMILAR MIXED RED				0.8	365	A	2+		X	X		3105		CATM-9,Flares	1,10	RSTD SFC-FL400	TACTS,GCI,ADD'L RED AIR	2101,3101,3103,3104
AA	4102		2+2+ DISSIMILAR MIXED RED				0.8	365	A	2+		X	X		3105		CATM-9,Flares	1,10	RSTD SFC-FL400	TACTS,GCI	2101,3101,3104,3105,4101
<b>AA TOTAL</b>				0	0.0	2	1.6														
<b>ANTI-AIR WARFARE (AAW)</b>																					
AAW	4201		2VX IADS				0.8	365	A	2		X	X		3105		CATM-9,Flares	1,10	RSTD SFC-FL400	IADS,TACTS,GCI,RTO	2101,3101
AAW	4202		2+VX IADS				0.8	365	A	2+		X	X		3105		CATM-9,Flares	1,10	RSTD SFC-FL400	IADS,ADD'L RED AIR,TACTS,GCI,RTO	2101,4101,4201
<b>AAW-TOTAL</b>				0	0.0	2	1.6														
<b>HELO ATTACK (HA)</b>																					
HA	4301		3+VX HA				0.8	365	A	3+		X	X		3203		CATM-9,Flares	1,10	RSTD SFC-5K	1+ HELO	2101,3201,2401
<b>HA TOTAL</b>				0	0.0	1	0.8														
<b>SURFACE ATTACK (SA)</b>																					
SA	4401		3+VX HA				0.8	365	A	1+		X	X		2301		CATM-9,Flares	1,10	RSTD SFC-20K	FAC	2101,2301,3301
<b>SA TOTAL</b>				0	0.0	1	0.8														

STAGE	TRAINING CODE CURRENT	TRAINING CODE NEW	GOAL / DESCRIPTION	NUM ACAD EVENTS	ACAD HOURS	NUM FLT EVENTS	FLT HOURS	REFLY INTERVAL	CONDITIONS	# OF AIRCRAFT	NIGHT SYSTEMS	BASIC	REFRESHER	EVAL	PREREQUISITE TRAINING CODES	PREREQUISITE NOTES	ORDNANCE TYPE	ORDNANCE QUANTITY	NOTES	EXTERNAL SYLLABUS SUPPORT	CHAINING FLIGHT TRAINING CODES
<b>NIGHT SUPPORT (NSPT)</b>																					
NSPT	4501		Night FAM				0.8	30	A	1		X	X		1806, 4001				RSTD SFC-25K		2101
NSPT	4502		Night INST				1.0	*	A	1		X	X		1806, 4001						2101,2201,4501
NSPT	4503		Night Form				0.8	*	A	2		X	X		4501, 4502				RSTD SFC-25K		2101,4501
NSPT	4504		Night 1v1 AWI				0.8	*	A	2		X	X		4503				RSTD SFC-25K	TACTS, GCI	2101,2701,4501
NSPT	4505		Night 2vX AWI				0.8	*	A	2		X	X		4504				RSTD SFC-25K	TACTS, GCI	2101,2701,2702,4501
NSPT	4506		Night Support 1vX				0.8	*	A	1		X			4505				RSTD SFC-25K	TACTS, GCI	2101,2701,4501
NSPT	4507		Night Support 2vX				0.8	*	A	2		X			4505				RSTD SFC-25K	TACTS, GCI	2101,2702,3101,4501
NSPT	4508		Night Support 2+Vx				0.8	*	A	2+		X			4505				RSTD SFC-25K	TACTS, GCI	2101,2702,3101,4501
<b>NSPT TOTAL</b>				0	0.0	8	6.6														
<b>CORE+ TOTAL</b>				1	0.0	14	11.4														
<b>INSTRUCTOR TRAINING (5000 SERIES EVENTS)</b>																					
<b>ACADEMICS 5000 SERIES</b>																					
ACAD	5001		TopGun Manual Ch. 10 "Adversary Instructor"		1.0			*													
ACAD	5002		TopGun Manual Ch. 11 "Threat Aircraft"		1.0			*													
ACAD	5003		TopGun Manual Ch. 12 "Threat Radar Missiles"		1.0			*													
ACAD	5004		TopGun Manual Ch. 13 "Threat IR Missiles"		1.0			*													
ACAD	5005		TopGun Manual Ch. 14 "Threat Pilot and Tactics"		1.0			*													
ACAD	5011		USMC T&R Program Manual - LAT Training Rules		1.0			*													

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ACAD	5012		MAWTS-1 TACAIR Common ASP - "Low Altitude Training"		1.0			*														
ACAD	5021		Observe Ground School given by FAMI		1.0			*														
ACAD	5022		VMFT-401 Lecture, "FAMI Instructional Techniques"		1.0			*														
<b>ACADEMICS TOTAL</b>				<b>9</b>	<b>9.0</b>	<b>0</b>	<b>0.0</b>															
<b>ADVERSARY TACTICS INSTRUCTOR (ATI)</b>																						
ATI	5101		1V1 BFM				0.8	*	A	2			X	X	X	5001,5002,5003,5004,5005	DIV LD	CATM-9,Flares	1,10	RSTD SFC-FL310	TACTS	2101,2601
ATI	5102		1V1 BFM				0.8	*	A	2			X	X	X	5101	DIV LD	CATM-9,Flares	1,10	RSTD SFC-FL310	TACTS	2101,2601
ATI	5103		2V2 DISSIMILAR				0.8	*	A	2			X	X	X	5102	DIV LD	CATM-9,Flares	1,10	RSTD SFC-FL310	TACTS,GCI	2101,3101
ATI	5104		XVX DISSIMILAR				0.8	*	A	3-4			X	X	X	5103	DIV LD	CATM-9,Flares	1,10	RSTD SFC-FL310	TACTS,GCI	2101,3103,3104
<b>ATI TOTAL</b>				<b>0</b>	<b>0.0</b>	<b>4</b>	<b>3.2</b>															
<b>LOW ALTITUDE TACTICS INSTRUCTOR (LATI)</b>																						
LATI	5201		LAT LD & CHASE				0.8	*	A	2			X	X	X	5011,5012	ATI	None		RSTD SFC-5K		2101,2401
LATI	5202		SECT LAT & HA				0.8	*	A	2			X	X	X	5201	ATI	None		RSTD SFC-5K		2101,2401
<b>LATI TOTAL</b>				<b>0</b>	<b>0.0</b>	<b>2</b>	<b>1.6</b>															
<b>FAMILIARIZATION INSTRUCTOR (FAMI)</b>																						
FAMI	5301		BACK SEAT FAMI				1.0	*	A	1 F			X	X	X	5021,5022	ATI	None		RSTD SFC-30K		2101
FAMI	5302		BACK SEAT FAMI				1.0	*	A	1 F			X	X	X	5301	ATI	None		RSTD SFC-30K		2101
<b>FAMI TOTAL</b>				<b>0</b>	<b>0.0</b>	<b>2</b>	<b>2.0</b>															
<b>INSTRUCTOR TOTAL</b>				<b>9</b>	<b>0.0</b>	<b>8</b>	<b>6.8</b>															