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From: Commandant of the Marine Corps
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Subj: F-35B/C TRAINING AND READINESS MANUAL

Ref: (a) NAVMC 3500.14E

Encl: (1) F-35B/C T&R Manual

1. Purpose. Per the reference, Enclosure (1) provides revised training and readiness (T&R) standards, regulations, and policy regarding the training of F-35B/C aircrew.

2. Cancellation. NAVMC 3500.118A.

3. Scope. Highlights of major T&R planning considerations included in this Manual are as follows:

a. Chapter 1

(1) Readiness standards and terminology have been revised to align with forthcoming changes to readiness reporting directives.

(2) Mission statements for operational and fleet replacement squadrons (FRS) have been revised to better align with mission essential tasks (MET).

b. Chapter 2

(1) Events requiring the instruction of an F-35 instructor pilot have been reduced to focus exclusively on events requiring a higher level of safety or tactical standardization oversight.

(2) The Core Introduction Phase includes the addition of night strafing and contract FRS instructors.

(3) Previous armed reconnaissance and strike coordination armed reconnaissance (SCAR) stages have been merged into a single SCAR stage to better align with METs.

(4) Added proficiency periods to the night systems, air combat maneuvering, and flight demonstration qualifications.

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

4. Information. Commanding General (CG), Training and Education Command (TECOM) will update this T&R Manual as necessary to provide current and relevant training standards to commanders. All questions pertaining to this Manual should be directed to: CG, TECOM, Policy and Standards Division (C 466), 1019 Elliot Road, Quantico, Virginia 22134.

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

6. Certification. Reviewed and approved this date.



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By direction
Commanding General,
Training and Education Command

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RECORD OF ADMINISTRATIVE CHANGES

Log completed change action as indicated.

Admin Change Number	Description	Chapter	Message Date-Time- Group
1	Device code “G” added to Qualifications Stage Table on 2-155 and to all follow-on event narratives.	2	DoN Tracker 2021- TECOM_PSD _ASB-149 of 2 Sep 21
2	<p>Event 6405 – Removed event 3303 from chaining profile. Day events (6405) cannot chain update night events (3303).</p> <p>Marine Corp Mishap Library link to the FA-18 CFIT vignette included in discussion items in event 2205.</p> <p>Corrected conditional chaining error in the matrix for event 3307. This event only chains 3306 if flown at night (3306~N).</p>	2	DoN Tracker 2021- TECOM_PSD _ASB-159 of 7 Oct 21

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CHAPTER 1
VMFA TRAINING AND READINESS UNIT REQUIREMENTS

F-35

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CHAPTER 1

F-35 TRAINING AND READINESS UNIT REQUIREMENTS

1.0 TRAINING AND READINESS 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.

1.1 MISSION

1.1. Tactical and Reserve Squadron. Locate, attack and destroy surface targets, intercept and destroy enemy aircraft, and provide electronic warfare support.

1.1.2 Fleet Replacement Squadron. Conduct Core Introduction fighter/attack training to meet Marine Corps manning requirements.

1.2 TABLE OF ORGANIZATION (T/O) AND TASK ORGANIZATION

1.2.1 Tactical and Reserve Squadron. Refer to Table of Organization managed by Total Force Structure, MCCDC, for current authorized organizational structure and personnel strength for VMFA F-35 squadrons. While the F-35 community is in the process of standing up squadrons, there is limited structure available to meet the specified requirements for pilots per squadron. However, deploying squadrons may be staffed to these metrics and therefore the MET output standards reflect the long term structure vice the current T/O. VMFA F-35 squadrons are authorized:

VMFA F-35			
	Squadron	Squadron(-)	Detachment
Aircraft	16	10	6
Pilots	26	17	9

1.2.2 Critical MOS

VMFA F-35			
CRITICAL MOSs			
MOS Description	PRIMARY MOS	Billet and/or MOS Description	SECONDARY MOS
Pilot	7518	Maintenance Control (Safe-for-flight)	6012
Aircraft Maintenance Chief	6019	Collateral Duty Inspector (CDI)	6016
Flight Equipment Technician	6048	Collateral Duty QAR (CDQAR)	6017
ALIS Technician	6694	Ordnance QASO	6516
Maintenance Administration	6046	Quality Assurance	6018
Aviation Ordnance Chief	6591	WTI Pilot	7577
Avionics Chief	6391	F-35B Training LSO	7591
IMRL Asset Manager	6042	F-35C CVN Squadron LSO	7594
Aircraft Safety Equipment Mechanic	6288		
*Critical MOS - Those specialties that directly affect the unit's ability to undertake its mission. Definition per MCO 3000.13 Marine Corps Readiness Reporting.			
Note: Flight Leadership MOS captured in Combat Leadership DRRS-MC reporting applicable to training level.			

1.2.3 Fleet Replacement Squadron. Refer to Table of Organization managed by Total Force Structure, MCCDC, for current authorized organizational structure and personnel strength for F-35 FRS units. VMFAT F-35 units are authorized:

VMFAT F-35	
	Squadron
Aircraft	25
Pilots	25

1.3 **MISSION ESSENTIAL TASK LIST (METL).** The METL is comprised of specified capabilities-based Mission Essential Tasks (METs) that a unit is designed to execute. METs are drawn from the Marine Corps Task List (MCTL), are standardized by type unit, and defined as Core or Core Plus METs. Core METs are those tasks that a unit is expected to execute at all times, and are the only METs used in reporting the Training Level (T-Level) for the Core Mission (C-Level) in the Defense Readiness Reporting System – Strategic (DRRS-S). Core Plus METs identify additional capabilities to support missions or plans that are limited in scope and/or theater specific. Core Plus METs may be included in readiness reporting when contained within an Assigned Mission METL. An Assigned Mission METL normally consists of selected METs (drawn from Core and Core Plus METs) necessary to conduct the assigned mission. MCO 3000.13 provides additional information on readiness reporting.

VMFA F-35		
MISSION ESSENTIAL TASK LIST (METL)		
CORE		
MET	SKILL ABBREVIATION	DESCRIPTION
MCT 3.2.3.1.1	CAS	Conduct Close Air Support
MCT 3.2.3.1.2.3	SCAR	Conduct Strike Coordination and Reconnaissance
MCT 3.2.3.2	OAAW	Conduct Anti-air Warfare [Offensive Anti-air Warfare (OAAW)]
MCT 6.1.1.8	AAD	Conduct Active Air Defense
MCT 3.2.3.1.2.1	STK	Conduct Strike
MCT 3.2.3.2.1	SEAD	Conduct Suppression of Enemy Air Defenses
MCT 3.2.3.3	EA	Conduct Aviation Electronic Attack
MCT 5.4.1.2.3	ES	Conduct Electronic Support
CORE PLUS		
MET	ABBREVIATION	DESCRIPTION
MCT 1.3.3.3.1	SEA	Conduct Aviation Operations From Expeditionary Sea-Based Sites
MCT 1.3.3.3.2	EXP	Conduct Aviation Operations From Expeditionary Shore-Based Sites
MCT 6.1.1.11	AESC	Conduct Aerial Escort
MCT 3.2.7.5	AMT	Attack Enemy Maritime Targets
MCT 3.2.5.4	FAC(A)	Conduct Forward Air Control (Airborne)
MCT 5.3.2.7.3	TAC(A)	Conduct Tactical Air Coordination (Airborne) Operations

1.4 **MISSION ESSENTIAL TASK (MET) TO SIX FUNCTIONS OF MARINE AVIATION MATRIX**

VMFA F-35							
MISSION ESSENTIAL TASK (MET) TO SIX FUNCTIONS OF MARINE AVIATION							
CORE							
MET	SKILL ABBREVIATION	SIX FUNCTIONS OF MARINE AVIATION					
		OAS	ASPT	AAW	EW	CoA&M	AerRec
MCT 3.2.3.1.1	CAS	X	X		X		X
MCT 3.2.3.1.2.3	SCAR	X			X	X	X
MCT 3.2.3.2	OAAW			X	X	X	
MCT 6.1.1.8	AAD		X	X		X	
MCT 3.2.3.1.2.1	STK	X		X	X		X
MCT 3.2.3.2.1	SEAD	X	X		X		X
MCT 3.2.3.3	EA	X	X	X	X		X
MCT 5.4.1.2.3	ES	X	X	X	X		X
CORE PLUS							
MCT 1.3.3.3.1	SEA	X	X	X	X		
MCT 1.3.3.3.2	EXP	X	X	X	X		
MCT 6.1.1.11	AESC		X	X	X	X	
MCT 3.2.7.5	AMT	X					X
MCT 3.2.5.4	FAC(A)	X	X		X	X	X

MCT 5.3.2.7.3	TAC(A)		X			X	
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1.5 **MET TO CORE / MISSION / CORE PLUS / MISSION PLUS SKILLS MATRIX.** The matrix depicts the relationship between a MET and each Core / Mission / Core Plus / Mission Plus skill associated with the MET for readiness reporting and resource allocation purposes. There shall normally be a one-to-one relationship between the MET and a corresponding Mission Skill. Shading indicates Core Plus.

VMFA F-35																							
MET TO CORE / MISSION / CORE PLUS / MISSION PLUS SKILLS MATRIX																							
		CORE SKILLS 2000 PHASE							MISSION SKILLS 3000 PHASE					CORE PLUS SKILLS			MISSION PLUS SKILLS						
	FAM F-35B	FAM F-35C	AS	BFM	TI	LAT	SEAD	AAR	CAS	SCAR	AAW	STK	SEAD	FBO	LAT	FCLP/CQ F-35B	FCLP/CQ F-35C	EXP	AESC	AMT	FAC(A)	TAC(A)	
MCT 3.2.3.1.1 (CAS)	X	X	X			X	X	X	X						X								
MCT 3.2.3.1.2.3 (SCAR)			X				X	X		X													
MCT 3.2.3.2 (OAAW)				X	X	X	X	X			X				X								
MCT 6.1.1.8 (AAD)	X	X	X	X	X	X		X			X				X								
MCT 3.2.3.1.2.1 (STK)	X	X	X	X	X	X	X	X				X			X								
MCT 3.2.3.2.1 (SEAD)			X			X	X	X					X		X								
MCT 3.2.3.3 (EA)						X	X	X					X		X								
MCT 5.4.1.2.3 (ES)						X	X	X					X		X								
CORE PLUS																							
MCT 1.3.3.3.1 (SEA)	X	X						X								X	X						
MCT 1.3.3.3.2 (EXP)	X	X												X				X					
MCT 6.1.1.11 (AESC)	X	X		X	X		X	X			X		X						X				
MCT 3.2.7.5 (AMT)	X	X	X			X	X	X		X			X		X					X			
MCT 3.2.5.4 (FAC(A))	X	X	X			X	X	X							X						X		
MCT 5.3.2.7.3 (TAC(A))	X	X						X	X	X			X								X	X	

1.6 **MISSION ESSENTIAL TASK (MET) OUTPUT STANDARDS.** The following MET output standards are the required level of performance an F-35B squadron must be capable of sustaining during contingency/combat operations by MET to be considered MET-ready. Output standards will be demonstrated through the incorporation of unit training events.

1.6.1 A core capable F-35B squadron is able to sustain the number of sorties listed below on a daily basis during contingency/combat operations. The sortie rates are based on a 1.3 hour average sortie duration, 3.0 hour average turn time, no air-to-air refueling and flight operations inside of standard afloat deck cycles. It assumes >70% MC aircraft and >90% T/O pilots on hand. If unit MC aircraft is <70% or T/O pilots <90%, core capability will be degraded by a like percentage.

1.6.1.1 A squadron should be capable of executing a flight schedule of 6T6T6. A squadron (-) should be capable of executing a flight schedule of 4T4T4. A detachment should be capable of executing a flight schedule of 4T2.

1.6.2 A core capable F-35C squadron is able to sustain the number of sorties listed below on a daily basis during contingency/combat operations. The sortie rates are based on a 1.8 hour average sortie duration, 3.0 hour average turn time, no air-to-air refueling and flight operations inside of standard afloat deck cycles. It assumes >70% MC

aircraft and >90% T/O pilots on hand. If unit MC aircraft is <70% or T/O pilots <90%, core capability will be degraded by a like percentage.

1.6.2.1 A squadron should be capable of executing a flight schedule of 4T4T4.

1.6.3 The standards listed above are generic in nature and the metrics used serve as a baseline for planning. Variations in operational environments and missions may result in alternate output standards.

VMFA F-35							
MET OUTPUT STANDARDS							
CORE							
MET	ABBREVIATION	MAXIMUM SORTIES PER MET			MAXIMUM DAILY SORTIES		
		SQUADRON 16 A/C	SQUADRON(-) 10 A/C	DETACHMENT 6 A/C	SQUADRON 16 A/C	SQUADRON(-) 10 A/C	DETACHMENT 6 A/C
MCT 3.2.3.1.1	CAS	18	12	6	18	12	6
MCT 3.2.3.1.2.3	SCAR	18	12	6			
MCT 3.2.3.2	OAAW	18	12	6			
MCT 6.1.1.8	AAD	18	12	6			
MCT 3.2.3.1.2.1	STK	18	12	6			
MCT 3.2.3.2.1	SEAD	18	12	6			
MCT 3.2.3.3	EA	18	12	6			
MCT 5.4.1.2.3	ES	18	12	6			
CORE PLUS							
MET	ABBREVIATION	SQUADRON 16 A/C	SQUADRON(-) 10 A/C	DETACHMENT 6 A/C			
MCT 1.3.3.3.1	SEA (B)	18	12	6			
MCT 1.3.3.3.1	SEA (C)	18	12	6			
MCT 1.3.3.3.2	EXP	18	12	6			
MCT 6.1.1.11	AESC	18	12	6			
MCT 3.2.7.5	AMT	18	12	6			
MCT 3.2.5.4	FAC(A)	6	4	2			
MCT 5.3.2.7.3	TAC(A)	6	4	2			

1.7 CORE MODEL MINIMUM REQUIREMENTS (CMMR) / ADVANCED AND BASELINE TRAINING STANDARDS FOR READINESS REPORTING (DRRS-S). The paragraphs and tables below delineate the minimum pilot qualifications, designations, and/or training for the Advanced and Baseline Training Standards.

1.7.1 CMMR / Advanced Training Standard: The minimum pilot qualifications, designations, and/or training required to execute the MET output standards of paragraph 1.6. Units can be expected to perform a critical role in a mission or OPLAN and normally requires external MAGTF support.

1.7.2 Baseline Training Standard: The level of readiness expected from a unit sustained through CORE training at home station. Normally equates to approximately 70% of CMMR.

1.7.3 In the matrix below the first number in the “Pilots Trained” columns reflect the CMMR or Advanced Training Standard, the numbers in parentheses indicate the Baseline Training Standard.

Note: Combat Leadership is depicted as only one value (CMMR).

VMFA F-35					
CMMR / ADVANCED AND BASELINE READINESS REPORTING MATRIX					
MINIMUM PILOT QUALIFICATIONS / DESIGNATIONS / TRAINING REQUIRED FOR MET CAPABILITY					
CORE					
MET	ABBREVIATION	PILOT	PILOTS TRAINED		
			SQUADRON 16 A/C	SQUADRON(-) 10 A/C	DETACHMENT 6 A/C
MCT 3.2.3.1.1	CAS	MSP	12(8)	8(5)	4(2)
MCT 3.2.3.1.2.3	SCAR	MSP	12(8)	8(5)	4(2)
MCT 3.2.3.2	OAAW	MSP	16(11)	10(7)	6(4)
MCT 6.1.1.8	AAD	MSP	16(11)	10(7)	6(4)
MCT 3.2.3.1.2.1	STK	MSP	16(11)	10(7)	6(4)
MCT 3.2.3.2.1	SEAD	MSP	16(11)	10(7)	6(4)
MCT 3.2.3.3	EA	MSP	16(11)	10(7)	6(4)
MCT 5.4.1.2.3	ES	MSP	16(11)	10(7)	6(4)
CORE PLUS					
MET	ABBREVIATION	PILOT	PILOTS TRAINED		
			SQUADRON 16 A/C	SQUADRON (-) 10 A/C	DETACHMENT 6 A/C
MCT 1.3.3.3.1	SEA (B)	MPSP	16(11)	10(7)	6(4)
MCT 1.3.3.3.1	SEA (C)	MPSP	16(11)	10(7)	6(4)
MCT 1.3.3.3.2	EXP	MPSP	16(11)	10(7)	6(4)
MCT 6.1.1.11	AESC	MPSP	16(11)	10(7)	6(4)
MCT 3.2.7.5	AMT	MPSP	16(11)	10(7)	6(4)
MCT 3.2.5.4	FAC(A)	MPSP	3(2)	2(1)	1(1)
MCT 5.3.2.7.3	TAC(A)	MPSP	3(2)	2(1)	1(1)
COMBAT/FLIGHT LEADERSHIP CMMR					
DESIGNATION	PILOTS				
	SQUADRON 16 A/C	SQUADRON(-) 10 A/C		DETACHMENT 6 A/C	
SECTION LEAD (SL)	9	6		3	
DIVISION LEAD (DL)	6	3		1	
MISSION COMMANDER (MC)	3	3		1	
Note					
SL numbers are based upon CMMR to meet the output standard, operating per the assumptions outlined in paragraphs 1.6.1 thru 1.6.4. 16 A/C squadron DL numbers assume 3-ship “light divisions” and MC numbers reflect a 6 A/C launch per flight window.					

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

VMFA F-35						
CORE MODEL TRAINING STANDARD (CMTS)						
CORE SKILLS						
SKILL	PILOTS					
	SQUADRON 16 A/C		SQUADRON (-) 10 A/C		DETACHMENT 6 A/C	
FAM F-35B	22		13		9	
FAM F-35C	22		13		9	
AS	22		13		9	
BFM	22		13		9	
TI	22		13		9	
LAT	22		13		9	
SEAD	22		13		9	
AAR	22		13		9	
MISSION SKILLS						
SKILL	PILOTS					
	SQUADRON 16 A/C		SQUADRON (-) 10 A/C		DETACHMENT 6 A/C	
CAS	22		13		9	
SCAR	22		13		9	
AAW	22		13		9	
STK	22		13		9	
SEAD	22		13		9	
CORE PLUS SKILLS¹						
SKILL	PILOTS					
	SQUADRON 16 A/C		SQUADRON (-) 10 A/C		DETACHMENT 6 A/C	
FBO	4	22	3	13	2	9
LAT	4	22	3	13	2	9
MISSION PLUS SKILLS¹						
SKILL	PILOTS					
	SQUADRON 16 A/C		SQUADRON (-) 10 A/C		DETACHMENT 6 A/C	
FCLP/CQ F-35B	4	22	3	13	2	9
FCLP/CQ F-35C	4	22	3	13	2	9
EXP	4	22	3	13	2	9
AESC	4	22	3	13	2	9
AMT	4	22	3	13	2	9
FAC(A)	2	3	1	2	1	1
TAC(A)	2	3	1	2	1	1
Note 1: For Core Plus and Mission Plus Skills, the first number (in blue font and highlighted in gray) represents the number of individuals the squadron is expected to train at all times in order to retain a cadre of capability within the squadron. The second number represents the number of MET capable individuals the squadron should train if that MET becomes an Assigned/Directed Mission Set. For Core Plus and Mission Plus Skills the Commanding Officer determines the number of pilots to train.						

1.9 INSTRUCTOR DESIGNATIONS

1.9.1 A squadron should possess the following number of pilots with the listed designations IAW MCO 3500.12 (WTTP). The squadron CO/XO instructor designations shall not count toward the following numbers.

1.9.2 Tactical and Reserve Squadron

VMFA F-35			
INSTRUCTOR DESIGNATIONS	PILOTS		
	SQUADRON 16 A/C	SQUADRON (-) 10 A/C	DETACHMENT 6 A/C
ACMI	5	3	2
LTI	5	3	2
FAC(A)I	1	1	0
LATI	1	1	0
FLSE	3	2	1
WTI	3	2	1

1.9.3 VMFAT INSTRUCTOR DESIGNATIONS

VMFAT F-35	
INSTRUCTOR DESIGNATIONS	PILOTS
FRSI	20
ACMI	13
LTI	8
WTI	2

1.10 REQUIREMENTS, QUALIFICATIONS, AND DESIGNATIONS (RQD)

VMFA F-35			
RQD	PILOTS		
	SQUADRON 16 A/C	SQUADRON(-) 10 A/C	DETACHMENT 6 A/C
F-35B LSO ¹	4	1	3
F-35C CVN LSO ²	N/A	2	N/A
FCF	4	2	2

Note 1: Shipboard, Advanced or Training LSO required.

Note 2: Shipboard, Wing or Training LSO required.

1.10.1 VMFAT (RQD)

VMFAT F-35	
RQD	PILOTS
F-35B LSO ¹	3
FCF	4

Note 1: Field, Shipboard, Advanced or Training LSO required.

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APPENDIX A

VMFA F-35 Mission Essential Task List (METL) and MET Worksheets
Squadron: 16 A/C / Squadron(-): 10 A/C / Detachment: 6 A/C

Core METs

MCT 3.2.3.1.1	Conduct Close Air Support (CAS)
MCT 3.2.3.1.2.3	Conduct Strike Coordination and Reconnaissance (SCAR)
MCT 3.2.3.2	Conduct Antiair Warfare [Offensive Antiair Warfare (OAAW)]
MCT 6.1.1.8	Conduct Active Air Defense (AAD)
MCT 3.2.3.1.2.1	Conduct Strike (STK)
MCT 3.2.3.2.1	Conduct Suppression of Enemy Air Defenses (SEAD)
MCT 3.2.3.3	Conduct Aviation Electronic Attack (EA)
MCT 5.4.1.2.3	Conduct Electronic Support (ES)

Core Plus METs

MCT 1.3.3.3.1	Conduct Aviation Operations from Expeditionary Sea-Based Sites (SEA)
MCT 1.3.3.3.2	Conduct Aviation Operations from Expeditionary Shore-Based Sites (EXP)
MCT 6.1.1.11	Conduct Aerial Escort (AESC)
MCT 3.2.7.5	Attack Enemy Maritime Targets (AMT)
MCT 3.2.5.4	Conduct Forward Air Control (Airborne) (FAC(A))
MCT 5.3.2.7.3	Conduct Tactical Air Coordination (Airborne) Operations (TAC(A))

MCT 3.2.3.1.1 **Conduct Close Air Support (CAS)**

Conditions:

C 2.7.2 Air Superiority

The extent to which operations in the air, over sea and/or, over land can be conducted with acceptable losses due to hostile air forces and air defense systems action. Descriptors: Full (Air Supremacy); General; Local.

Standards:

[Squadron 16 Aircraft / Squadron (-) 10 Aircraft / Detachment 6 Aircraft]

Personnel:

- 26/17/9 pilots (T/O)
- DRRS-MC personnel-level of 2 or better: $\geq 80\%$ personnel strength and $\geq 75\%$ critical MOS fill IAW MCO 3000.13

Equipment:

- 70% Mission Capable aircraft with the associated aircraft survivability equipment, mission systems and mission sets required to conduct the MET. (11/7/4 F-35 aircraft)
- Operational support equipment fully supports MCT

Training:

Advanced Training Standard (CMMR):

- 12/8/4 pilots CAS Mission Skill Proficient IAW T&R requirements

Advanced Capability:

- Conduct baseline capability in support of LFE/CERTEX/Service Level Exercise

Baseline Training Standard (70% of CMMR):

- 8/5/2 pilots CAS Mission Skill Proficient IAW T&R requirements

Baseline Capability:

- Conduct day/night CAS in all threat environments

Output Standards:

- 18/12/6 sorties daily sustained during contingency/combat operations

MCT 3.2.3.1.2.3

Conduct Strike Coordination and Reconnaissance (SCAR)

Conditions:

C.1.3.1.3.11 Ceiling

Height of lowest cloud cover above sea level.

Descriptors: Medium (3,000 to 10,000 feet); High (>10,000 feet)

C 1.3.2 Visibility

Maximum distance to see an object given the moisture and particulate matter (dust, salt, ash) suspended in the atmosphere.

Descriptors: Moderate (1 to 3 NM); Good (3 to 10 NM); High (10 to 20 NM); Unlimited (>20 NM)

C 2.7.2 Air Superiority

The extent to which operations in the air, over sea and/or, over land can be conducted with acceptable losses due to hostile air forces and air defense systems action. Descriptors: Full (Air Supremacy); General; Local.

Standards:

[Squadron 16 Aircraft / Squadron (-) 10 Aircraft / Detachment 6 Aircraft]

Personnel:

- 26/17/9 pilots (T/O)
- DRRS-MC personnel-level of 2 or better: $\geq 80\%$ personnel strength and $\geq 75\%$ critical MOS fill IAW MCO 3000.13

Equipment:

- 70% Mission Capable aircraft with the associated aircraft survivability equipment, mission systems and mission sets required to conduct the MET. (11/7/4 F-35B aircraft)
- Operational support equipment fully supports MCT

Training:

Advanced Training Standard (CMMR):

- 12/8/4 pilots SCAR Mission Skill Proficient IAW T&R requirements

Advanced Capability:

- Conduct baseline capability in support of LFE/CERTEX/Service Level Exercise

Baseline Training Standard (70% of CMMR):

- 8/5/2 pilots SCAR Mission Skill Proficient IAW T&R requirements

Baseline Capability:

- Conduct day/night, all weather SCAR in all threat environments

Output Standards:

- 18/12/6 sorties daily sustained during contingency/combat operations

MCT 3.2.3.2

Conduct Anti-Air Warfare [Offensive Antiair Warfare (OAAW)]

Conditions:

C 2.7.2 Air Superiority

The extent to which operations in the air, over sea and/or, over land can be conducted with acceptable losses due to hostile air forces and air defense systems action. Descriptors: Full (Air Supremacy); General; Local; No.

Standards:

[Squadron 16 Aircraft / Squadron (-) 10 Aircraft / Detachment 6 Aircraft]

Personnel:

- 26/17/9 pilots (T/O)
- DRRS-MC personnel-level of 2 or better: $\geq 80\%$ personnel strength and $\geq 75\%$ critical MOS fill IAW MCO 3000.13

Equipment:

- 70% Mission Capable aircraft with the associated aircraft survivability equipment, mission systems and mission sets required to conduct the MET. (11/7/4 F-35B aircraft)
- Operational support equipment fully supports MCT

Training:

Advanced Training Standard (CMMR):

- 16/10/6 pilots AAW Mission Skill Proficient IAW T&R requirements

Advanced Capability:

- Conduct baseline capability in support of LFE/CERTEX/Service Level Exercise

Baseline Training Standard (70% of CMMR):

- 11/7/4 pilots AAW Mission Skill Proficient IAW T&R requirements

Baseline Capability:

- Conduct day/night OAAW against near-peer threats

Output Standards:

- 18/12/6 sorties daily sustained during contingency/combat operations

MCT 6.1.1.8

Conduct Active Air Defense (AAD)

Conditions:

C 2.7.2 Air Superiority

The extent to which operations in the air, over sea and/or, over land can be conducted with acceptable losses due to hostile air forces and air defense systems action. Descriptors: Full (Air Supremacy); General; Local; No.

Standards:

[Squadron 16 Aircraft / Squadron (-) 10 Aircraft / Detachment 6 Aircraft]

Personnel:

- 26/17/9 pilots (T/O)
- DRRS-MC personnel-level of 2 or better: $\geq 80\%$ personnel strength and $\geq 75\%$ critical MOS fill IAW MCO 3000.13

Equipment:

- 70% Mission Capable aircraft with the associated aircraft survivability equipment, mission systems and mission sets required to conduct the MET. (11/7/4 F-35B aircraft)
- Operational support equipment fully supports MCT

Training:

Advanced Training Standard (CMMR):

- 16/10/6 pilots AAW Mission Skill Proficient IAW T&R requirements

Advanced Capability:

- Conduct baseline capability in support of LFE/CERTEX/Service Level Exercise

Baseline Training Standard (70% of CMMR):

- 11/7/4 pilots AAW Mission Skill Proficient IAW T&R requirements

Baseline Capability:

- Conduct day/night AAD against near-peer threat

Output Standards:

- 18/12/6 sorties daily sustained during contingency/combat operations

MCT 3.2.3.1.2.1 **Conduct Strike (STK)**

Conditions:

C 2.7.2 Air Superiority

The extent to which operations in the air, over sea and/or, over land can be conducted with acceptable losses due to hostile air forces and air defense systems action. Descriptors: Full (Air Supremacy); General; Local; No.

Standards:

[Squadron 16 Aircraft / Squadron (-) 10 Aircraft / Detachment 6 Aircraft]

Personnel:

- 26/17/9 pilots (T/O)
- DRRS-MC personnel-level of 2 or better: $\geq 80\%$ personnel strength and $\geq 75\%$ critical MOS fill IAW MCO 3000.13

Equipment:

- 70% Mission Capable aircraft with the associated aircraft survivability equipment, mission systems and mission sets required to conduct the MET. (11/7/4 F-35B aircraft)
- Operational support equipment fully supports MCT

Training:

Advanced Training Standard (CMMR):

- 16/10/6 pilots STK Mission Skill Proficient IAW T&R requirements

Advanced Capability:

- Conduct baseline capability in support of LFE/CERTEX/Service Level Exercise

Baseline Training Standard (70% of CMMR):

- 11/7/4 pilots STK Mission Skill Proficient IAW T&R requirements

Baseline Capability:

- Conduct day/night, all weather strike against near-peer or peer threat

Output Standards:

- 18/12/6 sorties daily sustained during contingency/combat operations

MCT 3.2.3.2.1

Conduct Suppression of Enemy Air Defense (SEAD)

Conditions:

C 2.7.2 Air Superiority

The extent to which operations in the air, over sea and/or, over land can be conducted with acceptable losses due to hostile air forces and air defense systems action. Descriptors: Full (Air Supremacy); General; Local; No.

Standards:

[Squadron 16 Aircraft / Squadron (-) 10 Aircraft / Detachment 6 Aircraft]

Personnel:

- 26/17/9 pilots (T/O)
- DRRS-MC personnel-level of 2 or better: $\geq 80\%$ personnel strength and $\geq 75\%$ critical MOS fill IAW MCO 3000.13

Equipment:

- 70% Mission Capable aircraft with the associated aircraft survivability equipment, mission systems and mission sets required to conduct the MET. (11/7/4 F-35B aircraft)
- Operational support equipment fully supports MCT

Training:

Advanced Training Standard (CMMR):

- 16/10/6 pilots SEAD Mission Skill Proficient IAW T&R requirements

Advanced Capability:

- Conduct baseline capability in support of LFE/CERTEX/Service Level Exercise

Baseline Training Standard (70% of CMMR):

- 11/7/4 pilots SEAD Mission Skill Proficient IAW T&R requirements

Baseline Capability:

- Conduct day/night SEAD against near-peer or peer threat

Output Standards:

- 18/12/6 sorties daily sustained during contingency/combat operations

MCT 3.2.3.3 **Conduct Aviation Electronic Attack (EA)**

Conditions:

C 2.7.2 Air Superiority

The extent to which operations in the air, over sea and/or, over land can be conducted with acceptable losses due to hostile air forces and air defense systems action. Descriptors: Full (Air Supremacy); General; Local; No

Standards:

[Squadron 16 Aircraft / Squadron (-) 10 Aircraft / Detachment 6 Aircraft]

Personnel:

- 26/17/9 pilots (T/O)
- DRRS-MC personnel-level of 2 or better: $\geq 80\%$ personnel strength and $\geq 75\%$ critical MOS fill IAW MCO 3000.13

Equipment:

- 70% Mission Capable aircraft with the associated aircraft survivability equipment, mission systems and mission sets required to conduct the MET. (11/7/4 F-35B aircraft)
- Operational support equipment fully supports MCT

Training:

Advanced Training Standard (CMMR):

- 16/10/6 pilots SEAD Mission Skill Proficient IAW T&R requirements

Advanced Capability:

- Conduct baseline capability in support of LFE/CERTEX/Service Level Exercise

Baseline Training Standard (70% of CMMR):

- 11/7/4 pilots SEAD Mission Skill Proficient IAW T&R requirements

Baseline Capability:

- Conduct day/night SEAD against a near-peer or peer threat

Output Standards:

- 18/12/6 sorties daily sustained during contingency/combat operations

MCT 5.4.1.2.3 **Conduct Electronic Support (ES)**

Conditions:

C 2.7.2 Air Superiority

The extent to which operations in the air, over sea and/or, over land can be conducted with acceptable losses due to hostile air forces and air defense systems action. Descriptors: Full (Air Supremacy); General; Local; No

Standards:

[Squadron 16 Aircraft / Squadron(-) 10 Aircraft / Detachment 6 Aircraft]

Personnel:

- 26/17/9 pilots (T/O)
- DRRS-MC personnel-level of 2 or better: $\geq 80\%$ personnel strength and $\geq 75\%$ critical MOS fill IAW MCO 3000.13

Equipment:

- 70% Mission Capable aircraft with the associated aircraft survivability equipment, mission systems and mission sets required to conduct the MET. (11/7/4 F-35B aircraft)
- Operational support equipment fully supports MCT

Training:

Advanced Training Standard (CMMR):

- 16/10/6 pilots SEAD Mission Skill Proficient IAW T&R requirements

Advanced Capability:

- Conduct baseline capability in support of LFE/CERTEX/Service Level Exercise

Baseline Training Standard (70% of CMMR):

- 11/7/4 pilots SEAD Mission Skill Proficient IAW T&R requirements

Baseline Capability:

- Conduct day/night SEAD against a near-peer or peer threat

Output Standards:

- 18/12/6 sorties daily sustained during contingency/combat operations

CORE PLUS METs

MCT 1.3.3.3.1

Conduct Aviation Operations from Expeditionary Sea-Based Sites Conditions (SEA)

Conditions:

C 1.3.2.1 Light

Light available to illuminate objects from natural or manmade sources.

Descriptors: Bright (sunny day); Day (overcast day); low (dusk, dawn, moonlit, streetlight lit); Negligible (overcast night)

Standards:

[Squadron 16 Aircraft / Squadron (-) 10 Aircraft / Detachment 6 Aircraft]

Personnel:

- 26/17/9 pilots (T/O)
- DRRS-MC personnel-level of 2 or better: $\geq 80\%$ personnel strength and $\geq 75\%$ critical MOS fill IAW MCO 3000.13

Equipment:

- 70% Mission Capable aircraft with the associated aircraft survivability equipment, mission systems and mission sets required to conduct the MET. (11/7/4 F-35B aircraft)
- Operational support equipment fully supports MCT

Training:

Advanced Training Standard (CMMR):

- 16/10/6 pilots SEA Mission Skill Proficient IAW T&R requirements

Advanced Capability:

- Conduct day/night, advanced SEA based operations (eg. EMCON)

Baseline Training Standard (70% of CMMR):

- 11/7/4 pilots SEA Mission Skill Proficient IAW T&R requirements

Baseline Capability:

- Conduct day/night sea-based operations

Output Standards:

- 18/12/6 sorties daily sustained during contingency/combat operations

MCT 1.3.3.3.2

Conduct Aviation Operations from Expeditionary Shore-Based Sites (EXP)

Conditions:

C 1.3.2.1 Light

Light available to illuminate objects from natural or manmade sources.

Descriptors: Bright (sunny day); Day (overcast day); low (dusk, dawn, moonlit, streetlight lit); Negligible (overcast night)

Standards:

[Squadron 16 Aircraft / Squadron (-) 10 Aircraft / Detachment 6 Aircraft]

Personnel:

- 26/17/9 pilots (T/O)
- DRRS-MC personnel-level of 2 or better: $\geq 80\%$ personnel strength and $\geq 75\%$ critical MOS fill IAW MCO 3000.13

Equipment:

- 70% Mission Capable aircraft with the associated aircraft survivability equipment, mission systems and mission sets required to conduct the MET. (11/7/4 F-35B aircraft)
- Operational support equipment fully supports MCT

Training:

Advanced Training Standard (CMMR):

- 16/10/6 pilots EXP Mission Skill Proficient IAW T&R requirements

Advanced Capability:

- Conduct day/night EXP based operations on facilities less than 4,000' in length and 75' wide

Baseline Training Standard (70% of CMMR):

- 11/7/4 pilots EXP Mission Skill Proficient IAW T&R requirements

Baseline Capability:

- Conduct day/night EXP on facilities less than 7,500' in length and 100' wide

Output Standards:

- 18/12/6 sorties daily sustained during contingency/combat operations

MCT 6.1.1.11 **Conduct Aerial Escort (AESC)**

Conditions:

C.1.3.1.3.11 Ceiling

Height of lowest cloud cover above sea level.

Descriptors: Medium (3,000 to 10,000 feet); High (>10,000 feet)

C 1.3.2 Visibility

Maximum distance to see an object given the moisture and particulate matter (dust, salt, ash) suspended in the atmosphere.

Descriptors: Moderate (1 to 3 NM); Good (3 to 10 NM); High (10 to 20 NM); Unlimited (>20 NM)

C 2.7.2 Air Superiority

The extent to which operations in the air, over sea and/or, over land can be conducted with acceptable losses due to hostile air forces and air defense systems action. Descriptors: Full (Air Supremacy); General; Local; No.

Standards:

[Squadron 16 Aircraft / Squadron (-) 10 Aircraft / Detachment 6 Aircraft]

Personnel:

- 26/17/9 pilots (T/O)
- DRRS-MC personnel-level of 2 or better: $\geq 80\%$ personnel strength and $\geq 75\%$ critical MOS fill IAW MCO 3000.13

Equipment:

- 70% Mission Capable aircraft with the associated aircraft survivability equipment, mission systems and mission sets required to conduct the MET. (11/7/4 F-35B aircraft)
- Operational support equipment fully supports MCT

Training:

Advanced Training Standard (CMMR):

- 16/10/6 pilots AESC Mission Skill Proficient IAW T&R requirements

Advanced Capability:

- Conduct baseline capability in support of LFE/CERTEX/Service Level Exercise

Baseline Training Standard (70% of CMMR):

- 11/7/4 pilots AESC Mission Skill Proficient IAW T&R requirements

Baseline Capability:

- Conduct day/night AESC operations in a near-peer or peer environment

Output Standards:

- 18/12/6 sorties daily sustained during contingency/combat operations

MCT 3.2.7.5

Attack Enemy Maritime Targets (AMT)

Conditions:

C 2.7.2 Air Superiority

The extent to which operations in the air, over sea and/or, over land can be conducted with acceptable losses due to hostile air forces and air defense systems action. Descriptors: Full (Air Supremacy); General; Local; No.

Standards:

[Squadron 16 Aircraft / Squadron (-) 10 Aircraft / Detachment 6 Aircraft]

Personnel:

- 26/17/9 pilots (T/O)
- DRRS-MC personnel-level of 2 or better: $\geq 80\%$ personnel strength and $\geq 75\%$ critical MOS fill IAW MCO 3000.13

Equipment:

- 70% Mission Capable aircraft with the associated aircraft survivability equipment, mission systems and mission sets required to conduct the MET. (11/7/4 F-35B aircraft)
- Operational support equipment fully supports MCT

Training:

Advanced Training Standard (CMMR):

- 16/10/6 pilots AMT Mission Skill Proficient IAW T&R requirements

Advanced Capability:

- Conduct baseline capability in support of LFE/CERTEX/Service Level Exercise

Baseline Training Standard (70% of CMMR):

- 11/7/4 pilots AESC Mission Skill Proficient IAW T&R requirements

Baseline Capability:

- Conduct day/night AMT in a near-peer or peer environment

Output Standards:

- 18/12/6 sorties daily sustained during contingency/combat operations

MCT 3.2.5.4

Conduct Forward Air Control (Airborne) (FAC(A))

Conditions:

C.1.3.1.3.11 Ceiling

Height of lowest cloud cover above sea level.

Descriptors: Medium (3,000 to 10,000 feet); High (>10,000 feet)

C 1.3.2 Visibility

Maximum distance to see an object given the moisture and particulate matter (dust, salt, ash) suspended in the atmosphere.

Descriptors: Moderate (1 to 3 NM); Good (3 to 10 NM); High (10 to 20 NM); Unlimited (>20 NM)

C 2.7.2 Air Superiority

The extent to which operations in the air, over sea and/or, over land can be conducted with acceptable losses due to hostile air forces and air defense systems action. Descriptors: Full (Air Supremacy); General; Local.

Standards:

[Squadron 16 Aircraft / Squadron (-) 10 Aircraft / Detachment 6 Aircraft]

Personnel:

- 26/17/9 pilots (T/O)
- DRRS-MC personnel-level of 2 or better: $\geq 80\%$ personnel strength and $\geq 75\%$ critical MOS fill IAW MCO 3000.13

Equipment:

- 70% Mission Capable aircraft with the associated aircraft survivability equipment, mission systems and mission sets required to conduct the MET. (11/7/4 F-35B aircraft)
- Operational support equipment fully supports MCT

Training:

Advanced Training Standard (CMMR):

- 3/2/1 pilots FAC(A) Mission Skill Proficient IAW T&R requirements

Advanced Capability:

- Conduct baseline capability in support of LFE/CERTEX/Service Level Exercise

Baseline Training Standard (70% of CMMR):

- 2/1/1 pilots FAC(A) Mission Skill Proficient IAW T&R requirements

Baseline Capability:

- Conduct day/night FAC(A) in all threat environments

Output Standards:

- 6/4/2 sorties daily sustained during contingency/combat operations

MCT 5.3.2.7.3

Conduct Tactical Air Coordination (Airborne) Operations (TAC(A))

Conditions:

C 2.7.2 Air Superiority

The extent to which operations in the air, over sea and/or, over land can be conducted with acceptable losses due to hostile air forces and air defense systems action. Descriptors: Full (Air Supremacy); General; Local.

Standards:

[Squadron 16 Aircraft / Squadron (-) 10 Aircraft / Detachment 6 Aircraft]

Personnel:

- 26/17/9 pilots (T/O)
- DRRS-MC personnel-level of 2 or better: $\geq 80\%$ personnel strength and $\geq 75\%$ critical MOS fill IAW MCO 3000.13

Equipment:

- 70% Mission Capable aircraft with the associated aircraft survivability equipment, mission systems and mission sets required to conduct the MET. (11/7/4 F-35B aircraft)
- Operational support equipment fully supports MCT

Training:

Advanced Training Standard (CMMR):

- 3/2/1 pilots TAC(A) Mission Skill Proficient IAW T&R requirements

Advanced Capability:

- Conduct baseline capability in support of LFE/CERTEX/Service Level Exercise

Baseline Training Standard (70% of CMMR):

- 2/1/1 pilots TAC(A) Mission Skill Proficient IAW T&R requirements

Baseline Capability:

- Conduct day/night TAC(A) in all threat environments

Output Standards:

- 6/4/2 sorties daily sustained during contingency/combat operations

APPENDIX B

ABBREVIATIONS

VMFA	
CORE / MISSION / CORE PLUS / MISSION PLUS SKILLS	
CORE SKILLS	
FAM	Familiarization
AS	Air-to-Surface
BFM	Baseline Fighter Maneuvering
TI	Tactical Intercepts
LAT	Low Altitude Tactics
SEAD	Suppression of Enemy Air Defenses
AAR	Air-to-Air Refueling
MISSION SKILLS	
CAS	Close Air Support
SCAR	Strike Coordination and Reconnaissance
AAW	Anti-Air Warfare
STK	Strike
SEAD	Suppression of Enemy Air Defenses
CORE PLUS SKILLS	
FBO	Forward Base Operations
LAT	Low Altitude Tactics
MISSION PLUS SKILLS	
SEA	Expeditionary Sea-Based Operations
EXP	Expeditionary Shore-Based Operations
AESC	Aerial Escort
AMT	Attack Enemy Maritime Targets
FAC(A)	Forward Air Controller (Airborne)
TAC(A)	Tactical Air Coordinator (Airborne)

VMFAT	
CORE INTRODUCTION	
ACAD	Academic Training
FAM	Familiarization
AAR	Air-to-Air Refueling
BT	Baseline Tactics
BFM	Baseline Fighter Maneuvering
TI	Tactical Intercepts
AS	Air-to-Surface
AR	Armed Reconnaissance
CAS	Close Air Support
SEAD	Suppression of Enemy Air Defenses
AAW	Anti-Air Warfare
NS	Night Systems
FCLP	Field Carrier Landing Practice
STK	Strike

APPENDIX C

EXTERNAL RESOURCE REQUIREMENTS:
RANGE REQUIREMENTS

Category	Abbreviation	Name	Description	Notes
CAT I	MOA	Special Use Airspace or MOA	Per Flight Information Publications	
CAT I	RSTD	Restricted/Warning Area	Per Flight Information Publications	
CAT I	MTR	Military Training Route	Per Flight Information Publications	
CAT I	LAT	LAT Course	Approved LAT course. Normally preferred over an MTR for dedicated LAT sorties.	
CAT I	AA	Air-to-Air Range	Airspace that can support complete air-to-air intercept training. May include Restricted Airspace, MOAs, or Warning Areas, for example.	Altitude SFC to 50K desired, SFC to 40K required. Dimensions 100nm x 150nm desired, 60nm x 80nm required.
CAT I	AA GUNS	Air-to-Air Gunnery Range	Any airspace that can support Air-to-Air Gunnery on a towed Banner. Implies Restricted Airspace or Warning Areas, for example.	
CAT I	MACH 1+	Supersonic	Any airspace that can support Supersonic Flight.	
CAT I	AAR	Air-to-Air Refueling	Any airspace that can support AAR.	
CAT II	TACTS	Tactical Air Combat Training System	TACTS range-capable. A sophisticated airspace tracking and display instrumentation system used primarily in ACM and threat WEZ recognition. All maneuvers are displayed real-time for a squadron Range Training Officer (RTO). All data is recorded to allow the pilots to conduct post-mission analysis or “debriefs.”	TACTS usually includes ACM, NDBS, EW, NDWS, ARM, capabilities. Implies RSTD Airspace.
CAT II	EW	Electronic Warfare	Emitters that provide basic, limited surface-to-air threat training to aircrew. Emissions must present accurate indications of a replicated system for F-35 training. Systems are able to work in concert with other EW systems to present a basic, limited integrated air defense system for F-35 training.	Capabilities include a one-way system for replication only (i.e., the system transmits RF energy without processing RF energy returns). Emitter is provided a cue (e.g., a TCTS feed, Mode 3 IFF track, etc.) in order to steer emissions in the proper direction.
CAT II	Hi Fi EW	High Fidelity EW	Emitters that provide complete surface-to-air threat training to aircrew. Accurately replicates the complete capabilities of a specific system, to include emission waveforms and visual appearance. May be an actual SAM system. Systems are able to work in concert with other EW systems to present a complete integrated air defense system for F-35 training. Can provide tapes of system displays for feedback and debrief.	Capabilities include a two-way system for replication (i.e., the system transmits and processes RF returns in order to track aircraft, and consequently responds to electronic attack and aircraft RF signature appropriately).

Category	Abbreviation	Name	Description	Notes
CAT II	SRSAM	Short Range SAM	Able to provide onboard indications to F-35 EW systems in excess of 20 nautical miles.	Amplifying descriptor for either an EW system, or a Hi Fi EW system.
CAT II	MRSAM	Medium Range SAM	Able to provide onboard indications to F-35 EW systems in excess of 50 nautical miles.	Amplifying descriptor for either an EW system, or a Hi Fi EW system.
CAT II	LRSAM	Long Range SAM	Able to provide onboard indications to F-35 EW systems in excess of 100 nautical miles.	Amplifying descriptor for either an EW system, or a Hi Fi EW system.
CAT II	ACM	Air Combat Maneuvering	Airspace that can support air-to-air intercept training commencing from a reduced distance between participants. May include Restricted Airspace, MOAs, or Warning Areas, for example.	Altitude SFC to 50K desired, SFC to 40K required. Dimensions 60nm x 80nm desired, 40nm x 60nm required.
CAT II	BFM	Basic Fighter Maneuvering	Airspace that can support within visual range, basic fighter maneuvering training between high-performance fighter aircraft. May include Restricted Airspace, MOAs, or Warning Areas, for example.	Altitude SFC to 40K desired, 5K to 30K required. Dimensions 15nm x 15nm required.
CAT II	ARM	Anti-Radiation Missile	Supports training to ARM delivery with simulated missile fly-out and kill indications.	
CAT II	CEDS	Countermeasures Employments Detection System	Supports training to countermeasures by linking to the ALE via TACTS systems for EW training. Normally included in a TACTS EW range.	
CAT II	ATIS	Avenger TACTS Interface	Allows the LAAD Avenger team to plug into TACTS and evaluate control/scoring.	
CAT II	LSTSS	Large Scale Target Sensor System	A remote control scoring system capable of tracking LASER designator spots.	
CAT II	IWTS	Imaging Weapons Training System	Virtual simulation to provide pilot uplink imagery of weapon seeker image through TOF to actual target.	Supports SLAM-ER.
CAT II	URBN WPNS	Urban Weapons Impact Range	Urban CAS range capable of JCAS, LT INERT, and LSR.	
CAT II	URBN TRG	Urban Training	Urban area with overlying Restricted or MOA training airspace. Does not imply authorized weapons release or LASER use.	Example is a town, such as Yuma, under the Dome MOA.
CAT II	RKD RNG	Raked Range	Concentric circle range, with WISS. LSR and RLSR a desired capability but must be specified. Night lighting capability implied.	
CAT II	LSR	LASER Safe Range	Supports airborne LASER firing.	
CAT II	RLSR	Remote LASER Capable	A remote-operated ground LASER may designate a target.	Should be standard on a RKD RNG
CAT II	WISS	Weapons Impact Scoring Set	Scores bombing to designated targets. Scores can be relayed via voice or fax.	Should be standard on a RKD RNG

Category	Abbreviation	Name	Description	Notes
CAT II	NDBS	No Drop Bomb Scoring	Scores simulated bombing to designated targets. Scores can be relayed via tape debrief.	Should be standard on TACTS
CAT II	STRAFE	Strafe Pit/Target	A scored Strafing Pit or Target.	Often located near a RKD RNG
CAT II	TGT	Target	Any point- target that is authorized for releasing INERT weapons on.	May include an unscored Raked Range
CAT II	IR TGT	IR-Significant Target	IR-Significant target.	
CAT II	RDR TGT	RADAR-Significant Target	RADAR-Significant target.	
CAT II	LINK	LINK 16	LINK 16 available.	
CAT III	HE	HE Impact Area	Supports live HE ordnance. Implies EXP.	
CAT III	JCAS	JCAS TTPs	Supports all three types of CAS in the range. Allows JTAC personnel on range. Implies LSR and either INERT or HE.	
CAT III	LT INERT	Light Inert	Light Inert impact area.	MK-76/LGTR/BDU-48/Gun/Rockets
CAT III	HVY INERT	Heavy Inert	Heavy Inert impact area.	500 lb and above
CAT III	JDAM	JDAM Impact Area/Target	Supports JDAM release.	
CAT III	JSOW	JSOW Impact Area/Target	Supports JSOW release.	
CAT III	LGB	LGB Impact Area/Target	Supports LGB (HE or HVY INERT) release and LASER firing.	
CAT III	AA MISSILE	AA Missile Firing Range	Supports AA missile firing.	AIM-9/AIM-7/AIM-120
CAT III	AS MISSILE	A/S Missile Firing Range	Supports AS missile firing.	LMAV/LGB/Hellfire/TOW
CAT III	ARM MISSILE	ARM Missile Firing Range	Supports ARM missile firing. Requires an EW emitter.	AGM-88
CAT III	EXP	Expendables Authorized	Supports use of Chaff & Flares.	
CAT III	ICM	Improved Conventional Munitions	Supports ICM or Cluster munitions.	
CAT IV	IMC	Instrumented Multi-Spectral Cues	Full size replicas of actual AAA and SAM systems, IR-significant and normally linked to LSTSS and NDBS/WISS.	
CAT IV	MOCK	Mock-Up Targets	Full size replicas of Mechanized or Threat vehicles. IR-significant desired. Weapons release not implied.	
CAT IV	GWVS	Ground Warfare Visual Simulator	Provides enhanced battlefield realism via simulation of muzzle flashes for AAA and launch of SAMs.	
CAT IV	SST	Smokey SAM Team	Smoke Rockets to simulate MANPADs or RF SAMs.	

Category	Abbreviation	Name	Description	Notes
CAT IV	COMPLEX	Complex Target Array	Dispersed target array requiring sorting of targets and may include infrastructures such as runways, facilities, POL sites, etc. Implies INERT and LSR. WISS desired.	
CAT IV	TGT-FORM	Tactical Targets in Formation	Full size actual or replicas of Mechanized or Threat vehicles. IR-significant desired. Implies INERT and LSR. WISS desired.	
CAT IV	TGT-DISP	Tactical Targets Dispersed	Full size actual or replicas of Mechanized or Threat vehicles. IR-significant desired. Implies INERT and LSR. WISS desired.	
CAT IV	TGT-MOVE	Tactical Targets Moving	Full size actual or replicas of Mechanized or Threat vehicles. IR-significant desired. Implies LT INERT and LSR. WISS & LSTSS desired.	
CAT IV	RECCE ARRAY	Actual Tactical Targets in an Array for PID	Full size actual Mechanized or Threat vehicles. Organized in an array in order to allow PID. Weapons release not implied.	
CAT IV	STRUCTR	Structures	May include a building, bunker, or revetment. IR-significant desired. Inert weapons release authorized. LSR capable. WISS desired.	

APPENDIX D
 READINESS SUPPLEMENTS
 VMFA F-35B SQUADRON 16 Aircraft

VMFA F-35B SQUADRON														
16 F-35B														
MISSION ESSENTIAL TASK	MISSION SKILL	DESCRIPTION	DAILY OUTPUT STANDARD {SORTIES} PER MET	ADVANCED TRAINING STANDARD PILOTS TRAINED (CMMR) PILOTS (MSP)	BASELINE TRAINING STANDARD PILOTS TRAINED (70% of CMMR) PILOTS (MSP)	AIRCRAFT MAINTENANCE			TABLE OF ORG PILOTS	STAFFING GOAL PILOTS	COLLECTIVE MAX DAILY SORTIE OUTPUT	SECTION LEADER (SL)	DIVISION LEADER (DL)	MISSION COMMANDER (MC)
						PAA	MC	# MC						
MCT 3.2.3.1.1	CAS	Conduct Close Air Support	18	12	8	16	70%	11	26	23	18	9	6	3
MCT 3.2.3.1.2.3	SCAR	Conduct Strike Coordination and Reconnaissance	18	12	8	16	70%	11						
MCT 3.2.3.2	OAAW	Conduct Offensive Anti-air Warfare	18	16	11	16	70%	11						
MCT 6.1.1.8	AAD	Conduct Active Air Defense	18	16	11	16	70%	11						
MCT 3.2.3.1.2.1	STK	Conduct Strike	18	16	11	16	70%	11						
MCT 3.2.3.2.1	SEAD	Conduct Suppression of Enemy Air Defenses	18	16	11	16	70%	11						
MCT 3.2.3.3	EA	Conduct Aviation Electronic Attack	18	16	11	16	70%	11						
MCT 5.4.1.2.3	ES	Conduct Electronic Warfare Support	18	16	11	16	70%	11						
CORE PLUS														
MCT 1.3.3.3.1	SEA	Conduct Aviation Operations From Expeditionary Sea-Based Sites	18	16	11	16	70%	11						
MCT 1.3.3.3.2	EXP	Conduct Aviation Operations From Expeditionary Shore-Based Sites	18	16	11	16	70%	11						
MCT 6.1.1.11	AESC	Conduct Aerial Escort	18	16	11	16	70%	11						
MCT 3.2.7.5	AMT	Attack Enemy Maritime Targets	18	16	11	16	70%	11						
MCT 3.2.5.4	FAC(A)	Conduct Forward Air Control (Airborne)	6	3	2	16	70%	11						
MCT 5.3.2.7.3	TAC(A)	Conduct Tactical Air Coordinator (Airborne)	6	3	2	16	70%	11						
PARA 1.3			PARA 1.6	PARA 1.7		PARA 1.2	MET WORKSHEET		PARA 1.2	PARA 1.6	PARA 1.7			
90% critical MOS fill: 7518,6019,6048,6694,6046,6591,6391,6042,6288,6012,6016,6017,6018,6516,7577,7591(B)														
70% Mission Capable aircraft with the associated aircraft survivability equipment, mission systems and mission sets required to conduct the MET. (11 aircraft)														

VMFA F-35B SQUADRON(-) 10 Aircraft

VMFA F-35B SQUADRON(-)														
10 F-35B														
MISSION ESSENTIAL TASK	MISSION SKILL	DESCRIPTION	DAILY OUTPUT STANDARD {SORTIES} PER MET	ADVANCED TRAINING STANDARD PILOTS TRAINED (CMMR) PILOTS (MSP)	BASELINE TRAINING STANDARD PILOTS TRAINED (70% of CMMR) PILOTS (MSP)	AIRCRAFT MAINTENANCE			TABLE OF ORG PILOTS	STAFFING GOAL PILOTS	COLLECTIVE MAX DAILY SORTIE OUTPUT	SECTION LEADER (SL)	DIVISION LEADER (DL)	MISSION COMMANDER (MC)
						PAA	MC	# MC						
MCT 3.2.3.1.1	CAS	Conduct Close Air Support	12	8	5	10	70%	7	17	15	12	6	3	3
MCT 3.2.3.1.2.3	SCAR	Conduct Strike Coordination and Reconnaissance	12	8	5	10	70%	7						
MCT 3.2.3.2	OAAW	Conduct Offensive Anti-air Warfare	12	10	7	10	70%	7						
MCT 6.1.1.8	AAD	Conduct Active Air Defense	12	10	7	10	70%	7						
MCT 3.2.3.1.2.1	STK	Conduct Strike	12	10	7	10	70%	7						
MCT 3.2.3.2.1	SEAD	Conduct Suppression of Enemy Air Defenses	12	10	7	10	70%	7						
MCT 3.2.3.3	EA	Conduct Aviation Electronic Attack	12	10	7	10	70%	7						
MCT 5.4.1.2.3	ES	Conduct Electronic Warfare Support	12	10	7	10	70%	7						
CORE PLUS														
MCT 1.3.3.3.1	SEA	Conduct Aviation Operations From Expeditionary Sea-Based Sites	12	10	7	10	70%	7						
MCT 1.3.3.3.2	EXP	Conduct Aviation Operations From Expeditionary Shore-Based Sites	12	10	7	10	70%	7						
MCT 6.1.1.11	AESC	Conduct Aerial Escort	12	10	7	10	70%	7						
MCT 3.2.7.5	AMT	Attack Enemy Maritime Targets	12	10	7	10	70%	7						
MCT 3.2.5.4	FAC(A)	Conduct Forward Air Control (Airborne)	4	2	1	10	70%	7						
MCT 5.3.2.7.3	TAC(A)	Conduct Tactical Air Coordinator (Airborne)	4	2	1	10	70%	7						
PARA 1.3			PARA 1.6	PARA 1.7		PARA 1.2	MET WORKSHEET	PARA 1.2	PARA 1.6	PARA 1.7				
90% critical MOS fill: 7518,6019,6048,6694,6046,6591,6391,6042,6288,6012,6016,6017,6018,6516,7577,7591(B)														
70% Mission Capable aircraft with the associated aircraft survivability equipment, mission systems and mission sets required to conduct the MET. (7 aircraft)														

VMFA F-35B Detachment 6 Aircraft

VMFA F-35B DETACHMENT														
6 F-35B														
MISSION ESSENTIAL TASK	MISSION SKILL	DESCRIPTION	DAILY OUTPUT STANDARD {SORTIES} PER MET	ADVANCED TRAINING STANDARD PILOTS TRAINED (CMMR) PILOTS (MSP)	BASELINE TRAINING STANDARD PILOTS TRAINED (70% of CMMR) PILOTS (MSP)	AIRCRAFT MAINTENANCE			TABLE OF ORG PILOTS	STAFFING GOAL PILOTS	COLLECTIVE MAX DAILY SORTIE OUTPUT	SECTION LEADER (SL)	DIVISION LEADER (DL)	MISSION COMMANDER (MC)
						PAA	MC	# MC						
MCT 3.2.3.1.1	CAS	Conduct Close Air Support	6	4	2	6	70%	4	9	9	6	3	1	1
MCT 3.2.3.1.2.3	SCAR	Conduct Strike Coordination and Reconnaissance	6	4	2	6	70%	4						
MCT 3.2.3.2	OAAW	Conduct Offensive Anti-air Warfare	6	6	4	6	70%	4						
MCT 6.1.1.8	AAD	Conduct Active Air Defense	6	6	4	6	70%	4						
MCT 3.2.3.1.2.1	STK	Conduct Strike	6	6	4	6	70%	4						
MCT 3.2.3.2.1	SEAD	Conduct Suppression of Enemy Air Defenses	6	6	4	6	70%	4						
MCT 3.2.3.3	EA	Conduct Aviation Electronic Attack	6	6	4	6	70%	4						
MCT 5.4.1.2.3	ES	Conduct Electronic Warfare Support	6	6	4	6	70%	4						
CORE PLUS														
MCT 1.3.3.3.1	SEA	Conduct Aviation Operations From Expeditionary Sea-Based Sites	6	6	4	6	70%	4						
MCT 1.3.3.3.2	EXP	Conduct Aviation Operations From Expeditionary Shore-Based Sites	6	6	4	6	70%	4						
MCT 6.1.1.11	AESC	Conduct Aerial Escort	6	6	4	6	70%	4						
MCT 3.2.7.5	AMT	Attack Enemy Maritime Targets	6	6	4	6	70%	4						
MCT 3.2.5.4	FAC(A)	Conduct Forward Air Control (Airborne)	2	1	1	6	70%	4						
MCT 5.3.2.7.3	TAC(A)	Conduct Tactical Air Coordinator (Airborne)	2	1	1	6	70%	4						
PARA 1.3			PARA 1.6	PARA 1.7		PARA 1.2	MET WORKSHEET		PARA 1.2	PARA 1.6	PARA 1.7			
90% critical MOS fill: 7518,6019,6048,6694,6046,6591,6391,6042,6288,6012,6016,6017,6018,6516,7577,7591(B)														
70% Mission Capable aircraft with the associated aircraft survivability equipment, mission systems and mission sets required to conduct the MET. (4 aircraft)														

VMFA F-35C SQUADRON 10 Aircraft

VMFA F-35C SQUADRON														
10 F-35C														
MISSION ESSENTIAL TASK	MISSION SKILL	DESCRIPTION	DAILY OUTPUT STANDARD {SORTIES} PER MET	ADVANCED TRAINING STANDARD PILOTS TRAINED (CMMR) PILOTS (MSP)	BASELINE TRAINING STANDARD PILOTS TRAINED (70% of CMMR) PILOTS (MSP)	AIRCRAFT MAINTENANCE			TABLE OF ORG PILOTS	STAFFING GOAL PILOTS	COLLECTIVE MAX DAILY SORTIE OUTPUT	SECTION LEADER (SL)	DIVISION LEADER (DL)	MISSION COMMANDER (MC)
						PAA	MC	# MC						
MCT 3.2.3.1.1	CAS	Conduct Close Air Support	12	8	5	10	70%	7	17	15	12	6	3	3
MCT 3.2.3.1.2.3	SCAR	Conduct Strike Coordination and Reconnaissance	12	8	5	10	70%	7						
MCT 3.2.3.2	OAAW	Conduct Offensive Anti-air Warfare	12	10	7	10	70%	7						
MCT 6.1.1.8	AAD	Conduct Active Air Defense	12	10	7	10	70%	7						
MCT 3.2.3.1.2.1	STK	Conduct Strike	12	10	7	10	70%	7						
MCT 3.2.3.2.1	SEAD	Conduct Suppression of Enemy Air Defenses	12	10	7	10	70%	7						
MCT 3.2.3.3	EA	Conduct Aviation Electronic Attack	12	10	7	10	70%	7						
MCT 5.4.1.2.3	ES	Conduct Electronic Warfare Support	12	10	7	10	70%	7						
CORE PLUS														
MCT 1.3.3.3.1	SEA	Conduct Aviation Operations From Expeditionary Sea-Based Sites	12	10	7	10	70%	7						
MCT 1.3.3.3.2	EXP	Conduct Aviation Operations From Expeditionary Shore-Based Sites	12	10	7	10	70%	7						
MCT 6.1.1.11	AESC	Conduct Aerial Escort	12	10	7	10	70%	7						
MCT 3.2.7.5	AMT	Attack Enemy Maritime Targets	12	10	7	10	70%	7						
MCT 3.2.5.4	FAC(A)	Conduct Forward Air Control (Airborne)	4	2	1	10	70%	7						
MCT 5.3.2.7.3	TAC(A)	Conduct Tactical Air Coordinator (Airborne)	4	2	1	10	70%	7						
PARA 1.3			PARA 1.6	PARA 1.7		PARA 1.2	MET WORKSHEET	PARA 1.2	PARA 1.6	PARA 1.7				
90% critical MOS fill: 7518,6019,6048,6694,6046,6591,6391,6042,6288,6012,6016,6017,6018,6516,7577,7594(C)														
70% Mission Capable aircraft with the associated aircraft survivability equipment, mission systems and mission sets required to conduct the MET. (7 aircraft)														

CHAPTER 2

F-35 PILOT

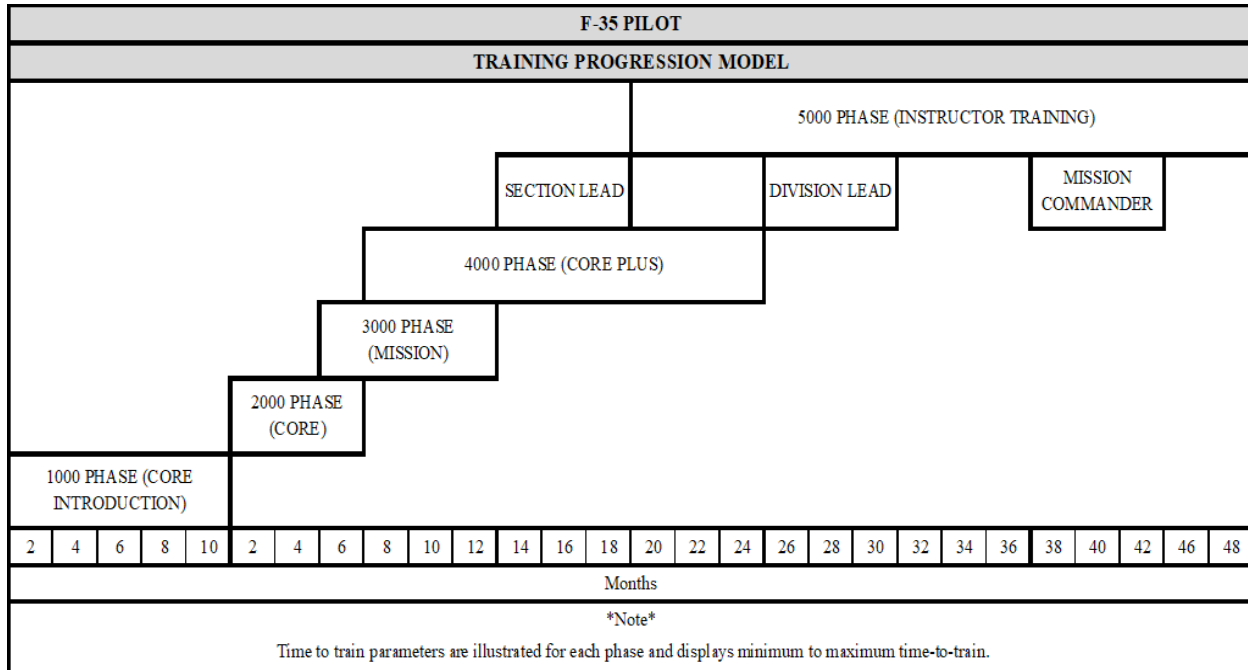
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CHAPTER 2 F-35 PILOT

2.0 **PILOT SYLLABUS T&R REQUIREMENTS.** This T&R syllabus is based on specific goals and performance standards designed to ensure individual proficiency in Core Introduction, Core, Mission, Core Plus and Mission Plus Skills. The goal of this chapter is to develop individual and unit war fighting capabilities.

2.1 **TRAINING PROGRESSION MODEL.** This model represents the recommended training progression for the minimum to maximum time per phase for each pilot. Units should use the model as a guide to generate individual training plans.



2.2 PROGRAMS OF INSTRUCTION (POI)

PROGRAM OF INSTRUCTION MATRIX		
Program of Instruction (POI)	Symbol	Aviation Flying
Basic	B	Initial MOS/Skill Training.
Conversion	C	Moving from one Fighter/Attack Model to another (FA-18, AV-8B to F-35B). FRS only.
Series Conversion	SC	Moving from one Series to another (F-35C, F-35A to F-35B). FRS only.
Refresher	R	DIFDEN to DIFOPS in same T/M/S, Per NAVMC 3500.14-series guidelines.
Modified Refresher	MR	FRS only, Per NAVMC 3500.14-series guidelines.
Safe For Solo	SS	FRS only.
Maintain	M	All individuals who have attained CSP/MSP/CPP by initial POI assignment are re-assigned to the M POI to maintain proficiency.
NATOPS	N	Initial non-tactical training in the F-35B. FRS only.

2.2.1 **General.** The following tables represent the average POI time-to-train by phase.

2.2.2 **Basic (B) POI.** A newly winged Naval Aviator or Initial Accession undergoing initial pilot training in the F-35B. CAT I pilots will be expected to complete the Basic (B) POI. Pilots with an EA-6B background and all transition pilots shall complete the Basic (B) POI as well.

F-35B BASIC POI		
Weeks	Phase of Instruction	Unit
38	Core Introduction	FRS
12	Core	Tactical Unit
20	Mission	Tactical Unit

2.2.3 Conversion (C) POI. A winged Naval Aviator or otherwise experienced pilot who has been previously qualified in A/G and A/A missions and is converting to the F-35B. Pilots with an FA-18 or AV-8B background shall execute the Conversion (C) syllabus.

F-35B CONVERSION POI		
Weeks	Phase of Instruction	Unit
14	Core Introduction	FRS

2.2.4 Refresher (R) POI. A previously qualified F-35 pilot who has not flown the F-35B in 731 days or greater.

F-35B REFRESHER POI		
Weeks	Phase of Instruction	Unit
17	Core Introduction	FRS
11	Core	Tactical Unit
19	Mission	Tactical Unit

2.2.5 Modified Refresh (MR) POI. A previously qualified F-35 pilot who has not flown the F-35B in 486 days or greater (but within 730 days) shall execute the Modified Refresh (MR) syllabus.

F-35B MODIFIED REFRESH POI		
Weeks	Phase of Instruction	Unit
9	Core Introduction	FRS

2.2.6 Safe-for-Solo (SS) POI. A previously qualified F-35 pilot who has not flown the F-35 in 366 days or greater (but within 485 days) should execute a Safe-for-Solo (SS) syllabus.

F-35B SAFE-FOR-SOLO POI		
Weeks	Phase of Instruction	Unit
5	Core Introduction	FRS

2.2.7 Series Conversion (SC) POI. A qualified and current (flown the F-35 within 365 days) F-35A or F-35C pilot who is obtaining an initial F-35B qualification shall complete the Series Conversion (SC) syllabus.

F-35B SERIES CONVERSION POI		
Weeks	Phase of Instruction	Unit
6	Core Introduction	FRS

2.2.8 NATOPS (N) POI. A winged Naval Aviator or otherwise experienced pilot who is obtaining introductory non-tactical training in the F-35B should execute a NATOPS (N) syllabus.

F-35B NATOPS POI		
Weeks	Phase of Instruction	Unit
12	Core Introduction	FRS

2.2.9 The FRS and fleet commanding officers may consider different syllabi requirements than what is prescribed in sections 2.2.2 through 2.2.8 per NAVMC 3500.14-series.

2.3 PROFICIENCY & CURRENCY

2.3.1 Event Proficiency. Event proficiency is defined as successful completion of the performance standard as determined by the instructor or evaluator. Event completion is predicated upon demonstrated proficiency. Once completed, it is logged in M-SHARP by entering the appropriate event code. M-SHARP automatically updates the event proficiency date to reflect the completion date.

2.3.2 Skill Proficiency. Proficiency is a measure of achievement of a specific skill. To attain Individual Skill proficiency, an individual must be simultaneously proficient in all events for that Skill. Individuals may be attaining proficiency in some skills while maintaining proficiency in others.

2.3.2.1 Maintaining Skill Proficiency. Once attained, skill proficiency is maintained by executing those events which have a Proficiency Period (Maintain events). Proficiency Periods establish the maximum time between Event demonstrations. Should proficiency be lost in any maintain event, for a specific skill, that skill proficiency is temporarily lost. Skill proficiency can be re-attained by again demonstrating proficiency in the Event(s) that are not proficient. An individual shall complete delinquent events with a proficient flight lead. See Chapter 3 of the Program Manual for specific instructor requirements for LAT, NS, ACM, and FAC(A)).

2.3.2.2 Loss of Individual Skill Proficiency. Should an individual lose proficiency in a skill, the individual must demonstrate proficiency in all delinquent events for the skill.

2.3.2.3 Loss of Unit Skill Proficiency. If an entire unit loses proficiency in an Event, unit instructors shall regain proficiency by completing the Event with an instructor from a like unit. If not feasible, the instructor shall regain proficiency by completing the Event with another instructor. If a unit has only one instructor and cannot complete the Event with an instructor from another unit, the instructor shall regain proficiency with another aircraft commander or as designated by the commanding officer.

2.3.2.4 Proficiency Status. Proficiency is a “Yes/No” status by skill assigned to an individual. When an individual attains and maintains Core Skill Proficiency (CSP), Mission Skill Proficiency (MSP), Core Plus Skill Proficiency (CPSP), or Mission Plus Skill Proficiency (MPSP), the individual may count towards CMMR or CMTS.

2.3.3 Skill Currency. Currency is a control measure used to provide an additional margin of safety based on exposure frequency to a particular skill and applies to all MOSs that must comply with NATOPS and CNAF requirements. It is a measure of time since the last event demanding that specific skill. For example, currency determines minimum altitudes in rules of conduct based upon the most recent low altitude fly date. Specific currency requirements for individual type mission profiles can be found in Chapter 3 of the Program Manual.

2.4 CERTIFICATIONS, QUALIFICATIONS, AND DESIGNATIONS (CQD) TABLES. The table below delineates T&R events required to be proficient or waived to attain CQD. Waiving of all required events leading to a CQD is not allowed. Each CQD requires a minimum of one of the following; a T&R event, stage, phase, skill, certification, qualification, or designation to be listed as a required event in the CQD table.

2.4.1 Qualifications. Qualifications are assigned to personnel based on demonstration of proficiency in a specific skill. All qualifications are assigned one or more T&R qualification event. When all qualification requirements are completed and proficient, the individual may be granted the respective qualification by the commanding officer. An individual’s qualification status may be either “Qualified” or “Not Qualified.” At least one requirement/event for a qualification must have a proficiency period assigned.

2.4.2 Designations. Designations are assigned based on demonstrated instructor or combat leadership proficiency. When all training requirements are completed, the respective designation may be granted, and a formal designation letter may be presented in accordance with the community T&R by the commanding officer. These designations are command specific and remain in effect until removed for cause or the individual is transferred to another command. Community T&Rs may stipulate re-designation criteria. If not, re-designation is at the commanding officer’s discretion.

CERTIFICATIONS, QUALIFICATIONS AND DESIGNATIONS (CQD)	
Qualifications	Required Events
NS	6201
ACM	6202
Day FBO	4101, 4102, 6203
Night FBO	4101, 4103, 6204
LAT	4201, 6205
Day CQ, F-35B	4301, 4303, 4305, 4307-4308, 6206
Night CQ, F-35B	4302, 4304, 4306-4307, 4309, 6207
Field LSO, F-35B	IAW STOVL LSO NATOPS, 6208
Shipboard LSO, F-35B	IAW STOVL LSO NATOPS, 6209
Advanced LSO, F-35B	IAW STOVL LSO NATOPS, 6210
Training LSO, F-35B	IAW STOVL LSO NATOPS, 6211
FCF, F-35B	6105-6106, 6212
FAC(A)	4601-4610, 6213
TAC(A)	4701, 6214
DEMO	6801-6813, 6215
CQ, F-35C	4310-4316, 6216
Field LSO, F-35C	IAW CVN LSO NATOPS, 6217
Shipboard LSO, F-35C	IAW CVN LSO NATOPS, 6218
Wing LSO, F-35C	IAW CVN LSO NATOPS, 6219
Training LSO, F-35C	IAW CVN LSO NATOPS, 6220
FCF, F-35C	6111-6112, 6221
Designations	Required Events
FRSI	5001-5048, 6000-6025, 6601
SL	6301-6313, 6602

CERTIFICATIONS, QUALIFICATIONS AND DESIGNATIONS (CQD)	
DL	6401-6408, 6603
MC	6501-6503, 6604
ACMI	5101-5103, 6605
LTI	5201-5203, 6606
FAC(A)I	5301-5303, 6607
LATI	5401-5402, 6608
FLSE	5501, 6609
NSI	6610
SFTI	IAW NAWDC N7 COURSE CATALOG, 6611
WTI	IAW MAWTS-1 COURSE CATALOG, 6612
CFI(1)	6613
CFI(2)	6614
CFI(4)	6615
CIP	5601-5604, 6616
NATOPS	6617
NATOPS INST	6618
CRM	6619
FCF	6620

2.5 SYLLABUS NOTES

2.5.1 T&R Phases

2.5.1.1 The Core Introduction Phase (0000-1999) is the fundamental system/equipment operation familiarization, initial individual procedures, and initial exposure to future Core training. This phase may also include specific Conversion, Refresher, Series Conversion, and Transition training. CNATRA, FRSs, and/or operational units designated by DCA conduct Core Introduction training. At the completion of this phase, individuals are normally assigned to operational units.

2.5.1.2 The Core Phase (2000-2999) contains the fundamental capabilities required to perform basic functions that serve as tactical enablers to progress to more complex mission skills. Completion of the Core Phase should verify F-35 pilots arriving from the FRS have the requisite skills that directly support the Mission phase. These events should be completed within 120 days of joining the unit. This is reportable to higher headquarters.

2.5.1.3 The Mission Phase (3000-3999) contains advanced skills training. Completion of the Mission Phase should verify F-35 pilots arriving from the FRS have the requisite skills required to execute F-35 missions that directly support the unit METL. The focus of squadron training should be dedicated to Mission Phase events.

2.5.1.4 The Core Plus Phase (4000-4299) contains fundamental capabilities with a lower probability of execution and/or theater specific operations. Although Core Plus events may provide valuable training opportunities, they are not considered essential to achieve unit Core Competency. Core Plus training is conducted at the discretion of operational commanders and allows unit training flexibility.

2.5.1.5 The Mission Plus Phase (4300-4999) contains mission training associated with low probability of execution and/or theater specific operations. Although Mission Plus events may provide valuable training opportunities, they are not considered essential to achieve unit Core Competency. Mission Plus training is conducted at the discretion of operational commanders and allows unit training flexibility.

2.5.1.6 The Instructor Training Phase (5000-5999) contains instructor evaluation syllabus events.

2.5.1.7 The Requirements, Qualifications, Designations (RQD) Phase (6000-6999) contains all other syllabus events and special interest tracking codes that do not neatly 'fit' into the above phases and is designed to facilitate training management. The RCQD Phase contains standardized combat/flight leadership workup and evaluation events. This phase contains event requirements not mandated by the T&R program such as NATOPS, instrument evaluations, and the functional check pilot syllabus.

2.5.1.8 The Mission Essential Task (MET) Phase (7000-7999) contains events that facilitate the assessment of CMMR representative pilots during the execution of the unit's specified METs in order to ensure standardization and combat readiness. Additionally, this phase facilitates the fulfillment of the requirements of a Marine Corps Combat Readiness Evaluation (MCCRE) as specified in MCO 3501.1-series, Marine Corps Combat Readiness Evaluation.

2.5.1.9 The Aviation Career Progression Model (ACPM) Phase (8000-8999) contains events within the formalized training program which prepares Aviation Combat Elements (ACE) to employ forces in operational environments. The ACPM Phase enhances professional understanding of Marine Aviation and the MAGTF and ensures aviators possess the requisite skills to fill battle command and battle staff positions in support of the ACE and the MAGTF in a joint environment.

2.5.2 Proficiency Period. Refly interval expressed in days. “*” indicates a one-time event with no refly interval. See paragraph 2.3 for more information.

2.5.3 Conditions. Refer to the following table for required event conditions.

CODE	ENVIRONMENTAL CONDITION
D	Shall be conducted during day.
N	Shall be conducted at night, aided or unaided.
(N)	May be conducted day or night. If at night, aided or unaided.
NS	Shall be conducted at night aided under High Light Level or Low Light Level.
HLL	Shall be conducted at night aided under High Light Level conditions.
LLL	Shall be conducted at night aided under Low Light Level conditions.
(NS)	May be conducted day or night. If at night, aided under HLL or LLL.
N*	Shall be conducted at night unaided.
(N*)	May be conducted day or night. If at night, shall be flown unaided.
D/NS	Shall be conducted only in the simulator during day and night aided.

2.5.4 Device

SYMBOL	MEANING
A	Conducted in Aircraft
S	Conducted in Simulator
A/S	Aircraft preferred/simulator optional
S/A	Simulator preferred/aircraft optional
G	Ground/academic training. May include Distance Learning, CBT, lectures and self-paced training.
GE	Ground event requiring evaluation.
Note – If the event is to be flown in the simulator, the simulator instructor shall set the desired environmental conditions for the event.	

2.5.5 Simulators. Flight simulators are required to enhance flight training and airborne proficiency. Simulators shall be flown in the prescribed order of training when squadrons are co-located with mission capable simulators. Where simulators are not available, commanders may authorize simulator events be either deferred to a later date or flown in the aircraft as required. Flight leadership, instructor, and FLSE designations shall not be granted until all events, including simulators, are completed. For these designations, simulator events must be executed in a capable device as prescribed or flown in the aircraft.

2.5.6 Number and Equipment. Some of the syllabus events in the T&R have 1+ or 2+ devices required. 1+ device required implies that the flight may be flown as a single ship or greater. 2+ devices required implies that the flight shall be flown as a section or greater. 4(2) simulators required implies that the events may be conducted as a section simulator for commands lacking a division simulation capability.

2.5.7 Goal. The goal is the terminal learning objectives for the event and should be stated using the terms below (e.g. Review familiarization, navigation and instrument flight procedures). The goal should not be confused with mission, mission objectives or training objectives. For further discussion on mission objectives and training objectives see the “MAWTS-1 F-35 Briefing and Debriefing Guide”.

EVENT TERMS	
TERM	DESCRIPTION
Discuss	An explanation of systems, procedures, or maneuvers during the brief, in flight, or post flight. Student is responsible for knowledge of procedures.
Demonstrate	The description and performance of a particular maneuver/event by the instructor, observed by the PUI/student. The PUI/student is responsible for knowledge of the procedures prior to the demonstration of a required maneuver/student.
Introduce	The instructor may demonstrate a procedure or maneuver to a student or may coach the PUI through the maneuver without demonstration. The PUI performs the procedures or maneuver with coaching as necessary. The PUI is responsible for knowledge of the procedures.
Practice	The performance of a maneuver or procedure by the PUI/student that may have been previously introduced in order to attain a specified level of performance.
Review	Demonstrated proficiency of a maneuver by the PUI/student.
Evaluate	Any flight designed to evaluate pilot standardization that does not fit another category such as SARCK, HACCK, T2PCK, etc.

2.5.8 Requirements. Event requirements state the minimum number of passes, engagements, or maneuvers required to demonstrate proficiency. T&R event requirements are written to allow completion on one sortie. Squadrons who cannot complete all stated requirements in one sortie (e.g. squadrons limited by range access and regulations) may complete the requirements of an event in multiple sorties as long as the completion sorties are flown in succession and within normal currency windows defined by unit SOP. If a pilot's currency expires (e.g., a warmup flight is required), or the event requirements cannot be completed on the next scheduled sortie, the event shall be re-flown in its entirety.

2.5.8.1 Event requirements may also include event terms listed above that were not included in the event goal (e.g. Review takeoffs landings with simulated emergencies). Event requirements should not be confused with mission objectives or training objectives.

2.5.8.2 All events, to include simulators, shall begin with a comprehensive brief with emphasis on admin procedures, CRM, tactical procedures from applicable tactical publications, mission performance standards, and pilot expectations.

2.5.8.3 All events, to include simulators, shall conclude with a comprehensive debrief with emphasis on pilot performance utilizing all evaluation techniques available.

2.5.9 Performance Standards. Performance standards are listed for each T&R event description. Performance standards describe a measurable level of proficiency for the event. They must be observable or measurable and shall specify the quantity and/or quality of the performance. These are training standards for individual pilot performance and should be utilized by the evaluator to determine the satisfactory completion of each event. If the pilot did not successfully attain the performance standards, the training code shall not be logged as a completed flight. Performance standards should not be confused with mission objectives or training objectives.

2.5.9.1 An Electronic Aviation Training Form (EATF) is required for any initial event regardless of POI, or as recommended by the squadron standardization board. In addition, EATFs are required for all flight leadership and instructor syllabus events. If the commanding officer has waived/deferred a syllabus sortie IAW NAVMC 3500.14 T&R Program Manual, the squadron training officer shall place a waiver/deferral letter in section 3 of the APR. Reference NAVMC 3500.14 T&R Program Manual for event waiver/deferral. During skill progression, tasks are distributed across simulator and flight events. Course Training Standards (CTS) are developed during skill progression to define points where a specific level of skill must be achieved in order to progress through the POI. Standardized grading scale is below.

COURSE TRAINING STANDARD		
PERFORMANCE STANDARD RATING	DESCRIPTION OF PERFORMANCE	NUMERICAL VALUE FOR GPA
UNSAT*	Unsafe or complete lack of ability and/or knowledge. Requires substantial input from the instructor for safe execution and/or mission accomplishment.	0
1	Safe but limited proficiency. Requires frequent input from the instructor.	1
2	Recognizes and corrects errors. Requires occasional input from the instructor.	2
3	Correct, efficient, skillful, and without hesitation. Requires minimal input from the instructor.	3
4*	Unusually high degree of ability. Requires no input from the instructor.	4
DND	Did Not Do - Not applicable or not observed.	null
* Comments required		

2.5.9.2 Hard copy APRs will be maintained by the squadron Training Department until the Marine Corps fully transitions to an electronic-only solution. M-SHARP will be used to log events, complete ATFs, and to monitor and track progression.

2.5.10 Instructor Requirements. Delineates what type of instructor is required for the event.

2.5.11 Prerequisites. Phases, stages, and events may have prerequisites that are required as a prior condition and shall be completed prior to commencing the subject training, unless it has been waived or deferred in accordance with NAVMC 3500.14 T&R Program Manual. A prerequisite may be a POI event, lecture, laboratory, academic, certification, qualification, designation, or computer-based training event. Prerequisites complement and enhance the building block approach to training.

2.5.12 Ordnance Requirements. Specific ordnance requirements are delineated for each event. Required ordnance for Mission, Core Plus and Mission Plus Phase events may be changed based on mission planning factors, NCEA allocation, range restrictions or operational requirements. In cases where ordnance cannot be delivered due to NCEA

allocation, range restrictions or aircraft limitations, simulated ordnance is authorized for all Mission phase, Core Plus and Mission Plus phase events. This does not alleviate the operations department from due diligence in scheduling the requirements per the T&R. This approach is designed to give commanders maximum flexibility when attempting to balance training effectiveness with logistical and operational constraints.

2.5.13 Range Requirements. Range requirements are listed to assist operations departments in determining the ranges required for an event.

2.5.14 Miscellaneous

Logging multiple training codes on a single sortie should be avoided. However, there may be opportunities to accomplish the requirements of more than one event during training. Units are encouraged to take advantage of complex training opportunities which allow multiple event completion. Event logging (single or multiple) is allowable if the requirements for each event are accomplished per the performance standard. If multiple syllabus events are to be accomplished during a single flight evolution, appropriate planning, briefing, and debriefing time must be allotted to ensure that requisite training objectives can be met.

2.6 CORE INTRODUCTION PHASE

Purpose. This stage introduces newly winged aviators, transition and conversion pilots, and pilots returning to the fleet on the fundamental skills required to employ the F-35B. Introduce/review all procedures, skills, and weapons requisite for an F-35B pilot qualification.

General

Security Requirement. Incoming pilots complete with undergraduate pilot training must hold the appropriate security clearances to begin this POI.

Academic Grading Criteria. Passing grade on a written or computer-based examination is 80%.

Unaccomplished Tasks / Incomplete Events. Sorties that do not complete all tasks in one sortie will document the unaccomplished tasks in M-SHARP for completion of those tasks on a future sortie. If the tasks had not been completed due to time constraints, they must be completed in accordance with the prerequisites. Due to the development of the F-35, certain events will not be executable depending on the availability of mission systems, block software, and aircraft operating limits (AOLs). If the tasks had not been completed due to aircraft capabilities or limitations, sound ORM at the appropriate level must be applied before progressing through the syllabus.

F-35B Flight Syllabus Guide. Amplifying information on specific sortie requirements not included in this document (such as specific performance standards for minor tasks or procedural expectations) is listed in the FRS Flight Syllabus Guide (FSG).

Core Introduction Overview

CORE INTRODUCTION PHASE		
STAGE	PARAGRAPH	PAGE NUMBER
FAM	2.7.1	2-9
AAR	2.7.2	2-29
BT	2.7.3	2-30
BFM	2.7.4	2-39
TI	2.7.5	2-47
AS	2.7.6	2-56
AR	2.7.7	2-63
CAS	2.7.8	2-64
SEAD	2.7.9	2-68
AAW	2.7.10	2-71
NO	2.7.11	2-74
FCLP	2.7.12	2-87
STK	2.7.13	2-88

2.7 CORE INTRODUCTION STAGES

2.7.1 FAMILIARIZATION (FAM)

Purpose. To qualify the PUI as a basic F-35B aircraft commander. Major areas of focus are aircraft systems, NATOPS/FSD knowledge and qualification, basic aircraft flight characteristics, limitations, normal procedures, short takeoff and vertical landing (STOVL) operations, instrument procedures and Emergency Procedures (EPs).

General

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

The NATOPS instrument evaluator shall utilize the CNAF 3710/2 NATOPS Instrument Rating Request and the evaluation metrics required for the accomplishment and performance of the standardized criterion to determine whether the aviator completed the sortie (see Appendix B).

A designated F-35B NATOPS instrument check pilot will observe and certify that the PUI is qualified per CNAF M-3710.7 series.

A designated NATOPS evaluator/instructor shall conduct the NATOPS evaluation in accordance with CNAF M-3710.7 series and other applicable directives, instructions, and orders.

Ground Academic Events

STAGE	EVENT	DESCRIPTION	TIME	B	C	R	MR	SS	SC	N
ACAD	0001	Welcome & In processing	0.5	X	X	X	X	X	X	X
ACAD	0005	Course Overview	0.5	X	X	X	X	X	X	X
ACAD	0002	International Traffic in Arms Regulations (ITARs)	1.0	X	X	X	X	X		X
ACAD	0004	Security Briefing	4.0	X	X	X	X	X		X
ACAD	0007	Training Facility Tour	1.0	X	X	X	X	X	X	X
ACAD	0006	Mechanics Phase / Familiarization Stage Brief	1.0	X	X	X	X	X	X	X
ACAD	0011	F-35 Aircraft Intro & Overview	2.0	X	X	X				X
ACAD	0003	ALIS	2.5	X	X	X				X
ACAD	0012	F-35 Publications and References	1.5	X	X	X				X
ACAD	0013	Pilot Training Aid (PTA) Introduction	1.0	X	X	X				X
ACAD	0014	Vehicle Systems Processing (VSP)	1.0	X	X	X	X	X		X
ACAD	0008	Life Support Fitting I	2.0	X	X			X		X
ACAD	0015	Panoramic Cockpit Display (PCD)	2.0	X	X	X	X	X		X
ACAD	0016	HMD	1.5	X	X	X	X	X		X
ACAD	0017	HOTAS	1.5	X	X	X	X	X		X
ACAD	0018	PCD, HOTAS, VR	1.5	X	X	X	X	X		X
ACAD	0020	Integrated Caution Advisory Warning System (ICAWS)	1.5	X	X	X	X	X		X
ACAD	0021	Electrical Power System (EPS)	2.5	X	X	X	X	X		X
ACAD	0022	Power and Thermal Management System (PTMS)	2.0	X	X	X	X	X		X
ACAD	0019	Practice PCD, HOTAS, VR	1.5	X	X	X	X	X		X
ACAD	0026	Lighting Systems	1.0	X	X	X	X	X		X
ACAD	0023	Engine System	3.0	X	X	X	X	X	X	X
ACAD	0024	Fuel System	2.0	X	X	X	X	X	X	X
ACAD	0025	Fire Protection System	1.0	X	X	X	X	X		X
ACAD	0027	Hydraulic System	2.0	X	X	X	X	X	X	X
ACAD	0028	Landing Gear Systems	1.0	X	X	X	X	X	X	X
ACAD	0029	Canopy System	1.0	X	X	X	X	X		X
ACAD	0031	Life Support System	1.0	X	X	X	X	X		X
ACAD	0030	Egress System/ Survival Eqpt	2.0	X	X	X	X	X		X
ACAD	0032	Familiarization Stage Test 1 Review	1.5	X	X	X	X	X	X	X
ACAD	0033	Familiarization Stage Test 1 (Systems)	1.0	X	X	X	X	X	X	X
ACAD	0034	Flight Control System (FCS)	4.5	X	X	X	X	X	X	X
ACAD	0035	CNI1 (UHF/VHF, IFF, Datalinks)	2.0	X	X	X	X	X		X
ACAD	0036	CNI2 Navigation	3.0	X	X	X	X	X		X
ACAD	0037	Voice Recognition	1.0	X	X	X	X	X		X
ACAD	0038	Tactical Situation Display (TSD)	1.5	X	X	X	X	X		X
ACAD	0039	Autopilot/Flight Management System	1.0	X	X	X	X	X		X

ACAD	0040	Operating Limitations	2.5	X	X	X	X	X	X	X
ACAD	0041	Pre-flight & Post-flight Procedures	1.5	X	X	X	X	X		X
ACAD	0043	Local Area Procedures	1.0	X	X	X	X	X	X	X
ACAD	0042	Normal Operating Procedures 1 (Ground)	4.0	X	X	X	X	X	X	X
ACAD	0097	Normal Operating Procedures 2 (Takeoff & Landing Pattern)	3.0	X	X	X	X	X	X	X
ACAD	0044	Basic Display Management / Checklists	1.0	X	X	X	X	X		X
ACAD	0045	Operating Procedures	1.0	X	X	X	X	X	X	X
ACAD	0064	Human Factors	1.5	X	X	X	X	X		X
ACAD	0054	CRM	2.0	X	X	X	X	X		X
ACAD	0047	Instrument Flight Procedures	2.0	X	X	X	X	X		X
ACAD	0046	Instrument Ground School & Test	8.0	X	X	X	X	X		X
ACAD	0048	Radar System 1 - Radar Theory & APG-81 Radar System	2.5	X	X	X	X	X		X
ACAD	0049	Administrative Mission Planning	2.5	X	X	X	X	X		X
ACAD	0050	Familiarization Stage Test 2 Review	1.5	X	X	X	X	X	X	X
ACAD	0051	Familiarization Stage Test 2 (Procedures)	1.0	X	X	X	X	X	X	X
ACAD	0009	Life Support Fitting II	4.0	X	X	X	X	X		X
ACAD	0053	Prognostics and Health Management (PHM) System	1.0	X	X	X	X	X		X
ACAD	0052	SMS	1.0	X	X	X	X	X		X
ACAD	0055	Emergencies 1 (Ground)	2.0	X	X	X	X	X	X	X
ACAD	0059	Basic IR Theory / DAS and NVC	1.5	X	X	X	X	X		X
ACAD	0056	Emergencies 2 (Takeoff)	2.5	X	X	X	X	X	X	X
ACAD	0057	Emergencies 3 (Inflight)	4.0	X	X	X	X	X	X	X
ACAD	0060	Cross Country Operations	0.5	X	X	X	X	X		X
ACAD	0058	Emergencies 4 (Approach/ Landing)	4.5	X	X	X	X	X	X	X
ACAD	0061	Familiarization Stage Test 3 Review	1.5	X	X	X	X	X	X	X
ACAD	0062	Familiarization Stage Test 3 (EP/Boldface)	1.0	X	X	X	X	X	X	X
ACAD	0063	NATOPS Tests	1.5	X	X	X	X	X	X	X
ACAD	0067	Day Visual/Non-Visual Formation Procedures	1.5	X	X	X				X
ACAD	0096	Plane Captain Day & Night Hand Signals	0.5	X	X	X	X	X	X	X

SFAM-0098 0.5 * B,C,R,MR,SS,N D A 1 FMS

Goal. Introduce Aeromedical and ROBD (using the FMS).

Requirements. Introduce hypoxia symptoms and techniques for recognizing hypoxia symptoms. Practice hypoxia emergency procedures and CRM.

Performance Standards

- Introduce
 - Hypoxia symptoms
 - In-flight techniques to recognize hypoxia symptoms
- Practice
 - Hypoxia emergency procedures
 - Ejection seat ingress, connection, and egress

Instructor. Physiologist

Prerequisite. 0102

FAM-0099 0.5 * B,C,R,MR,SS,N D A 1 F-35B

Goal. Introduce Egress Training.

Requirements. Successfully complete ingress/egress, seat connections, emergency ground egress, ejection and post-ejection procedures. May be executed in conjunction with NATOPS required Ejection Seat Brief.

Performance Standards

- Discuss
 - Ground-based emergency egress procedures and considerations

In-flight emergency egress procedures and considerations
Location and use of survival equipment
Introduce
Ejection seat ingress, connection, and egress
Checklist Management
Cockpit Interior Checks

Instructor. FRSI

Prerequisite. 0062, 0063

SFAM-0100 1.7 * B,C,N D S 1 FMS

Goal. Introduce FMS Device Orientation.

Requirements. Demonstrate basic functionality and operations of the F-35B Full Mission Simulator. IAW VMFAT-501 FAM FSG.

Performance Standards

Discuss
FMS specific controls and safety precautions
Introduce
Ingress and donning of FMS Helmet
FMS HMD Alignment
Control and Display familiarization
Start-up and shut-down checklists
Egress and doffing of FMS Helmet

Instructor. CFI(1)

Prerequisite. 0045

SFAM-0101 1.7 * B,C,R,MR,SS,N D S 1 FMS

Goal. Introduce Normal Operations 1.

Requirements. Achieve proficiency in normal operating procedures including takeoffs, pattern management, landings, and basic aircraft handling. IAW VMFAT-501 FAM FSG.

Performance Standards

Introduce	
Brief	Autopilot Fam
Admin	Accel/Decel Maneuver
Safety of Flight	Aileron Rolls
TOLD	VFR Recovery Procedures
Checklist Management	Local Course Rules
PCD Management	Overhead / Pattern
CNI Management	CTOL Roll and Go
MADL/L16 Setup	CTOL Low Approach
Comm Standards	CTOL Full Stop Landing
Marshal	After Landing Checks
Taxi	Situational Awareness
CTOL Takeoff	Communication
Standard Instrument Departure (SID)	Decision Making
Operational Checks	Assertiveness
TACAN Navigation	Mission Analysis
Point-to-Point Navigation	Leadership
INS/GPS Navigation	Adaptability/Flexibility
Fuel Management	Debrief
Level Turns	

Instructor. CFI(1)

Prerequisite. 0100, 0051

SFAM-0102 1.7 * B,C,R,MR,SS,N D S 1 FMS

Goal. Introduce Normal Operations 2.

Requirements. Practice normal operating procedures including takeoffs, patterns, landings, and basic aircraft handling.

Performance Standards

Introduce

Brief	Unusual Attitude Recoveries
Admin	Aileron Rolls
Safety of Flight	VFR Recovery Procedures
Plane Captain Coordination	Local Course Rules
TOLD	CTOL Straight-in
Checklist Management	CTOL Low Approach
PCD Management	CTOL Roll and Go
CNI Management	CTOL Full Stop
MADL/L16 Setup	Situational Awareness
Comm Standards	Communication
Marshal	Decision Making
Taxi	Assertiveness
CTOL Takeoff	Mission Analysis
Standard Instrument Departure (SID)	Leadership
Operational Checks	Adaptability/Flexibility
Fuel Management	Debrief

Instructor. CFI(1)

Prerequisite. 0101

SFAM-0103 1.7 * B,C,R,MR,SS,N D S 1 FMS

Goal. Introduce Instrument Procedures 1.

Requirements. Achieve proficiency in instrument flight to include instrument departure, navigation, basic air work, penetration, precision and non-precision approaches and transition to land. IAW VMFAT-501 FAM FSG.

Performance Standards

Introduce

Brief	Circling Approach
Admin	Missed Approach
Safety of Flight	HMD-Out Landing
Instrument Mission Planning	Checklist Management
Instrument Turns	Cockpit Interior Checks
Instrument Climbs/Descents	Engine Start
Airways Navigation	PCD Management
ATC Communication	CNI Management
Instrument Unusual Attitude Recovery	MADL/L16 Setup
OBOGS FAIL	Comm Standards
Instrument Holding	Before Taxi Checks
Instrument Descent / Penetration	Marshal
Arc to Radial / Radial to Arc	Taxi
PAR/ASR Approach	Before Takeoff Checks
ILS/LOC Approach	Operational Checks
TACAN Approach	INS/GPS Navigation

Point to Point Navigation
Fuel Management
After Landing Checks
Situational Awareness
Communication
Decision Making

Assertiveness
Mission Analysis
Leadership
Adaptability/Flexibility
Debrief

Instructor. CFI(1)

Prerequisite. 0102, 0046

SFAM-0104 1.7 * B,C,R,MR,SS,N D S 1 FMS

Goal. Introduce Emergency Procedures 1.

Requirements. Achieve proficiency in precautionary flameout profile, options, and decision making with a focus on engine-related malfunctions and emergencies. IAW VMFAT-501 FAM FSG.

Performance Standards

Introduce

Brief
Admin
Safety of Flight
Straight-In PFO
Overhead PFO
Random Entry PFO
CTOL Abort
Ground Emergencies
Takeoff Emergencies
Airborne Emergencies
Landing Emergencies
Ground Operations

Comm Standards
CTOL Takeoff
Local Course Rules
CTOL or Slow Landing
Situational Awareness
Communication
Decision Making
Assertiveness
Mission Analysis
Leadership
Adaptability/Flexibility
Debrief

Instructor. CFI(1)

Prerequisite. 0103, 0062

SFAM-0105 1.7 * B,C,R,MR,SS,N D S 1 FMS

Goal. Introduce Emergency Procedures 2.

Requirements. Achieve proficiency in flameout profile and options. Introduce fuel and oxygen related emergencies. IAW VMFAT-501 FAM FSG.

Performance Standards

Introduce

Brief
Admin
Safety of Flight
Straight In Flameout
Overhead Flameout
Random Entry Flameout
CTOL Abort
Ground Emergencies
Takeoff Emergencies
Airborne Emergencies
Landing Emergencies
Ground Operations

Comm Standards
CTOL Takeoff
Local Course Rules
CTOL or Slow Landing
Situational Awareness
Communication
Decision Making
Assertiveness
Mission Analysis
Leadership
Adaptability/Flexibility
Debrief

Instructor. CFI(1)

Prerequisite. 0104

SFAM-0106 1.7 * B,C,R,SC,N D S 1 FMS

Goal. Introduce Normal Operations 3.

Requirements. Achieve proficiency in normal operating procedures including takeoffs, patterns, landings, and basic aircraft handling. Introduce STOVL procedures. IAW VMFAT-501 FAM FSG.

Performance Standards

Introduce

Brief	Before Taxi Checks
Admin	Marshal
Safety of Flight	Taxi
Jetborne and Semi-Jetborne	Before Takeoff Checks
Performance Calculations	Standard Instrument Departure (SID)
Short Takeoff	Operational Checks
Outbound Conversion	INS/GPS Navigation
STOVL Flight Characteristics Demo	Fuel Management
Inbound Conversion	Level Turns
STOVL Straight-In	Climbs/Descents
STOVL Roll and Go	Loop
SL Low Approach	VFR Recovery Procedures
Slow Landings	Local Course Rules
Slow Landing Waveoffs	After Landing Checks
Hot Seat Procedures	Situational Awareness
Checklist Management	Communication
Cockpit Interior Checks	Decision Making
Engine Start	Assertiveness
PCD Management	Mission Analysis
CNI Management	Leadership
MADL/L16 Setup	Adaptability/Flexibility
Comm Standards	Debrief

Instructor. CFI(1)

Prerequisite. 0105 (B,C,R,N), 0062 (SC)

SFAM-0107 1.7 * B,C,N D S 1 FMS

Goal. Introduce Normal Operations 4.

Requirements. Achieve proficiency in normal operating procedures including takeoffs, patterns, landings, and basic aircraft handling. Practice STOVL procedures. IAW VMFAT-501 FAM FSG.

Performance Standards

Introduce

Brief	CNI Management
Admin	MADL/L16 Setup
Safety of Flight	Comm Standards
Short Takeoff	Before Taxi Checks
Vertical Landing	Marshal
Jetborne and Semi-Jetborne	Taxi
Performance Calculations	Before Takeoff Checks
Checklist Management	Outbound Conversion
Cockpit Interior Checks	Standard Instrument Departure (SID)
Plane Captain Coordination	STOVL Flight Characteristics Demo
Engine Start	Operational Checks
PCD Management	INS/GPS Navigation

Fuel Management
VFR Recovery Procedures
Local Course Rules
Inbound Conversion
STOVL Low Approach
STOVL Roll and Go
Slow Landing
After Landing Checks

Situational Awareness
Communication
Decision Making
Assertiveness
Mission Analysis
Leadership
Adaptability/Flexibility
Debrief

Instructor. CFI(1)

Prerequisite. 0106

SFAM-0108 1.7 * B,C,N D S 1 FMS

Goal. Introduce Instrument Procedures 2 (STOVL).

Requirements. Achieve proficiency in instrument flight to include instrument departure, navigation, basic air work, penetration, precision and non-precision approaches and transition to land. IAW VMFAT-501 FAM FSG.

Performance Standards

Introduce

Brief
Admin
Safety of Flight
SFD Instrument Approach
No Gyro PAR/ASR
STOVL Instrument Approach
HMD Out Approach and Landing
Instrument Mission Planning
Ground Operations
MADL/L16 Setup
Comm Standards
Short Takeoff
Outbound Conversion
Standard Instrument Departure (SID)
Operational Checks
Instrument Turns
Instrument Climbs/Descents
ATC Communication
Airways Navigation

Point to Point Navigation
Fuel Management
Instrument Holding
Instrument Descent / Penetration
Arc to Radial / Radial to Arc
PAR/ASR Approach
ILS/LOC Approach
TACAN Approach
Missed Approach
Slow Landing
After Landing Checks
Situational Awareness
Communication
Decision Making
Assertiveness
Mission Analysis
Leadership
Adaptability/Flexibility
Debrief

Instructor. CFI(1)

Prerequisite. 0107

SFAM-0109 1.7 * B,C,R,SC,N D S 1 FMS

Goal. Introduce Emergency Procedures 3.

Requirements. Achieve proficiency in emergency procedures associated with the hydraulic system. Practice flameout and PFO pattern and procedures. IAW VMFAT-501 FAM FSG.

Performance Standards

Introduce

Brief
Admin
Safety of Flight
STOVL Abort
Ground Emergencies

Takeoff Emergencies
Airborne Emergencies
Landing Emergencies
Flameout
PFO

Ground Operations
Comm Standards
Short Takeoff
Local Course Rules
CTOL or Slow Landing
Situational Awareness
Communication

Decision Making
Assertiveness
Mission Analysis
Leadership
Adaptability/Flexibility
Debrief

Instructor. CFI(1)

Prerequisite. 0108 (B,C,N), 0106 (R,SC)

SFAM-0110 1.7 * B,C,R,N D S 1 FMS

Goal. Introduce Emergency Procedures 4.

Requirements. Achieve proficiency in emergency procedures associated with the electrical power system (EPS) and power and thermal management system (PTMS). Practice flameout and PFO pattern and procedures.

Performance Standards

Introduce

Brief
Admin
Safety of Flight
STOVL Abort
Ground Emergencies
Takeoff Emergencies
Airborne Emergencies
Landing Emergencies
Flameout
PFO
Ground Operations

Comm Standards
Local Course Rules
CTOL or Slow Landing
Situational Awareness
Communication
Decision Making
Assertiveness
Mission Analysis
Leadership
Adaptability/Flexibility
Debrief

Instructor. CFI(1)

Prerequisite. 0109

SFAM-0111 1.7 * B,C,R,MR,SS,SC,N D S 1 FMS

Goal. Introduce STOVL Pattern 1.

Requirements. Achieve proficiency in 145 KCAS and Minimum Speed Slow Landings (SL) and Rolling Vertical Landings (RVL). IAW VMFAT-501 FAM FSG.

Performance Standards

Introduce

Brief
Admin
Safety of Flight
Short Takeoffs
Outbound Conversion
STOVL Low Approach
Slow Landing
Rolling Vertical Landings
Delta Flight Path Familiarization
Paddles Comm
Fuel Management

MADL/L16 Setup
Comm Standards
Local Course Rules
Situational Awareness
Communication
Decision Making
Assertiveness
Mission Analysis
Leadership
Adaptability/Flexibility
Debrief

Instructor. CFI(1)

Prerequisite. 0110 (B,C,R,N), 0105 (MR,SS), 0109 (SC)

SFAM-0112 1.7 * B,C,R,SC,N D S 1 FMS

Goal. Introduce STOVL Pattern 2.

Requirements. Achieve proficiency in Vertical Landings (VL) and Trundle STOs. IAW VMFAT-501 FAM FSG.

Performance Standards

Introduce	
Brief	MADL/L16 Setup
Admin	Comm Standards
Safety of Flight	Local Course Rules
Trundle STO	Paddles Comm
Outbound Conversion	Situational Awareness
Depart and Re-enter	Communication
Inbound Conversion	Decision Making
STOVL Instrument Approach	Assertiveness
Delayed Hover to waveoff (not required to complete)	Mission Analysis
Vertical Landing (3 to complete)	Leadership
Fuel Management	Adaptability/Flexibility
	Debrief

Instructor. CFI(1)

Prerequisite. 0111

SFAM-0113 1.7 * B,C,R,MR,SS,SC,N D S 1 FMS

Goal. Introduce STOVL Emergency Procedures.

Requirements. Achieve proficiency in STOVL Emergency Procedures. Practice single-ship STOVL takeoffs, patterns and landings. IAW VMFAT-501 FAM FSG.

Performance Standards

Introduce	
Brief	Landing
Admin	Situational Awareness
Safety of Flight	Communication
Creeping VL	Decision Making
Vertical Landings	Assertiveness
CRM	Mission Analysis
STOVL Abort	Leadership
Ground Emergencies	Adaptability/Flexibility
Takeoff Emergencies	Debrief
Airborne Emergencies	

Instructor. CFI(1)

Prerequisite. 0112 (B,C,R,SC,N), 0111 (MR,SS)

SFAM-0114 1.7 * B,C,R,MR,SS,N D S 1 FMS

Goal. Introduce Emergency Procedures 5.

Requirements. Achieve proficiency in emergency procedures associated with the flight control system. IAW VMFAT-501 FAM FSG.

Performance Standards

Introduce

Brief
Admin
Safety of Flight
Abort
Ground Emergencies
Takeoff Emergencies
Airborne Emergencies
Landing Emergencies
Flameout
PFO
Ground Operations

Comm Standards
Local Course Rules
CTOL or Slow Landing
Situational Awareness
Communication
Decision Making
Assertiveness
Mission Analysis
Leadership
Adaptability/Flexibility
Debrief

Instructor. CFI(1)

Prerequisite. 0113

SFAM-0115 1.7 * B,C,R,MR,SS,N D S 1 FMS

Goal. Introduce Emergency Procedures 6.

Requirements. Achieve proficiency in F-35 emergency procedures. Focus on headwork and decision-making based on complex scenarios. IAW VMFAT-501 FAM FSG.

Performance Standards

Introduce

Brief
Admin
Safety of Flight
Abort
Ground Emergencies
Takeoff Emergencies
Airborne Emergencies
Landing Emergencies
Flameout
PFO
Ground Operations

Comm Standards
Local Course Rules
CTOL or Slow Landing
Situational Awareness
Communication
Decision Making
Assertiveness
Mission Analysis
Leadership
Adaptability/Flexibility
Debrief

Instructor. CFI(1)

Prerequisite. 0114

SFAM-0116 1.7 * B,C,R,MR,SS,SC,N D S 1 FMS

Goal. Introduce Emergency Procedures 7.

Requirements. Achieve proficiency in F-35 emergency procedures. Focus on headwork and decision-making based on complex scenarios. IAW VMFAT-501 FAM FSG.

Performance Standards

Introduce

Brief
Admin
Safety of Flight
Abort
Ground Emergencies
Takeoff Emergencies
Airborne Emergencies
Landing Emergencies
Flameout

PFO
Ground Operations
Comm Standards
Local Course Rules
CTOL or Slow Landing
Situational Awareness
Communication
Decision Making
Assertiveness

Mission Analysis
Leadership

Adaptability/Flexibility
Debrief

Instructor. CFI(1)

Prerequisite. 0115, 0113 (SC)

SFAM-0117 1.7 * B,C,N D S 1 FMS

Goal. Practice Instrument Procedures 3.

Requirements. Practice instrument flight procedures. IAW VMFAT-501 FAM FSG.

Performance Standards. IAW CNAF 3710.7 and NAVAIR 00-80T-112

Practice

Brief
Admin
Safety of Flight
RADALT Failure
Instrument Mission Planning
Ground Operations
MADL/L16 Setup
Comm Standards
CTOL Takeoff or STO
Standard Instrument Departure (SID)
Operational Checks
Instrument Turns
Instrument Climbs/Descents
ATC Communication
Airways Navigation
Point to Point Navigation
Fuel Management

Instrument Holding
Instrument Descent / Penetration
Arc to Radial / Radial to Arc
Divert
PAR/ASR Approach
ILS/LOC Approach
Missed Approach
CTOL or Slow Landing
After Landing Checks
Situational Awareness
Communication
Decision Making
Assertiveness
Mission Analysis
Leadership
Adaptability/Flexibility
Debrief

Instructor. CFI(1)

Prerequisite. 0116

SFAM-0118 1.7 * B,C,R,MR,SS,SC,N D S 1 FMS

Goal. Practice Emergency Procedures Validation.

Requirements. Demonstrate proficiency in F-35 emergency procedures. IAW VMFAT-501 FAM FSG.

Performance Standards

Practice

Brief
Admin
Safety of Flight
Ground Operations
Ground Emergencies
CTOL or Short Takeoff
Takeoff Emergencies
Unusual Attitude Recoveries
In-Flight Emergencies
Local Course Rules
Degraded Instrument Approach
CTOL or Slow Landing

Landing Emergencies
PFO
Flameout
Situational Awareness
Communication
Decision Making
Assertiveness
Mission Analysis
Leadership
Adaptability/Flexibility
Debrief

Instructor. FRSI

Prerequisite. 0117 (B,C,N), 0116 (R,MR,SS,SC)

External Resource Requirements. 1 FRSI Observe.

FAM-1100 1.0 * B,C,N A D 1 F-35B

Goal. Introduce Supervised Ground Operations.

Requirements. Introduce pre-flight, ground operations, taxi, post flight and maintenance debrief while supervised. IAW VMFAT-501 FAM FSG.

Performance Standards

Introduce

Brief	Cockpit Interior Checks
Admin	Engine Start
Safety of Flight	PCD Management
OMS Mission Planning	CNI Management
Pre/Post Brief Tasks	Situational Awareness
Ground Operations	Communication
Marshal	Decision Making
Taxi	Assertiveness
Before Takeoff Checks	Mission Analysis
Differential Braking	Leadership
After Landing Ground Operations	Adaptability/Flexibility
Hot Brake Check Procedures	Debrief
Checklist Management	

Instructor. FRSI

Prerequisite. 0063, 0096, 0099, 0118, 0098

External Resource Requirements. Paddles truck and radio.

SFAM-0119 1.7 * B,C,R,MR,SS,N D S 1 FMS

Goal. Practice First Flight Rehearsal.

Requirements. Practice normal operating procedures including takeoffs, patterns, landings, and basic aircraft handling. IAW VMFAT-501 FAM FSG.

Performance Standards

Practice

Brief	Loop
Admin	Unusual Attitude Recovery
Safety of Flight	Air Vehicle Configuration Maneuver
Ground Operations	VFR Recovery Procedures
MADL/L16 Setup	Local Course Rules
Comm Standards	CTOL Visual Straight-In
TOLD	CTOL Low Approach
CTOL Takeoff	CTOL Roll and Go
CTOL Abort	Depart and Re-enter
Standard Instrument Departure	Overhead
Operational Checks	CTOL Full Stop
INS/GPS Navigation	PFO
Fuel Management	Situational Awareness
Level Turns	Communication
Climbs/Descents	Decision Making
Autopilot Fam	Assertiveness
Accel/Decel Maneuver	Mission Analysis
Aileron Roll	Leadership

Adaptability/Flexibility

Debrief

Instructor. CFI(1)

Prerequisite. 1100 (B,C,N), 0099 (R,MR,SS)

External Resource Requirements. 1 CI at the console.

FAM-1101 1.3 * B,C,R,MR,SS,N D A 2 F-35B

Goal. Practice Normal Operations 1 (Chased).

Requirements. Practice normal flight operations. IAW VMFAT-501 FAM FSG.

Performance Standards

Practice

Brief	VFR Recovery Procedures
Admin	Local Course Rules
Safety of Flight	CTOL Visual Straight In
Mission Planning	CTOL Low Approach
Ground Operations	CTOL Roll and Go
CTOL Takeoff	CTOL Full Stop
Standard Instrument Departure (SID)	After Landing Checks
Operational Checks	Situational Awareness
INS/GPS Navigation	Communication
Fuel Management	Decision Making
Level Turns	Assertiveness
Climbs/Descents	Mission Analysis
Autopilot Fam	Leadership
Accel/Decel Maneuver	Adaptability/Flexibility
AV Configuration Maneuver	Debrief

Instructor. FRSI

Prerequisite. 0119. Must be flown within 7 days of SFAM-0119.

Range. RSTD, MOA

External Resource Requirements. This event is student led, FRSI chased. The chase FRSI shall be the same FRSI used for SFAM-0119. Wheels watch (WW) in paddles truck with radio required on station for student landings.

SFAM-0120 1.7 * B,C,N D S 1 FMS

Goal. Practice Second Flight Rehearsal.

Requirements. Practice normal operating procedures including takeoffs, patterns, landings, and basic aircraft handling. IAW VMFAT-501 FAM FSG.

Performance Standards

Practice

Brief	Immelmann
Admin	Split-S
Safety of Flight	Half Cuban-8
Ground Operations	Barrel Roll
MADL/L16 Setup	PFO – Straight in
Comm Standards	PFO – Overhead
CTOL Takeoff (MAX)	VFR Recovery Procedures
Standard Instrument Departure (SID)	Local Course Rules
Operational Checks	Depart and Re-Enter
INS/GPS Navigation	Overhead/Pattern
Fuel Management	Slow Landing

Situational Awareness
Communication
Decision Making
Assertiveness

Mission Analysis
Leadership
Adaptability/Flexibility
Debrief

Instructor. CFI(1)

Prerequisite. 1101

External Resource Requirements. 1 CI at the console.

FAM-1102 1.3 * B,C,N D A 2 F-35B

Goal. Practice Normal Operations 2 (Chased).

Requirements. Second F-35B flight. Emphasize ground and flight administrative tasks, VFR flight and basic aircraft handling in the CTOL and STOVl regimes. IAW VMFAT-501 FAM FSG.

Performance Standards

Practice

Brief
Admin
Safety of Flight
CTOL Takeoff (MAX)
Precision Approach
Non-precision Approach
PFO – Straight in (not required to complete the sortie)
PFO – Overhead (not required to complete the sortie)
HMD-out approach to low approach
CTOL Low Approaches
CTOL Roll and Go
CTOL Full Stop
Mission Planning

Ground Operations
Standard Instrument Departure (SID)
Operational Checks
INS/GPS N-avigation
Fuel Management
VFR Recovery Procedures
Local Course Rules
Situational Awareness
Communication
Decision Making
Assertiveness
Mission Analysis
Leadership
Adaptability/Flexibility
Debrief

Instructor. FRSI

Prerequisite. 0120. Must be flown within 7 days of SFAM-0120.

Range. RSTD, MOA

External Resource Requirements. WW in paddles truck with radio required on station for student landings.

FAM-1103 1.3 * B,C D A 2 F-35B

Goal. Practice Instruments 1 - CTOL (Chased).

Requirements. Practice normal instrument flight operations. IAW VMFAT-501 FAM FSG.

Performance Standards

Practice

Brief
Admin
Safety of Flight
OMS Mission Planning
Instrument Mission Planning
Level Turns
Climbs/Descents
Airways Navigation
ATC Communication

Point to Point Navigation
Instrument Holding
Instrument Descent / Penetration
Arc to Radial / Radial to Arc
ILS/LOC Approach
TACAN Approach
Missed Approach
Depart and Re-enter
Overhead / Pattern

OMS Mission Planning
Ground Operations
Standard Instrument Departure (SID)
Operational Checks
Fuel Management
CTOL Low Approach
CTOL Roll and Go
CTOL Full Stop

Situational Awareness
Communication
Decision Making
Assertiveness
Mission Analysis
Leadership
Adaptability/Flexibility
Debrief

Instructor. FRSI

Prerequisite. 1102

External Resource Requirements. WW in paddles truck with radio required on station for student landings.

FAM-1104 1.3 * B,C D A 2 F-35B

Goal. Practice Instruments 2 - STOVL (Chased).

Requirements. Practice STOVL instrument flight operations. IAW VMFAT-501 FAM FSG.

Performance Standards

Practice

Brief
Admin
Safety of Flight
Short Takeoff
Circling Approach
PAR Approach
STOVL Instrument Approach
Instrument Mission Planning
Ground Operations
Standard Instrument Departure (SID)
Operational Checks
Level Turns
Climbs/Descents
ATC Communication
Airways Navigation
Point to Point Navigation
Fuel Management

Instrument Holding
Instrument Descent / Penetration
Arc to Radial / Radial to Arc
ILS Approach
TACAN Approach
Missed Approach
STOVL Roll and Go
STOVL Low Approach
Slow Landing
Situational Awareness
Communication
Decision Making
Assertiveness
Mission Analysis
Leadership
Adaptability/Flexibility
Debrief

Instructor. FRSI

Prerequisite. 1103

External Resource Requirements. WW in paddles truck with radio required on station for student landings.

FAM-1105 1.3 * R,MR,SS,N D A 2 F-35B

Goal. Practice Instruments 1 & 2 Combination (Chased).

Requirements. Practice CTOL & STOVL instrument flight operations. IAW VMFAT-501 FAM FSG.

Performance Standards

Practice

Brief
Admin
Safety of Flight

Short Takeoff
Circling Approach
PAR Approach

STOVL Instrument Approach
Instrument Mission Planning
Ground Operations
Standard Instrument Departure (SID)
Operational Checks
Level Turns
Climbs/Descents
ATC Communication
Airways Navigation
Point to Point Navigation
Fuel Management
Instrument Holding
Instrument Descent / Penetration
Arc to Radial / Radial to Arc

ILS Approach
TACAN Approach
Missed Approach
STOVL Roll and Go
STOVL Low Approach
Slow Landing
Situational Awareness
Communication
Decision Making
Assertiveness
Mission Analysis
Leadership
Adaptability/Flexibility
Debrief

Instructor. FRSI

Prerequisite. 1102 (N), 1101 (R,MR,SS)

External Resource Requirements. WW in paddles truck with radio required on station for student landings.

SFAM-0121 1.7 * B,C,R,MR,SS,SC,N D S 1 FMS

Goal. Introduce STOVL Pattern.

Requirements. Achieve proficiency in single-ship STOVL takeoffs, patterns and landings. IAW VMFAT-501 FAM FSG.

Performance Standards

Introduce

Brief
Admin
Safety of Flight
STOVL Mission Planning
Ground Operations
Short Takeoff
Outbound Conversion
Inbound Conversion
STOVL Instrument Approach
Slow Landing
STOVL Roll and Go
STOVL Low Approach
Depart and Re-enter
Rolling Vertical Landing

Trundle STO
Delayed Hover
Vertical Landing
Fuel Management
Local Course Rules
Paddles Comm
Situational Awareness
Communication
Decision Making
Assertiveness
Mission Analysis
Leadership
Adaptability/Flexibility
Debrief

Instructor. CFI(1)

Prerequisite. 0120 (B,C,N), 1101 (R,MR,SS), 0125 (SC)

FAM-1107 1.3 * B,C,N D A 1 F-35B

Goal. Practice STOVL Pattern 1.

Requirements. Practice STOVL Approaches and Slow Landings (SL). IAW VMFAT-501 FAM FSG.

Performance Standards

Practice

Brief

Admin

Safety of Flight
Jetborne and Semi-Jetborne
Performance Calculations
Short Takeoff
Outbound Conversion
STOVL Instrument Approach
STOVL Low Approach
Depart and Re-enter
Overhead / Pattern
Inbound Conversion
STOVL Roll and Go
Slow Landing

Fuel Management
Local Course Rules
Paddles Comm
Situational Awareness
Communication
Decision Making
Assertiveness
Mission Analysis
Leadership
Adaptability/Flexibility
Debrief

Instructor. FRSI

Prerequisite. 0121, 1103

External Resource Requirements. Paddles truck and radio

FAM-1108 1.3 * B,C,R,MR,SS,SC,N D A 1 F-35B

Goal. Practice STOVL Pattern 2.

Requirements. Practice STOVL takeoffs, patterns and landings. IAW VMFAT-501 FAM FSG.

Performance Standards

Practice	
Brief	Inbound Conversion
Admin	STOVL Roll and Go
Safety of Flight	Slow Landing
Jetborne and Semi-Jetborne Performance	Fuel Management
Calculations	Local Course Rules
Short Takeoff	Paddles Comm
Outbound Conversion	Situational Awareness
Rolling Vertical Landing	Communication
Trundle STO	Decision Making
Vertical Landing	Assertiveness
STOVL Instrument Approach	Mission Analysis
STOVL Low Approach	Leadership
Depart and Re-enter	Adaptability/Flexibility
Overhead / Pattern	Debrief

Instructor. FRSI

Prerequisite. 1107 (B,C,SC,N), 0121 (R,MR,SS)

External Resource Requirements. Paddles truck and radio

SFAM-0125 1.7 * SC D S 1 FMS

Goal. Introduce Series Conversion First Flight Rehearsal Combination.

Requirements. Achieve proficiency in STOVL takeoffs, pattern and landings. IAW VMFAT-501 FAM FSG.

Performance Standards

Introduce	
Brief	Safety of Flight
Admin	

Jetborne and Semi-Jetborne Performance
Calculations
CTO
Short Takeoff
Outbound Conversion
Trundle STO
Vertical Landing
STOVL Instrument Approach
STOVL Low Approach
Depart and Re-enter
Overhead / Pattern
Inbound Conversion
STOVL Roll and Go

Slow Landing
Fuel Management
Local Course Rules
Paddles Comm
Situational Awareness
Communication
Decision Making
Assertiveness
Mission Analysis
Leadership
Adaptability/Flexibility
Debrief

Instructor. CFI(1)

Prerequisite. 0063, 0096, 0118

External Resource Requirements. 1 CI at the console.

FAM-1110 1.3 * SC D A 1 F-35B

Goal. Practice CTOL/STOVL Combination.

Requirements. Practice STOVL takeoffs, pattern and landings. IAW VMFAT-501 FAM FSG.

Performance Standards

Practice	
Brief	Depart and Re-enter
Admin	Overhead / Pattern
Safety of Flight	Inbound Conversion
Jetborne and Semi-Jetborne Performance	STOVL Roll and Go
Calculations	Slow Landing
CTO	Fuel Management
CTOL Visual Straight-in to low approach	Local Course Rules
(not required to complete)	Paddles Comm
Precautionary Flameout (not required to	Situational Awareness
complete)	Communication
Short Takeoff	Decision Making
Outbound Conversion	Assertiveness
Trundle STO	Mission Analysis
Vertical Landing	Leadership
STOVL Instrument Approach	Adaptability/Flexibility
STOVL Low Approach	Debrief

Instructor. FRSI

Prerequisite. 0125. Must be flown within 7 days of SFAM-0125.

Range. RSTD or MOA

External Resource Requirements. WW in paddles truck with radio required on station for student landings.

SFAM-0122 1.7 * B,C,N D S 1 FMS

Goal. Practice Pre-NATOPS Check.

Requirements. Demonstrate proficiency in normal operations and emergency procedures for the initial NATOPS evaluation. IAW VMFAT-501 FAM FSG.

Performance Standards. IAW CNAF 3710.7

Practice

Brief	CTOL or Slow Landing
Admin	Landing Emergencies
Safety of Flight	Precautionary Flameout
Ground Operations	Flameout
Ground Emergencies	Situational Awareness
CTOL or Short Takeoff	Communication
Takeoff Emergencies	Decision Making
Unusual Attitude Recoveries	Assertiveness
In-Flight Emergencies	Mission Analysis
Local Course Rules	Leadership
Precision Approach	Adaptability/Flexibility
Non-precision Approach	Debrief
Degraded Instrument Approach	

Instructor. CFI(1)

Prerequisite. 1108, 1104 (B,C)

SFAM-0123 1.7 * B,C,R,MR,SS,SC,N D S 1 FMS

Goal. Evaluate NATOPS Check.

Requirements. Demonstrate proficiency in normal operations and emergency procedures for the NATOPS evaluation. IAW VMFAT-501 FAM FSG.

Performance Standards. IAW CNAF M-3710.7

Evaluate

Brief	CTOL or Slow Landing
Admin	Landing Emergencies
Safety of Flight	Precautionary Flameout
Ground Operations	Flameout
Ground Emergencies	Situational Awareness
CTOL or Short Takeoff	Communication
Takeoff Emergencies	Decision Making
Unusual Attitude Recoveries	Assertiveness
In-Flight Emergencies	Mission Analysis
Local Course Rules	Leadership
Precision Approach	Adaptability/Flexibility
Non-precision Approach	Debrief
Degraded Instrument Approach	

Instructor. NATOPS Evaluator/Instructor

Prerequisite. 0122 (B,C,N), 1108 (R,MR,SS,SC)

External Resource Requirements. 1 CI at the console.

SFAM-0124 1.7 * B,C,R,MR,SS,N D S 1 FMS

Goal. Evaluate Instrument Check.

Requirement. Demonstrate proficiency in instrument flight procedures. IAW VMFAT-501 FAM FSG, CNAF 3710.7 and NAVAIR 00-80T-112.

Performance Standards

Evaluate
Brief
Admin
Safety of Flight
Instrument Mission Planning
Ground Operations
MADL/L16 Setup
Comm Standards
CTOL or Short Takeoff
Standard Instrument Departure (SID)
Operational Checks
Instrument Turns
Instrument Climbs/Descents
ATC Communication
Airways Navigation
Point-to-Point Navigation
Fuel Management

Instrument Holding
Instrument Descent/Penetration
Arc to Radial/Radial to Arc
PAR/ASR Approach
ILS/LOC Approach
Missed Approach
CTOL or Slow Landing
After Landing Checks
Situational Awareness
Communication
Decision Making
Assertiveness
Mission Analysis
Leadership
Adaptability/Flexibility
Debrief

Instructor. NATOPS Instrument Evaluator

Prerequisite. 1104 (B,C), 1105 (R,MR,SS,N)

External Resource Requirements. 1 CI at the console.

2.7.2 AIR-TO-AIR REFUELING (AAR)

Purpose. To introduce and qualify an F-35B pilot in AAR operations.

General

An FRSI shall instruct all flight events. Operations shall be conducted in accordance with the Air Refueling NATOPS Manual.

Ground / Academic Training. Read the following:

- a. ATP 3.3.4.2 NATO Std AAR
- b. ATP 3.3.4.2.(D) US SRD
- c. NTP 3-22.3-F-35 Ch 8 Air Refueling
- d. FSD – Air Refueling Procedures, Air Refueling Emergency Procedures, Air Refueling Limitations

STAGE	EVENT	DESCRIPTION	TIME	B	C	R	MR	SS	SC
ACAD	0070	Air-to-Air Refueling	1.0	X					X (F-35A)

Simulator / Flight Events

SAAR-0171 1.7 * B,SC (F-35A only) D/NS S 1 FMS

Goal. Introduce Air-to-Air Refueling.

Requirements. Achieve proficiency in day and night air refueling operations. IAW ATP 3.3.4.2 and the VMFAT-501 AAR FSG.

Performance Standards

Introduce

Brief
Admin
Tac Admin
Safety of Flight
Air Refueling Checklists
Probe and Drogue Refueling

Standardized Tanker Communication
Tanker Rendezvous and Departure
Day Probe and Drogue Refueling
Night Probe and Drogue Refueling
HMD out approach
NVC/DAS Usage

Mission Planning
Fuel Planning
Situational Awareness
Communication
Decision Making

Assertiveness
Mission Analysis
Leadership
Adaptability/Flexibility
Debrief

Instructor. CFI(1)

Prerequisite. 0070

AAR-1171 1.5 * B,SC (F-35A only) D A 2 F-35B

Goal. Practice Air-to-Air Refueling.

Requirements. Practice day air refueling operations. IAW ATP 3.3.4.2 and the VMFAT-501 AAR FSG.

Performance Standards

Practice

Brief
Admin
Tac Admin
Safety of Flight
Air Refueling Checklists
Refueling Positions
Day Probe and Drogue Refueling
Tanker Rendezvous and Departure
HMD out approach (instrument approach)
Mission Planning

Fuel Planning
Situational Awareness
Communication
Decision Making
Assertiveness
Mission Analysis
Leadership
Adaptability/Flexibility
Debrief

Instructor. FRSI

Prerequisite. 0171, 1304

Range. RSTD, MOA, AAR

External Resource Requirements. 1 strategic or tactical tanker.

2.7.3 BASIC TACTICS (BT)

Purpose. Introduce basic and advanced maneuvers in response to a surface-to-air threat in both the low and high altitude environment as well as an air-to-air threat. Conduct initial exposure to section and division formations in addition to introductory and advanced 1vX intercepts using F-35 sensors.

General

An FRSI shall instruct all flight events. Emphasize transitions from high or medium altitude into the low altitude environment, communications, maneuver techniques, sensor interpretation to arrive at a stern conversion, and mutual support. Upon completion of this stage students will learn to use mission cross check times to maintain terrain clearance tasks while operating in the low altitude environment. They will be able to fly in section and division formations. In addition, they will be able to interpret F-35 sensors in order to conduct basic and advanced intercepts against a number of adversaries. This stage shall be flown in an approved overwater range. Currency and altitude restrictions as stated in the NAVMC 3500.14 T&R Program Manual apply.

Ground / Academic Training. Read the following:

- a. NAVMC 3500.14, Aviation Training and Readiness Program Manual, Chapter 3.
- b. NTTP 3-22.3-F35 Combat Aircraft Fundamentals, Chapters 4, 9, and AT02.
- c. NTTP 3-22.1-F35 Tactical Employment, Chapters 1, 2, 3, 4, 12, and 14.
- d. MTTP for Air Control Communication
- e. AFTTP 3-1.Shot Kill.

STAGE	EVENT	DESCRIPTION	TIME	B	C	R	MR	SS	SC
ACAD	0994	Basic Tactics Stage Brief	2.0	X	X	X			
ACAD	0248	Electronic Warfare Systems	3.0	X	X	X			
ACAD	0286	Electronic Surveillance (A/G) / Geolocation	1.5	X	X				
ACAD	0287	Surface Target Fusion	1.0	X	X	X	X		
ACAD	0290	EA PPT	1.0	X	X				
ACAD	0251	Threat Warning Display (TWD)	1.0	X	X	X			
ACAD	0252	Low Observable Fundamentals	1.5	X	X	X			
ACAD	0245	CNI 3 Advanced Communications	2.0	X	X				
ACAD	0246	Battle Space Knowledge	2.0	X	X				
ACAD	0253	Countermeasures	1.5	X	X	X			
ACAD	0235	Low Altitude Fundamentals	1.5	X	X	X			
ACAD	0289	Surface Threat Countertactics	3.0	X	X	X			
ACAD	0236	Mission Data File and MAWTS-1 Threat Countertactics Brief	1.5	X	X				
ACAD	0242	Radar System 3 (A/A Tactical Modes)	2.0	X	X	X			
ACAD	0243	EOTS A/A	1.0	X	X	X			
ACAD	0244	A/A TSD Procedures	1.0	X	X	X			
ACAD	0247	Air Threats	2.0	X	X	X			
ACAD	0249	Electronic Support Measures (A/A)	1.5	X	X	X			
ACAD	0250	Air Track Fusion	1.0	X	X	X			
ACAD	0254	Electronic Attack (A/A)	1.5	X	X	X			
ACAD	0255	AIM-120 AMRAAM	3.0	X	X				
ACAD	0256	Air Threat Countertactics	1.5	X	X	X	X		
ACAD	0257	Basic Intercepts	2.5	X	X	X	X		
ACAD	0259	A/A Mission Planning	2.0	X	X	X	X		
ACAD	0258	Advanced Intercepts (1vX)	3.5	X	X	X	X		
ACAD	0260	Tactical Intercept (TI) Part Task Training	1.0	X	X	X	X		
ACAD	0067	Day Visual/Non-Visual Formation Procedures	1.5	X	X	X			

SBT-0300 1.7 * B D S 1 FMS

Goal. Introduce Surface Threat Countertactics.

Requirements. Introduce threat symbology and surface threat countertactics in both the high and low altitude environment. IAW VMFAT-501 BT FSG.

Performance Standards

Introduce	
Brief	Decision Making
Admin	Assertiveness
Tac Admin	Mission Analysis
Safety	Communication
Threat display interpretation	Leadership
ADA SAM defenses	Adaptability / Flexibility
IR SAM defenses	Situational Awareness
RF SAM defenses	Debrief
Remain above briefed minimum altitude	

Instructor. CFI(1)

Prerequisite. 0236

SBT-0301 1.7 * B D S 1 FMS

Goal. Introduce Low Altitude Fundamentals.

Requirements. Achieve proficiency in transitions to the low altitude environment, low altitude handling characteristics, and maneuvers. IAW VMFAT-501 BT FSG.

Performance Standards

Introduce

Brief
Admin
Tac Admin
Safety
Check turns
Hard turns
Break turns
Small Descent Rule of Thumb
50% Rule
1% Rule
Department of the Navy Dive Recovery
Rules

Remain above briefed minimum altitude
Adherence to mission cross check time
Decision Making
Assertiveness
Mission Analysis
Communication
Leadership
Adaptability / Flexibility
Situational Awareness
Debrief

Instructor. CFI(1)

Prerequisite. 0300

SBT-0302 1.7 * B D S 1 FMS

Goal. Introduce Low Altitude Threat Countertactics.

Requirements. Achieve proficiency in threat countertactics in both the high and low altitude environments, low altitude handling characteristics, and maneuvers. IAW VMFAT-501 BT FSG.

Performance Standards

Introduce

Brief
Admin
Tac Admin
Safety
Hard turns
Break turns
Small Descent Rule of Thumb
50% Rule
1% Rule
Department of the Navy Dive Recovery
Rules
ADA SAM defenses
IR SAM defenses

RF SAM defenses
A/A abort mechanics
Remain above briefed minimum altitude
Adherence to mission cross check time
Decision Making
Assertiveness
Mission Analysis
Communication
Leadership
Adaptability / Flexibility
Situational Awareness
Debrief

Instructor. CFI(1)

Prerequisite. 0301

SBT-0303 1.7 * R D S 1 FMS

Goal. Introduce Low Altitude Fundamentals / Threat Countertactics Combination.

Requirements. Achieve proficiency in transitions to the low altitude environment, threat countertactics in both the high and low altitude environments, low altitude handling characteristics, and maneuvers. IAW VMFAT-501 BT FSG.

Performance Standards

Introduce

Brief
Admin
Tac Admin
Safety

Hard turns
Break turns
Small Descent Rule of Thumb
50% Rule

1% Rule
Department of the Navy Dive Recovery
Rules
ADA SAM defenses
IR SAM defenses
RF SAM defenses
A/A abort mechanics
Remain above briefed minimum altitude
Adherence to mission cross check time

Decision Making
Assertiveness
Mission Analysis
Communication
Leadership
Adaptability / Flexibility
Situational Awareness
Debrief

Instructor. CFI(1)

Prerequisite. 0289

SBT-0304 1.7 * B,C,N D S 2 FMS

Goal. Introduce Two-ship Formation.

Requirements. Achieve proficiency in section formation procedures. IAW VMFAT-501 BT FSG.

Performance Standards

Introduce

Brief
Admin
Tac Admin
Safety
Formation takeoff - Interval
Section Interval Abort
Sensor formation
Sensor formation maneuvering
Cruise formation
Cruise formation maneuvering
Parade formation
Parade formation maneuvering
Crossunder
VFR/IFR Turns
Break-Up and Rendezvous
Underrun
ATC Spread Formation

Eyeball Cal
Overhead / Pattern
HMD Out Approach and Landing
TACAN/Steerpoint/Bullseye
Rendezvous
Formation Instrument Approach
Section Landing
Battle Damage Check
Decision Making
Assertiveness
Mission Analysis
Communication
Leadership
Adaptability / Flexibility
Situational Awareness
Debrief

Instructor. CFI(2)

Prerequisite. 0067

External Resource Requirements. 1 CI at the console.

BT-1304 1.3 * B,C,N A D 2 F-35B

Goal. Practice Two-ship Formation.

Requirements. Practice section formation flight operations. IAW VMFAT-501 BT FSG.

Performance Standards

Practice

Brief
Admin
Tac Admin
Safety
Formation takeoff - Interval
Sensor formation

Sensor formation maneuvering
Cruise formation
Cruise formation maneuvering
Parade formation
Parade formation maneuvering
Crossunder

VFR/IFR Turns
Break-Up and Rendezvous
Underrun
ATC Spread Formation
Eyeball Cal
Overhead / Pattern
HMD Out Approach and Landing
TACAN/Steerpoint/Bullseye Rendezvous
Formation Instrument Approach
Section Landing

Battle Damage Check
Decision Making
Assertiveness
Mission Analysis
Communication
Leadership
Adaptability / Flexibility
Situational Awareness
Debrief

Instructor. FRSI
Prerequisite. 0304
Range. MOA

SBT-0305 1.7 * B D S 1 FMS

Goal. Introduce 1v1 Basic Intercepts 1.

Requirements. Achieve proficiency in basic intercepts against a single aircraft. IAW VMFAT-501 BT FSG.

Performance Standards

Introduce	
Brief	Join with no datalink (unknown altitude and airspeed)
Admin	Recovery
Tac Admin	Decision Making
Safety	Assertiveness
Takeoff	Mission Analysis
Join with datalink and sensors (known altitude and airspeed)	Communication
Join with datalink and sensors (unknown altitude and airspeed)	Leadership
Join with no datalink (known altitude and airspeed)	Adaptability / Flexibility
	Situational Awareness
	Debrief

Instructor. CFI(1)
Prerequisite. 0260, 0304

BT-1305 1.3 * B D A 2 F-35B

Goal. Practice 1v1 Basic Intercepts 1.

Requirements. Practice basic intercepts against a single aircraft. IAW VMFAT-501 BT FSG.

Performance Standards

Practice	
Brief	Join with no datalink (unknown altitude and airspeed)
Admin	Recovery
Tac Admin	Decision Making
Safety	Assertiveness
Takeoff	Mission Analysis
Join with datalink and sensors (known altitude and airspeed)	Communication
Join with datalink and sensors (unknown altitude and airspeed)	Leadership
Join with no datalink (known altitude and airspeed)	Adaptability / Flexibility
	Situational Awareness
	Debrief

Instructor. FRSI

Prerequisite. 0305

Range. AA, MACH 1+

SBT-0306 1.7 * B D S 1 FMS

Goal. Introduce 1vX Advanced Intercepts 1.

Requirements. Achieve proficiency in tactical intercept procedures. Emphasis is placed on basic signature management, basic sensor employment, correct communication, and weapon employment procedures. A minimum of 5 runs, including at least one stern conversion, are required to complete. IAW VMFAT-501 BT FSG.

Performance Standards

Introduce	
Brief	Perform proper intercept mechanics
Admin	and flow decisions
Tac Admin	Perform proper threat reactions
Safety	Decision Making
Perform standardized tactical communications	Assertiveness
Perform proper Air-to-Air sensor and weapon systems setup and usage	Mission Analysis
Perform tactical display management and interpretation	Communication
Perform proper signature management and 3D geometry	Leadership
	Adaptability / Flexibility
	Situational Awareness
	Debrief

Instructor. CFI(1)

Prerequisite. 1305

External Resource Requirements. 1 CI to operate AIC and red air.

SBT-0307 1.7 * B D S 1 FMS

Goal. Introduce 1vX Advanced Intercepts 2.

Requirements. Achieve proficiency in tactical intercept procedures. Emphasis is placed on basic signature management, basic sensor employment, correct communication, and weapon employment procedures. A minimum of 5 runs are required to complete. IAW VMFAT-501 BT FSG.

Performance Standards

Introduce	
Brief	Perform proper intercept mechanics and
Admin	flow decisions
Tac Admin	Perform proper threat reactions
Safety	Decision Making
Perform standardized tactical communications	Assertiveness
Perform proper Air-to-Air sensor and weapon systems setup and usage	Mission Analysis
Perform tactical display management and interpretation	Communication
Perform proper signature management and 3D geometry	Leadership
	Adaptability / Flexibility
	Situational Awareness
	Debrief

Instructor. CFI(1)

Prerequisite. 0306

External Resource Requirements. 1 CI to operate AIC and red air.

SBT-0308 1.7 * B,C,R D S 1 FMS

Goal. Introduce 1vX Advanced Intercepts 3.

Requirements. Achieve proficiency in tactical intercept procedures. Emphasis is placed on basic signature management, basic sensor employment, correct communication, and weapon employment procedures. A minimum of 5 runs are required to complete. IAW VMFAT-501 BT FSG.

Performance Standards

Introduce	
Brief	Perform proper intercept mechanics and
Admin	flow decisions
Tac Admin	Perform proper threat reactions
Safety	Decision Making
Perform standardized tactical	Assertiveness
communications	Mission Analysis
Perform proper Air-to-Air sensor and	Communication
weapon systems setup and usage	Leadership
Perform tactical display management and	Adaptability / Flexibility
interpretation	Situational Awareness
Perform proper signature management	Debrief
and 3D geometry	

Instructor. CFI(1)

Prerequisites. 0307 (B), 1304 (C), 0067 (R)

External Resource Requirements. 1 CI to operate AIC and red air.

BT-1306 1.3 * B D A 2 F-35B

Goal. Practice 1v1 Advanced Intercepts 1.

Requirements. Practice advanced tactical intercept procedures. Emphasis is placed on signature management, advanced sensor employment, correct communication, weapon employment procedures, threat recognition and reactions, and battle space management. A minimum of 3 runs are required to complete. IAW VMFAT-501 BT FSG.

Performance Standards

Practice	
Brief	Perform proper intercept mechanics and
Admin	flow decisions
Tac Admin	Perform proper threat reactions
Safety	Decision Making
Perform standardized tactical	Assertiveness
communications	Mission Analysis
Perform proper Air-to-Air sensor and	Communication
weapon systems setup and usage	Leadership
Perform tactical display management and	Adaptability / Flexibility
interpretation	Situational Awareness
Perform proper signature management	Debrief
and 3D geometry	

Instructor. FRSI

Prerequisite. 0308

Ordnance

ORDNANCE	QUANTITY	ALLOWABLE SUBSTITUTES	NOTES
Virtual CM	N/A	MJU-61/64/66	Virtual CM Preferred

Range. AA, MACH 1+, EXP

BT-1307 1.3 * B D A 2 F-35B

Goal. Practice 1v1 Advanced Intercepts 2.

Requirements. Practice advanced tactical intercept procedures. Emphasis is placed on signature management, advanced sensor employment, correct communication, weapon employment procedures, threat recognition and reactions, and battle space management. A minimum of 3 runs are required to complete. IAW VMFAT-501 BT FSG.

Performance Standards

Practice

Brief	Perform proper intercept mechanics and flow decisions
Admin	Perform proper threat reactions
Tac Admin	Decision Making
Safety	Assertiveness
Perform standardized tactical communications	Mission Analysis
Perform proper Air-to-Air sensor and weapon systems setup and usage	Communication
Perform tactical display management and interpretation	Leadership
Perform proper signature management and 3D geometry	Adaptability / Flexibility
	Situational Awareness
	Debrief

Instructor. FRSI

Prerequisite. 1306

Ordnance

ORDNANCE	QUANTITY	ALLOWABLE SUBSTITUTES	NOTES
Virtual CM	N/A	MJU-61/64/66	Virtual CM Preferred

Range. AA, MACH 1+, EXP

BT-1308 1.3 * C,R D A 2 F-35B

Goal. Practice 1v1 Advanced Intercepts 3.

Requirements. Practice advanced tactical intercept procedures. Emphasis is placed on signature management, advanced sensor employment, correct communication, weapon employment procedures, threat recognition and reactions, and battle space management. A minimum of 3 runs are required to complete. IAW VMFAT-501 BT FSG.

Performance Standards

Practice

Brief	Safety
Admin	Perform standardized tactical communications
Tac Admin	

- Perform proper Air-to-Air sensor and weapon systems setup and usage
- Perform tactical display management and interpretation
- Perform proper signature management and 3D geometry
- Perform proper intercept mechanics and flow decisions
- Perform proper threat reactions

- Decision Making
- Assertiveness
- Mission Analysis
- Communication
- Leadership
- Adaptability / Flexibility
- Situational Awareness
- Debrief

Instructor. FRSI

Prerequisite. 0308

Ordinance

ORDNANCE	QUANTITY	ALLOWABLE SUBSTITUTES	NOTES
Virtual CM	N/A	MJU-61/64/66	Virtual CM Preferred

Range. AA, MACH 1+, EXP

SBT-0309 1.7 * B D S 4 FMS

Goal. Introduce Four-ship Formation.

Requirements. Achieve proficiency in division formation flight operations. IAW VMFAT-501 BT FSG.

Performance Standards

Introduce

- Brief
- Admin
- Tac Admin
- Safety
- Formation takeoff - Interval
- Sensor formation
- Sensor formation maneuvering
- Cruise formation
- Cruise formation maneuvering
- Parade formation
- Parade formation maneuvering
- Crossunder
- VFR/IFR Turns
- Break-Up and Rendezvous
- Underrun

ATC Spread Formation
Eyeball Cal
Overhead / Pattern
HMD Out Approach and Landing
TACAN/Steerpoint/Bullseye
Rendezvous
Formation Instrument Approach
Decision Making
Assertiveness
Mission Analysis
Communication
Leadership
Adaptability / Flexibility
Situational Awareness
Debrief

Instructor. CFI(4)

Prerequisite. 1305

External Resource Requirements. 3 CIs to operate division and console.

BT-1309 1.3 * B D A 4 F-35B

Goal. Practice Four-ship Formation.

Requirements. Practice division formation flight operations. IAW VMFAT-501 BT FSG.

Performance Standards

Practice

Brief
Admin
Tac Admin
Safety
Formation takeoff - Interval
Sensor formation
Sensor formation maneuvering
Cruise formation
Cruise formation maneuvering
Parade formation
Parade formation maneuvering
Crossunder
VFR/IFR Turns
Break-Up and Rendezvous
Underrun

ATC Spread Formation
Eyeball Cal
Overhead / Pattern
HMD Out Approach and Landing
TACAN/Steerpoint/Bullseye Rendezvous
Formation Instrument Approach
Decision Making
Assertiveness
Mission Analysis
Communication
Leadership
Adaptability / Flexibility
Situational Awareness
Debrief

Instructor. FRSI

Prerequisite. 0309

Ordnance

ORDNANCE	QUANTITY	ALLOWABLE SUBSTITUTES	NOTES
MJU-61	24	MJU-64/66	

Range. ACM, MACH 1+, EXP

2.7.4 BASIC FIGHTER MANEUVERS (BFM)

Purpose. To introduce advanced handling, PVI and basic fighter maneuvers in the visual arena against a CAT IV adversary.

General

An ACMI shall instruct all flight events. Introduce E/M diagrams and how they apply to aircraft maneuvering and 1v1 BFM. Introduce Weapon Launch Acceptability Regions (LARs) and shot validation. Introduce Threat capabilities in the visual arena. Develop the requisite skills to fly the aircraft at various speeds, high alpha and high G while maneuvering against an adversary.

Ground / Academic Training

- Review the F-35B EM Diagram
- Review F-35B flight characteristics in the FSD.
- Read NAVMC 3510.14, Aviation Training and Readiness Program Manual, Chapter 4, ACM Rules of Conduct.
- Review OCF procedures.
- Review AIM-120, AIM-9X and Gun min / max range LARs.
- Read NTTP 3-22.3-F35 Combat Aircraft Fundamentals, Chapter 5.
- Read NTTP 3-22.1-F35 Tactical Employment, Chapter 13.

STAGE	EVENT	DESCRIPTION	TIME	B	C	R	MR	SS	SC
ACAD	0995	BFM/ACM Stage Brief	0.5	X	X	X	X		
ACAD	0270	Advanced Handling	1.5	X	X	X	X		
ACAD	0271	Visual Wpns Envelopes/Employment	1.0	X	X	X	X		
ACAD	0272	Offensive BFM	2.5	X	X	X	X		
ACAD	0273	Defensive BFM	3.0	X	X	X	X		
ACAD	0274	High Aspect BFM	2.0	X	X	X	X		

SBFM-0310 1.7 * B,C,MR D S 2 FMS

Goal. Introduce Advanced Handling.

Requirements. Achieve proficiency in advanced handling characteristics maneuvers and out-of-control recovery procedures. IAW VMFAT-501 BFM FSG.

Performance Standards

Introduce	
Brief	High AOA roll response A
Admin	High AOA roll response B
Tac Admin	High AOA roll response C
Safety	Flat scissors
Takeoff	Rolling scissors
Nose high recovery 1	Perform in-flight emergency procedures
Nose high recovery 2	Recovery
Nose low recovery 1	Decision Making
Nose low recovery 2	Assertiveness
Max performance turn	Mission Analysis
Sustained turn performance	Communication
Turning buffet	Leadership
Pedal turn A	Adaptability / Flexibility
Pedal turn B	Situational Awareness
Pedal turn C	Debrief

Instructor. ACMI. (2 Students may be scheduled to split one FMS block time and complete all minor tasks.)

Prerequisite. 0270, 1309 (B)

External Resource Requirements. 1 CI at the console.

BFM-1310 1.3 * B,C D A 2 F-35B

Goal. Practice Advanced Handling.

Requirements. Practice Advanced Handling Characteristics maneuvers and max performance capabilities. IAW VMFAT-501 BFM FSG.

Performance Standards

Practice	
Brief	High AOA roll response B
Admin	High AOA roll response C
Tac Admin	Flat scissors
Safety	Rolling scissors
Takeoff	Recovery
Loop	Decision Making
Max performance turn	Assertiveness
Sustained turn performance	Mission Analysis
Turning buffet	Communication
Pedal turn A	Leadership
Pedal turn B	Adaptability / Flexibility
Pedal turn C	Situational Awareness
High AOA roll response A	Debrief

Instructor. ACMI

Prerequisite. 0310

Ordinance

ORDNANCE	QUANTITY	ALLOWABLE SUBSTITUTES	NOTES
CATM-9X	1		
MJU-61	24	MJU-64, MJU-66	

Range. BFM, EXP

SBFM-0311 1.7 * B,C,R D S 2 FMS

Goal. Introduce Offensive BFM.

Requirements. Introduce Basic Fighter Maneuvers (BFM) starting from an offensive position. Emphasis is on proper application of turn circle theory, out of plane maneuvering, maintaining the offensive advantage, weapons employment, and taking valid shots. IAW VMFAT-501 BFM FSG.

Performance Standards

Introduce	
Brief	Perform OBFM engagement set-up
Admin	procedures
Tac Admin	Perform OBFM fight analysis
Safety	Demonstrate LAR recognition
9k perch	Demonstrate valid shots
6k perch	Decision Making
3k perch	Assertiveness
Attack window entry	Mission Analysis
Capture mechanics	Communication
Misaligned turn circle recognition	Leadership
2 nd turn sphere entry	Adaptability / Flexibility
Redefinition follow mechanics	Situational Awareness
Floor transition	Debrief

Instructor. ACMI. (2 Students may be scheduled to split one FMS block time and complete all minor tasks.)

Prerequisite. 1310 (B,C), 0272 (R)

External Resource Requirements. 1 CI at the console.

BFM-1311 1.3 * B,R D A 2 F-35B

Goal. Introduce Offensive BFM 1.

Requirements. Achieve proficiency in Basic Fighter Maneuvers (BFM) starting from an offensive position. Emphasis is on proper application of turn circle theory, out of plane maneuvering, maintaining the offensive advantage, weapons employment and taking valid shots. IAW VMFAT-501 BFM FSG.

Performance Standards

Introduce	
Brief	Floor transition
Admin	Perform OBFM engagement set-up
Tac Admin	procedures
Safety	Perform OBFM fight analysis
9k perch	Demonstrate LAR recognition
6k perch	Demonstrate valid shots
3k perch	Decision Making
Attack window entry	Assertiveness
Capture mechanics	Mission Analysis
Misaligned turn circle recognition	Communication
2 nd turn sphere entry	Leadership
Redefinition follow mechanics	Adaptability / Flexibility

Situational Awareness

Debrief

Instructor. ACMI

Prerequisites. 0311

Ordnance

ORDNANCE	QUANTITY	ALLOWABLE SUBSTITUTES	NOTES
CATM-9X	1		
MJU-61	24	MJU-64, MJU-66	

Range. BFM, EXP

BFM-1312 1.3 * B D A 2 F-35B

Goal. Practice Offensive BFM 2.

Requirements. Practice Basic Fighter Maneuvers (BFM) starting from an offensive position. Emphasis is on proper application of turn circle theory, out of plane maneuvering, maintaining the offensive advantage, weapons employment and taking valid shots. IAW VMFAT-501 BFM FSG.

Performance Standards

Practice

Brief
Admin
Tac Admin
Safety
9k perch
6k perch
3k perch
Attack window entry
Capture mechanics
Misaligned turn circle recognition
2nd turn sphere entry
Redefinition follow mechanics
Floor transition

Perform OBFM engagement set-up procedures
Perform OBFM fight analysis
Demonstrate LAR recognition
Demonstrate valid shots
Decision Making
Assertiveness
Mission Analysis
Communication
Leadership
Adaptability / Flexibility
Situational Awareness
Debrief

Instructor. ACMI

Prerequisite. 1311

Ordnance

ORDNANCE	QUANTITY	ALLOWABLE SUBSTITUTES	NOTES
CATM-9X	1		
MJU-61	24	MJU-64, MJU-66	

Range. BFM, EXP

SBFM-0313 1.7 * B,C,R D S 2 FMS

Goal. Introduce Defensive BFM.

Requirements. Introduce Basic Fighter Maneuvers (BFM) starting from a defensive position. Emphasis is on recognizing and applying turn circle theory, out of plane maneuvering, recognizing and denying the attacker from weapons employment opportunities, neutralizing the attacker, and separating from or killing the attacker. IAW VMFAT-501 BFM FSG.

Performance Standards

Introduce

Brief
Admin
Tac Admin
Safety
9k perch
6k perch
3k perch
Adherence to DBFM tenets
Defensive break turn
Sensor nose recognition
Redefinition criteria
Redefinition mechanics
Floor transition
Guns defense
Floor reversal timing

Perform DBFM engagement set-up
procedures
Perform DBFM fight analysis
Demonstrate WEZ recognition
Demonstrate effective countermeasure
use
Decision Making
Assertiveness
Mission Analysis
Communication
Leadership
Adaptability / Flexibility
Situational Awareness
Debrief

Instructor. ACMI. (2 Students may be scheduled to split one FMS block time and complete all minor tasks.)

Prerequisite. 0311, 0273

External Resource Requirements. 1 CI at the console.

BFM-1313 1.3 * B,R D A 2 F-35B

Goal. Introduce Defensive BFM 1.

Requirements. Achieve proficiency in Basic Fighter Maneuvers (BFM) starting from a defensive position. Emphasis is on recognizing and applying turn circle theory, out of plane maneuvering, recognizing and denying the attacker from weapons employment opportunities, neutralizing the attacker and separating or killing the attacker. IAW VMFAT-501 BFM FSG.

Performance Standards

Introduce

Brief
Admin
Tac Admin
Safety
9k perch
6k perch
3k perch
Adherence to DBFM tenets
Defensive break turn
Sensor nose recognition
Redefinition criteria
Redefinition mechanics
Floor transition
Guns defense

Floor reversal timing
Perform DBFM engagement set-up
procedures
Perform DBFM fight analysis
Demonstrate WEZ recognition
Demonstrate effective countermeasure use
Decision Making
Assertiveness
Mission Analysis
Communication
Leadership
Adaptability / Flexibility
Situational Awareness
Debrief

Instructor. ACMI

Prerequisite. 0313

Ordnance

ORDNANCE	QUANTITY	ALLOWABLE SUBSTITUTES	NOTES
CATM-9X	1		
MJU-61	24	MJU-64, MJU-66	

Range. BFM, EXP

BFM-1314 1.3 * B D A 2 F-35B

Goal. Practice Defensive BFM 2.

Requirements. Practice Basic Fighter Maneuvers (BFM) starting from a defensive position. Emphasis is on recognizing and applying turn circle theory, out of plane maneuvering, recognizing and denying the attacker from weapons employment opportunities, neutralizing the attacker and separating or killing the attacker. IAW VMFAT-501 BFM FSG.

Performance Standards

Practice

Brief	Floor reversal timing
Admin	Perform DBFM engagement set-up
Tac Admin	procedures
Safety	Perform DBFM fight analysis
9k perch	Demonstrate WEZ recognition
6k perch	Demonstrate effective countermeasure use
3k perch	Decision Making
Adherence to DBFM tenets	Assertiveness
Defensive break turn	Mission Analysis
Sensor nose recognition	Communication
Redefinition criteria	Leadership
Redefinition mechanics	Adaptability / Flexibility
Floor transition	Situational Awareness
Guns defense	Debrief

Instructor. ACMI

Prerequisite. 1313

Ordnance

ORDNANCE	QUANTITY	ALLOWABLE SUBSTITUTES	NOTES
CATM-9X	1		
MJU-61	24	MJU-64, MJU-66	

Range. BFM, EXP

SBFM-0315 1.7 * B,C D S 2 FMS

Goal. Introduce High Aspect BFM.

Requirements. Introduce Basic Fighter Maneuvers (BFM) starting from a neutral position. Emphasis is on denying the bandit the first shot while achieving the first shot opportunity; gaining a positional advantage to employ follow on weapons; separating before becoming defensive and transitioning to OBFM or DBFM as appropriate. IAW VMFAT-501 BFM FSG.

Performance Standards

Introduce

Brief	Unique low-to-high merge
Admin	Unique high-to-low merge
Tac Admin	Unique slow-speed merge
Safety	Unique nose-high counter

Level abeam
Stacked abeam
Medium level butterfly
Low level butterfly
High level butterfly
Winning / Losing assessment
Recognition of OBFM / DBFM transition
Fight redefinition
Recognition of unique merges
Game plan execution
Perform HABFM engagement set up procedures

Perform HABFM fight analysis
Perform valid weapons employment in a HABFM environment
Demonstrate effective countermeasures use
Decision Making
Assertiveness
Mission Analysis
Communication
Leadership
Adaptability / Flexibility
Situational Awareness
Debrief

Instructor. ACMI. (2 Students may be scheduled to split one FMS block time and complete all minor tasks.)

Prerequisite. 0313, 0274

External Resource Requirements. 1 CI at the console.

BFM-1315 1.3 * B,R D A 2 F-35B

Goal. Introduce High Aspect BFM 1.

Requirements. Achieve proficiency in Basic Fighter Maneuvers (BFM) starting from a neutral position. Emphasis is on denying the bandit the first shot while achieving the first shot opportunity, gaining a positional advantage to employ follow on weapons, separating before becoming defensive and transitioning to OBFM or DBFM as appropriate. IAW VMFAT-501 BFM FSG.

Performance Standards

Introduce

Brief
Admin
Tac Admin
Safety
Level abeam
Medium level butterfly
Low level butterfly
High level butterfly
Winning / Losing assessment
Recognition of OBFM / DBFM transition
Fight redefinition
Recognition of unique merges
Game plan execution
Perform HABFM engagement set up procedures

Perform HABFM fight analysis
Perform valid weapons employment in a HABFM environment
Demonstrate effective countermeasures use
Decision Making
Assertiveness
Mission Analysis
Communication
Leadership
Adaptability / Flexibility
Situational Awareness
Debrief

Instructor. ACMI

Prerequisite. 0315 (B), 1313 (R)

Ordnance

ORDNANCE	QUANTITY	ALLOWABLE SUBSTITUTES	NOTES
CATM-9X	1		
MJU-61	24	MJU-64, MJU-66	

Range. BFM, EXP

BFM-1316 1.3 * B D A 2 F-35B

Goal. Practice High Aspect BFM 2.

Requirements. Practice Basic Fighter Maneuvers (BFM) starting from a neutral position. Emphasis is on denying the bandit the first shot while achieving the first shot opportunity, gaining a positional advantage to employ follow on weapons, separating before becoming defensive and transitioning to OBFM or DBFM as appropriate. IAW VMFAT-501 BFM FSG.

Performance Standards

Practice

Brief	Perform HABFM fight analysis
Admin	Perform valid weapons employment in a HABFM environment
Tac Admin	Demonstrate effective countermeasures use
Safety	Decision Making
Level abeam	Assertiveness
Medium level butterfly	Mission Analysis
Low level butterfly	Communication
High level butterfly	Leadership
Winning / Losing assessment	Adaptability / Flexibility
Recognition of OBFM / DBFM transition	Situational Awareness
Fight redefinition	Debrief
Recognition of unique merges	
Game plan execution	
Perform HABFM engagement set up procedures	

Instructor. ACMI

Prerequisite. 1315

Ordnance

ORDNANCE	QUANTITY	ALLOWABLE SUBSTITUTES	NOTES
CATM-9X	1		
MJU-61	24	MJU-64, MJU-66	

Range. BFM, EXP

BFM-1317 1.3 * C D A 2 F-35B

Goal. Introduce BFM.

Requirements. Achieve proficiency in Basic Fighter Maneuvers (BFM) starting from offensive, defensive and high-aspect positions. Emphasis is on proper application of turn circle theory, out of plane maneuvering, maintaining the offensive advantage, weapons employment and taking valid shots, recognizing and denying the attacker from weapons employment opportunities, neutralizing the attacker and separating or killing the attacker, denying the bandit the first shot while achieving the first shot opportunity, gaining a positional advantage to employ follow on weapons, separating before becoming defensive and transitioning to OBFM or DBFM as appropriate. IAW VMFAT-501 BFM FSG.

Performance Standards

Practice

Brief	3k perch
Admin	Attack window entry
Tac Admin	Capture mechanics
Safety	Misaligned turn circle recognition
9k perch	2 nd turn sphere entry
6k perch	Redefinition follow mechanics

Floor transition
Perform OBFM engagement set-up procedures
Perform OBFM fight analysis
Demonstrate LAR recognition
Demonstrate valid shots
Adherence to DBFM tenets
Defensive break turn
Sensor nose recognition
Redefinition criteria
Redefinition mechanics
Floor transition
Guns defense
Floor reversal timing
Perform DBFM engagement set-up procedures
Perform DBFM fight analysis
Demonstrate WEZ recognition
Level abeam
Medium level butterfly
Low level butterfly

High level butterfly
Winning / Losing assessment
Recognition of OBFM / DBFM transition
Fight redefinition
Recognition of unique merges
Game plan execution
Perform HABFM engagement set up procedures
Perform HABFM fight analysis
Perform valid weapons employment in a HABFM environment
Demonstrate effective countermeasures use
Decision Making
Assertiveness
Mission Analysis
Communication
Leadership
Adaptability / Flexibility
Situational Awareness
Debrief

Instructor. ACMI

Prerequisite. 0315

Ordinance

ORDNANCE	QUANTITY	ALLOWABLE SUBSTITUTES	NOTES
CATM-9X	1		
MJU-61	24	MJU-64, MJU-66	

Range. BFM, EXP

2.7.5 TACTICAL INTERCEPTS (TI)

Purpose. To develop proficiency in all-weather tactical intercepts, weapon employment, and PVI in the air-to-air arena.

General

An FRSI shall instruct all flight events. Increase knowledge of air-to-air aircraft systems, weapons, and performance characteristics. Introduce shot validation for air-to-air weapons. Emphasize signature management, mutual support, formation keeping, sensor usage, standardized comm, weapons employment, AIC integration, threat reactions, targeting, and flow decisions. Introduce ACTS debrief ROE. AIC should be utilized to the maximum extent possible.

Ground / Academic Training. Read the following:

- ALSA Comm Brevity
- NTTP 3-22.1-F35 Tactical Employment, Chapters 12 and 14.

STAGE	EVENT	DESCRIPTION	TIME	B	C	R	MR	SS	SC
ACAD	0240	TI Stage Brief	1.0	X	X	X			
ACAD	0263	Section TI Tactics	1.5	X	X	X			
ACAD	0265	Division TI Tactics	1.5	X	X	X			

STI-0317 1.7 * B,R D S 2 FMS

Goal. Introduce 2vX Tactical Intercepts 1.

Requirements. Achieve proficiency in advanced tactical intercept procedures against an unknown number of adversaries. Emphasis is placed on signature management, mutual support, sensor employment, correct communication, targeting decisions, weapon employment procedures, threat recognition and reactions, and battle space management. A minimum of 4 runs are required to complete. IAW VMFAT-501 TI FSG.

Performance Standards

Introduce	
Brief	Perform proper mutual support and targeting
Admin	Perform proper intercept mechanics and flow decisions
Tac Admin	Perform proper threat reactions
Safety	Decision Making
Perform standardized tactical communications	Assertiveness
Perform proper Air-to-Air sensor and weapon systems setup and usage	Mission Analysis
Perform tactical display management and interpretation	Communication
Perform proper signature management and 3D geometry	Leadership
	Adaptability / Flexibility
	Situational Awareness
	Debrief

Instructor. CFI(2)

Prerequisite. 0263, BT and BFM Stages complete

External Resource Requirements. 1 CI at the console.

TI-1318 1.3 * B D A 2 F-35B

Goal. Practice 2vX Tactical Intercepts 1.

Requirements. Practice advanced tactical intercept procedures against an unknown number of adversaries. Emphasis is placed on signature management, mutual support, sensor employment, correct communication, targeting decisions, weapon employment procedures, threat recognition and reactions, and battle space management. A minimum of 3 runs are required to complete. IAW VMFAT-501 TI FSG.

Performance Standards

Practice	
Brief	Perform proper mutual support and targeting
Admin	Perform proper intercept mechanics and flow decisions
Tac Admin	Perform proper threat reactions
Safety	Decision Making
Perform standardized tactical communications	Assertiveness
Perform proper Air-to-Air sensor and weapon systems setup and usage	Mission Analysis
Perform tactical display management and interpretation	Communication
Perform proper signature management and 3D geometry	Leadership
	Adaptability / Flexibility
	Situational Awareness
	Debrief

Instructor. FRSI

Prerequisite. 0317

Ordinance

ORDNANCE	QUANTITY	ALLOWABLE SUBSTITUTES	NOTES
Virtual CM	N/A	MJU-61/64/66	Virtual CM Preferred

Range. AA, TACTS, EXP, MACH 1+

External Resource Requirements. 2 Dissimilar Adversaries, AIC.

STI-0318 1.7 * B,R D S 2 FMS

Goal. Introduce 2vX Tactical Intercepts 2.

Requirements. Achieve proficiency in advanced tactical intercept procedures against an unknown number of adversaries. Emphasis is placed on signature management, mutual support, sensor employment, correct communication, targeting decisions, weapon employment procedures, threat recognition and reactions, and battle space management. A minimum of 4 runs are required to complete. IAW VMFAT-501 TI FSG.

Performance Standards

Introduce	
Brief	Perform proper mutual support and targeting
Admin	Perform proper intercept mechanics and flow decisions
Tac Admin	Perform proper threat reactions
Safety	Decision Making
Perform standardized tactical communications	Assertiveness
Perform proper Air-to-Air sensor and weapon systems setup and usage	Mission Analysis
Perform tactical display management and interpretation	Communication
Perform proper signature management and 3D geometry	Leadership
	Adaptability / Flexibility
	Situational Awareness
	Debrief

Instructor. CFI(2)

Prerequisite. 0317

External Resource Requirements. 1 CI at the console.

TI-1319 1.3 * B D A 2 F-35B

Goal. Practice 2vX Tactical Intercepts 2.

Requirements. Practice advanced tactical intercept procedures against an unknown number of adversaries. Emphasis is placed on signature management, mutual support, sensor employment, correct communication, targeting decisions, weapon employment procedures, threat recognition and reactions, and battle space management. A minimum of 3 runs are required to complete. IAW VMFAT-501 TI FSG.

Performance Standards

Practice	
Brief	Perform proper signature management and 3D geometry
Admin	Perform proper mutual support and targeting
Tac Admin	Perform proper intercept mechanics and flow decisions
Safety	Perform proper threat reactions
Perform standardized tactical communications	Decision Making
Perform proper Air-to-Air sensor and weapon systems setup and usage	Assertiveness
Perform tactical display management and interpretation	Mission Analysis
	Communication

Leadership
Adaptability / Flexibility

Situational Awareness
Debrief

Instructor. FRSI

Prerequisite. 0318

Ordnance

ORDNANCE	QUANTITY	ALLOWABLE SUBSTITUTES	NOTES
Virtual CM	N/A	MJU-61/64/66	Virtual CM Preferred

Range. AA, TACTS, EXP, MACH 1+

External Resource Requirements. 2 Dissimilar Adversaries, AIC.

STI-0319 1.7 * C D S 2 FMS

Goal. Introduce 2vX Tactical Intercepts Combination.

Requirements. Achieve proficiency in advanced tactical intercept procedures against an unknown number of adversaries. Emphasis is placed on signature management, mutual support, sensor employment, correct communication, targeting decisions, weapon employment procedures, threat recognition and reactions, and battle space management. A minimum of 4 runs are required to complete. IAW VMFAT-501 TI FSG.

Performance Standards

Introduce	
Brief	Perform proper mutual support and targeting
Admin	Perform proper intercept mechanics and flow decisions
Tac Admin	Perform proper threat reactions
Safety	Decision Making
Perform standardized tactical communications	Assertiveness
Perform proper Air-to-Air sensor and weapon systems setup and usage	Mission Analysis
Perform tactical display management and interpretation	Communication
Perform proper signature management and 3D geometry	Leadership
	Adaptability / Flexibility
	Situational Awareness
	Debrief

Instructor. CFI(2)

Prerequisite. 0263

External Resource Requirements. 1 CI at the console.

STI-0320 1.7 * B,MR D S 2 FMS

Goal. Introduce 2vX Tactical Intercepts 3.

Requirements. Achieve proficiency in advanced tactical intercept procedures against an unknown number of adversaries. Emphasis is placed on signature management, mutual support, sensor employment, correct communication, targeting decisions, weapon employment procedures, threat recognition and reactions, and battle space management. A minimum of 4 runs are required to complete. IAW VMFAT-501 TI FSG.

Performance Standards

Introduce	
Brief	Safety
Admin	Perform standardized tactical communications
Tac Admin	

Perform proper Air-to-Air sensor and
weapon systems setup and usage
Perform tactical display management and
interpretation
Perform proper signature management
and 3D geometry
Perform proper mutual support and
targeting
Perform proper intercept mechanics and
flow decisions

Perform proper threat reactions
Decision Making
Assertiveness
Mission Analysis
Communication
Leadership
Adaptability / Flexibility
Situational Awareness
Debrief

Instructor. CFI(2)

Prerequisite. 0318 (B), 0310 (MR)

External Resource Requirements. 1 CI at the console.

TI-1320 1.3 * B D A 2 F-35B

Goal. Practice 2vX Tactical Intercepts 3.

Requirements. Practice advanced tactical intercept procedures against an unknown number of adversaries. Emphasis is placed on signature management, mutual support, sensor employment, correct communication, targeting decisions, weapon employment procedures, threat recognition and reactions, and battle space management. A minimum of 3 runs are required to complete. IAW VMFAT-501 TI FSG.

Performance Standards

Practice

Brief
Admin
Tac Admin
Safety
Perform standardized tactical
communications
Perform proper Air-to-Air sensor and
weapon systems setup and usage
Perform tactical display management and
interpretation
Perform proper signature management
and 3D geometry

Perform proper mutual support and
targeting
Perform proper intercept mechanics and
flow decisions
Perform proper threat reactions
Decision Making
Assertiveness
Mission Analysis
Communication
Leadership
Adaptability / Flexibility
Situational Awareness
Debrief

Instructor. FRSI

Prerequisite. 0320

Ordinance

ORDNANCE	QUANTITY	ALLOWABLE SUBSTITUTES	NOTES
Virtual CM	N/A	MJU-61/64/66	Virtual CM Preferred

Range. AA, TACTS, EXP, MACH 1+

External Resource Requirements. 2 Dissimilar Adversaries, AIC.

STI-0321 1.7 * B,R D S 2 FMS

Goal. Introduce 2vX Tactical Intercepts 4 (MFE).

Requirements. Achieve proficiency in advanced tactical intercept procedures against an unknown number of adversaries. Emphasis is placed on signature management, mutual support, sensor employment, correct communication, targeting decisions, weapon employment procedures, threat recognition and reactions, and battle space management. A minimum of 4 runs are required to complete. IAW VMFAT-501 TI FSG.

Performance Standards

Introduce	
Brief	Perform proper mutual support and targeting
Admin	Perform proper intercept mechanics and flow decisions
Tac Admin	Perform proper threat reactions
Safety	Decision Making
Perform standardized tactical communications	Assertiveness
Perform proper Air-to-Air sensor and weapon systems setup and usage	Mission Analysis
Perform tactical display management and interpretation	Communication
Perform proper signature management and 3D geometry	Leadership
	Adaptability / Flexibility
	Situational Awareness
	Debrief

Instructor. ACMI. (2 Students may be scheduled to split one FMS block time and complete all minor tasks.)

Prerequisite. 0320, 0318 (R)

External Resource Requirements. 1 CI at the console.

TI-1321 1.3 * B D A 2 F-35B

Goal. Practice 2vX Tactical Intercepts 4 (MFE).

Requirements. Practice advanced tactical intercept procedures against an unknown number of adversaries. Emphasis is placed on signature management, mutual support, sensor employment, correct communication, targeting decisions, weapon employment procedures, threat recognition and reactions, battle space management, and contingency situations. A minimum of 3 runs are required to complete. IAW VMFAT-501 TI FSG.

Performance Standards

Practice	
Brief	Perform proper mutual support and targeting
Admin	Perform proper intercept mechanics and flow decisions
Tac Admin	Perform proper threat reactions
Safety	Decision Making
Perform standardized tactical communications	Assertiveness
Perform proper Air-to-Air sensor and weapon systems setup and usage	Mission Analysis
Perform tactical display management and interpretation	Communication
Perform proper signature management and 3D geometry	Leadership
	Adaptability / Flexibility
	Situational Awareness
	Debrief

Instructor. ACMI

Prerequisite. 0321

Ordinance

ORDNANCE	QUANTITY	ALLOWABLE SUBSTITUTES	NOTES
Virtual CM	N/A	MJU-61/64/66	Virtual CM Preferred

Range. ACM, TACTS, EXP, MACH 1+

External Resource Requirements. 2 military aggressor squadron adversaries, AIC.

STI-0322 1.7 * B,R D S 4 FMS

Goal. Introduce 4vX Tactical Intercepts 1.

Requirements. Achieve proficiency in advanced tactical intercept procedures against an unknown number of adversaries. Emphasis is placed on signature management, mutual support, sensor employment, correct communication, targeting decisions, weapon employment procedures, threat recognition and reactions, and battle space management. A minimum of 4 runs are required to complete. IAW VMFAT-501 TI FSG.

Performance Standards

Introduce	
Brief	Perform proper mutual support and
Admin	targeting
Tac Admin	Perform proper intercept mechanics and
Safety	flow decisions
Perform standardized tactical	Perform proper threat reactions
communications	Decision Making
Perform proper Air-to-Air sensor and	Assertiveness
weapon systems setup and usage	Mission Analysis
Perform tactical display management and	Communication
interpretation	Leadership
Perform proper signature management	Adaptability / Flexibility
and 3D geometry	Situational Awareness
	Debrief

Instructor. CFI(4)

Prerequisite. 0265 (B), 0318 (R)

External Resource Requirements. 4 CIs required to complete 4-ship and to operate AIC and red air.

TI-1322 1.3 * B D A 4 F-35B

Goal. Practice 4vX Tactical Intercepts 1.

Requirements. Practice advanced tactical intercept procedures against an unknown number of adversaries. Emphasis is placed on signature management, mutual support, sensor employment, correct communication, targeting decisions, weapon employment procedures, threat recognition and reactions, and battle space management. A minimum of 3 runs are required to complete. IAW VMFAT-501 TI FSG.

Performance Standards

Practice	
Brief	Perform proper signature management and
Admin	3D geometry
Tac Admin	Perform proper mutual support and
Safety	targeting
Perform standardized tactical	Perform proper intercept mechanics and
communications	flow decisions
Perform proper Air-to-Air sensor and	Perform proper threat reactions
weapon systems setup and usage	Decision Making
Perform tactical display management and	Assertiveness
interpretation	Mission Analysis
	Communication

Leadership
Adaptability / Flexibility

Situational Awareness
Debrief

Instructor. FRSI

Prerequisite. 0322

Ordnance

ORDNANCE	QUANTITY	ALLOWABLE SUBSTITUTES	NOTES
Virtual CM	N/A	MJU-61/64/66	Virtual CM Preferred

Range. AA, TACTS, EXP, MACH 1+

External Resource Requirements. 1 FRSI in the dash 3 position. 4 Dissimilar Adversary, AIC.

STI-0323 1.7 * B D S 4 FMS

Goal. Introduce 4vX Tactical Intercepts 2.

Requirements. Achieve proficiency in advanced tactical intercept procedures against an unknown number of adversaries. Emphasis is placed on signature management, mutual support, sensor employment, correct communication, targeting decisions, weapon employment procedures, threat recognition and reactions, and battle space management. A minimum of 4 runs are required to complete. IAW VMFAT-501 FSG.

Performance Standards

Introduce	
Brief	Perform proper mutual support and targeting
Admin	Perform proper intercept mechanics and flow decisions
Tac Admin	Perform proper threat reactions
Safety	Decision Making
Perform standardized tactical communications	Assertiveness
Perform proper Air-to-Air sensor and weapon systems setup and usage	Mission Analysis
Perform tactical display management and interpretation	Communication
Perform proper signature management and 3D geometry	Leadership
	Adaptability / Flexibility
	Situational Awareness
	Debrief

Instructor. CFI(4)

Prerequisite. 0322

External Resource Requirements. 4 CIs required to complete 4-ship and to operate AIC and red air.

TI-1323 1.3 * B D A 4 F-35B

Goal. Practice 4vX Tactical Intercepts 2.

Requirements. Practice advanced tactical intercept procedures against an unknown number of adversaries. Emphasis is placed on signature management, mutual support, sensor employment, correct communication, targeting decisions, weapon employment procedures, threat recognition and reactions, and battle space management. A minimum of 3 runs are required to complete. IAW VMFAT-501 TI FSG.

Performance Standards

Practice	
Brief	Safety
Admin	Perform standardized tactical communications
Tac Admin	

Perform proper Air-to-Air sensor and
weapon systems setup and usage
Perform tactical display management and
interpretation
Perform proper signature management
and 3D geometry
Perform proper mutual support and
targeting
Perform proper intercept mechanics and
flow decisions

Perform proper threat reactions
Decision Making
Assertiveness
Mission Analysis
Communication
Leadership
Adaptability / Flexibility
Situational Awareness
Debrief

Instructor. FRSI

Prerequisite. 0323, 1322

Ordinance

ORDNANCE	QUANTITY	ALLOWABLE SUBSTITUTES	NOTES
Virtual CM	N/A	MJU-61/64/66	Virtual CM Preferred

Range. AA, TACTS, EXP, MACH 1+

External Resource Requirements. 1 FRSI in the dash 3 position. 4 Dissimilar Adversary, AIC.

STI-0324 1.7 * MR D S 4 FMS

Goal. Introduce 4vX Tactical Intercepts Combination.

Requirements. Achieve proficiency in advanced tactical intercept procedures against an unknown number of adversaries. Emphasis is placed on signature management, mutual support, sensor employment, correct communication, targeting decisions, weapon employment procedures, threat recognition and reactions, and battle space management. A minimum of 4 runs are required to complete. IAW VMFAT-501 TI FSG.

Performance Standards

Introduce

Brief

Admin

Tac Admin

Safety

Perform standardized tactical
communications

Perform proper Air-to-Air sensor and
weapon systems setup and usage

Perform tactical display management and
interpretation

Perform proper signature management
and 3D geometry

Perform proper mutual support and
targeting

Perform proper intercept mechanics and
flow decisions

Perform proper threat reactions
Decision Making

Assertiveness

Mission Analysis

Communication

Leadership

Adaptability / Flexibility

Situational Awareness

Debrief

Instructor. CFI(4)

Prerequisite. 0320

External Resource Requirements. 4 CIs required to complete 4-ship and to operate AIC and red air.

2.7.6 AIR-TO-SURFACE (AS)

Purpose. Introduce pilots to air-to-surface weapons, ordnance deliveries and PVI in basic air-to-surface skills.

General

An FRSI shall instruct all flight events. Emphasize Pilot Vehicle Interface (PVI), target acquisition, designation techniques, delivery modes, air-to-surface timeline and attack parameters.

Ground / Academic Training

- a. Read ALSA Communication Brevity Manual
- b. Read JP3-09.1 JTTP for Laser Designation Operations

STAGE	EVENT	DESCRIPTION	TIME	B	C	R	MR	SS	SC	N
ACAD	0201	A/S Stage Brief & A/S Missions & Range Operations and Procedures	1.0	X	X	X	X			
ACAD	0203	A/S Symbolology and Display Management	2.0	X	X	X	X			
ACAD	0205	Radar System 2, Active A/S Radar Modes	1.0	X	X	X	X			
ACAD	0206	SAR Map Theory, Pilot Techniques & Procedures	1.5	X	X	X	X			
ACAD	0207	TFLIR/LASER	2.0	X	X	X	X			
ACAD	0208	TFLIR/DAS/NVC A/S Interpretation	1.5	X	X	X				
ACAD	0209	Laser Guided Bombs	2.0	X	X					
ACAD	0210	GPS Guided Bombs	3.0	X	X					
ACAD	0211	Small Diameter Bomb	2.0	X	X					
ACAD	0993	Weapons Preflight Lab	1.0	X	X					
ACAD	0212	Weaponneering / Ballistic Weapons Planner	1.0	X	X					
ACAD	0213	Precision Guided Munitions Planning System (PGMPS)	1.0	X	X					
ACAD	0214	Bomb Hit Assessment (BHA)	1.0	X	X					
ACAD	0215	Basic Air-to-Surface Target Engagement	2.0	X	X	X				
ACAD	0223	A/G OMS Planning Lab	2.0	X	X	X	X			
ACAD	0216	Visual Target Engagement and Dive Deliveries	1.5	X	X	X				
ACAD	0218	Night A/S Employment	1.0	X	X	X	X			
ACAD	0221	GAU-22/A Gun System	1.5	X	X	X	X			
ACAD	0222	Strafe Fundamentals	3.0	X	X	X	X			

SAS-0400 1.7 * B,C S D 1 FMS

Goal. Introduce A/S Sensors (Single-ship).

Requirements. Introduce A/S sensors on the F-35, to include PVI, target acquisition, and shoot list management. IAW VMFAT-501 AS FSG.

Performance Standards

Introduce

Brief	HMD target designation
Admin	Laser spot tracker
Tac Admin	Markpoints
Training Rule Adherence	Time over Steerpoint
Safety of Flight	Situational Awareness
Portal management	Communication
Air-to-Surface systems check	Decision Making
FENCE checks	Assertiveness
Tactical display interpretation	Mission Analysis
Surface target management	Leadership
SAR map procedures	Adaptability/Flexibility
TFLIR procedures	Debrief
MADL target assignment procedures	

Instructor. CFI(2)

Prerequisite. 0287, 0218

SAS-0401 1.7 * B S D 1 FMS

Goal. Introduce SAR Map / GGW Deliveries (Single-ship).

Requirements. Introduce PGMPS planning, SAR map procedures, and JDAM employment. Event concludes with integrated sensor employment (TFLIR and SAR) for target location, ID and JDAM employment. IAW VMFAT-501 AS FSG.

Performance Standards

Introduce	
Brief	Air-to-Surface systems check
Admin	FENCE checks
Tac Admin	Tactical display interpretation
Training Rule Adherence	Surface target management
Safety of Flight	SAR map procedures
Carriage/Release/Jettison planning	TFLIR procedures
ASR Coordinate generation	Situational Awareness
TFLIR Coordinate generation	Communication
GBU-32 employment BOC (POS ABS)	Decision Making
GBU-32 employment BOT (POS REL)	Assertiveness
GBU-32 employment quantity 2 release	Mission Analysis
BOT	Leadership
BDA Phase 1	Adaptability/Flexibility
Hung store procedures	Debrief
Portal management	

Instructor. CFI(2)

Prerequisite. 0400

SAS-0402 1.7 * B S D 2 FMS

Goal. Introduce SAR Map / GGW Deliveries (Section).

Requirements. Achieve proficiency in PGMPS planning, SAR map procedures, and introduce JDAM employment in a section. Event concludes with integrated sensor employment (TFLIR and SAR) for target location, ID and JDAM employment while maintaining briefed formations. IAW VMFAT-501 AS FSG.

Performance Standards

Introduce	
Brief	ASR Coordinate generation
Admin	TFLIR Coordinate generation
Tac Admin	GBU-32 employment BOC (POS ABS)
Training Rule Adherence	GBU-32 employment BOT (POS REL)
Safety of Flight	GBU-32 quantity 2 release
GBU-32 simultaneous employment	BDA Phase 1
MADL Target Assignment	Sensor and visual formations
Carriage/Release/Jettison planning	Situational Awareness
Portal management	Communication
Air-to-Surface systems check	Decision Making
FENCE checks	Assertiveness
Tactical display interpretation	Mission Analysis
Surface target management	Leadership
SAR map procedures	Adaptability/Flexibility
TFLIR procedures	Debrief

Instructor. CFI(2)

Prerequisite. 0401

AS-1401 1.5 * B D A 2 F-35B

Goal. Practice SAR Map / GGW Deliveries (Section).

Requirements. Demonstrate proficiency in PGMPS planning, SAR map procedures, TFLIR procedures, and JDAM employment. IAW VMFAT-501 AS FSG.

Performance Standards

Practice	
Brief	Surface target management
Admin	function/interpretation
Tac Admin	SAR map procedures
Training Rule Adherence	TFLIR procedures
Safety of Flight	Coordinate generation ASR
Ordnance preflight (if available)	Coordinate generation TFLIR
Line operations with ordnance (if available)	GBU-32 weapons delivery BOC (POS ABS)
Range pattern procedures	GBU-32 weapons delivery BOT (POS REL)
Section sensor formations	GBU-32 quantity release
GBU-32 simultaneous release	BDA Phase 1 procedures
PGMPS/JSEAS planning	Situational Awareness
Carriage/Release/Jettison planning	Communication
Display management setup	Decision Making
Air-to-Surface sensor and weapon systems check procedures	Assertiveness
Fence check procedures	Mission Analysis
Section visual formation	Leadership
Tactical display interpretation	Adaptability/Flexibility
	Debrief

Instructor. FRSI

Prerequisite. 0402

Range. RSTD, TGT, LSR

AS-1402 1.5 * B D A 2 F-35B

Goal. Practice TFLIR / LGB Deliveries (Section).

Requirements. Demonstrate proficiency in section LGB employment against land based surface targets following tactical timelines. IAW VMFAT-501 AS FSG.

Performance Standards

Practice	
Brief	Carriage/Release/Jettison planning
Admin	Display management setup
Tac Admin	Air-to-Surface sensor and weapon systems check procedures
Training Rule Adherence	Fence check procedures
Safety of Flight	Section sensor formations
Ordnance preflight (if available)	Section visual formation
Line operations with ordnance (if available)	Tactical display interpretation
Range pattern procedures	Surface target management functions
Weapon release interval (2 min spacing)	SAR map procedures
Laser Spot Tracker handoff	TFLIR procedures
MADL target assignment procedures	GBU-12 weapons deliveries (BOC)
Buddy lase	GBU-12 weapons deliveries (BOT)
JSEAS planning	

Self lase continuous
BDA Phase 1 procedures
Situational Awareness
Communication
Decision Making

Assertiveness
Mission Analysis
Leadership
Adaptability/Flexibility
Debrief

Instructor. FRSI

Prerequisite. 0404

Range. RSTD, TGT, LSR

SAS-0405 1.7 * C,R,MR S D 2 FMS

Goal. Introduce SAR Map / GGW / TFLIR / LGB Combination Deliveries (Section) and 25mm employment.

Requirements. Practice PGMPS planning, SAR map procedures, and achieve proficiency in JDAM employment in a section. Event concludes with integrated sensor employment (TFLIR and SAR) for target location, ID and JDAM employment while maintaining briefed formations. Practice techniques and procedures for carriage and employment of ordnance and TFLIR/Laser operations and introduce section LGB deliveries. Introduce 25mm strafe employment. IAW VMFAT-501 AS FSG.

Performance Standards

Introduce	
Brief	GBU-32 employment BOT (POS REL)
Admin	GBU-32 quantity 2 release
Tac Admin	XMIT via MADL procedures
Training Rule Adherence	Buddy lase procedures
Safety of Flight	GBU-12 employment BOC
GBU-32 simultaneous employment	GBU-12 employment BOT
MADL Target Assignment	25mm strafe employment
Carriage/Release/Jettison planning	Laser spot tracker procedures
Portal management	BDA Phase 1
Air-to-Surface systems check	Sensor and visual formations
FENCE checks	Situational Awareness
Tactical display interpretation	Communication
Surface target management	Decision Making
SAR map procedures	Assertiveness
TFLIR procedures	Mission Analysis
ASR Coordinate generation	Leadership
TFLIR Coordinate generation	Adaptability/Flexibility
GBU-32 employment BOC (POS ABS)	Debrief

Instructor. CFI(2)

Prerequisite. 0400 (C); 0287, 0218 (R, MR)

External Resource Requirements. 1 CI at the console.

AS-1405 1.5 * C,R D A 2 F-35B

Goal. Practice SAR Map / GGW / TFLIR / LGB Combination Deliveries (Section) and 25mm employment.

Requirements. Demonstrate proficiency in PGMPS planning, SAR map procedures, TFLIR procedures, and JDAM employment. Demonstrate proficiency in section LGB employment against land based surface targets following tactical timelines. Demonstrate proficiency in 25mm strafe employment. IAW VMFAT-501 AS FSG.

Performance Standards

Practice

Brief
Admin
Tac Admin
Training Rule Adherence
Safety of Flight
Ordnance preflight (if available)
Line operations with ordnance (if available)
Range pattern procedures
Section sensor formations
GBU-32 simultaneous release
PGMPS/JSEAS planning
Carriage/Release/Jettison planning
Display management setup
Air-to-Surface sensor and weapon systems check procedures
Fence check procedures
Section visual formation
Tactical display interpretation
Surface target management function/interpretation
SAR map procedures
TFLIR procedures
Coordinate generation ASR

Coordinate generation TFLIR
GBU-32 weapons delivery BOC (POS ABS)
GBU-32 weapons delivery BOT (POS REL)
GBU-32 quantity release
Weapon release interval (2 min spacing)
Laser Spot Tracker handoff
MADL target assignment procedures
Buddy lase
GBU-12 weapons deliveries (BOC)
GBU-12 weapons deliveries (BOT)
Self lase continuous
25mm strafe employment
BDA Phase 1 procedures
Situational Awareness
Communication
Decision Making
Assertiveness
Mission Analysis
Leadership
Adaptability/Flexibility
Debrief

Instructor. FRSI

Prerequisite. 0405

Range. RSTD, TGT, LSR

AS-1406 1.5 * B D A 2 F-35B

Goal. Introduce A/S Deliveries.

Requirements. Dedicated A/S delivery sortie. Ordnance delivery required for completion. IAW VMFAT-501 AS FSG.

Performance Standards

Introduce

Brief
Admin
Tac Admin
Training Rule Adherence
Safety of Flight
Ordnance preflight
Line operations with ordnance
Range pattern procedures
PGMPS/JSEAS planning
Carriage/Release/Jettison planning
Display management setup
Air-to-Surface sensor and weapon systems check procedures
Fence check procedures
Section visual formation
Tactical display interpretation

Surface target management function/interpretation
SAR map procedures
TFLIR procedures
Coordinate generation ASR
Coordinate generation TFLIR
GBU-32 weapons delivery BOT
GBU-12 weapons delivery BOT
BDA Phase 1 procedures
Situational Awareness
Communication
Decision Making
Assertiveness
Mission Analysis
Leadership
Adaptability/Flexibility

Debrief

Instructor. FRSI

Prerequisite. 1402, 0993

Ordnance

ORDNANCE	QUANTITY	ALLOWABLE SUBSTITUTES	NOTES
GBU-12 Inert	1		
GBU-32 Inert	1		

Range. RSTD, TGT, LSR, JDAM, LGB, HVY INERT

SAS-0407 1.7 * B D S 1 FMS

Goal. Introduce Day A/S Strafe.

Requirements. Achieve proficiency in day air-to-surface strafe fundamentals. IAW VMFAT-501 AS FSG.

Performance Standards

Introduce	
Brief	Conduct multiple dive and bunt strafe
Admin	runs
Tac Admin	Validate all releases
Training Rule Adherence	Situational Awareness
Safety of Flight	Communication
Plan strafe deliveries IAW weaponeering	Decision Making
SOP	Assertiveness
Perform roll-in and bunt dive deliveries	Mission Analysis
Fence check procedures	Leadership
Tactical display interpretation	Adaptability/Flexibility
Surface target management functions	Debrief

Instructor. CFI(2)

Prerequisite. 0404

AS-1407 1.3 * B D A 2 F-35B

Goal. Practice Day A/S Strafe.

Requirements. Demonstrate Proficiency in day air-to-ground strafe fundamentals. IAW VMFAT-501 AS FSG.

Performance Standards

Practice	
Brief	BDA Phase 1 procedures
Admin	Conduct multiple dive and bunt strafe
Tac Admin	runs
Training Rule Adherence	Validate all releases
Safety of Flight	Situational Awareness
Plan strafe deliveries IAW weaponeering	Communication
SOP	Decision Making
Perform roll-in and bunt dive deliveries	Assertiveness
On deck/airborne admin/tac admin	Mission Analysis
Fence check procedures	Leadership
Tactical display interpretation	Adaptability/Flexibility
Surface target management functions	Debrief

Instructor. FRSI

Prerequisite. 0407

Ordnance

ORDNANCE	QUANTITY	ALLOWABLE SUBSTITUTES	NOTES
PGU-23	220		

Range. RSTD, STRAFE, LSR

2.7.7 ARMED RECONNAISSANCE (AR)

Purpose. To develop proficiency in conducting Armed Reconnaissance missions.

General

An FRSI shall instruct all flight events. Emphasize mission planning, mutual support, target acquisition, target recognition, identification, target area tactics, and information flow through the C3 system.

Ground / Academic Training

- a. Read JP 3-09 Joint Fire Support.
- b. Read JP 3-60 Joint Targeting.

STAGE	EVENT	DESCRIPTION	TIME	B	C	R	MR	SS	SC
ACAD	0996	Mission Phase Academics 1	1.0	X		X			
ACAD	0225	Armed Reconnaissance	2.0	X		X			
ACAD	0997	Armed Reconnaissance Stage Brief	1.0	X		X			

SAR-0408 1.7 * B,R D S 4 FMS

Goal. Introduce Armed Reconnaissance (Division).

Requirements. Introduce Armed Reconnaissance (AR) concepts, tactics, techniques and procedures. IAW VMFAT-501 AR FSG.

Performance Standards

Introduce

Brief	Point Search Pattern
Admin	Area Search Pattern
Tac Admin	SAR Map Procedures
Safety of Flight	Weapon Validation
Comm Checks	Basic Airwork
Mark Point Functionality	Situational Awareness
MADL / L16 Sharing	Communication
TFLIR Functionality	Decision Making
TFLIR Moving Targets	Assertiveness
Target Cataloging	Mission Analysis
GBU-12 Employment	Leadership
GBU-32 Employment	Adaptability/Flexibility
25mm Strafe Employment	Debrief

Instructor. CFI(4)

Prerequisite. 0997

External Resource Requirements. 3 CIs required to complete 4-ship and operate the console.

AR-1408 1.5 * B D A 4 F-35B

Goal. Practice Armed Reconnaissance (Division).

Requirement. Demonstrate proficiency in Armed Reconnaissance (AR) concepts, tactics, techniques and procedures. IAW VMFAT-501 AR FSG.

Performance Standards

Practice

Brief
Admin
Tac Admin
Safety of Flight
Weapon to Target Match
Mark Point Functionality
MADL / L16 Sharing
TFLIR Functionality
TFLIR Moving Targets
Target Cataloging
GBU-12 Employment
GBU-32 Employment
25mm Strafe Employment

Point Search Pattern
Area Search Pattern
SAR Map Procedures
Weapon Validation
Basic Airwork
Situational Awareness
Communication
Decision Making
Assertiveness
Mission Analysis
Leadership
Adaptability/Flexibility
Debrief

Instructor. FRSI

Prerequisite. 0408

Range. MOA

External Resource Requirements. None

2.7.8 CLOSE AIR SUPPORT (CAS)

Purpose. To develop proficiency in the tactical employment of the F-35 in the CAS role during both day and night at medium altitude in a low to medium threat environment.

General

Introduce JTTPs and PVI for CAS under Type 1,2 and 3 terminal attack control in battlefield and urban environments. Deliver PGM and forward firing ordnance on tactical targets in the CAS environment. Employ ordnance using reactive weaponeering principles. Develop signature management mindset and techniques. Pilots will be introduced to the following external agencies: MACCS integration, supporting arms, Joint Terminal Attack Controller (JTAC), Forward Air Controller (FAC), and Forward Air Controller Airborne (FAC(A)).

Ground / Academic Training

- a. Read JP3-09.3, Joint Tactics, Techniques, and Procedures for Close Air Support.
- b. Read NTTP 3-09.2 JFIRE.
- c. Read NTTP 3-22.1-F35 , Close Air Support.

STAGE	EVENT	DESCRIPTION	TIME	B	C	R	MR	SS	SC
ACAD	0230	Close Air Support	2.0	X					
ACAD	0231	CAS Controls and Displays	2.0	X					
ACAD	0232	CAS Techniques and Procedures	2.0	X					
ACAD	0998	CAS Stage Brief	1.0	X		X			

SCAS-0409 1.7 * B D S 1 FMS

Goal. Introduce Close Air Support (Single-ship).

Requirements. Achieve proficiency in CAS under Type 1/2/3 Terminal Control in a non-threat environment. Emphasis on avionics use and on-board sensors to locate and prosecute targets in battlefield CAS scenarios. Minimum of four 9-lines utilizing a TOT shall be executed. Both laser guided and inertially aided munitions should be delivered. IAW VMFAT-501 CAS FSG.

Performance Standards

Introduce

Brief	25mm BOT
Admin	CAS Avionics Use
Tac Admin	Target Acquisition via EOTS
Safety of Flight	Valid Weapon Employment
CAS Planning	Ground-based Laser Attack
CAS Aircraft Initial Check-In	TOT Adherence
CAS 9-Line Readback	Bomb Hit Assessment / Reporting
CAS Communications	Egress Instruction Compliance
Target Correlation	Situational Awareness
Reattack	Communication
CAS Holding – Racetrack	Decision Making
Target Brief / 9-Line via Voice	Assertiveness
Type 2 Control	Mission Analysis
GBU-12 BOC	Leadership
GBU-12 BOT	Adaptability/Flexibility
GBU-32 BOC	Debrief
GBU-32 BOT	

Instructor. CFI(2)

Prerequisite. 0998

SCAS-0410 1.7 * B,R D S 2 FMS

Goal. Introduce Close Air Support (Section).

Requirements. Achieve proficiency in CAS under Type 1/2/3 Terminal Control in a medium threat environment. Emphasis on sensor usage, section target area tactics, and threat counter tactics. Minimum of four 9-lines utilizing a TOT shall be executed. Laser guided, inertially aided, and 25mm munitions should be delivered. IAW VMFAT-501 CAS FSG.

Performance Standards

Introduce

Brief	Type 2 Control
Admin	GBU-12 BOC
Tac Admin	GBU-12 BOT
Safety of Flight	GBU-32 BOC
CAS Formation	GBU-32 BOT
Type 3 Control	25mm BOT
Attack Interval – Simultaneous	CAS Avionics Use
Attack Interval – 60”	Ground-Based Laser Attack
Attack Interval – 120”	TOT Adherence
Laser Handoff / MADL	Bomb Hit Assessment / Reporting
Assignment	Egress Instruction Compliance
CAS Planning	Situational Awareness
CAS 9-Line Readback	Communication
CAS Communications	Decision Making
Target Acquisition via EOTS	Assertiveness
Target Correlation	Mission Analysis
Reattack	Leadership
CAS Holding – Racetrack	Adaptability/Flexibility
Target Brief / 9-Line via Voice	Debrief

Instructor. CFI(2)

Prerequisite. 0409 (B), 0998 (R)

External Resource Requirements. 1 CI as the JTAC at the console.

CAS-1409 1.3 * B D A 2 F-35B

Goal. Practice Close Air Support (Section).

Requirements. Practice section CAS techniques and procedures under Type 1/2/3 Terminal Control in a low threat environment. Emphasis is on avionics use and utilization of on-board sensors to locate and prosecute targets in a battlefield scenario. Standard procedures include check-in / check-out, 9-line use and execution, routing, and target area tactics. Minimum of three 9-lines utilizing a TOT shall be executed. IAW VMFAT-501 CAS FSG.

Performance Standards

Practice

Brief	CAS Holding – Racetrack
Admin	Type 2 Control
Tac Admin	GBU-32 BOC
Safety of Flight	GBU-32 BOT
CAS Communications	25mm BOT
Target Correlation	Egress Instruction Compliance
Target Brief / 9-Line via Voice	Situational Awareness
GBU-12 BOT	Communication
CAS Avionics Use	Decision Making
TOT Adherence	Assertiveness
Bomb Hit Assessment / Reporting	Mission Analysis
CAS Planning	Leadership
CAS 9-Line Readback	Adaptability/Flexibility
Target Acquisition via EOTS	Debrief
Valid Weapon Employment	

Instructor. FRSI

Prerequisite. 0410

Ordnance

ORDNANCE	QUANTITY	ALLOWABLE SUBSTITUTES	NOTES
GBU-12 Inert	1		
GBU-32 Inert	1		
PGU-23	220		
MJU-61	24	MJU-64, MJU-66	

Range. RSTD, LSR, JDAM, LGB, STRAFE, JCAS, HVY INERT, TG-DISP

External Resource Requirements. JTAC, FAC, FAC(A)

CAS-1410 1.3 * B D A 2 F-35B

Goal. Practice Close Air Support (Section).

Requirements. Demonstrate proficiency in CAS techniques and procedures under Type 1/2/3 Terminal Control in a medium threat environment. Minimum of three 9-lines utilizing a TOT shall be executed. IAW VMFAT-501 CAS FSG.

Performance Standards

Practice

Brief	Tactical SAM Threat Considerations
Admin	CAS Formation
Tac Admin	Type 3 Control
Safety of Flight	Laser Handoff / MADL Assign

Ground-Based Laser Attack
TOT Adherence
Bomb Hit Assessment / Reporting
CAS Planning
CAS 9-Line Readback
CAS Communications
Target Acquisition via EOTS
Target Correlation
Valid Weapon Employment
CAS Holding – Racetrack
Target Brief / 9-Line via Voice
Type 2 Control
GBU-12 BOC

GBU-32 BOC
GBU-32 BOT
25mm BOT
Attack Interval – Simultaneous
Attack Interval – 60”
Situational Awareness
Communication
Decision Making
Assertiveness
Mission Analysis
Leadership
Adaptability/Flexibility
Debrief

Instructor. FRSI

Prerequisite. 1409

Ordinance

ORDNANCE	QUANTITY	ALLOWABLE SUBSTITUTES	NOTES
GBU-12 Inert	1		
GBU-32 Inert	1		
PGU-23	220		
MJU-61	24	MJU-64, MJU-66	

Range. RSTD, LSR, JDAM, LGB, STRAFE, JCAS, HVY INERT, TG-DISP

External Resource Requirements. JTAC, FAC, FAC(A).

SCAS-0411 1.7 * B,R D S 2 FMS

Goal. Introduce Urban Close Air Support (Section).

Requirements. Achieve proficiency in Urban CAS techniques and procedures under Type 1/2/3 Terminal Control in a low threat environment. Minimum of three 9-lines utilizing a TOT shall be executed. IAW VMFAT-501 CAS FSG.

Performance Standards

Introduce

Brief
Admin
Tac Admin
Safety of Flight
Tactical SAM Threat Considerations
CAS Formation
Type 3 Control
Laser Handoff / MADL Assign
Ground-Based Laser Attack
TOT Adherence
Bomb Hit Assessment / Reporting
CAS Planning
CAS 9-Line Readback
CAS Communications
Target Acquisition via EOTS
Target Correlation
Valid Weapon Employment

CAS Holding – Racetrack
Target Brief / 9-Line via Voice
Type 2 Control
GBU-12 BOC
GBU-32 BOC
GBU-32 BOT
25mm BOT
Attack Interval – Simultaneous
Attack Interval – 60”
Situational Awareness
Communication
Decision Making
Assertiveness
Mission Analysis
Leadership
Adaptability/Flexibility
Debrief

Instructor. CFI(2)

Prerequisite. 0410

External Resource Requirements. 1 CI as the JTAC at the console.

2.7.9 SUPPRESSION OF ENEMY AIR DEFENSES (SEAD) STAGE

Purpose. To introduce PVI, SEAD weapons, tactics, and F-35B capabilities for the Suppression of Enemy Air Defenses (SEAD).

General

An FRSI shall instruct all flight events. Emphasize SEAD weapon capabilities and limitations, designation techniques, delivery modes, attack parameters and signature management.

Ground / Academic Training. Read the following:

- a. JP 3-13.1 Electronic Warfare.
- b. NTTP 3-22.1-F35 Tactical Employment, Chapters 4 and 11.

STAGE	EVENT	DESCRIPTION	TIME	B	C	R	MR	SS	SC	N
ACAD	0999	Mission Phase Academics 2	1.0	X		X	X			
ACAD	0241	F-35 Fighter Combat Missions	1.5	X		X	X	X		
ACAD	0285	Surface Threats	1.0	X		X	X			
ACAD	0283	Red Air Tactics	1.0	X		X	X			
ACAD	0294	Offboard Support Assets/Capabilities	2.0	X		X	X			
ACAD	0293	SEAD Stage Brief	1.0	X						
ACAD	0288	Electronic Attack (A/S)	1.5	X						
ACAD	0291	SEAD Tactics	2.0	X						
ACAD	0292	D-SEAD Tactics	2.0	X		X				

SSEAD-0501 1.7 * B D S 2 FMS

Goal. Introduce SEAD 1 (Section).

Requirements. Achieve proficiency in section SEAD tactics, specifically CAP management, communication, awareness and prioritization of threats based on briefed timeline. Practice Signature Management against surface threats. IAW VMFAT-501 SEAD FSG.

Performance Standards

Introduce

Brief	Perform proper mutual support
Admin	Perform SEAD tactics
Tac Admin	Decision Making
Safety	Assertiveness
Establish surface threat plan	Mission Analysis
Threat awareness and prioritization	Communication
SEAD communications	Leadership
Cap mechanics	Adaptability / Flexibility
Perform Air-to-Surface signature management tactics	Situational Awareness
	Debrief

Instructor. CFI(2)

Prerequisite. 0291

External Resource Requirements. 1 CI at the console.

SSEAD-0502 1.7 * B D S 4 FMS

Goal. Introduce SEAD 2 (Division).

Requirements. Achieve proficiency in division SEAD tactics, specifically CAP management, communication, awareness and prioritization of threats based on briefed timeline. Practice Signature Management against surface threats. IAW VMFAT-501 SEAD FSG.

Performance Standards

Introduce	
Brief	Perform SEAD tactics
Admin	Decision Making
Tac Admin	Assertiveness
Safety	Mission Analysis
Threat awareness and prioritization	Communication
SEAD communications	Leadership
Cap mechanics	Adaptability / Flexibility
Perform Air-to-Surface signature management tactics	Situational Awareness
Perform proper mutual support	Debrief

Instructor. CFI(4)

Prerequisite. 0501

External Resource Requirements. 3 CIs required to complete 4-ship.

SSEAD-0503 1.7 * B D S 2 FMS

Goal. Introduce SEAD 3 (Section).

Requirements. Achieve proficiency in section destructive SEAD tactics. Practice communication and Signature Management against surface threats. IAW VMFAT-501 SEAD FSG.

Performance Standards

Introduce	
Brief	Perform SEAD tactics
Admin	Perform target attacks
Tac Admin	Decision Making
Safety	Assertiveness
Establish surface threat plan	Mission Analysis
Threat recognition and prioritization	Communication
Perform Air-to-Surface signature management tactics	Leadership
Perform proper mutual support	Adaptability / Flexibility
SEAD communications	Situational Awareness
	Debrief

Instructor. CFI(2)

Prerequisite. 0502

External Resource Requirements. 1 CI at the console.

SSEAD-0504 1.7 * B,R D S 4 FMS

Goal. Introduce SEAD 4 (Division).

Requirements. Achieve proficiency in division destructive SEAD tactics. Practice communication and Signature Management against surface threats. IAW VMFAT-501 SEAD FSG.

Performance Standards

Introduce

Brief
Admin
Tac Admin
Safety
Establish surface threat plan
Threat recognition and prioritization
Perform Air-to-Surface signature
management tactics
Perform proper mutual support
SEAD communications

Perform SEAD tactics
Perform target attacks
Decision Making
Assertiveness
Mission Analysis
Communication
Leadership
Adaptability / Flexibility
Situational Awareness
Debrief

Instructor. CFI(4)

Prerequisite. 0503 (B), 0292 (R)

External Resource Requirements. 3 CIs required to complete 4-ship.

SEAD-1501 1.3 * B D A 4 F-35B

Goal. Practice SEAD 5 (Division).

Requirement. Practice division destructive SEAD tactics, specifically CAP management, communication, awareness and prioritization of threats based on briefed timeline in addition to system destruction. Practice Signature Management against surface threats. IAW VMFAT-501 SEAD FSG.

Performance Standards

Practice

Brief
Admin
Tac Admin
Safety
Establish surface threat plan
Threat recognition and prioritization
Perform Air-to-Surface signature
management tactics
Perform proper mutual support
SEAD communications

Perform SEAD tactics
Perform target attacks
Decision Making
Assertiveness
Mission Analysis
Communication
Leadership
Adaptability / Flexibility
Situational Awareness
Debrief

Instructor. FRSI

Prerequisite. 0504

Ordnance.

ORDNANCE	QUANTITY	ALLOWABLE SUBSTITUTES	NOTES
Virtual CM	N/A	MJU-61/64/66	Virtual CM Preferred

Range. MOA, RSTD, EXP, EW, HIFI EW, SRSAM, MRSAM

2.7.10 ANTI-AIR WARFARE (AAW)

Purpose. To introduce the employment of the F-35B in Offensive Anti-Air Warfare/Offensive Combat Air (OAAW/OCA) and Active Air Defense/Defensive Combat Air (AAD/DCA) missions.

General

An FRSI shall instruct all flight events. Emphasize mission planning, mutual support, knowledge of air-to-air weapons and tactics, signature management, sensor usage, mutual support, standardized communication, external

support integration, timeline and situational awareness, and decision making. AIC should be utilized to the maximum extent possible. If co-located with AIC controllers, a face-to-face brief and debrief should be conducted for all engagements.

Ground / Academic Training

STAGE	EVENT	DESCRIPTION	TIME	B	C	R	MR	SS	SC	N
ACAD	0992	AT Stage Brief	1.0	X		X				
ACAD	0280	OCA Tactics	1.5	X		X				
ACAD	0281	DCA Tactics	1.5	X		X				

SAAW-0600 1.7 * B D S 2 FMS

Goal. Introduce Section DCA.

Requirements. Achieve proficiency in Active Air Defense in a Defensive Counter Air (DCA) against an unknown number of adversaries. IAW VMFAT-501 AAW FSG.

Performance Standards

Introduce

Brief	3D geometry
Admin	Timeline adherence
Tac Admin	FEZ management
Training Rule Adherence	PHID Not Solved Execution
Safety of Flight	CAP Setup/Maintenance
Section DCA L&L and L&D targeting and tactics	Threat reaction
Signature management	Situational Awareness
Sensor management	Communication
Proper independent fighter decisions	Decision Making
Clear, concise, effective tactical communication	Assertiveness
Valid AIM-120 employment	Mission Analysis
Tactical display management	Leadership
	Adaptability/Flexibility
	Debrief

Instructor. CFI(4)

Prerequisite. 0281

External Resource Requirements. 2 CIs to operate AIC and red air at the console.

SAAW-0601 1.7 * B,R,SC D S 4 FMS

Goal. Introduce DCA.

Requirements. Achieve proficiency in Active Air Defense in a Defensive Counter Air (DCA) against an unknown number of adversaries. IAW VMFAT-501 AAW FSG.

Performance Standards

Introduce

Brief	Proper independent fighter decisions
Admin	Clear, concise, effective tactical communication
Tac Admin	Valid AIM-120 employment
Training Rule Adherence	Tactical display management
Safety of Flight	3D geometry
Division DCA L&L and L&D targeting and tactics	Timeline adherence
Signature management	FEZ management
Sensor management	PHID Not Solved Execution

CAP Setup/Maintenance
Threat reaction
Situational Awareness
Communication
Decision Making

Assertiveness
Mission Analysis
Leadership
Adaptability/Flexibility
Debrief

Instructor. CFI(4)

Prerequisite. 0600(B), 0281 (R,SC)

External Resource Requirements. 4 CIs to complete 4-ship and operate AIC and red air from the console.

SAAW-0602 1.7 * B,R D S 4 FMS

Goal. Introduce Division OCA Screen.

Requirements. Achieve proficiency in Anti-Air Warfare in an Offensive Counter Air (OCA) sweep role against an unknown number of adversaries. IAW VMFAT-501 AAW FSG.

Performance Standards

Introduce

Brief
Admin
Tac Admin
Training Rule Adherence
Safety of Flight
Division OCA Sweep L&L and L&D
targeting and tactics
OCA Sweep mission planning
Strike package integration
SEZ adherence
BARCAP management
Signature management
Sensor management
Proper independent fighter decisions
Clear, concise, effective tactical
communication

Valid AIM-120 employment
Tactical display management
3D geometry
Timeline adherence
PHID Not Solved Execution
Threat reaction
Situational Awareness
Communication
Decision Making
Assertiveness
Mission Analysis
Leadership
Adaptability/Flexibility
Debrief

Instructor. CFI(4)

Prerequisite. 0280

External Resource Requirements. 4 CIs to complete 4-ship and operate AIC and red air from the console.

AAW-1601 1.3 * B D A 4 F-35B

Goal. Practice Division DCA.

Requirements. Practice Active Air Defense in a Defensive Counter Air (DCA) role against an unknown number of adversaries. IAW VMFAT-501 AAW FSG.

Performance Standards

Practice

Brief
Admin
Tac Admin
Training Rule Adherence
Safety of Flight

Division DCA L&L and L&D targeting
and tactics
Signature management
Sensor management
Proper independent fighter decisions

Clear, concise, effective tactical communication
Valid AIM-120 employment
Tactical display management
3D geometry
Timeline adherence
FEZ management
PHID Not Solved Execution
CAP Setup/Maintenance
Adaptability/Flexibility
Debrief

Threat reaction
Valid Weapons Employment
Situational Awareness
Communication
Decision Making
Assertiveness
Mission Analysis
Leadership

Instructor. FRSI

Prerequisite. 0601

Ordnance

ORDNANCE	QUANTITY	ALLOWABLE SUBSTITUTES	NOTES
Virtual CM	N/A	MJU-61/64/66	Virtual CM Preferred

Range. AA, TACTS, EXP, MACH 1+

External Resource Requirements. 1 FRSI in the dash 3 position. 4+ Dissimilar Adversaries, AIC.

AAW-1602 1.3 * B D A 4 F-35B

Goal. Practice Division OCA Sweep.

Requirement. Practice Anti-Air Warfare in an Offensive Counter Air (OCA) sweep role against an unknown number of adversaries. IAW VMFAT-501 AAW FSG.

Performance Standards

Practice

Brief
Admin
Tac Admin
Training Rule Adherence
Safety of Flight
Division OCA Sweep L&L and L&D
targeting and tactics
OCA Sweep mission planning
Strike package integration
SEZ adherence
BARCAP management
Signature management
Sensor management
Proper independent fighter decisions
Clear, concise, effective tactical communication

Valid AIM-120 employment
Tactical display management
3D geometry
Timeline adherence
PHID Not Solved Execution
Threat reaction
Situational Awareness
Communication
Decision Making
Assertiveness
Mission Analysis
Leadership
Adaptability/Flexibility
Debrief

Instructor. FRSI

Prerequisite. 0602

Ordnance

ORDNANCE	QUANTITY	ALLOWABLE SUBSTITUTES	NOTES
Virtual CM	N/A	MJU-61/64/66	Virtual CM Preferred

Range. AA, TACTS, EXP, MACH 1+, EW, SRSAM, MRSAM

External Resource Requirements. 1 FRSI in the dash 3 position. 4+ Dissimilar Adversaries, AIC

2.7.11 NIGHT OPERATIONS (NO)

Purpose. To qualify the PUI in overall F-35B night operations. Major areas of focus are night conventional takeoff and landing, night STOVL takeoff and landing, night instrument procedures, night Emergency Procedures, night formation, night air-to-surface employment, and night air-to-air employment.

General. An FRSI shall instruct all flight events. A Night Systems Instructor (NSI) shall instruct all events included in the Night Systems (NS) qualification.

Ground Academic Events

STAGE	EVENT	DESCRIPTION	TIME	B	C	R	MR	SS	SC	N
ACAD	0065	Night Systems and Operations	1.0	X	X	X			X	X
ACAD	0066	Night Lab	4.0	X	X	X			X	X
ACAD	0069	Night Formation	1.0	X	X	X				X
ACAD	0264	Night Air-to-Air Employment	1.5	X	X	X				

SNO-0700 1.7 * B N S 1 FMS

Goal. Introduce Night Normal Operations.

Requirements. Achieve proficiency in night normal operations, night basic handling exercises, and night instruments. IAW VMFAT-501 NO FSG.

Performance Standards

Introduce

Brief	Night Overhead
Admin	HMD out Landing
Tac Admin	CTOL Full Stop
Safety	Short Takeoff
CTOL Takeoff	Vertical Landing
Standard Instrument Departure (SID)	After Landing Ground Operations
Operational Checks	CRM
NVC/DAS orientation	Decision Making
30/45 degree level turns	Assertiveness
G-Warm	Mission Analysis
3G/350 KCAS Turns	Communication
Air Vehicle Configuration Maneuver	Leadership
TACAN Approach (CTOL) to a Low Approach	Adaptability/Flexibility
PAR Approach to Roll and Go	Situational Awareness
Depart and Re-Enter	Debrief

Instructor. CFI(1)

Prerequisite. 0066

SNO-0701 1.7 * C,R,MR,N N S 2 FMS

Goal. Introduce Night Normal / Formation Operations.

Requirements. Achieve proficiency in night normal operations, night basic handling exercises, night formation flying, and night instruments. IAW VMFAT-501 NO FSG.

Performance Standards

Introduce

Brief
Admin
Tac Admin
Safety
Interval Takeoff
Sensor Trail Departure
Operational Checks
NVC/DAS Demo
Running Rendezvous
Parade/Cruise Position
Level turns (30-45 degree level turns)
G-Warm
Lead Change
Break-up and Rendezvous
Night Tanker Rendezvous (Bullseye
Rendezvous)
Air Vehicle Configuration Maneuver
TACAN Approach (CTOL) to a Low
Approach

PAR Approach
Depart and Re-Enter
Night Overhead
HMD-Out Landing
Night VFR Landing Pattern
CTOL Full Stop
Short Takeoff
Vertical Landing
After Landing Ground Operations
CRM
Decision Making
Assertiveness
Mission Analysis
Communication
Leadership
Adaptability/Flexibility
Situational Awareness
Debrief

Instructor. CFI(2)

Prerequisite. 0066

External Resource Requirements. 1 CI at the console

NO-1700 1.3 * B N A 2 F-35B

Goal. Practice Night Normal Operations.

Requirements. Demonstrate proficiency in night normal operations, night basic handling exercises, and night instruments. IAW VMFAT-501 NO FSG.

Performance Standards

Practice

Brief
Admin
Tac Admin
Safety
CTOL Interval Takeoff
Standard Instrument Departure (SID)
Operational Checks
NVC/DAS orientation
30/45 degree level turns
G-Warm
3G/350 KCAS Turns
Air Vehicle Configuration Maneuver
TACAN Approach (CTOL) to a Low
Approach
PAR Approach low approach

Depart and Re-Enter
Night Overhead
Roll and Go
Night VFR landing Pattern
CTOL Full Stop
After Landing Ground Operations
CRM
Decision Making
Assertiveness
Mission Analysis
Communication
Leadership
Adaptability/Flexibility
Situational Awareness
Debrief

Instructor. NSI

Prerequisite. 0700

Range. MOA

External Resource Requirements. Wheels watch in paddles truck with a radio on station for student landings.

NO-1701 1.3 * C,R,MR,N N A 2 F-35B

Goal. Practice Night Normal / Formation Operations.

Requirements. Demonstrate proficiency in night normal operations, night basic handling exercises, night formation flying, and night instruments. IAW VMFAT-501 NO FSG.

Performance Standards

Practice

Brief	TACAN Approach (CTOL) to a Low
Admin	Approach
Tac Admin	PAR Approach
Safety	Depart and Re-Enter
Interval Takeoff	Night Overhead
Sensor Trail Departure	Night VFR Landing Pattern
Operational Checks	CTOL Full Stop
Night Systems Usage	After Landing Ground Operations
Running Rendezvous	CRM
Parade/Cruise Position	Decision Making
Level turns (30-45 degree level turns)	Assertiveness
G-Warm	Mission Analysis
Lead Change	Communication
Break-up and Rendezvous	Leadership
Night Tanker Rendezvous (Bullseye	Adaptability/Flexibility
Rendezvous)	Situational Awareness
Air Vehicle Configuration Maneuver	Debrief

Instructor. NSI

Prerequisite. 0701, 0069

Range. MOA

External Resource Requirements. Wheels watch in paddles truck with a radio on station for student landings.

SNO-0702 1.7 * B,C,R,MR,SC,N N S 1 FMS

Goal. Introduce Night STOVL Pattern 1.

Requirements. Achieve proficiency in STOVL takeoffs, STOVL patterns and STOVL landings at night. IAW VMFAT-501 NO FSG.

Performance Standards

Introduce

Brief	Rolling Vertical Landing
Admin	Night Considerations
Tac Admin	After Landing Ground Operations
Safety	CRM
Short Takeoff	Decision Making
STOVL Precision Approach	Assertiveness
STOVL Low Approach	Mission Analysis
STOVL Roll and Go	Communication
Slow Landing	Leadership
BSTO	Adaptability/Flexibility
Outbound Conversion	Situational Awareness
Depart and Re-enter	Debrief
Inbound Conversion	

Instructor. CFI(1)

Prerequisite. 1700 (B), 1701 (C,R,MR,N), 0065 (SC)

SNO-0703 1.7 * B,C,R,MR,SC,N N S 1 FMS

Goal. Introduce Night STOV L Pattern 2.

Requirements. Achieve proficiency in night vertical landings and trundle STOs. IAW VMFAT-501 NO FSG.

Performance Standards

Introduce

Brief	STOV L Instrument Approach
Admin	After Landing Ground Operations
Tac Admin	CRM
Safety	Decision Making
Trundle STO	Assertiveness
Delayed Hover to wave-off	Mission Analysis
Vertical Landing	Communication
Outbound Conversion	Leadership
Depart and Re-enter	Adaptability/Flexibility
Inbound Conversion	Situational Awareness
Vertical Landings	Debrief

Instructor. CFI(1)

Prerequisite. 0702

NO-1703 1.3 * B,C,R,MR,SC,N N A 1 F-35B

Goal. Practice Night STOV L Pattern.

Requirements. Demonstrate proficiency in night SSTO, BSO, SL, RVL and VL. IAW VMFAT-501 NO FSG.

Performance Standards

Practice

Brief	RVL
Admin	Trundle STO
Tac Admin	Delayed Hover to wave-off
Safety	Vertical Landing
Night Systems Usage	After Landing Ground Operations
BSTO	CRM
SL Low Approach	Decision Making
Outbound conversion	Assertiveness
Depart and Re-enter	Mission Analysis
Overhead	Communication
Inbound Conversion	Leadership
100 KCAS SL low approach	Adaptability/Flexibility
80 KCAS SL	Situational Awareness
BSTO	Debrief

Instructor. NSI

Prerequisite. 0703

External Resource Requirements. Paddles truck and radio.

SNO-0704 1.7 * B N S 2 FMS

Goal. Introduce Night Section Formation.

Requirements. Achieve proficiency in night section formation. IAW VMFAT-501 NO FSG.

Performance Standards

Introduce

Brief
Admin
Tac Admin
Safety
Interval Takeoff
Sensor Tail Departure
ATC Spread
G-Warm
Non-Visual Formation Drill
Running Rendezvous
Parade Position
30 degree level turns
Cruise Maneuvering
30/45 degree turns
Lead Change
Break Up and Rendezvous
Tanker Rendezvous (Bullseye

Rendezvous)

Air Vehicle Configuration Maneuver
TACAN Approach
PAR Approach
CTOL Roll and Go
Night Overhead
CTOL Landing
After Landing Ground Operations
CRM
Decision Making
Assertiveness
Mission Analysis
Communication
Leadership
Adaptability/Flexibility
Situational Awareness
Debrief

Instructor. CFI(2)

Prerequisite. 0069

External Resource Requirements. 1 CI at the console.

NO-1704 1.3 * B N A 2 F-35B

Goal. Practice Night Section Formation.

Requirements. Demonstrate proficiency in night section formation. IAW VMFAT-501 NO FSG.

Performance Standards

Practice

Brief
Admin
Tac Admin
Safety
Interval Takeoff
Sensor Tail Departure
ATC Spread
G-Warm
Non-Visual Formation Drill
Running Rendezvous
30/45 degree level turns
Break Up and Rendezvous
Tanker Rendezvous (Bullseye
Rendezvous)

TACAN Approach
PAR Approach
CTOL Landing
After Landing Ground Operations
CRM
Decision Making
Assertiveness
Mission Analysis
Communication
Leadership
Adaptability/Flexibility
Situational Awareness
Debrief

Instructor. NSI

Prerequisite. 0704

Range. MOA

NO-1772 1.5 * B N A 2 F-35B

Goal. Practice Night Air-to-Air Refueling.

Requirements. Demonstrate proficiency in night AAR operations. IAW ATP 3.3.4.2 and the VMFAT-501 NO FSG.

Performance Standards

Practice

Brief
Admin
Tac Admin
Safety
Interval Takeoff
Sensor Tail Departure
Perform tanker rejoin and aerial
refueling
Perform probe and drogue air refueling
Perform standardized communications

CRM
Decision Making
Assertiveness
Mission Analysis
Communication
Leadership
Adaptability/Flexibility
Situational Awareness
Debrief

Instructor. FRSI

Prerequisite. 1704

Range. RSTD, MOA, AAR

External Resource Requirements. 1 strategic or tactical tanker.

SNO-0705 1.7 * B N S 2 FMS

Goal. Introduce Night Air-to-Surface.

Requirements. Achieve proficiency in PGMPs planning, SAR/TFLIR map procedures, JDAM and LGB deliveries at night. IAW VMFAT-501 NO FSG.

Performance Standards

Introduce

Brief
Admin
Tac Admin
Safety
Airborne TACADMIN
ASSC
TFLIR Procedures
SAR Map Procedures
Coordinate Generation
GBU-32 weapons delivery
GBU-12 weapons delivery

BDA Procedures
Night Recovery
CRM
Decision Making
Assertiveness
Mission Analysis
Communication
Leadership
Adaptability/Flexibility
Situational Awareness
Debrief

Instructor. CFI(2)

Prerequisite. 1407, 1703, 1704

External Resource Requirements. 1 CI at the console.

NO-1705 1.3 * B N A 2 F-35B

Goal. Practice Night Air-to-Surface.

Requirements. Practice PGMPs planning, SAR/TFLIR map procedures, JDAM and LGB deliveries at night. IAW VMFAT-501 NO FSG.

Performance Standards

Practice

Brief	BDA Procedures
Admin	Night Recovery
Tac Admin	CRM
Safety	Decision Making
Night Systems Usage	Assertiveness
ASSC	Mission Analysis
TFLIR Procedures	Communication
SAR Map Procedures	Leadership
Coordinate Generation	Adaptability/Flexibility
GBU-32 weapons delivery	Situational Awareness
GBU-12 weapons delivery	Debrief

Instructor. NSI

Prerequisite. 0705

Range. RSTD, LSR, TGT-DISP

SNO-0706 1.7 * B N S 2 FMS

Goal. Introduce Night Strafe.

Requirements. Achieve proficiency in 25mm strafe deliveries at night. IAW VMFAT-501 NO FSG.

Performance Standards

Introduce

Brief	CRM
Admin	Decision Making
Tac Admin	Assertiveness
Safety	Mission Analysis
Airborne TACADMIN	Communication
ASSC	Leadership
TFLIR Procedures	Adaptability/Flexibility
25mm Strafe Attacks	Situational Awareness
BDA Procedures	Debrief
Night Recovery	

Instructor. CFI(2)

Prerequisite. 0705

External Resource Requirements. 1 CI at the console.

NO-1706 1.3 * B N A 2 F-35B

Goal. Practice Night Strafe.

Requirements. Practice 25mm strafe deliveries at night. IAW VMFAT-501 NO FSG.

Performance Standards

Practice

Brief	ASSC
Admin	TFLIR Procedures
Tac Admin	25mm Strafe Attacks
Safety	BDA Procedures
Night Systems Usage	Night Recovery

CRM
Decision Making
Assertiveness
Mission Analysis
Communication

Leadership
Adaptability/Flexibility
Situational Awareness
Debrief

Instructor. NSI

Prerequisite. 0706, 1705

Ordnance

ORDNANCE	QUANTITY	ALLOWABLE SUBSTITUTES	NOTES
PGU-23	220		

Range. RSTD, STRAFE, LSR, TGT-DISP

SNO-0707 1.7 * C,R N S 2 FMS

Goal. Introduce Night Air-to-Surface and Night Strafe.

Requirements. Achieve proficiency in PGMPs planning, SAR/TFLIR map procedures, JDAM and LGB deliveries at night and 25mm strafe deliveries at night. IAW VMFAT-501 NO FSG.

Performance Standards

Introduce

Brief
Admin
Tac Admin
Safety
Airborne TACADMIN
ASSC
TFLIR Procedures
SAR Map Procedures
Coordinate Generation
GBU-32 weapons delivery
GBU-12 weapons delivery
25mm Strafe Attacks

BDA Procedures
Night Recovery
CRM
Decision Making
Assertiveness
Mission Analysis
Communication
Leadership
Adaptability/Flexibility
Situational Awareness
Debrief

Instructor. CFI(2)

Prerequisite. 1405, 1703, 0069

External Resource Requirements. 1 CI at the console.

NO-1707	1.3	*	C,R	N	A	2 F-35B
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Goal. Practice Night Air-to-Surface and Night Strafe.

Requirements. Practice PGMPs planning, SAR/TFLIR map procedures, JDAM and LGB deliveries at night, and 25mm strafe at night. IAW VMFAT-501 NO FSG.

Performance Standards

Practice

Brief
Admin
Tac Admin
Safety
Night Systems Usage

ASSC
TFLIR Procedures
SAR Map Procedures
Coordinate Generation
GBU-32 weapons delivery

- GBU-12 weapons delivery
- 25mm Strafe Attacks
- BDA Procedures
- Night Recovery
- CRM
- Decision Making
- Assertiveness

Mission Analysis
Communication
Leadership
Adaptability/Flexibility
Situational Awareness
Debrief

Instructor. NSI

Prerequisite. 0707

Range. RSTD, LSR, TGT-DISP

SNO-0708 1.7 * B N S 2 FMS

Goal. Introduce Night Armed Reconnaissance.

Requirements. Achieve proficiency in section night AR concepts, techniques and procedures. IAW VMFAT-501 NO FSG.

Performance Standards

Introduce

- Brief
- Admin
- Tac Admin
- Safety
- ASSC
- Check-In Comm procedures
- SAR MAP Procedures
- Armed Reconnaissance Procedures
- GMTI
- Inflight Report

- CRM
- Decision Making
- Assertiveness
- Mission Analysis
- Communication
- Leadership
- Adaptability/Flexibility
- Situational Awareness
- Debrief

Instructor. CFI(2)

Prerequisite. 1705, 1706

External Resource Requirements. 1 CI at the console.

NO-1708 1.3 * B N A 2 F-35B

Goal. Practice Night Armed Reconnaissance.

Requirements. Demonstrate proficiency in section Night AR concepts, techniques and procedures. IAW VMFAT-501 NO FSG.

Performance Standards

Practice

- Brief
- Admin
- Tac Admin
- Safety
- ASSC
- Check-In Comm procedures
- SAR MAP Procedures
- Armed Reconnaissance Procedures

GMTI
MADL/L16 Sharing
Target Cataloging
GBU-12 Employment
GBU-32 Employment
Search Patterns
Inflight Report
CRM

Decision Making
Assertiveness
Mission Analysis
Communication

Leadership
Adaptability/Flexibility
Situational Awareness
Debrief

Instructor. FRSI

Prerequisite. 0708

Range. RSTD, LSR, TGT-DISP

SNO-0709 1.7 * B N S 2 FMS

Goal. Introduce Night Close Air Support (Section).

Requirements. Achieve proficiency in section night CAS concepts, techniques and procedures using VMF. IAW VMFAT-501 NO FSG.

Performance Standards

Introduce

Brief
Admin
Tac Admin
Safety
CAS Communications
VMF Procedures
Tac Admin
Target Correlation
Weapons Employment
BOT GBU-32
BOC GBU-32
BOT GBU-12

BOC GBU-12
Type 3
CRM
Decision Making
Assertiveness
Mission Analysis
Communication
Leadership
Adaptability/Flexibility
Situational Awareness
Debrief

Instructor. CFI(2)

Prerequisite. 1705, 1706

External Resource Requirements. 1 CI at the console.

NO-1709 1.3 * B N A 2 F-35B

Goal. Practice Night Close Air Support (Section).

Requirements. Practice section night CAS concepts, techniques and procedures. IAW VMFAT-501 NO FSG.

Performance Standards

Practice

Brief
Admin
Tac Admin
Safety
CAS Communications
Target Correlation
Weapons Employment
BOT GBU-32
BOC GBU-32
BOT GBU-12
BOC GBU-12

Mutual support
TOT
CRM
Decision Making
Assertiveness
Mission Analysis
Communication
Leadership
Adaptability/Flexibility
Situational Awareness
Debrief

Instructor. FRSI

Prerequisite. 0709

Range. RSTD, LSR, TGT-DISP

External Resource Requirements. JTAC, FAC, FAC(A), or FRSI at TCTS Facility.

SNO-0710 1.7 * B,C,R N S 1 FMS

Goal. Introduce Night 1v1 Tactical Intercepts.

Requirements. Achieve proficiency in tactical intercept procedures at night. Emphasis is placed on Night Systems procedures, basic signature management, basic sensor employment, correct communication, and weapons employment procedures. A minimum of 5 runs required to complete. IAW VMFAT-501 NO FSG.

Performance Standards

Introduce

Brief	L/L Mechanics
Admin	L/D Mechanics
Tac Admin	CRM
Safety	Decision Making
Comm Check in	Assertiveness
NVC/DAS usage	Mission Analysis
AIC Comm	Communication
Timeline Awareness	Leadership
Sensor Management	Adaptability/Flexibility
Weapons Employment	Situational Awareness
Threat Reactions	Debrief

Instructor. CFI(1)

Prerequisites. 0264

External Resource Requirements. 1 CI as AIC and red air at the console.

NO-1710 1.3 * B,C,R N A 2 F-35B

Goal. Practice Night 1v1 Tactical Intercepts.

Requirements. Practice tactical intercept procedures at night. Emphasis is placed on Night Systems procedures, basic signature management, basic sensor employment, correct communication, and weapons employment procedures. IAW VMFAT-501 NO FSG.

Performance Standards

Practice

Brief	L/L Mechanics
Admin	L/D Mechanics
Tac Admin	CRM
Safety	Decision Making
Comm Check in	Assertiveness
Night Systems Usage	Mission Analysis
AIC Comm	Communication
Timeline Awareness	Leadership
Sensor Management	Adaptability/Flexibility
Weapons Employment	Situational Awareness
Threat Reactions	Debrief

Instructor. NSI

Prerequisite. 0710

Ordnance

ORDNANCE	QUANTITY	ALLOWABLE SUBSTITUTES	NOTES
MJU-64	24	MJU-61, MJU-66	

Range. AA, TACTS, EXP, MACH 1+

SNO-0711 1.7 * B,C N S 2 FMS

Goal. Introduce Night 2v2 Tactical Intercepts.

Requirements. Achieve proficiency at tactical intercept procedures as a section at night. Emphasis is placed on Night Systems procedures, mutual support, signature management, sensor employment, correct communication, targeting decisions weapons employment procedures. A minimum of 4 runs required to complete. IAW VMFAT-501 NO FSG.

Performance Standards

Introduce

Brief	L/D Mechanics
Admin	Cold Ops
Tac Admin	Re-Attack Mechanics
Safety	CRM
Comm Check in	Decision Making
NVC/DAS usage	Assertiveness
AIC Comm	Mission Analysis
Timeline Awareness	Communication
Sensor Management	Leadership
Weapons Employment	Adaptability/Flexibility
Threat Reactions	Situational Awareness
L/L Mechanics	Debrief

Instructor. CFI(2)

Prerequisite. 1710

External Resource Requirements. 1 CI as AIC and red air at the console.

NO-1711 1.3 * B,C N A 4 F-35B

Goal. Practice Night 2v2 Tactical Intercepts.

Requirements. Practice tactical intercept procedures as a section at night. Emphasis is placed on Night Systems procedures, mutual support, signature management, sensor employment, correct communication, targeting decisions weapons employment procedures. Flown as a 4-ship with role reversals and similar adversaries. A minimum of 2 runs required to complete. IAW VMFAT-501 NO FSG.

Performance Standards

Practice

Brief	Timeline Awareness
Admin	Sensor Management
Tac Admin	Weapons Employment
Safety	Threat Reactions
Comm Check in	L/L Mechanics
Night S	L/D Mechanics
AIC Comm	Cold Ops

Re-Attack Mechanics
CRM
Decision Making
Assertiveness
Mission Analysis

Communication
Leadership
Adaptability/Flexibility
Situational Awareness
Debrief

Instructor. NSI

Prerequisite. 0711

Ordnance

ORDNANCE	QUANTITY	ALLOWABLE SUBSTITUTES	NOTES
MJU-64	24	MJU-61, MJU-66	

Range. AA, TACTS, EXP, MACH 1+

External Resource Requirements. AIC.

SNO-0712 1.7 * B N S 4 FMS

Goal. Introduce Division Night Strategic Attack.

Requirements. Achieve proficiency in division deep interdiction against enemy tactical formations and capabilities at night. The enemy tactical formations are deployed with organic surface-to air defenses, tactical SAM and ADA. Air defense fighters may be employed in defense of enemy surface forces. IAW VMFAT-501 NO FSG.

Performance Standards

Introduce

Brief
Admin
Tac Admin
Training Rule Adherence
Safety of Flight
Division Target Area Tactics
Interdiction Planning
Route Planning
SEAD Planning
Threat Intel assessment
Air to Surface Task List Planning
Weaponizing Assigned Target
Air To Surface Task List Execution
Target Acquisition
Target Area Tactics
Targeting IAW Brief
Valid AIM-120 Employment IAW
Brief
SAR Map Execution
Valid Coordinate Generation

Valid Passing Of Coordinates Via
MADL
Valid A/S Employment
Air To Air Timeline Adherence
Threat Reactions (A/A and S/A)
Surface To Air Timeline Adherence
EA Employment IAW Brief
Mutual Support IAW Brief (A/A, and
S/A)
Signature Management
CRM
Decision Making
Assertiveness
Mission Analysis
Communication
Leadership
Adaptability/Flexibility
Situational Awareness
Debrief

Instructor. CFI(4)

Prerequisite. 1711, 0901

External Resource Requirements. 4 CIs to complete 4-ship and operate AIC and red air from the console.

2.7.12 FIELD CARRIER LANDING PRACTICE (FCLP)

Purpose. Introduce procedures for day and night carrier operations aboard an L-Class vessel.

General

An LSO-qualified FRSI shall instruct all flight events. Emphasis on STOVL shipboard procedures and operations. All events shall be conducted at a simulated L-Class ship equipped with an optical landing system

Ground / Academic Training

- a. Read STOVL Shipboard and LSO NATOPS Manual.
- b. Read LHA/LHD/MCS NATOPS Manual.

STAGE	EVENT	DESCRIPTION	TIME	B	C	R	MR	SS	SC
ACAD	0084	Shipboard Principles	2.0	X		X			
ACAD	0085	FCLP (Day)	1.5	X		X			
ACAD	0086	FCLP (Night)	1.0	X		X			
ACAD	0087	CQ Operations (Day)	1.8	X		X			
ACAD	0088	CQ Operations (Night)	1.7	X		X			
ACAD	0089	CQ Operations (Case III)	1.3	X		X			

SFCLP-0801 1.7 * B,R D S 1 FMS

Goal. Introduce Day FCLP (Case I, II, III).

Requirements. Introduce Field Carrier Landing Practice (FCLP) and L-Class Shipboard Operations for day Case I, II, and III operations. IAW VMFAT-501 FCLP FSG.

Performance Standards

Introduce	
Brief	F-35B L-class recovery procedures
Admin	F-35B L-class shipboard contingencies day
Tac Admin	F-35B L-class landing procedures
Safety	F-35B L-class shipboard contingencies day
Day LHA FCLP departure/arrival procedures	CRM
LSO voice command directives	Decision Making
Day LHA FCLP landing procedures	Assertiveness
F-35B L-class launch procedures	Mission Analysis
F-35B L-class departure procedures	Communication
F-35B L-class recovery procedures	Leadership
F-35B L-class Case II recovery procedures	Adaptability/Flexibility
F-35B L-class Case III recovery procedures	Situational Awareness
	Debrief

Instructor. LSO

Prerequisite. 0089

External Resource Requirements. 1 CI at the console.

SFCLP-0802 1.7 * B N S 1 FMS

Goal. Introduce Night FCLP (Case I, III).

Requirements. Introduce Field Carrier Landing Practice (FCLP) and L-Class Shipboard Operations at night. IAW VMFAT-501 FCLP FSG.

Performance Standards

Introduce	
Brief	LSO voice command directives
Admin	Night LHA FCLP landing procedures
Tac Admin	F-35B L-class launch procedures
Safety	F-35B L-class departure procedures
Night LHA FCLP departure/arrival procedures	F-35B L-class recovery procedures

F-35B L-class Case III recovery
procedures
F-35B L-class recovery procedures
F-35B L-class shipboard contingencies
day
F-35B L-class landing procedures
F-35B L-class shipboard contingencies
day
CRM

Decision Making
Assertiveness
Mission Analysis
Communication
Leadership
Adaptability/Flexibility
Situational Awareness
Debrief

Instructor. LSO

Prerequisite. 0801

External Resource Requirements. 1 CI at the console.

2.7.13 STRIKE (STK)

Purpose. To introduce and develop proficiency in conducting Air Interdiction (AI) / Strike missions.

General

An FRSI shall instruct all flight events. Emphasize mission planning, tactical decision making, mutual support and target acquisition / destruction.

Ground / Academic Training

STAGE	EVENT	DESCRIPTION	TIME	B	C	R	MR	SS	SC	N
ACAD	0295	Strike Tactics	2.0	X		X				
ACAD	0297	Advanced Route Planning	3.0	X		X				
ACAD	0991	STK Stage Brief	1.0	X		X				

SSTK-0901 1.7 * B,R D S 4 FMS

Goal. Introduce Division Strategic Attack.

Requirement. Introduce division deep interdiction against enemy tactical formations and capabilities. The enemy tactical formations are deployed with organic surface-to air defenses, tactical SAM and AAA. Air defense fighters may be employed in defense of enemy surface forces. IAW VMFAT-501 STK FSG.

Performance Standards

Introduce

Brief
Admin
Tac Admin
Training Rule Adherence
Safety of Flight
Division Target Area Tactics
Interdiction Planning
Route Planning
SEAD Planning
Threat Intel assessment
Air to Surface Task List Planning
Weaponering Assigned Target
Air To Surface Task List Execution
Target Acquisition
Target Area Tactics
Targeting IAW Brief
Valid AIM-120 Employment IAW
Brief

SAR Map Execution
Valid Coordinate Generation
Valid Passing Of Coordinates Via
MADL
Valid A/S Employment
Air To Air Timeline Adherence
Threat Reactions (A/A and S/A)
Surface To Air Timeline Adherence
EA Employment IAW Brief
Mutual Support IAW Brief (A/A, and
S/A)
Signature Management
Mission Accomplishment
Situational Awareness
Communication
Decision Making
Assertiveness
Mission Analysis

Leadership
Adaptability/Flexibility

Debrief

Instructor. CFI(4)

Prerequisites. 0991

External Resource Requirements. 4 CIs to complete 4-ship and operate AIC and red air from the console.

STK-1901 1.3 * B D A 4 F-35B

Goal. Practice 4vX Strategic Attack.

Requirements. Practice division deep interdiction against enemy tactical formations and capabilities. The enemy tactical formations are deployed with organic surface-to air defenses, tactical SAM and AAA. Air defense fighters may be employed in defense of enemy surface forces. IAW VMFAT-501 STK FSG.

Performance Standards

Practice

Brief
Admin
Tac Admin
Training Rule Adherence
Safety of Flight
Division Target Area Tactics
Interdiction Planning
Route Planning
SEAD Planning
Threat Intel assessment
Air to Surface Task List Planning
Weaponing Assigned Target
Air To Surface Task List Execution
Target Acquisition
Target Area Tactics
Targeting IAW Brief
Valid AIM-120 Employment IAW Brief
SAR Map Execution
Valid Coordinate Generation

Valid Passing Of Coordinates Via
MADL
Valid A/S Employment
Air To Air Timeline Adherence
Threat Reactions (A/A and S/A)
Surface To Air Timeline Adherence
EA Employment IAW Brief
Mutual Support IAW Brief (A/A, and
S/A)
Signature Management
Mission Accomplishment
Situational Awareness
Communication
Decision Making
Assertiveness
Mission Analysis
Leadership
Adaptability/Flexibility
Debrief

Instructor. FRSI

Prerequisite. 0901

Ordnance

ORDNANCE	QUANTITY	ALLOWABLE SUBSTITUTES	NOTES
GBU-32 Inert	1		
Virtual CM	N/A	MJU-61/64/66	Virtual CM Preferred

Range. RSTD, AA, TACTS, EXP, MACH 1+, EW, HIFI EW, SRSAM, MRSAM, LSR, COMPLEX, JDAM

External Resource Requirements. 1 FRSI in the dash 3 position. 4+ Dissimilar Adversaries, AIC.

2.8 CORE PHASE

Purpose. To reinforce or introduce the operational fleet standards for F-35 employment in Core Phase Stages. Pilots proficient in this phase should be capable of basic F-35 employment.

General. The following Stages are included in the Core Phase of training.

Core Phase Overview

CORE PHASE		
STAGE	PARAGRAPH	PAGE NUMBER
FAM	2.9.1	2-90
AS	2.9.2	2-91
BFM	2.9.3	2-94
TI	2.9.4	2-96
LAT	2.9.5	2-98
SEAD	2.9.6	2-99
AAR	2.9.7	2-100

Admin Notes. Designated events shall initially be flown with a Lightning Tactics Instructor (LTI). Flight event length depicts F-35B flight time. Flight event length for F-35C is 1.8 hours.

2.9 CORE STAGES

2.9.1 FAMILIARIZATION (FAM)

Purpose. To ensure pilots regularly review F-35 normal and emergency procedures (EPs). Flights in this stage should focus on basic aircraft control, aerodynamics, handling qualities, and mission systems familiarization. Additionally, FAM is designed for warm-up sorties.

Admin Notes. F-35C events shall be waived for F-35B pilots and vice versa.

FAM Overview

FAMILIARIZATION (FAM) STAGE							
EVENT	TIME	PROFICIENCY PERIOD	POI	COND	DEVICE	NUM	DESCRIPTION
SFAM-2101	1.5	End of Month	B, R, M	(N)	S	1	F-35B Emergency Procedures
SFAM-2102	1.5	End of Month	B, R, M	(N)	S	1	F-35C Emergency Procedures
FAM-2103	1.3	30	B, R, M	(N)	A	1	Fam / Nav / Inst

Prerequisites. Academic syllabus IAW the MAWTS-1 F-35 Course Catalog.

SFAM-2101 1.5 30 B,R,M (N) S 1 FMS

Goal. Review Familiarization, Navigation, Instrument and Emergency Procedures for the F-35B.

Requirements. Execute normal and emergency procedures in CTOL and STOVL IAW FSD, the SOP for USMC F-35 Flight Operations, and local directives.

Performance Standards

Review

Admin
Safety of Flight
Normal Operations
Emergency Procedures

Instructor. SL or CIP

Prerequisites. 8200, 8201

External Resource Requirements. 1 CI at the console.

SFAM-2102 1.5 30 B,R,M (N) S 1 FMS

Goal. Review Familiarization, Navigation, Instrument and Emergency Procedures for the F-35C.

Requirements. Execute normal and emergency procedures in IAW FSD, the SOP for USMC F-35 Flight Operations, and local directives.

Performance Standards

Review

Admin

Safety of Flight
Normal Operations
Emergency Procedures

Instructor. SL or CIP

Prerequisites. 8200, 8201

External Resource Requirements. 1 CI at the console.

FAM-2103 1.3 30 B,R,M (N) A 1 F-35

Goal. Review Familiarization, Navigation and Instrument Procedures.

Requirements. Execute normal procedures, basic aircraft control, aerodynamics, handling qualities, mission systems familiarization, CTOL and/or STOVL takeoffs and landings, local course rules, basic aircraft handling characteristics, mission systems, and instrument approaches.

Performance Standards

Review

Admin
Safety of Flight
Normal Operations

Prerequisites. 2101 (F-35B) or 2102 (F-35C)

2.9.2 AIR-TO-SURFACE (AS)

Purpose. To build upon a foundation of F-35 air-to-surface (AS) ordnance delivery in all weather conditions.

General. Upon completion, the PUI should be able to effectively and consistently deliver AS munitions in the mission skills phase and should have a solid understanding of ordnance preflight, emergency procedures, tac admin, delivery methods, system limitations, and employment techniques.

AS Overview

AIR-TO-SURFACE (AS) STAGE							
EVENT	TIME	PROFICIENCY PERIOD	POI	COND	DEVICE	NUM	DESCRIPTION
SAS-2201	1.5	730	B,R	D/NS	S	2	Day/Night PGM Delivery
AS-2202	1.3	365	B,R,M	N	A	2	Night PGM Delivery
SAS-2203	1.5	180	B,R,M	D/NS	S	1	Day/Night Gun Employment
AS-2204	1.3	365	B,R,M	D	A	2	Day Gun Employment
AS-2205	1.3	180	B,R,M	N	A	2	Night Gun Employment
SAS-2206	1.5	365	B,R,M	D	S	1	Standoff Weapons Employment

Admin Notes. Each brief should include a discussion of prerelease checks, A/S timeline, and validation. Flight briefs should include a discussion of ordnance preflight. The PUI should be familiar with aircraft and ordnance performance, emergency procedures, capabilities, and limitations as well as ordnance-related pilot-vehicle interface (PVI).

Prerequisite. Academic syllabus IAW the MAWTS-1 F-35 Course Catalog.

SAS-2201 1.5 730 B,R D/NS S 2 FMS

Goal. Practice Day and Night PGM Employment.

Requirements. Conduct sensor integration and handoff to LGWs and IAMs for employment. Minimum of six runs required. Conduct a minimum of three GBU-12 delivery profiles: one self-lase, one BOC release with a ground or buddy lase, and one run as the lasing platform in a buddy lase profile. One run as the lasing platform must be against a moving target. Conduct a minimum of three GBU-31/32 deliveries: one SAR map delivery, one TFLIR delivery, and one BOC delivery. Conduct a minimum of two GBU-49/54 deliveries: one run against a static target, and one run against a moving target. Demonstrate valid coordinate generation using the TFLIR and pass the coordinate

using appropriate datalink TTPs and communication. Execute the BOC attack on the coordinate that a wingman generated and handed off via datalink.

Performance Standards

Practice

AS Timeline
Valid Coordinate Generation
Valid PGM deliveries
TFLIR Lasing Mechanics and Communications
SAR map Mechanics and Communications
Datalink Mechanics and Communications

Instructor. SL or CIP

Prerequisite. 8202

External Resource Requirements. 1 CI at the console.

AS-2202 1.3 365 B,R,M N A 2 F-35

Goal. Practice Night PGM Employment.

Requirements. Conduct night sensor integration and handoff to LGWs and IAMs for employment. Minimum of six runs required. Execute a minimum of two LGW deliveries: one self-lase and one BOC release with a ground or buddy lase. Execute a run as the lasing platform in a buddy lase profile. Conduct a minimum of three IAM deliveries: one SAR map delivery, one TFLIR delivery, and one BOC delivery. Demonstrate valid coordinate generation using the TFLIR and pass the coordinate using appropriate datalink TTPs and communication. Execute the BOC attack on the coordinate that a wingman generated and handed off via datalink.

Performance Standards

Practice

AS Timeline
Valid Coordinate Generation
Valid PGM Deliveries
TFLIR Lasing Mechanics and Communications
SAR Map Mechanics and Communications
Datalink Mechanics and Communications

Prerequisite. 2103, 2201

Ordnance

ORDNANCE	QUANTITY	ALLOWABLE SUBSTITUTES	NOTES
GBU-12	1		
GBU-32	1	GBU-31, GBU-49	

Range

RANGE REQUIREMENTS		
REQUIRED CAPABILITIES	ALLOWABLE SUBSTITUTES	DESIRED CAPABILITIES
RSTD		IR TGT
TGT-DISP	MOCK, TGT	RDR TGT
LSR		TGT-MOVE
JDAM, LGB		HE

SAS-2203 1.5 180 B,R,M D/NS S 1 FMS

Goal. Practice Day and Night Gun Employment.

Requirements. Conduct a minimum of six AS gun employments in day conditions and six in night conditions. Execute half of the day and night employments using the bunt technique.

Performance Standards

Practice
AS Timeline
Z Diagram Execution
Valid AS Gun Employment

Instructor. SL or CIP

Prerequisite. 2201

External Resource Requirements. 1 CI at the console.

AS-2204 1.3 365 B,R,M D A 2 F-35

Goal. Practice Day Gun Employment.

Requirements. Conduct a minimum of six AS gun employments in day conditions. Execute half of the employments using the bunt technique.

Performance Standards

Practice
AS Timeline
Z Diagram Execution
Valid AS Gun Employment

Prerequisite. 2103, 2203

Ordnance

ORDNANCE	QUANTITY	ALLOWABLE SUBSTITUTES	NOTES
PGU-23	220	PGU-32	
MJU-61	48	MJU-64, MJU-66	

Range

RANGE REQUIREMENTS		
REQUIRED CAPABILITIES	ALLOWABLE SUBSTITUTES	DESIRED CAPABILITIES
RSTD		TGT-MOVE
STRAFE	TGT-DISP, MOCK, TGT	HE
LSR		

AS-2205 1.3 180 B,R,M N A 2 F-35

Goal. Practice Night Gun Employment.

Requirements. Conduct a minimum of six AS gun employments in night conditions. Execute half of the employments using the bunt technique.

Discuss

Fixed Wing CAS CFIT Mishap (<https://portal.marinenet.usmc.mil/libdl.html?f=1855AEE3378F>)

Performance Standards

Practice
AS Timeline
Z Diagram Execution
Valid AS Gun Employment

Instructor. LTI

Prerequisite. 2202, 2204

Ordnance

ORDNANCE	QUANTITY	ALLOWABLE SUBSTITUTES	NOTES
PGU-23	220	PGU-32	
MJU-61	48	MJU-64, MJU-66	

Range

RANGE REQUIREMENTS		
REQUIRED CAPABILITIES	ALLOWABLE SUBSTITUTES	DESIRED CAPABILITIES
RSTD		TGT-MOVE
STRAFE	TGT-DISP, MOCK, TGT	HE
LSR		

SAS-2206 1.5 365 B,R,M D S 1 FMS

Goal. Introduce standoff weapon planning and employment.

Admin Notes. This event shall be waived for F-35B pilots until GBU-53/B is authorized for carriage/release.

Requirements. Introduce net-enabled standoff weapon mission planning in the Mission Planning Environment (MPE). Conduct a minimum of two mission-planned deliveries against a known target location, and a minimum of two deliveries against dynamic targets of interest, utilizing GBU-53/B or JSOW.

Performance Standards

Introduce
Standoff weapon mission planning
AS Timeline
Valid deliveries

Prerequisite. 2201

2.9.3 BASIC FIGHTER MANEUVERS (BFM)

Purpose. To build upon a foundation of Within Visual Range (WVR) AA combat.

General. Upon completion, PUI should have a more thorough understanding of the F-35 E-M diagram, BFM concepts and definitions, and aircraft handling characteristics. The PUI should be able to accurately assess whether they are offensive, defensive, or neutral, and apply the correct mechanics.

BFM Overview

BASIC FIGHTER MANEUVERS (BFM) STAGE							
EVENT	TIME	PROFICIENCY PERIOD	POI	COND	DEVICE	NUM	DESCRIPTION
BFM-2301	0.8	180	B,R,M	D	A	2	Offensive BFM
BFM-2302	0.8	180	B,R,M	D	A	2	Defensive BFM
BFM-2303	0.8	180	B,R,M	D	A	2	High Aspect BFM
BFM-2304	0.8	365	B,R,M	D	A	1	Dissimilar BFM

Admin Notes. Each brief should include a discussion of BFM Tac Admin (fight setup) and concepts and definitions. PUI should be familiar with weapon system capabilities, limitations, and PVI. Events shall be instructed by an ACMI when required by NAVMC 3500.14.

Prerequisite. Academic syllabus IAW the MAWTS-1 F-35 Course Catalog.

BFM-2301 0.8 180 B,R,M D A 2 F-35

Goal. Practice Offensive BFM.

Requirements. Emphasize concepts and definitions, energy management, mechanics based on site picture and turn circle geometry, and available weapons LARs and subsequent employment. Three offensive perch sets required: 3K', 6K', and 9K'.

Performance Standards

Practice

Maintain Offensive Position
Employ Follow-on Weapons
Transition to HABFM if Neutralized

Instructor. ACMI

Prerequisites. 2103

Ordnance

ORDNANCE	QUANTITY	ALLOWABLE SUBSTITUTES	NOTES
CATM-9X	1		
MJU-61	48	MJU-64, MJU-66	

Range. BFM, EXP

BFM-2302 0.8 180 B,R,M D A 2 F-35

Goal. Practice Defensive BFM.

Requirements. Emphasize concepts and definitions, energy management, mechanics, turn circle geometry, and threat WEZ denial. Three defensive perch sets required: 3K', 6K', and 9K'.

Performance Standards

Practice

Defeat Initial Weapons Employment
Maneuver to Deny Follow-on WEZ
Neutralize Attacker
Transition to HABFM

Instructor. ACMI

Prerequisites. 2301

Ordnance

ORDNANCE	QUANTITY	ALLOWABLE SUBSTITUTES	NOTES
CATM-9X	1		
MJU-61	48	MJU-64, MJU-66	

Range. BFM, EXP

BFM-2303 0.8 180 B,R,M D A 2 F-35

Goal. Practice High Aspect BFM.

Requirements. Start altitude and distance is at the discretion of the flight lead and should emphasize gameplan development. Accurately assess whether offensive, defensive, or neutral, and apply the correct mechanics. Three HABFM sets required. Options include Flat Scissors, Rolling Scissors, Abeam, Butterfly or AAMD sets.

Performance Standards

Practice

Deny Opponent Weapon Employment Opportunities
Achieve First Weapon Employment Opportunity
Gain Positional Advantage
Employ Follow-on Weapons
Transition to Offensive or Defensive BFM

Instructor. ACMI

Prerequisites. 2302

Ordnance

ORDNANCE	QUANTITY	ALLOWABLE SUBSTITUTES	NOTES
CATM-9X	1		
MJU-61	48	MJU-64, MJU-66	

Range. BFM, EXP

BFM-2304 0.8 365 B,R,M D A 1 F-35

Goal. Introduce Dissimilar BFM.

Requirements. Develop and execute a valid BFM gameplan against a dissimilar adversary. Accurately assess whether offensive, defensive, or neutral, and apply the correct mechanics. Two BFM sets required. Options include all HABFM, OBFM and DBFM sets. Prioritize HABFM.

Performance Standards

Introduce
Develop and Execute Valid BFM Gameplan
Practice
HABFM Execution
OBFM Execution
DBFM Execution

Instructor. ACMI Equivalent

Prerequisites. 2303

Ordnance

ORDNANCE	QUANTITY	ALLOWABLE SUBSTITUTES	NOTES
CATM-9X	1		
MJU-61	48	MJU-64, MJU-66	

Range. BFM, EXP

External Resource Requirements. Dissimilar Fighter Adversary.

2.9.4 TACTICAL INTERCEPTS (TI)

Purpose. To build upon a foundation of AA combat training.

General. Upon completion, PUI should demonstrate proficiency in F-35 tactical intercepts, standard fighter integration tactics, and mature fight entry (MFE).

TI Overview

TACTICAL INTERCEPTS (TI) STAGE							
EVENT	TIME	PROFICIENCY PERIOD	POI	COND	DEVICE	NUM	DESCRIPTION
STI-2401	1.5	*	B	D	S	4	4vX Intercepts
TI-2402	1.3	180	B,R,M	(N)	A	2	2vX Intercepts
STI-2403	1.5	365	B,R,M	(N)	S	4	4+4vX Fighter Integration
TI-2404	1.1	365	B,R,M	D	A	2	2vX Short Range Recommit

Admin Notes. PUI should be familiar with weapon system and ordnance capabilities, limitations, and PVI.

Prerequisite. Academic syllabus IAW the MAWTS-1 F-35 Course Catalog.

STI-2401 1.5 * B D S 4 FMS

Goal. Practice 4vX Intercepts.

Requirements. Conduct division tactical intercepts against near-peer/peer threat aircraft. Start with a minimum of 60 NM separation between the fighters and adversaries. Execute a minimum of two intercepts launch and decide (L&D) and two intercepts launch and leave (L&L). PID should be solved by the fighters on at least one intercept.

Performance Standards

Practice

Proper Signature Management
AA Timeline Adherence
Valid AA Employment
PID/ROE Not Solved Execution

Instructor. DL

Prerequisites. 8230, 8231

External Resource Requirements. 2 CIs to operate AIC and red air.

TI-2402 1.3 180 B,R,M (N) A 2 F-35

Goal. Practice 2vX Intercepts.

Requirements. Conduct section tactical intercepts against near-peer/peer threat aircraft. Start with a minimum of 60 NM separation between the fighters and adversaries. Execute a minimum of two intercepts launch and decide (L&D) and two intercepts launch and leave (L&L). PID should be solved by the fighters on at least one intercept.

Performance Standards

Practice

Proper Signature Management
AA Timeline Adherence
Valid AA Employment
PID/ROE Not Solved Execution

Prerequisites. 2103, 2401

Ordnance. Virtual CM recommended.

Range. AA, TACTS, EXP, MACH 1+

External Resource Requirements. 2 Dissimilar Adversaries with AEA.

STI-2403 1.5 365 B,R,M (N) S 4 FMS

Goal. Introduce 4+4vX Fighter Integration.

Requirements. Conduct standard fighter integration (FI) tactics while operating as a division of F-35s and a division of fourth generation fighters against near-peer/peer threat aircraft. Start with a minimum of 60 NM separation between the fighters and adversaries. Execute a minimum of two runs. Emphasis is on inter-flight communication and evaluation of L&D criteria and subsequent decision-making. Utilize simulator entities to replicate fourth generation fighters.

Performance Standards

Introduce

FI Tactic and Flow Decision-making
Inter-element FI Communications

Practice

Proper Signature Management
AA Timeline Adherence
Valid AA Employment

Prerequisites. 2401

External Resource Requirements. 3 CIs to operate blue air, AIC and red air.

TI-2404 1.1 365 B,R,M D A 2 F-35

Goal. Introduce 2vX Short Range Recommit.

Requirements. Conduct the transition from BVR to WVR while balancing intercept priorities to survive. With a minimum of 25 NM separation, recommit into an unknown picture. Gain situational awareness in order to balance intercept priorities and neutralize/kill factor adversaries. Execute a minimum of one mature fight entry (MFE) with PUI entering into an established 1v1 (between flight lead and adversary) in order to aid wingman. Execute a minimum of one intercept with PUI transitioning to WVR engaged maneuvering with flight lead entering mature fight to aid PUI. Emphasis shall be on signature management, mutual support, weapons employment IAW ROE, communications, and MFE.

Performance Standards

Introduce
MFE
Practice
Proper Signature Management
Mutual Support
Valid A/A employment IAW ROE
Communications

Instructor. ACMI

Prerequisites. 2304, 2402

Ordnance

ORDNANCE	QUANTITY	ALLOWABLE SUBSTITUTES	NOTES
Virtual CM	N/A	MJU-61/64/66	Virtual CM Preferred

Range. ACM, TACTS, EXP, MACH 1+

External Resource Requirements. 4 Dissimilar Adversaries.

2.9.5 LOW ALTITUDE TACTICS (LAT)

Purpose. To build upon a foundation of LAT training.

General. PUI should demonstrate proficiency in LAT mechanics.

LAT Overview

LOW ALTITUDE TACTICS (LAT) STAGE							
EVENT	TIME	PROFICIENCY PERIOD	POI	COND	DEVICE	NUM	DESCRIPTION
SLAT-2501	1.0	365	B,R,M	D	S	1	LAT

Admin Notes. LAT mechanics shall be conducted IAW NTTP 3-22.3-F35 Chapter 9, Low-Altitude Operations. The 50% rule and Dive Recovery Numbers should be recited verbatim.

Prerequisite. Academic syllabus IAW the MAWTS-1 F-35 Course Catalog.

SLAT-2501 1.0 365 B,R,M D S 1 FMS

Goal. Practice LAT.

Requirements. Conduct initial descent to comfort level using Small Descent Rule of Thumb, hard/break turns, mission tasking, ridge crossings, 50 Percent Rule, One Percent Dive-Angle Rule and the High-to-Low Transition.

Performance Standards

Practice
Recite LAT Rules from Memory
Remain above Briefed Minimum Altitude
Adhere to Dive Recovery Numbers
Execute High-to-Low Maneuvers

Instructor. DL

Prerequisites. 8240

External Resource Requirements. 1 CI at the console.

2.9.6 SUPPRESSION OF ENEMY AIR DEFENSES (SEAD)

Purpose. To build upon a foundation of SEAD fundamentals.

General. Upon completion, PUI should demonstrate proficiency in executing the proper reaction to a SA threat as well as the fundamentals of the find-fix-track-target-engage-assess kill chain against SA threats.

SEAD Overview

SUPPRESSION OF ENEMY AIR DEFENSES (SEAD) STAGE							
EVENT	TIME	PROFICIENCY PERIOD	POI	COND	DEVICE	NUM	DESCRIPTION
SSEAD-2601	1.5	365	B,R,M	(N)	S	1	SA Countertactics (SACT)
SSEAD-2602	1.5	365	B,R,M	(N)	S	4	SEAD Basics

Admin Notes. PUI should be familiar with the electronic warfare and countermeasure system capabilities, limitations, and PVI.

Prerequisite. Academic syllabus IAW the MAWTS-1 F-35 Course Catalog.

SSEAD-2601 1.5 365 B,R,M (N) S 1 FMS

Goal. Practice Surface-Air Countertactics (SACT).

Requirements. Execute F-35 SA countertactics against long-range, medium-range and short-range radio frequency (RF) SAMs at medium and high altitude, and various distances to the threat. Practice the High-to-Low Transition to incorporate terrain masking. Practice SA countertactics against infrared (IR) SAMs and Air Defense Artillery (ADA) at low altitude.

Performance Standards

Practice
SA Threat Awareness
Signature Management
Employ Countermeasures
Execute Threat Reactions

Instructor. SL or CIP

Prerequisites. 2501, 8241, 8242

External Resource Requirements. 1 CI at the console.

SSEAD-2602 1.5 365 B,R,M (N) S 4 FMS

Goal. Practice the fundamentals of the SEAD kill chain.

Requirements. Conduct a minimum of four runs against long-range, medium-range, and short-range RF SAMs in order to complete the find-fix-track-target-engage-assess (F2T2EA) kill chain with a division of F-35s. Emphasis should be on formation management, SEAD role assignment/responsibilities, and subsequent execution.

Performance Standards

Practice
Geolocation
Display Interpretation
Formation Management
Role Assignment
SA Threat Awareness
SA Threat Reactions

Prerequisites. 2601

External Resource Requirements. 1 CI at the console.

2.9.7 AIR-TO-AIR REFUELING (AAR)

Purpose. To build upon a foundation of AAR training.

General. Upon completion, PUI should demonstrate proficiency in F-35 AAR day and night.

AAR Overview

AIR-TO-AIR REFUELING (AAR) STAGE							
EVENT	TIME	PROFICIENCY PERIOD	POI	COND	DEVICE	NUM	DESCRIPTION
AAR-2701	1.5	365	B,R,M	D	A	2	Day AAR
AAR-2702	1.5	365	B,R,M	N	A	2	Night AAR

Requirements. Proficiency requirements are IAW the F-35 Training and Readiness Manual as well as ATP 3.3.4.2. Specifically, a pilot must perform two day contacts and two night contacts within 365 days to maintain proficiency. Two contacts can be accomplished on a single flight event, or multiple flight events. M-SHARP does not currently have a method to track the number of aerial refueling contacts performed on a flight, and as such pilots shall note the number of contacts executed in the Remarks section of the NAVFLIR until a solution is developed.

Admin Notes. PUI should be familiar with FSD limitations and AAR-equipped aircraft capabilities.

Prerequisite. Academic syllabus IAW the MAWTS-1 F-35 Course Catalog.

AAR-2701 1.5 365 B,R,M D A 2 F-35

Goal. Practice Day AAR.

Requirements. One successful contact required.

Note: reference ATP 3.3.4.2 US SRD for currency requirements for initial qualification criteria as well as currency requirements for deployments involving refueling operation.

Performance Standards

Practice

Maintain Correct AAR Position
Safe, Efficient AAR Contact
AAR Communications

Prerequisites. 2103, 8250

Range. AAR

External Resource Requirements. 1 Drogue-equipped AAR aircraft.

AAR-2702 1.5 365 B,R,M N A 2 F-35

Goal. Practice Night AAR.

Requirements. One successful contact required.

Note: reference ATP 3.3.4.2 US SRD for currency requirements for initial qualification criteria as well as currency requirements for deployments involving refueling operation.Performance Standards

Practice

Maintain Correct AAR Position
Safe, Efficient AAR Contact
AAR Communications

Prerequisites. 2701

Range. AAR

External Resource Requirements. 1 Drogue-equipped AAR aircraft.

2.10 MISSION PHASE

Purpose. To reinforce or introduce the operational fleet standards for F-35 employment in each Mission Essential Task (MET). Pilots proficient in this phase should be capable of planning, managing and conducting missions in a contingency operation.

General. The following Stages are included in the Mission Phase of training.

Mission Phase Overview

MISSION PHASE		
STAGE	PARAGRAPH	PAGE NUMBER
CAS	2.11.1	2-101
SCAR	2.11.2	2-104
AAW	2.11.3	2-106
STK	2.11.4	2-109
SEAD	2.11.5	2-111

Admin Notes. All briefs should include a realistic S-2-generated scenario based upon real-world recent threat evaluations and intelligence. Adversaries shall simulate real world threats, tactics, targets, laydowns, and scenarios. Designated events shall initially be flown with a Lightning Tactics Instructor (LTI). Flight event length depicts F-35B flight time. Flight event length for F-35C is 1.8 hours.

2.11 MISSION STAGES

2.11.1 CLOSE AIR SUPPORT (CAS)

Purpose. To build upon a foundation in CAS tactics, techniques, and procedures.

General. Upon completion, PUI should demonstrate an understanding of F-35 CAS capabilities and limitations and be able to safely and effectively execute CAS in all scenarios.

CAS Overview

CLOSE AIR SUPPORT (CAS) STAGE							
EVENT	TIME	PROFICIENCY PERIOD	POI	COND	DEVICE	NUM	DESCRIPTION
SCAS-3101	1.5	180	B,R	D	S	2	Day CAS
CAS-3102	1.5	180	B,R,M	D	A	2	Day CAS
SCAS-3103	1.5	180	B,R,M	N	S	2	Night CAS
CAS-3104	1.5	180	B,R,M	N	A	2	Night CAS
SCAS-3105	1.5	180	B,R,M	(N)	S	2	Urban CAS

Prerequisite. Academic syllabus IAW the MAWTS-1 F-35 Course Catalog.

Admin Notes. Each brief should include a discussion of the CAS Execution Template. PUI should be familiar with aircraft and ordnance performance, capabilities, and limitations as well as ordnance-related and CAS-related PVI.

SCAS-3101 1.5 180 B,R D S 2 FMS

Goal. Practice Day CAS.

Requirements. Conduct day section CAS in support of the ground scheme of maneuver. Execute a minimum of four attacks under all types of terminal attack control using both BOC and BOT procedures. At least one attack shall be under Type 3 terminal attack control. Emphasize basic CAS execution, JCAS communications and procedures, plotting and evaluating the attack, correlation methods, proper laser usage and communications, and CAS geometry and timing.

Performance Standards

Practice

AS Timeline

- Employ with Proper Correlation and Clearance
- Valid AS Deliveries on Assigned Target within 15 seconds of TOT
- Execute IAW Joint Publication 3-09.3 CAS
- Proper Laser Procedures and Communications
- Efficient/effective Intra-flight and JTAC Coordination

Instructor. LTI

Prerequisite. 2203, 8300, 8310

External Resource Requirements. 1 CI as the JTAC.

CAS-3102 1.5 180 B,R,M D A 2 F-35

Goal. Review Day CAS.

Requirements. Conduct day section CAS in support of the ground scheme of maneuver. Attacks should be under all types of terminal attack control using both BOC and BOT procedures. Emphasize basic CAS execution, JCAS communications and procedures, plotting and evaluating the attack, correlation methods, proper laser usage and communications, and CAS geometry and timing. Two attacks are required for completion.

Performance Standards

Review

AS Timeline
Employ with Proper Correlation and Clearance
Valid AS Deliveries on Assigned Target within 15 seconds of TOT
Execute IAW Joint Publication 3-09.3 CAS
Proper Laser Procedures and Communications
Efficient/effective Intra-flight and JTAC Coordination

Prerequisite. 2205, 3101

Ordnance

ORDNANCE	QUANTITY	ALLOWABLE SUBSTITUTES	NOTES
PGM	2+		
PGU-32	220	PGU-23	
MJU-61	48	MJU-64, MJU-66	

Range

RANGE REQUIREMENTS		
REQUIRED CAPABILITIES	ALLOWABLE SUBSTITUTES	DESIRED CAPABILITIES
RSTD		EXP
STRAFE	TGT	EW, SST
TGT-DISP	COMPLEX	IR TGT, RDR TGT
JCAS		TGT-MOVE, MOCK
JDAM, LGB		HE

External Resource Requirements. JTAC or FAC(A)

SCAS-3103 1.5 180 B,R,M N S 2 FMS

Goal. Practice Night CAS.

Requirements. Conduct night section CAS in support of the ground scheme of maneuver. Execute a minimum of four attacks under all types of terminal attack control using both BOC and BOT procedures. Emphasize night considerations, JCAS communications and procedures, plotting and evaluating the attack, correlation methods, proper laser usage and communications, and CAS geometry and timing. Execute in an environment that contains at least one RF SAM identified and communicated as non-prohibitive to CAS, as well as at least one RF SAM that is identified as prohibitive to CAS, requiring the appropriate communication and tactical reaction.

Performance Standards

Practice

AS Timeline
Employ with Proper Correlation and Clearance
Valid AS Deliveries on Assigned Target within 15 seconds of TOT
Execute IAW Joint Publication 3-09.3 CAS

Proper Laser Procedures and Communications
Efficient/effective Intra-flight and JTAC Coordination
Identify, communicate, and react appropriately to SA threats

Instructor. LTI

Prerequisite. 3101

External Resource Requirements. 1 CI as the JTAC.

CAS-3104 1.5 180 B,R,M N A 2 F-35

Goal. Review Night CAS.

Requirements. Conduct night section CAS in support of the ground scheme of maneuver. Attacks should be under all types of terminal attack control using both BOC and BOT procedures. Emphasize night considerations for basic CAS execution, JCAS communications and procedures, plotting and evaluating the attack, correlation methods, proper laser usage and communications, and CAS geometry and timing. Two attacks are required for completion.

Performance Standards

Review

AS Timeline
Employ with Proper Correlation and Clearance
Valid AS Deliveries on Assigned Target within 15 seconds of TOT
Execute IAW Joint Publication 3-09.3 CAS
Proper Laser Procedures and Communications
Efficient/effective Intra-flight and JTAC Coordination

Instructor. LTI

Prerequisite. 3102, 3103

Ordnance

ORDNANCE	QUANTITY	ALLOWABLE SUBSTITUTES	NOTES
PGM	2+		
PGU-32	220	PGU-23	
MJU-61	48	MJU-64, MJU-66	

Range

RANGE REQUIREMENTS		
REQUIRED CAPABILITIES	ALLOWABLE SUBSTITUTES	DESIRED CAPABILITIES
RSTD		EXP
STRAFE	TGT	EW, SST
TGT-DISP	COMPLEX	IR TGT, RDR TGT
JCAS		TGT-MOVE, MOCK
JDAM, LGB		HE

External Resource Requirements. JTAC or FAC(A)

SCAS-3105 1.5 180 B,R,M (N) S 2 FMS

Goal. Practice Urban CAS.

Requirements. Conduct section urban CAS in support of the ground scheme of maneuver. Execute a minimum of three attacks in an urban environment. Attacks should be under all types of terminal attack control using both BOC and BOT procedures. Emphasize urban impacts on the CAS execution template such as urban canyons, podium effect, and collateral damage methodology and considerations.

Performance Standards

Practice

AS Timeline

Employ with Proper Correlation and Clearance
Valid AS Deliveries on Assigned Target within 15 seconds of TOT
Execute IAW Joint Publication 3-09.3 CAS
Proper Laser Procedures and Communications
Efficient/effective Intra-flight and JTAC Coordination

Prerequisite. 3103

External Resource Requirements. 1 CI as the JTAC.

2.11.2 STRIKE COORDINATION AND RECONNAISSANCE (SCAR)

Purpose. To build upon a foundation of AR tactics, techniques, and procedures, and develop SCAR tactics, techniques, and procedures.

General. Upon completion, PUI should demonstrate proficiency in F-35 AR-specific skills, and demonstrate an understanding of SCAR concepts and F-35 SCAR-specific skills.

SCAR Overview

STRIKE COORDINATION AND RECONNAISSANCE (SCAR) STAGE							
EVENT	TIME	PROFICIENCY PERIOD	POI	COND	DEVICE	NUM	DESCRIPTION
SSCAR-3201	1.5	180	B,R	(N)	S	2	Day / Night AR
SCAR-3202	1.5	180	B,R,M	(N)	A	2	Day / Night AR
SSCAR-3203	1.5	180	B,R	(N)	S	4	Day / Night SCAR
SCAR-3204	1.5	180	B,R,M	(N)	A	2	Day / Night SCAR

Admin Notes. Each brief should include a discussion of ROE, TPL, weapon-to-target gameplan and the F2T2EA methodology. Prohibitive interference should be discussed based upon expected SCAR and AR assets. Integration with legacy platforms is desired. PUI should be familiar with aircraft and ordnance performance, capabilities, and limitations as well as ordnance-related and SCAR-related PVI.

Prerequisite. Academic syllabus IAW the MAWTS-1 F-35 Course Catalog.

SSCAR-3201 1.5 180 B,R (N) S 2 FMS

Goal. Practice AR.

Requirements. Execute a high altitude search and EW sweep. Utilize sensors to find targets. Demonstrate datalink usage. Find, ID, and engage targets IAW the briefed TPL and ROE. Execute a minimum of three attacks within the section. Communicate IFREP through MACCS.

Performance Standards

Practice

Execute Search Profile
Utilize Sensors to Find Targets
ID Targets
Minimize Time-to-kill IAW the TPL and ROE
Valid AS Employment

Prerequisite. 2203, 8311, 8320

External Resource Requirements. 1 CI at the console.

SCAR-3202 1.5 180 B,R,M (N) A 2 F-35

Goal. Review AR.

Requirements. Execute a high altitude search and EW sweep. Utilize sensors to find targets. Demonstrate datalink usage. Find, ID, and engage targets IAW the briefed TPL and ROE. Execute a minimum of three attacks within the section. Communicate IFREP through MACCS.

Performance Standards

Review

Execute Search Profile
Utilize Sensors to Find Targets
ID Targets
Minimize Time-to-kill IAW the TPL and ROE
Valid AS Employment

Prerequisite. 2205, 3201

Ordnance

ORDNANCE	QUANTITY	ALLOWABLE SUBSTITUTES	NOTES
PGM	2+		
PGU-32	220	PGU-23	
MJU-61	48	MJU-64, MJU-66	

Range

RANGE REQUIREMENTS		
REQUIRED CAPABILITIES	ALLOWABLE SUBSTITUTES	DESIRED CAPABILITIES
RSTD		EXP
STRAFE	TGT	EW
TGT-DISP	COMPLEX	IR TGT, RDR TGT
LSR		TGT-MOVE, MOCK
JDAM, LGB		HE

SSCAR-3203 1.5 180 B,R (N) S 4 FMS

Goal. Introduce SCAR.

Requirements. Execute sortie as the SCAR element. Detect, recognize and ID threats and targets with onboard sensors. Allocate airborne and ground-based assets to engage targets IAW the TPL. Execute coordination of strikes within multiple elements and HIMARS battery. Execute a minimum of four attacks with at least one attack internal to the SCAR flight and one attack by the HIMARS battery. Execute opportune SEAD. Communicate IFREP through MACCS.

Performance Standards

Introduce

Detect, Recognize and ID Threat and Targets
Allocate Assets to Targets IAW TPL
Optimize Weapon-to-Target Coordination
Minimize Time-to-Kill
Execute Opportune SEAD
Communicate Fire Mission with HIMARS Battery
Execute IAW SCAR MTTP

Prerequisite. 3201

External Resource Requirements. 1 CI at the console.

SCAR-3204 1.5 180 B,R,M (N) A 2 F-35

Goal. Practice SCAR.

Requirements. Execute sortie as the SCAR element. Detect, recognize and ID threats and targets with onboard sensors. Allocate airborne to engage targets IAW the TPL. Execute coordination of strikes within multiple elements. Execute a minimum of four attacks with at least one attack internal to the SCAR flight. Communicate IFREP through MACCS.

Performance Standards

Practice

Detect, Recognize and ID Threat and Targets
Allocate Assets to Targets IAW TPL

Optimize Weapon-to-Target Coordination
Minimize Time-to-Kill
Execute IAW SCAR MTTP

Prerequisite. 3202, 3203

Ordnance

ORDNANCE	QUANTITY	ALLOWABLE SUBSTITUTES	NOTES
PGM	2+		
PGU-32	220	PGU-23	
MJU-61	48	MJU-64, MJU-66	

Range

RANGE REQUIREMENTS		
REQUIRED CAPABILITIES	ALLOWABLE SUBSTITUTES	DESIRED CAPABILITIES
RSTD		EXP
STRAFE	TGT	EW
TGT-DISP	COMPLEX	IR TGT, RDR TGT
LSR		TGT-MOVE, MOCK
JDAM, LGB		HE

External Resource Requirements. 2+ FW or RW AR assets.

2.11.3 ANTI-AIR WARFARE (AAW)

Purpose. To build upon a foundation in Anti-Air Warfare. Specific emphasis is placed on F-35 tactics, techniques, and procedures for Offensive Anti-Air Warfare (OAAW) Sweep and Escort missions, Active Air Defense (AAD) missions, and the integration of F-35 with other fighter platforms.

General. Upon completion, PUI should demonstrate proficiency in OAAW Sweep, OAAW Escort, and AAD missions (corresponding joint doctrinal missions of OCA sweep/escort, and DCA).

AAW Overview

ANTI-AIR WARFARE (AAW) STAGE							
EVENT	TIME	PROFICIENCY PERIOD	POI	COND	DEVICE	NUM	DESCRIPTION
SAAW-3301	1.5	180	B,R	(N)	S	4	Sweep
AAW-3302	1.3	180	B,R,M	(N)	A	4	Sweep
SAAW-3303	1.5	180	B,R,M	N	S	4	Escort
SAAW-3304	1.5	180	B,R	(N)	S	4	DCA
AAW-3305	1.3	180	B,R,M	(N)	A	4	DCA
SAAW-3306	1.5	365	B,R	N	S	4	Fighter Integration
AAW-3307	1.3	365	B,R,M	(N)	A	4	Fighter Integration

Admin Notes. Each brief should include a discussion on the effect of mission planning factors on intercept decision-making and L&D criteria, as well as a whiteboard mission rehearsal. PUI should be familiar with weapon system and ordnance capabilities, limitations, and PVI. Squadron operations departments should ensure that T&R code 6712 (required adversary support not available) is logged if executing an event with less than the required number of adversaries.

Prerequisite. Academic syllabus IAW the MAWTS-1 F-35 Course Catalog.

SAAW-3301 1.5 180 B,R (N) S 4 FMS

Goal. Practice a Fighter Sweep.

Requirements. Conduct a fighter sweep in order to attrite enemy fighters over hostile territory. A minimum of 80 NM initial separation between the fighters and adversaries is required. Enemy airfields are defended by SA threat systems. ALR is low. Emphasis is on threat-based targeting, weapons employment mindset, and tactic/flow decision-making.

Performance Standards

Practice

Timeline Awareness
Intelligent Targeting and Weapons Employment IAW MPF
Tactic/Flow Decision-Making
Signature Management
Valid AA Employment IAW ROE

Prerequisites. 2404, 8321, 8322

External Resource Requirements. 2 CIs to operate AIC and red air.

AAW-3302 1.3 180 B,R,M (N) A 4 F-35

Goal. Review Sweep.

Requirements. Conduct a fighter sweep in order to attrite enemy fighters over hostile territory. A minimum of 80 NM initial separation between the fighters and adversaries is required. Enemy airfields are defended by SA threat systems. ALR is low. Emphasis is on threat-based targeting, weapons employment mindset, and tactic/flow decision-making.

Performance Standards

Review

Timeline Awareness
Intelligent Targeting and Weapons Employment IAW MPF
Tactic/Flow Decision-Making
Signature Management
Valid AA Employment IAW ROE

Instructor. LTI

Prerequisites. 3301

Ordnance. Virtual CM recommended.

Range. AA, TACTS, EXP, MACH 1+, EW, SRSAM, MRSAM

External Resource Requirements. AIC. 6+ Dissimilar Adversaries with AEA (AESA-equipped desired).

SAAW-3303 1.5 180 B,R,M N S 4 FMS

Goal. Introduce Escort.

Requirements. Conduct a fighter escort in support of a strike package. Gain and maintain localized air superiority. Target area defended by a robust integrated air defense system to include near-peer/peer aircraft, and medium and long-range SAMs. Emphasis is on integration with strike package to include fighter spacing, flow options/requirements, inter-flight communication, and barrier CAP (BARCAP) positioning. Utilize simulator entities to replicate fourth generation fighters.

Performance Standards

Introduce

Timeline Awareness
Intelligent Targeting and Weapons Employment IAW MPF
Tactic/Flow Decision-Making
Signature Management
Valid AA Employment

Instructor. LTI

Prerequisites. 2404, 8323, 8324

External Resource Requirements. 3 CIs to operate blue air, AIC and red air.

SAAW-3304 1.5 180 B, R (N) S 4 FMS

Goal. Practice DCA.

Requirements. Conduct a DCA mission to defend the vital area for a 30 minute vulnerability period as the last line of defense. Initial separation between fighters and adversaries no less than 80 NM. Two vul periods are required for completion. Emphasis is on FEZ management, intelligent weapons employment, and tactic/flow decision-making.

Performance Standards

Practice

- FEZ Management
- Timeline Awareness
- Intelligent Targeting and Weapons Employment IAW MPF
- Tactic/Flow Decision-Making
- Signature Management
- Valid AA Employment IAW ROE

Prerequisites. 2404, 8325, 8326

External Resource Requirements. 2 CIs to operate AIC and red air.

AAW-3305 1.3 180 B,R,M (N) A 4 F-35

Goal. Review DCA.

Requirements. Conduct a DCA mission to defend the vital area for a 30 minute vulnerability period as the last line of defense. Initial separation between fighters and adversaries no less than 80 NM. Two vul periods are required for completion. Emphasis is on FEZ management, intelligent weapons employment, and tactic/flow decision-making.

Performance Standards

Review

- FEZ Management
- Timeline Awareness
- Intelligent Targeting and Weapons Employment IAW MPF
- Tactic/Flow Decision-Making
- Signature Management
- Valid AA Employment IAW ROE

Instructor. LTI

Prerequisites. 3304

Ordnance. Virtual CM recommended.

Range. AA, TACTS, EXP, MACH 1+.

External Resource Requirements. AIC. 6+ Dissimilar Adversaries with AEA (AESA-equipped desired).

SAAW-3306 1.5 365 B,R N S 4 FMS

Goal. Practice Fighter Integration.

Requirements. Conduct an integrated Sweep, Escort, or DCA mission with a division of F-35s and a division of fourth generation fighters against a near-peer/peer adversary. Initial separation between fighters and adversaries no less than 80 NM. Emphasis is on utilizing standard fighter integration tactics to achieve mission success. Utilize simulator entities to replicate fourth generation fighters.

Performance Standards

Practice

- Targeting
- Tactic/Flow Decision-Making IAW MPF
- Inter-flight Communication

Timeline Awareness
Signature Management
Valid AA Employment IAW ROE

Prerequisites. 3301, 3303, 3304, 8340, 8350

External Resource Requirements. 3 CIs to operate blue air, AIC and red air.

AAW-3307 1.3 365 B,R,M (N) A 4 F-35

Goal. Review Fighter Integration.

Requirements. Conduct an integrated Sweep, Escort, or DCA mission with a division of F-35s and a division of fourth/fifth-generation fighters against a near-peer/peer adversary. Initial separation between fighters and adversaries no less than 80 NM. Emphasis is on utilizing standard fighter integration tactics to achieve mission success.

Performance Standards

Review

Targeting
Tactic/Flow Decision-Making IAW MPF
Inter-flight Communication
Timeline Awareness
Signature Management
Valid AA Employment IAW ROE

Instructor. LTI

Prerequisites. 3306

Ordnance. Virtual CM recommended.

Range. AA, TACTS, EXP, MACH 1+.

External Resource Requirements. AIC. 4+ Fourth/Fifth-Generation Blue Fighters. 6+ Dissimilar Adversaries with AEA (AESA-equipped desired).

2.11.4 **STRIKE (STK)**

Purpose. To build upon a foundation in strike tactics, techniques, and procedures.

General. Upon completion, PUI should demonstrate proficiency in F-35 strike employment.

STK Overview

STRIKE (STK) STAGE							
EVENT	TIME	PROFICIENCY PERIOD	POI	COND	DEVICE	NUM	DESCRIPTION
SSTK-3401	1.5	180	B,R	D	S	4	Day Strike
STK-3402	1.3	180	B,R,M	D	A	4	Day Strike
SSTK-3403	1.5	180	B,R,M	N	S	4	Night Strike
STK-3404	1.3	180	B,R,M	N	A	4	Night Strike

Admin Notes. Each brief should include a detailed discussion of the target, weaponeering requirements, SEAD/signature management gameplan, AS task list/timeline, and target area commit considerations. A whiteboard mission rehearsal is required. Integration with legacy platforms is desired. PUI should be familiar with weapon system and ordnance capabilities, limitations, and PVI.

Prerequisite. Academic syllabus IAW the MAWTS-1 F-35 Course Catalog.

SSTK-3401 1.5 180 B,R D S 4 FMS

Goal. Practice a Day Strike.

Requirements. Conduct a day strike against a near-peer/peer threat. The target should be protected by an IADS employing medium and long-range SAMs, GPS jamming, and fighter aircraft. The focus is on mission planning, weaponing, route/signature management, SEAD requirements, and ordnance delivery.

Performance Standards

Practice

AS Task List
Target Acquisition
Target Area Tactics
AS Timeline

Signature Management
Valid Delivery on Assigned DPI
AA Threat Suppression
SEAD

Instructor. LTI

Prerequisites. 2201, 2404, 2602

External Resource Requirements. 2 CIs to operate AIC and red air / IADS.

STK-3402 1.3 180 B,R,M D A 4 F-35

Goal. Review a Day Strike.

Requirements. Conduct a day strike against a near-peer/peer threat. The target should be protected by an IADS employing medium and long-range SAMs, GPS jamming, and fighter aircraft. The focus is on mission planning, weaponing, route/signature management, SEAD requirements, and ordnance delivery.

Performance Standards

Review

AS Task List
Target Acquisition
Target Area Tactics
AS Timeline

Signature Management
Valid Delivery on Assigned DPI
AA Threat Suppression
SEAD

Prerequisites. 3401

Ordnance

ORDNANCE	QUANTITY	ALLOWABLE SUBSTITUTES	NOTES
PGM	1		2 Desired
Virtual CM	N/A	MJU-61/64/66	Virtual CM Preferred

Range

RANGE REQUIREMENTS		
REQUIRED CAPABILITIES	ALLOWABLE SUBSTITUTES	DESIRED CAPABILITIES
RSTD, AA, TACTS		EW
MACH 1+, EXP		IR TGT, RDR TGT
HIFLEW, SRSAM, MRSAM		HE
LSR, COMPLEX	TGT-FORM, TGT-DISP, STRUCTR	
JDAM		

External Resource Requirements. AIC. 3+ Dissimilar Adversaries with AEA.

SSTK-3403 1.5 180 B,R,M N S 4 FMS

Goal. Practice a Night Strike.

Requirements. Conduct a night strike against a near-peer/peer threat. The target should be protected by an IADS employing medium and long-range SAMs, GPS jamming, and fighter aircraft. The focus is on mission planning, weaponing, route/signature management, SEAD requirements, and ordnance delivery.

Performance Standards

Practice

AS Task List
Target Acquisition
Target Area Tactics
AS Timeline

Signature Management
Valid Delivery on Assigned DPI
AA Threat Suppression
SEAD

Prerequisites. 3401

External Resource Requirements. 2 CIs to operate AIC and red air / IADS.

STK-3404 1.3 180 B,R,M N A 4 F-35

Goal. Practice a Night Strike.

Requirements. Conduct a night strike against a near-peer/peer threat. The target should be protected by an IADS employing medium and long-range SAMs, GPS jamming, and fighter aircraft. The focus is on mission planning, weaponing, route/signature management, SEAD requirements, and ordnance delivery.

Performance Standards

Practice

AS Task List
Target Acquisition
Target Area Tactics
AS Timeline

Signature Management
Valid Delivery on Assigned DPI
AA Threat Suppression
SEAD

Instructor. LTI

Prerequisites. 3402, 3403

Ordnance

ORDNANCE	QUANTITY	ALLOWABLE SUBSTITUTES	NOTES
PGM	1		2 Desired
Virtual CM	N/A	MJU-61/64/66	Virtual CM Preferred

Range

RANGE REQUIREMENTS		
REQUIRED CAPABILITIES	ALLOWABLE SUBSTITUTES	DESIRED CAPABILITIES
RSTD, AA, TACTS		EW
MACH 1+, EXP		IR TGT, RDR TGT
HIFI EW, SRSAM, MRSAM		HE
LSR, COMPLEX	TGT-FORM, TGT-DISP, STRUCTR	
JDAM		

External Resource Requirements. AIC. 3+ Dissimilar Adversaries with AEA.

2.11.5 SUPPRESSION OF ENEMY AIR DEFENSES (SEAD)

Purpose. To build upon a foundation in SEAD tactics, techniques, and procedures.

General. Upon completion, PUI should demonstrate proficiency in F-35 SEAD employment.

SEAD Overview

SUPPRESSION/DESTRUCTION OF ENEMY AIR DEFENSE (SEAD) STAGE							
EVENT	TIME	PROFICIENCY PERIOD	POI	COND	DEVICE	NUM	DESCRIPTION
SSEAD-3501	1.5	180	B,R	N	S	4	Night SEAD
SEAD-3502	1.3	180	B,R,M	(N)	A	4	SEAD

Admin Notes. Each brief should include a detailed discussion of division geolocation tactics, F-35 EW capabilities/limitations, SEAD employment fundamentals, target acquisition, MDF-specific capabilities and

limitations, and SEAD gameplan during AS delivery. A whiteboard mission rehearsal is required. PUI should be familiar with weapon system and ordnance capabilities, limitations, and PVI.

Prerequisite. Academic syllabus IAW the MAWTS-1 F-35 Course Catalog.

SSEAD-3501 1.5 180 B,R,M N S 4 FMS

Goal. Practice Night SEAD.

Requirements. Locate and destroy multiple in-band and out-of-band medium-range SAMs in a littoral scenario in order to clear a lane for follow-on strikes. Using F-35 ESM, locate and destroy tactical SAM arrays. Optimize division assets and CAP geometry to minimize time-to-kill. Execute standoff weapons delivery. ALR High.

Performance Standards

Practice

SEAD Planning
Division Geolocation Tactics
Target Acquisition

Valid AS Employment
Signature Management
Threat Countertactics

Instructor. LTI

Prerequisites. 2206, 2602

External Resource Requirements. 1 CI to operate AIC / IADS.

SEAD-3502 1.3 180 B,R,M (N) A 4 F-35

Goal. Practice SEAD.

Requirements. Using F-35 ESM, locate and destroy SAMs. Threat emitters may be used to simulate higher factor threats, as required. Optimize division assets and CAP geometry to minimize time-to-kill. Execute standoff weapons delivery. ALR High.

Performance Standards

Practice

SEAD Planning
Division Geolocation Tactics
Target Acquisition

Valid AS Employment
Signature Management
Threat Countertactics

Instructor. LTI

Prerequisites. 3501

Ordnance. Virtual CM recommended.

Range. AA, TACTS, EXP, EW, HIFIEW, SRSAM, MRSAM, LRSAM.

2.12 CORE PLUS PHASE

Purpose. To introduce and maintain proficiency in F-35 employment in Core Plus Stages. Pilots proficient in this phase should be capable of executing basic fundamentals of missions with a low probability of execution.

General. The following Stages are included in the Core Plus Phase of training.

Core Plus Phase Overview

CORE PLUS PHASE		
STAGE	PARAGRAPH	PAGE NUMBER
FBO	2.13.1	2-112
LAT	2.13.2	2-114

Admin Notes. LAT ROC are per the NAVMC 3500.14-series.

2.13 CORE PLUS STAGES

2.13.1 FORWARD BASE OPERATIONS (FBO)

Purpose. To build upon a foundation of FBO and introduce FBO in the aircraft.

General. The FBO Stage supports the MET, Operations from Expeditionary Shore-Based Sites. Upon completion, the PUI should demonstrate proficiency in FBO.

FOB Overview

FORWARD BASE OPERATIONS (FBO) STAGE							
EVENT	TIME	PROFICIENCY PERIOD	POI	COND	DEVICE	NUM	DESCRIPTION
SFBO-4101	1.5	365	B,R	D/NS	S	1	FBO
FBO-4102	1.0	365	B,R,M	D	A	1	Day FBO
FBO-4103	1.0	365	B,R,M	N	A	1	Night FBO

Admin Notes. Each brief should include a detailed discussion of RVL execution, pattern procedures, communications, and the layout of the expeditionary site. An LSS should assist in developing squadron SPINS. The PUI should be familiar with FSD limitations and RVL PVI.

Prerequisite. Academic syllabus IAW the MAWTS-1 F-35 Course Catalog.

SFBO-4101 1.5 365 B,R D/NS S 1 FMS

Goal. Practice FBO.

Requirements. Execute a minimum of six day and six night precision RVLs to a road or auxiliary landing field. Execute a minimum of six day and six night STOs (Trundle or Button) from the landing site. Include one wave-off and one max crosswind RVL.

Performance Standards

Practice

Pattern Procedures
Precision RVL Execution
STO Procedures

Instructor. SL or CIP

External Resource Requirements. 1 CI at the console.

FBO-4102 1.0 365 B,R,M D A 1 F-35

Goal. Practice Day FBO.

Requirements. Execute a minimum of four day RVLs to a taxiway, road or auxiliary landing field. Execute a minimum of four day STOs (Trundle or Button) from the landing site. Include one wave-off.

Performance Standards

Practice

Pattern Procedures
Precision RVL Execution
STO Procedures

Prerequisites. 2103, 4101

External Resource Requirements. FBO site support. LSS.

FBO-4103 1.0 365 B,R,M N A 1 F-35

Goal. Practice Night FBO.

Requirements. Execute a minimum of four night RVLs to a taxiway, road or auxiliary landing field. Execute a minimum of four night STOs (Trundle or Button) from the landing site. Include one wave-off.

Performance Standards

Practice

Pattern Procedures
Precision RVL Execution
STO Procedures

Prerequisites. 4102

External Resource Requirements. FBO site support. LSS.

2.13.2 LOW ALTITUDE TACTICS (LAT)

Purpose. To build upon a foundation of LAT and to introduce it in the aircraft.

General. Upon completion, the PUI should demonstrate proficiency in LAT.

LAT Overview

LOW ALTITUDE TACTICS (LAT) STAGE							
EVENT	TIME	PROFICIENCY PERIOD	POI	COND	DEVICE	NUM	DESCRIPTION
LAT-4201	1.3	365	B,R,M	D	A	2	LAT

Admin Notes. LAT mechanics shall be conducted IAW NTTP 3-22.3-F35 Chapter 9, Low-Altitude Operations. The 50% rule and Dive Recovery Numbers should be recited verbatim.

Prerequisite. Academic syllabus IAW MAWTS-1 F-35 Course Catalog.

LAT-4201 1.3 365 B,R,M D A 2 F-35

Goal. Practice LAT.

Requirements. Conduct initial descent to comfort level using Small Descent Rule of Thumb, hard/break turns, mission tasking, ridge crossings, 50 Percent Rule, One Percent Dive-Angle Rule and the High-to-Low Transition.

Performance Standards

Practice

Recite LAT Rules from Memory
Remain above Briefed Minimum Altitude
Adhere to Dive Recovery Numbers
Execute High-to-Low Maneuvers

Instructor. LATI

Prerequisites. 2103, 2501

Range. LAT.

2.14 MISSION PLUS PHASE

Purpose. To introduce and maintain proficiency in F-35 employment in Mission Plus Stages. Pilots proficient in this phase should be capable of executing missions with a low probability of execution.

General. The following Stages are included in the Mission Plus Phase of training.

Mission Plus Phase Overview

MISSION PLUS PHASE		
STAGE	PARAGRAPH	PAGE NUMBER
FCLP/CQ	2.15.1	2-114
AESC	2.15.2	2-120
AMT	2.15.3	2-122
FAC(A)	2.15.4	2-123
TAC(A)	2.15.5	2-130
EXP	2.15.6	2-130

Admin Notes. FAC(A) requirements are per the JFAC(A) MOA.

External Resource Requirements. 1 CI at the console.

SCQ-4306 1.5 365 B,R D S 1 FMS

Goal. Introduce Night CQ, F-35B.

Requirements. Requirements are per the STOVL LSO NATOPS.

Performance Standards

Introduce
 Pattern Procedures
 VL Procedures
 STO Procedures
 Communications

Instructor. LSO

Prerequisites. 4302, per STOVL LSO NATOPS

External Resource Requirements. 1 CI at the console.

SCQ-4307 1.5 365 B,R,M D/NS S 1 FMS

Goal. Introduce CQ Emergency Procedures, F-35B.

Requirements. Conduct EPs applicable to shipboard operations.

Performance Standards

Introduce
 Pattern Procedures
 VL Procedures
 STO Procedures
 Crew Resource Management
 Communications

Instructor. LSO

Prerequisites. 4306

External Resource Requirements. 1 CI at the console.

CQ-4308 1.0 365 B,R,M D A 1 F-35

Goal. Introduce Day CQ, F-35B.

Requirements. Requirements are per the STOVL LSO NATOPS.

Performance Standards

Introduce
 Pattern Procedures
 VL Procedures
 STO Procedures
 Communications

Instructor. LSO

Prerequisite. 4303, 4307

External Resource Requirements. L-Class Ship.

CQ-4309 1.0 365 B,R,M N A 1 F-35

Goal. Introduce Night CQ, F-35B.

Requirements. Requirements are per the STOVL LSO NATOPS.

Performance Standards

Introduce
 Pattern Procedures
 VL Procedures
 STO Procedures
 Communications

Instructor. LSO

Prerequisite. 4304, 4308

External Resource Requirements. L-Class Ship.

FCLP-4310 1.0 365 B,R D A 1 F-35

Goal. Practice Day FCLPs, F-35C.

Requirements. Requirements are per the CVN LSO NATOPS.

Performance Standards

Practice
 Pattern Procedures
 Ball Flying
 Communications

Instructor. LSO

Prerequisites. 2103, per CVN LSO NATOPS

External Resource Requirements. FCLP Facility.

FCLP-4311 1.0 365 B,R N A 1 F-35

Goal. Practice Night FCLPs, F-35C.

Requirements. Requirements are per the CVN LSO NATOPS.

Performance Standards

Practice
 Pattern Procedures
 Ball Flying
 Communications

Instructor. LSO

Prerequisites. 4310, per CVN LSO NATOPS

External Resource Requirements. FCLP Facility.

SCQ-4312 1.5 365 B,R D S 1 FMS

Goal. Introduce Day CQ, F-35C.

Requirements. Requirements are per the CVN LSO NATOPS.

Performance Standards

Introduce
 Pattern Procedures
 Ball Flying
 Communications

Instructor. LSO

Prerequisites. 4310, per CVN LSO NATOPS

External Resource Requirements. 1 CI at the console.

SCQ-4313 1.5 365 B,R D S 1 FMS

Goal. Introduce Night CQ, F-35C.

Requirements. Requirements are per the CVN LSO NATOPS.

Performance Standards

Introduce
 Pattern Procedures
 Ball Flying
 Communications

Instructor. LSO

Prerequisites. 4311, 4312, per CVN LSO NATOPS

External Resource Requirements. 1 CI at the console.

SCQ-4314 1.5 365 B,R,M D/NS S 1 FMS

Goal. Introduce CQ Emergency Procedures, F-35C.

Requirements. Conduct EPs applicable to shipboard operations.

Performance Standards

Introduce
 Pattern Procedures
 Ball Flying
 Crew Resource Management
 Communications

Instructor. LSO

Prerequisites. 4313

External Resource Requirements. 1 CI at the console.

CQ-4315 1.0 365 B,R,M D A 1 F-35

Goal. Introduce Day CQ, F-35C.

Requirements. Requirements are per the CVN LSO NATOPS.

Performance Standards

Introduce
 Pattern Procedures
 Ball Flying
 Communications

Instructor. LSO

Prerequisite. 4314

External Resource Requirements. Aircraft Carrier, Fixed Wing, Nuclear Powered (CVN) Ship.

CQ-4316 1.0 365 B,R,M N A 1 F-35

Goal. Introduce Night CQ, F-35C.

Requirements. Requirements are per the CVN LSO NATOPS.

Performance Standards

Introduce
Pattern Procedures
Ball Flying
Communications

Instructor. LSO

Prerequisite. 4315

External Resource Requirements. Aircraft Carrier, Fixed Wing, Nuclear Powered (CVN) Ship.

2.15.2 AERIAL ESCORT (AESC)

Purpose. To introduce aerial escort.

General. Upon completion, the PUI should demonstrate proficiency in convoy escort, assault support escort and FAC(A) escort.

AESC Overview

AERIAL ESCORT (AESC) STAGE							
EVENT	TIME	PROFICIENCY PERIOD	POI	COND	DEVICE	NUM	DESCRIPTION
AESC-4401	1.5	365	B,R,M	(N)	A	2	Convoy Escort
AESC-4402	1.5	365	B,R,M	(N)	A	2	Assault Support Escort
AESC-4403	1.5	365	B,R,M	(N)	A	2	FAC(A) Escort

Admin Notes. The brief should emphasize mission planning, tactical decision making, element positioning, target acquisition, and weapons employment. The PUI should be familiar with escort operations.

Prerequisite. Academic syllabus IAW the MAWTS-1 F-35 Course Catalog.

AESC-4401 1.5 365 B,R,M (N) A 2 F-35

Goal. Introduce Convoy Escort.

Requirements. Conduct a convoy escort along a route to locate and destroy targets of opportunity in a low or medium threat environment. Emphasize mission planning, search pattern, target acquisition, weapons employment, and information flow through the MACCS.

Performance Standards

Introduce
Convoy Integration
Practice
Route Search
ID Targets
Mutual Support
Weapons Employment
Communications

Instructor. SL or CIP

Prerequisite. 3202

Ordnance

ORDNANCE	QUANTITY	ALLOWABLE SUBSTITUTES	NOTES
PGM	2		
PGU-23	220	PGU-32	
MJU-61	48	MJU-64, MJU-66	

Range

RANGE REQUIREMENTS		
REQUIRED CAPABILITIES	ALLOWABLE SUBSTITUTES	DESIRED CAPABILITIES
RSTD	MOA	EXP
JDAM, LGB		
STRAFE		
LSR		
TGT-DISP	TGT	

External Resource Requirements. Vehicle convoy.

AESC-4402 1.5 365 B,R,M (N) A 2 F-35

Goal. Introduce Assault Support Escort.

Requirements. Conduct assault support escort along a route to locate and destroy targets of opportunity in a low or medium threat environment. Emphasize mission planning, search pattern, target acquisition, weapons employment, and information flow through the MACCS.

Performance Standards

Introduce
Assault Support Integration
Practice
Route Search
ID Targets
Mutual Support
Weapons Employment
Communications

Instructor. SL or CIP

Prerequisite. 3202

Ordnance

ORDNANCE	QUANTITY	ALLOWABLE SUBSTITUTES	NOTES
PGM	2		
PGU-23	220	PGU-32	
MJU-61	48	MJU-64, MJU-66	

Range

RANGE REQUIREMENTS		
REQUIRED CAPABILITIES	ALLOWABLE SUBSTITUTES	DESIRED CAPABILITIES
RSTD	MOA	EXP
JDAM, LGB		
STRAFE		
LSR		
TGT-DISP	TGT	

External Resource Requirements. 1+ RW Assault Support.

AESC-4403 1.5 365 B,R,M (N) A 2 F-35

Goal. Introduce FAC(A) Escort.

Requirements. Execute escort procedures during a FAC(A) mission. Provide mutual support, threat lookout, and

duties assigned by the FAC(A) aircraft. Emphasis on communications relay and backup marks.

Performance Standards

Introduce
 FAC(A) Escort Execution
Practice
 Mutual Support
 Threat Lookout
 Weapons Employment
 Communications

Instructor. SL or CIP

Prerequisite. 3104, 3202

Ordnance

ORDNANCE	QUANTITY	ALLOWABLE SUBSTITUTES	NOTES
PGM	2		
PGU-23	220	PGU-32	
MJU-61	48	MJU-64, MJU-66	

Range

RANGE REQUIREMENTS		
REQUIRED CAPABILITIES	ALLOWABLE SUBSTITUTES	DESIRED CAPABILITIES
RSTD	MOA	EXP
JDAM, LGB		
STRAFE		
LSR		
TGT-DISP	TGT	

External Resource Requirements. FAC(A). 2+ CAS aircraft.

2.15.3 ATTACK ENEMY MARITIME TARGETS (AMT)

Purpose. To introduce operations against enemy maritime targets.

General. Upon completion, the PUI should demonstrate proficiency in attacking enemy maritime targets.

AMT Overview

ATTACK ENEMY MARITIME TARGETS (AMT) STAGE							
EVENT	TIME	PROFICIENCY PERIOD	POI	COND	DEVICE	NUM	DESCRIPTION
AMT-4501	1.5	365	B,R,M	(N)	A	2	Sea Surface Control
AMT-4502	1.5	365	B,R,M	(N)	A	2	War-at-Sea Exercise

Admin Notes. The PUI should be familiar with sensor and weapon capabilities against sea-based threats.

Prerequisite. Academic syllabus IAW the MAWTS-1 F-35 Course Catalog.

AMT-4501 1.5 365 B,R,M (N) A 2 F-35

Goal. Introduce Sea Surface Control.

Requirements. Conduct a Sea Surface Control (SSC) mission in support of the Anti-Surface Warfare Commander's objectives. Execute SSC in the assigned sector to locate, classify, identify, and engage surface contacts. Emphasize target acquisition, identification, command and control coordination, and weapons employment.

Performance Standards

Introduce
 ID Assigned Targets
 Conduct ISR on Assigned Targets
Practice
 Sensor Employment

Weapons Employment
Communications

Instructor. SL or CIP

Prerequisite. 3202

Ordnance

ORDNANCE	QUANTITY	ALLOWABLE SUBSTITUTES	NOTES
PGM	2		
PGU-23	220	PGU-32	
MJU-61	48	MJU-64, MJU-66	

Range. MOA

External Resource Requirements. Sea-based targets.

AMT-4502 1.5 365 B,R,M (N) A 2 F-35

Goal. Introduce War-at-Sea Exercise.

Requirements. Conduct a War-at-Sea Exercise (WASEX). Execute ingress, ordnance delivery, and egress tactics consistent with the threat. Emphasize mission planning, target acquisition, tactical decision-making, mutual support, threat reactions, and target destruction.

Performance Standards

Introduce
Engage Surface Contacts
Practice
Sensor Employment
Weapons Employment
Communications

Instructor. SL or CIP

Prerequisite. 3202

Ordnance

ORDNANCE	QUANTITY	ALLOWABLE SUBSTITUTES	NOTES
PGM	2		
PGU-23	220	PGU-32	
MJU-61	48	MJU-64, MJU-66	

Range. MOA

External Resource Requirements. Sea-based targets.

2.15.4 FORWARD AIR CONTROLLER (AIRBORNE) (FAC(A))

Purpose. To introduce FAC(A) operations.

General. Upon completion, the PUI should demonstrate proficiency in F-35 FAC(A) operations.

The JCAS AP MOA 2004-02 with update of 12 March 2018 (referred to as the JFAC(A) MOA) provides the minimum standard for certification and qualification as a FAC(A). While meeting the T&R syllabus requirements for FAC(A) should meet or exceed the JFAC(A) MOA requirements for minimum FAC(A) certification tasks, the PTO shall ensure the minimum tasks are completed prior to qualification. The JFAC(A) MOA can be found at [https://mceits.usmc.mil/sites/mawts1/SitePages/JFAC\(A\).aspx](https://mceits.usmc.mil/sites/mawts1/SitePages/JFAC(A).aspx). Pilots conducting FAC(A) operations shall comply with the policies contained in the most recent version of the JFAC(A) MOA. If the JFAC(A) MOA is updated prior to the T&R syllabus, the JFAC(A) MOA requirements will supersede this document.

A non-FAC(A)-qualified pilot will fly the aircraft sorties with a MAWTS-1 certified F-35 FAC(A)I, AV-8B FAC(A)I, FA-18A/C FAC(A)I, or FA-18D FAC(A)I crew designated by the commanding officer. The FAC(A)I will be in the escort aircraft. The FAC(A)I may simulate the JTAC if one is not available. The simulator events will be completed with a FAC(A)I at the simulator console.

A non-FAC(A)-qualified pilot must have a FAC(A)I in the section and may not control CAS aircraft delivering actual ordnance closer than the most conservative of minimum safe distance, 1000 meters, or range regulations. A FAC(A)-qualified pilot may not employ CAS aircraft delivering actual ordnance closer than the most conservative of minimum safe distance or range regulations.

SFAC(A)-4608 through SFAC(A)-4610 are exercises in integrating multiple fire support assets. The intent is to expose prospective FAC(A) pilots to the unique challenges posed by each asset when integrated with FW CAS. Each sortie should concentrate on the integration procedures for a different asset, culminating in a final SFAC(A)-4610 check ride using multiple fire support assets. If SFAC(A)-4608 integrates IDF assets, FAC(A)-4609 should integrate RW/UAS CAS and vice versa. At a minimum, IDF must be integrated into one of the sorties in the SFAC(A)-4608 through SFAC(A)-4610, with SFAC(A)-4608 being the preferred sortie.

Upon successful completion of the FAC(A) stage and the JFAC(A) MOA certification requirements, the commanding officer may issue the T&R FAC(A) qualification as well as a JFAC(A) MOA FAC(A) certification.

Failure to meet JFAC(A) MOA proficiency or currency requirements or loss of proficiency (delinquent refly factor) for all associated FAC(A) qualification events constitutes loss of the FAC(A) qualification.

The intent of the T&R maintain events and refly intervals is to meet the JFAC(A) MOA minimum requirements to maintain qualification. The minimum FAC(A) currency tasks as well the FAC(A) requalification process are clearly defined in the JFAC(A) MOA.

Escort aircraft that are flown by a FAC(A)I conducting instruction during a FAC(A)/FAC(A)I workup will log the appropriate FAC(A) code and log the FAC(A) controls. F-35 FAC(A) flights should fly as a section, and the escort for an F-35 FAC(A) shall be CAS stage complete. Escort aircraft will not fulfill the external support requirement of a FW CAS element for any FAC(A) stage sortie.

FAC(A) Overview

FORWARD AIR CONTROLLER (AIRBORNE) (FAC(A)) STAGE							
EVENT	TIME	PROFICIENCY PERIOD	POI	COND	DEVICE	NUM	DESCRIPTION
SFAC(A)-4601	1.5	*	B	D	S	2	FW (PGM) Permissive
SFAC(A)-4602	1.5	365	B,R,M	D	S	2	FW (GP / Mark) Permissive
FAC(A)-4603	1.5	365	B,R,M	(N)	A	2	FW (PGM) Permissive
FAC(A)-4604	1.5	365	B,R	(N)	A	2	FW (GP / Mark) Permissive
SFAC(A)-4605	1.5	*	B	D	S	2	RW / Urban
SFAC(A)-4606	1.5	*	B	D	S	2	Airspot
FAC(A)-4607	1.5	365	B,R,M	N	A	2	Night FW / RW
SFAC(A)-4608	1.5	*	B	D	S	2	2 Element Integration
FAC(A)-4609	1.5	*	B	(N)	A	2	2 Element Integration
SFAC(A)-4610	1.5	365	B,R,M	N	S	2	Night Multi-Element Integration

Admin Notes. The PUI should be familiar with sensor and weapon capabilities of all potential CAS assets as well as the JFAC(A) MOA, MCRP 3-16.6A (J-FIRE) and JP 3-09.3 (JCAS) publications.

Prerequisite. Academic syllabus IAW the MAWTS-1 F-35 Course Catalog. The pilot shall be an LTI.

SFAC(A)-4601 1.5 * B D S 2 FMS

Goal. Introduce FW PGM Employment in a Permissive Environment.

Requirements. Conduct FW Type 1 and 2 control procedures with PGMs in a low (permissive) threat environment. Perform visual/sensor reconnaissance of three separate targets, and generate target coordinates with aircraft systems. Plot targets on gridded imagery/chart and prepare target briefs. Control one Type 1 and three Type 2 attacks by FW aircraft using level and roll-in delivery profiles. Use appropriate CAS briefing and control procedures. Deliver or coordinate laser mark on target and guide one LGW to impact. Provide BDA. Four controls required for completion.

Performance Standards

- Introduce
 - Generate Target Coordinates and 9-Line
 - Provide Laser Mark with J-LASER Terminology
 - Guide LGW
 - FAC(A)/CAS PGM Attack Profiles
 - FAC(A) Type 1/2 Control TTPs
- Practice
 - Search, Detection, and Identification Profiles
 - JCAS Communications

Instructor. FAC(A)I

Prerequisite. 3105, 6606, LTI

External Resource Requirements. 2 CIs to operate the console and CAS assets.

SFAC(A)-4602 1.5 365 B,R,M D S 2 FMS

Goal. Introduce FW GP Employment in a Permissive Environment.

Requirements. Conduct FW Type 1 and 3 control procedures with GP ordnance in a low (permissive) threat environment. Perform visual/sensor reconnaissance of three separate targets, at least one while working with a remote observer, and generate target coordinates with aircraft systems. Plot targets on gridded imagery/chart and prepare target briefs. Control three Type 1 and one Type 3 attacks by FW aircraft using low threat tactics and GP ordnance. Use appropriate CAS briefing and control procedures. Perform authentication procedures. Deliver or coordinate marking rounds on target, with a minimum of one mark via aircraft ordnance. Demonstrate the ability to provide timely, accurate corrections for CAS aircraft and the ability to provide talk-ons. Provide BDA. Four controls required for completion.

Performance Standards

- Introduce
 - FAC(A)/CAS GP Attack Profiles
 - FAC(A) Type 3 Control TTPs
 - Coordinate Marking Rounds
- Practice
 - Search, Detection, and Identification Profiles
 - Generate Target Coordinates and 9-Line
 - FAC(A) Type 1 Control TTPs
 - JCAS Communications

Instructor. FAC(A)I

Prerequisite. 4601

External Resource Requirements. 2 CIs to operate the console and CAS assets.

FAC(A)-4603 1.5 365 B,R,M (N) A 2 F-35

Goal. Practice FW PGM Employment in a Permissive Environment.

Requirements. Conduct FW Type 1 and 2 control procedures with PGMs in a low (permissive) threat environment. Perform visual/sensor reconnaissance of three separate targets, and generate target coordinates with aircraft systems. Plot targets on gridded imagery/chart and prepare target briefs. Control one Type 1 and three Type 2 attacks by FW aircraft using level and roll-in delivery profiles. Use appropriate CAS briefing and control procedures. Deliver or coordinate laser mark on target and guide one LGW to impact. Provide BDA. Four controls required for completion.

Performance Standards

- Practice
 - Search, Detection, and Identification Profiles
 - Generate Target Coordinates and 9-Line
 - Provide Laser Mark with J-LASER Terminology
 - Guide LGW

FAC(A)/CAS PGM Attack Profiles
FAC(A) Type 1/2 Control TTPs
JCAS Communications

Instructor. FAC(A)I

Prerequisite. 4601

Ordnance

ORDNANCE	QUANTITY	ALLOWABLE SUBSTITUTES	NOTES
PGM	2		
PGU-23	220	PGU-32	
MJU-61	48	MJU-64, MJU-66	

Range

RANGE REQUIREMENTS		
REQUIRED CAPABILITIES	ALLOWABLE SUBSTITUTES	DESIRED CAPABILITIES
RSTD		EXP
JDAM, LGB		HE
STRAFE		EW, SST
JCAS		
TGT-DISP	TGT, MOCK, COMPLEX	TGT-MOVE, IR TGT, RDR TGT

External Resource Requirements. 1+ FW CAS asset with live or inert PGMs. JTAC desired.

FAC(A)-4604 1.5 365 B,R (N) A 2 F-35

Goal. Practice FW GP Employment in a Permissive Environment.

Requirements. Conduct FW Type 1 and 3 control procedures with GP ordnance in a low (permissive) threat environment. Perform visual/sensor reconnaissance of three separate targets, at least one while working with a remote observer, and generate target coordinates with aircraft systems. Plot targets on gridded imagery/chart and prepare target briefs. Control three Type 1 and one Type 3 attacks by FW aircraft using low threat tactics and GP ordnance. Use appropriate CAS briefing and control procedures. Perform authentication procedures. Deliver or coordinate marking rounds on target, with a minimum of one mark via aircraft ordnance. Demonstrate the ability to provide timely, accurate corrections for CAS aircraft and the ability to provide talk-ons. Provide BDA. Four controls required for completion.

Performance Standards

Practice

Search, Detection, and Identification Profiles
Generate Target Coordinates and 9-Line
FAC(A)/CAS GP Attack Profiles
FAC(A) Type 1/3 Control TTPs
Coordinate Marking Rounds
JCAS Communications

Instructor. FAC(A)I

Prerequisite. 4602

Ordnance

ORDNANCE	QUANTITY	ALLOWABLE SUBSTITUTES	NOTES
PGM	2		
PGU-23	220	PGU-32	
MJU-61	48	MJU-64, MJU-66	

Range

RANGE REQUIREMENTS		
REQUIRED CAPABILITIES	ALLOWABLE SUBSTITUTES	DESIRED CAPABILITIES
RSTD		EXP

JDAM, LGB		HE
STRAFE		EW, SST
JCAS		
TGT-DISP	TGT, MOCK, COMPLEX	TGT-MOVE, IR TGT, RDR TGT

External Resource Requirements. 1+ FW CAS asset with live or inert GP ordnance. JTAC desired.

SFAC(A)-4605 1.5 * B D S 2 FMS

Goal. Introduce RW Employment in a Permissive Urban Environment.

Requirements. Conduct RW Type 1, 2, and 3 control procedures in a low (permissive) threat urban environment. Perform visual/sensor reconnaissance of three separate targets in an urban environment, at least one while working with a remote observer, and generate target coordinates with aircraft systems. Plot targets on Gridded Reference Graphic (GRG) and prepare target briefs. Control one Type 1, two Type 2, and two Type 3 attacks by attack helicopters. Use appropriate RW CAS briefing and control procedures. Deliver marking rounds/talk-on or provide laser designation. For Type 1 (rockets/guns) controls, emphasis should be on providing corrections, ensuring compliance with limit-of-advance and providing threat lookout for RW assets in the target area. For Type 2 controls, emphasis should be on providing a target sort and ensuring deconfliction with friendlies. One of the two controls must have the FAC(A) lase for RW weapons. Five controls required for completion.

Performance Standards

Introduce

Urban Search, Detection, and Identification Profiles
GRG Talk-On
FAC(A)/CAS RW Attack Profiles
FAC(A) RW Type 1/2/3 Control TTPs

Practice

Generate Target Coordinates and 9-Line
Provide Laser Mark with J-LASER Terminology
JCAS Communications

Instructor. FAC(A)I

Prerequisite. 4602

External Resource Requirements. 2 CIs to operate the console and CAS assets.

SFAC(A)-4606 1.5 * B D S 2 FMS

Goal. Introduce Airspot.

Requirements. Conduct visual/sensor reconnaissance on three tactical targets, and generate target coordinates with aircraft systems. Plot targets on gridded imagery/chart and prepare a call-for-fire brief. Emphasize accurate call-for-fire communications and adjustment procedures. One adjust fire (laser grid), one immediate suppression, one SEAD mission, and one high threat SEAD mission required for completion. Immediate suppression CFF should be completed within 60 seconds of receiving the mission from the JTAC. Emphasis on high-threat Airspot is FAC(A) positioning to provide redundant mark and accurate corrections for IDF with simulated weather of overcast at 8,000 ft MSL. Both SEAD missions must include marking and suppression of targets.

Performance Standards

Introduce

Communications with Firing Unit
Corrections to Firing Unit
Immediate Suppression CFF

Practice

Execute Search, Detection, and Identification Profiles
Generate Target Coordinates and 9-Line
Provide Laser Mark with J-LASER Terminology
JCAS Communications

Instructor. FAC(A)I

Prerequisite. 4602

External Resource Requirements. 2 CIs to operate the console and CAS assets.

FAC(A)-4607 1.5 365 B,R,M N A 2 F-35

Goal. Introduce Night Employment in a Permissive Environment.

Requirements. Conduct procedures at night in a low (permissive) threat environment. Perform visual/sensor reconnaissance of three separate targets on a tactical range, and generate target coordinates with aircraft systems. Plot targets on gridded imagery/chart and prepare target briefs. Control one Type 1 and two Type 2 attacks by FW/RW aircraft. Use appropriate CAS briefing and control procedures. Deliver or coordinate marking rounds or laser mark on target. At least one Type 1 control must use a laser mark. Demonstrate the ability to provide timely, accurate corrections for CAS aircraft. Provide BDA.

Performance Standards

Introduce
FAC(A)/CAS Night Attack Profiles
Practice
Search, Detection, and Identification Profiles
Generate Target Coordinates and 9-Line
FAC(A) Type 1/2 Control TTPs
Coordinate Marking Rounds
Provide Laser Mark with J-LASER Terminology
JCAS Communications

Instructor. FAC(A)I

Prerequisite. 4604

Ordnance

ORDNANCE	QUANTITY	ALLOWABLE SUBSTITUTES	NOTES
PGM	2		
PGU-23	220	PGU-32	
MJU-61	48	MJU-64, MJU-66	

Range

RANGE REQUIREMENTS		
REQUIRED CAPABILITIES	ALLOWABLE SUBSTITUTES	DESIRED CAPABILITIES
RSTD		EXP
JDAM, LGB		HE
STRAFE		EW, SST
JCAS		
TGT-DISP	TGT, MOCK, COMPLEX	TGT-MOVE, IR TGT, RDR TGT

External Resource Requirements. 1+ FW/RW CAS asset with live or inert ordnance. JTAC desired.

SFAC(A)-4608 1.5 * B D S 2 FMS

Goal. Introduce 2 Element Integration.

Requirements. Conduct 2 element and supporting arms integration. Perform visual/sensor reconnaissance, and generate target coordinates with aircraft systems. Plot targets on gridded imagery/chart and prepare target briefs. Plan and execute at least one integrated attack utilizing two elements. For FW/RW/UAS integration, emphasis is on conducting a sector or combined (simultaneous or sequential) attack. For CAS/IDF integration, use time, altitude, or lateral deconfliction.

Performance Standards

Introduce
Coordination and Approval for IDF and CAS Attacks
Practice

Search, Detection, and Identification Profiles
Generate Target Coordinates and 9-Line
FAC(A) Type 1/2/3 Control TTPs
Provide Laser Mark with J-LASER Terminology
JCAS Communications

Instructor. FAC(A)I

Prerequisite. 4605

External Resource Requirements. 2 CIs to operate the console and CAS assets.

FAC(A)-4609 1.5 * B (N) A 2 F-35

Goal. Practice 2 Element Integration.

Requirements. Conduct 2 element and supporting arms integration. Perform visual/sensor reconnaissance, and generate target coordinates with aircraft systems. Plot targets on gridded imagery/chart and prepare target briefs. Plan and execute at least one integrated attack utilizing two elements. For FW/RW/UAS integration, emphasis is on conducting a sectorized or combined (simultaneous or sequential) attack. For CAS/IDF integration, use time, altitude, or lateral deconfliction. This sortie should be flown in a MAGTF-level exercise.

Performance Standards

Practice

Search, Detection, and Identification Profiles
Generate Target Coordinates and 9-Line
Coordination and Approval for IDF and CAS Attacks
FAC(A) Type 1/2/3 Control TTPs
Provide Laser Mark with J-LASER Terminology
JCAS Communications

Instructor. FAC(A)I

Prerequisite. 4608

Ordnance

ORDNANCE	QUANTITY	ALLOWABLE SUBSTITUTES	NOTES
PGM	2		
PGU-23	220	PGU-32	
MJU-61	48	MJU-64, MJU-66	

Range

RANGE REQUIREMENTS		
REQUIRED CAPABILITIES	ALLOWABLE SUBSTITUTES	DESIRED CAPABILITIES
RSTD		EXP
JDAM, LGB		HE
STRAFE		EW, SST
JCAS		
TGT-DISP	TGT, MOCK, COMPLEX	TGT-MOVE, IR TGT, RDR TGT

External Resource Requirements. 2+ CAS elements (FW/RW/UAS/IDF) with live or inert ordnance. JTAC desired.

SFAC(A)-4610 1.5 365 B,R,M N S 2 FMS

Goal. Introduce Night Multi-Element Integration.

Requirements. Conduct night multi-element and supporting arms integration. Perform visual/sensor reconnaissance, and generate target coordinates with aircraft systems. Plot targets on gridded imagery/chart and prepare target briefs. Plan and execute at least one integrated attack utilizing three or more elements. For FW/RW/UAS integration, emphasis is on conducting a sectorized or combined (simultaneous or sequential) attack. For CAS integration, use time, altitude, or lateral deconfliction. Coordinate at least one high threat SEAD attack.

Performance Standards

Introduce
Night Multi-Element Integration
Practice
Search, Detection, and Identification Profiles
Generate Target Coordinates and 9-Line
Coordination and Approval for IDF and CAS Attacks
FAC(A) Type 1/2/3 Control TTPs
Provide Laser Mark with J-LASER Terminology
JCAS Communications
Coordinate SEAD mission

Instructor. FAC(A)I

Prerequisite. 4608

External Resource Requirements. 2 CIs to operate the console and CAS assets.

2.15.5 TACTICAL AIR COORDINATOR (AIRBORNE) (TAC(A))

Purpose. To introduce TAC(A) execution.

General. Upon completion, the PUI should demonstrate proficiency in TAC(A) execution.

TAC(A) Overview

TACTICAL AIR COORDINATOR (AIRBORNE) (TAC(A)) STAGE							
EVENT	TIME	PROFICIENCY PERIOD	POI	COND	DEVICE	NUM	DESCRIPTION
TAC(A)-4701	1.5	545	B,R,M	(N)	A	1	TAC(A)

Admin Notes. A FAC(A)I shall instruct the event. The PUI should be familiar with the requirements from each controlling agency.

Prerequisite. Academic syllabus IAW the MAWTS-1 F-35 Course Catalog. The pilot shall be FAC(A) qualified.

TAC(A)-4701 1.5 545 B,R,M (N) A 1 F-35

Goal. Introduce TAC(A) Procedures.

Requirements. Conduct TAC(A) procedures with multiple agencies. Perform coordination between attack aircraft and multiple terminal controllers. Receive attack briefings from the JTAC/FAC(A) and assign appropriate CAS aircraft. Coordinate target mark and control with the JTAC/FAC(A). Manage assigned airspace and provide command and control system with essential elements of information. Perform authentication procedures if required.

Performance Standards

Introduce
Accurately Copy Immediate JTAR
Coordinate Timely CAS
Pass CAS Aircraft BDA via MACCS

Instructor. FAC(A)I

Prerequisite. 4610, FAC(A)

Range. MOA

External Resource Requirements. JTAC/FAC(A) and 2+ CAS elements.

2.15.6 EXPEDITIONARY OPERATIONS (EXP)

Purpose. To build upon a foundation of expeditionary tactics, techniques, and procedures.

General. Upon completion, the PUI should demonstrate proficiency in F-35 expeditionary operations.

EXP Overview

EXPEDITIONARY OPERATIONS (EXP) STAGE							
EVENT	TIME	PROFICIENCY PERIOD	POI	COND	DEVICE	NUM	DESCRIPTION
SEXP-4801	1.5	365	B,R,M	D/NS	S	1	Expeditionary Operations

Admin Notes. Each brief should include a detailed discussion of precision RVL execution, pattern procedures, communications, and the layout of the expeditionary site. An LSS should assist in developing squadron SPINS. PUI should be familiar with FSD limitations and RVL PVI.

Prerequisite. Academic syllabus IAW the MAWTS-1 F-35 Course Catalog.

SEXP-4801 1.5 365 B,R,M D/NS S 1 FMS

Goal. Practice Expeditionary Operations.

Requirements. Execute a minimum of six day and six night precision RVLs to a road or auxiliary landing field. Execute a minimum of six day and six night STOs (Trundle or Button) from the landing site. Include one waveoff and one max crosswind RVL.

Performance Standards

Practice
 Pattern Procedures
 Precision RVL Execution
 STO Procedures

Prerequisites. 2101

External Resource Requirements. 1 CI at the console.

2.16 INSTRUCTOR TRAINING PHASE

Purpose. To designate an F-35 pilot as an instructor capable of safely conducting ground and airborne instruction of the specific syllabus events.

General. The following Stages are included in the Instructor Training Phase.

Instructor Training Phase Overview

INSTRUCTOR TRAINING PHASE		
STAGE	PARAGRAPH	PAGE NUMBER
FRSI	2.17.1	2-131
ACMI	2.17.2	2-142
LTI	2.17.3	2-142
FAC(A)I	2.17.4	2-144
LATI	2.17.5	2-145
FLSE	2.17.6	2-146
CIP	2.17.7	2-146

2.17 INSTRUCTOR TRAINING STAGES

2.17.1 FLEET REPLACEMENT SQUADRON INSTRUCTOR (FRSI)

Purpose. To designate pilots as FRSIs.

General. Upon completion, an FRSI shall be capable of evaluating appropriate 1000-level events.

FRSI Overview

FLEET REPLACEMENT SQUADRON INSTRUCTOR (FRSI) STAGE							
EVENT	TIME	PROFICIENCY PERIOD	POI	COND	DEVICE	NUM	DESCRIPTION
AFRSI-5001	2.0	*	B	-	G	-	FAM-1
FRSI-5002	1.3	*	B	D	A	2	FAM-2
SFRSI-5003	1.7	*	B	D	S	1	FAM-3
SFRSI-5004	1.7	*	B	D	S	1	FAM-4
AFRSI-5005	1.5	*	B	-	G	-	FAM-5
AFRSI-5006	1.0	*	B	-	G	-	FAM-6
AFRSI-5007	1.0	*	B	-	G	-	AAR-1
AFRSI-5008	0.5	*	B	-	G	-	AAR-2
SFRSI-5009	1.7	*	B	D	S	2	AS-1
AFRSI-5010	1.5	*	B	-	G	-	AS-2
AFRSI-5011	1.0	*	B	-	G	-	AS-3
SFRSI-5012	1.7	*	B	D	S	1	BT-1
AFRSI-5013	1.5	*	B	-	G	-	BT-2
AFRSI-5014	1.0	*	B	-	G	-	BT-3
AFRSI-5015	1.5	*	B	-	G	-	BT-4
AFRSI-5016	1.0	*	B	-	G	-	BT-5
AFRSI-5017	1.5	*	B	-	G	-	BFM-1
AFRSI-5018	1.5	*	B	-	G	-	BFM-2
AFRSI-5019	1.5	*	B	-	G	-	BFM-3
FRSI-5020	1.3	*	B	-	A	2	BFM-4
AFRSI-5021	1.0	*	B	-	G	-	BFM-5
AFRSI-5022	1.0	*	B	-	G	-	TI-1
SFRSI-5023	1.7	*	B	D	S	2	TI-2
AFRSI-5024	1.5	*	B	-	G	-	TI-3
AFRSI-5025	2.0	*	B	-	G	-	TI-4
SFRSI-5026	1.7	*	B	D	S	4	TI-5
AFRSI-5027	1.0	*	B	-	G	-	TI-6
SFRSI-5028	1.7	*	B	D	S	4	AR-1
AFRSI-5029	1.0	*	B	-	G	-	AR-2
SFRSI-5030	1.7	*	B	D	S	2	CAS-1
AFRSI-5031	1.0	*	B	-	G	-	CAS-2
AFRSI-5032	1.0	*	B	-	G	-	CAS-3
SFRSI-5033	1.7	*	B	D	S	4	AAW-1
SFRSI-5034	1.7	*	B	D	S	4	AAW-2
AFRSI-5035	1.0	*	B	-	G	-	AAW-3
AFRSI-5036	1.0	*	B	-	G	-	SEAD-1
AFRSI-5037	1.5	*	B	-	G	-	SEAD-2
SFRSI-5038	1.7	*	B	D	S	4	SEAD-3
AFRSI-5039	1.0	*	B	-	G	-	SEAD-4
SFRSI-5040	1.7	*	B	D	S	4	STK-1
SFRSI-5041	1.7	*	B	D	S	4	STK-2
AFRSI-5042	1.0	*	B	-	G	-	STK-3
AFRSI-5043	2.0	*	B	-	G	-	NO-1
FRSI-5044	1.0	*	B	N	A	2	NO-2
FRSI-5045	1.0	*	B	N	A	4	NO-3
FRSI-5046	1.7	*	B	N	S	2	NO-4
SFRSI-5047	1.3	*	B	N	A	2	NO-5
AFRSI-5048	1.0	*	B	-	G	-	NO-6
SFRSI-5049	1.7	*	B	D	S	1	FCLP-1
AFRSI-5050	1.0	*	B	-	G	-	FCLP-2

Prerequisite. The pilot shall be a Division Lead.

AFRSI-5001 2.0 * B G

Goal. Evaluate Familiarization Brief (FAM-1).

Requirements. IAW VMFAT-501 IUT FSG.

Performance Standards. IAW VMFAT-501 IUT FSG.

Instructor. FRSI FAM Stage Stan-I

Prerequisite. Nominated by CO

FRSI-5002 1.3 * B D A 2 F-35

Goal. Evaluate Day Familiarization Flight (FAM-2).

Requirements. IAW VMFAT-501 IUT FSG.

Performance Standards. IAW VMFAT-501 IUT FSG.

Instructor. FRSI FAM Stage Stan-I

Prerequisite. 5001

Range. MOA

SFRSI-5003 1.7 * B D S 1 FMS

Goal. Evaluate STOVL Performance (FAM-3).

Requirements. IAW VMFAT-501 IUT FSG.

Performance Standards. IAW VMFAT-501 IUT FSG.

Instructor. FRSI FAM Stage Stan-I

Prerequisite. 5002

External Resource Requirements. 1 CI at the console.

SFRSI-5004 1.7 * B D S 1 FMS

Goal. Evaluate STOVL Teaching Techniques (FAM-4).

Requirements. IAW VMFAT-501 IUT FSG.

Performance Standards. IAW VMFAT-501 IUT FSG.

Instructor. FRSI FAM Stage Stan-I

Prerequisite. 5003

External Resource Requirements. 1 CI at the console.

AFRSI-5005 1.5 * B G

Goal. Introduce Paddles' Procedures (FAM-5).

Requirements. IAW VMFAT-501 IUT FSG.

Performance Standards. IAW VMFAT-501 IUT FSG.

Instructor. FRSI FAM Stage Stan-I

Prerequisite. 5004

External Resource Requirements. Paddles' Truck.

AFRSI-5006 1.0 * B G

Goal. Demonstrate Standardization Instructor Chalk Talk (FAM-6).

Requirements. IAW VMFAT-501 IUT FSG.

Performance Standards. IAW VMFAT-501 IUT FSG.

Instructor. FRSI FAM Stage Stan-I

Prerequisite. 5005

AFRSI-5007 1.0 * B G

Goal. Demonstrate Air-to-Air Refueling Brief (AAR-1).

Requirements. IAW VMFAT-501 IUT FSG.

Performance Standards. IAW VMFAT-501 IUT FSG.

Instructor. FRSI AAR Stage Stan-I

Prerequisite. 5004

AFRSI-5008 0.5 * B G

Goal. Demonstrate AAR Standardization Chalk Talk (AAR-2).

Requirements. IAW VMFAT-501 IUT FSG.

Performance Standards. IAW VMFAT-501 IUT FSG.

Instructor. FRSI AAR Stage Stan-I

Prerequisite. 5007

SFRSI-5009 1.7 * B D S 2 FMS

Goal. Evaluate Air-to-Surface Deliveries (AS-1).

Requirements. IAW VMFAT-501 IUT FSG.

Performance Standards. IAW VMFAT-501 IUT FSG.

Instructor. FRSI AS Stage Stan-I

Prerequisite. 5004

External Resource Requirements. 1 CI at the console.

AFRSI-5010 1.5 * B G

Goal. Demonstrate Air-to-Surface Deliveries Brief (AS-2).

Requirements. IAW VMFAT-501 IUT FSG.

Performance Standards. IAW VMFAT-501 IUT FSG.

Instructor. FRSI AS Stage Stan-I

Prerequisite. 5009

AFRSI-5011 1.0 * B G

Goal. AS Standardization Chalk Talk (AS-3).

Requirements. IAW VMFAT-501 IUT FSG.

Performance Standards. IAW VMFAT-501 IUT FSG.

Instructor. FRSI AS Stage Stan-I

Prerequisite. 5010

SFRSI-5012 1.7 * B D S 1 FMS

Goal. Demonstrate LAT and SACT (BT-1).

Requirements. IAW VMFAT-501 IUT FSG.

Performance Standards. IAW VMFAT-501 IUT FSG.

Instructor. FRSI BT Stage Stan-I

Prerequisite. 5005

External Resource Requirements. 1 CI at the console.

AFRSI-5013 1.5 * B G

Goal. Demonstrate LAT and SACT Brief (BT-2).

Requirements. IAW VMFAT-501 IUT FSG.

Performance Standards. IAW VMFAT-501 IUT FSG.

Instructor. FRSI BT Stage Stan-I

Prerequisite. 5005

AFRSI-5014 1.0 * B G

Goal. TI Chalk Talk (BT-3).

Requirements. IAW VMFAT-501 IUT FSG.

Performance Standards. IAW VMFAT-501 IUT FSG.

Instructor. FRSI BT Stage Stan-I

Prerequisite. 5012, 5013

AFRSI-5015 1.0 * B G

Goal. Demonstrate 1vX Brief (BT-4).

Requirements. IAW VMFAT-501 IUT FSG.

Performance Standards. IAW VMFAT-501 IUT FSG.

Instructor. FRSI BT Stage Stan-I

Prerequisite. 5014

AFRSI-5016 1.0 * B G

Goal. BT Standardization Instructor Chalk Talk (BT-5).

Requirements. IAW VMFAT-501 IUT FSG.

Performance Standards. IAW VMFAT-501 IUT FSG.

Instructor. FRSI BT Stage Stan-I

Prerequisite. 5014, 5015

AFRSI-5017 1.5 * B G

Goal. Demonstrate OBFM Brief (BFM-1).

Requirements. IAW VMFAT-501 IUT FSG.

Performance Standards. IAW VMFAT-501 IUT FSG.

Instructor. FRSI BFM Stage Stan-I

Prerequisite. Nominated by CO, ACMI

AFRSI-5018 1.5 * B G

Goal. Demonstrate DBFM Brief (BFM-2).

Requirements. IAW VMFAT-501 IUT FSG.

Performance Standards. IAW VMFAT-501 IUT FSG.

Instructor. FRSI BFM Stage Stan-I

Prerequisite. 5017

AFRSI-5019 1.5 * B G

Goal. Demonstrate HABFM Brief (BFM-3).

Requirements. IAW VMFAT-501 IUT FSG.

Performance Standards. IAW VMFAT-501 IUT FSG.

Instructor. FRSI BFM Stage Stan-I

Prerequisite. 5018

FRSI-5020 1.3 * B D A 2 F-35

Goal. Execute BFM (BFM-4).

Requirements. IAW VMFAT-501 IUT FSG.

Performance Standards. IAW VMFAT-501 IUT FSG.

Instructor. FRSI FAM Stage Stan-I

Prerequisite. 5019

Range. RSTD

AFRSI-5021 1.0 * B G

Goal. BFM Standardization Chalk Talk (BFM-5).

Requirements. IAW VMFAT-501 IUT FSG.

Performance Standards. IAW VMFAT-501 IUT FSG.

Instructor. FRSI BFM Stage Stan-I

Prerequisite. 5020

AFRSI-5022 1.0 * B G

Goal. TI Chalk Talk (TI-1).

Requirements. IAW VMFAT-501 IUT FSG.

Performance Standards. IAW VMFAT-501 IUT FSG.

Instructor. FRSI TI Stage Stan-I

Prerequisite. Nominated by the CO

SFRSI-5023 1.7 * B D S 2 FMS

Goal. Demonstrate 2vX MFE (TI-2).

Requirements. IAW VMFAT-501 IUT FSG.

Performance Standards. IAW VMFAT-501 IUT FSG.

Instructor. FRSI TI Stage Stan-I

Prerequisite. 5022

External Resource Requirements. 1 CI at the console.

AFRSI-5024 1.5 * B G

Goal. Demonstrate 2vX Brief (TI-3).

Requirements. IAW VMFAT-501 IUT FSG.

Performance Standards. IAW VMFAT-501 IUT FSG.

Instructor. FRSI TI Stage Stan-I

Prerequisite. 5023

AFRSI-5025 1.5 * B G

Goal. RTO Chalk Talk and Event Demonstration (TI-4).

Requirements. IAW VMFAT-501 IUT FSG.

Performance Standards. IAW VMFAT-501 IUT FSG.

Instructor. FRSI TI Stage Stan-I

Prerequisite. 5023, 5024

SFRSI-5026 1.7 * B D S 4 FMS

Goal. Demonstrate 4vX (TI-5).

Requirements. IAW VMFAT-501 IUT FSG.

Performance Standards. IAW VMFAT-501 IUT FSG.

Instructor. FRSI TI Stage Stan-I

Prerequisite. 5025

External Resource Requirements. 3 CIs to operate the console, AIC and red air.

AFRSI-5027 1.0 * B G

Goal. TI Standardization Chalk Talk (TI-6).

Requirements. IAW VMFAT-501 IUT FSG.

Performance Standards. IAW VMFAT-501 IUT FSG.

Instructor. FRSI TI Stage Stan-I

Prerequisite. 5026

SFRSI-5028 1.7 * B D S 4 FMS

Goal. Demonstrate Division Armed Reconnaissance (AR-1).

Requirements. IAW VMFAT-501 IUT FSG.

Performance Standards. IAW VMFAT-501 IUT FSG.

Instructor. FRSI AR Stage Stan-I

Prerequisite. 5010

External Resource Requirements. 1 CI at the console.

AFRSI-5029 1.0 * B G

Goal. AR Standardization Chalk Talk (AR-2).

Requirements. IAW VMFAT-501 IUT FSG.

Performance Standards. IAW VMFAT-501 IUT FSG.

Instructor. FRSI AR Stage Stan-I

Prerequisite. 5028

SFRSI-5030 1.7 * B D S 2 FMS

Goal. Demonstrate Section Close Air Support (CAS-1).

Requirements. IAW VMFAT-501 IUT FSG.

Performance Standards. IAW VMFAT-501 IUT FSG.

Instructor. FRSI CAS Stage Stan-I

Prerequisite. 5010

External Resource Requirements. 1 CI at the console.

AFRSI-5031 1.0 * B G

Goal. CAS FAC(A) Chalk Talk (CAS-2).

Requirements. IAW VMFAT-501 IUT FSG.

Performance Standards. IAW VMFAT-501 IUT FSG.

Instructor. FRSI CAS Stage Stan-I

Prerequisite. 5010

AFRSI-5032 1.0 * B G

Goal. CAS Standardization Chalk Talk (CAS-3).

Requirements. IAW VMFAT-501 IUT FSG.

Performance Standards. IAW VMFAT-501 IUT FSG.

Instructor. FRSI CAS Stage Stan-I

Prerequisite. 5031

SFRSI-5033 1.7 * B D S 4 FMS

Goal. Demonstrate Division DCA (AAW-1).

Requirements. IAW VMFAT-501 IUT FSG.

Performance Standards. IAW VMFAT-501 IUT FSG.

Instructor. FRSI AAW Stage Stan-I

Prerequisite. 5026

External Resource Requirements. 3 CIs to operate the console, AIC and red air.

SFRSI-5034 1.7 * B D S 4 FMS

Goal. Demonstrate Division OCA (AAW-2).

Requirements. IAW VMFAT-501 IUT FSG.

Performance Standards. IAW VMFAT-501 IUT FSG.

Instructor. FRSI AAW Stage Stan-I

Prerequisite. 5033

External Resource Requirements. 3 CIs to operate the console, AIC and red air.

AFRSI-5035 1.0 * B G

Goal. AAW Standardization Chalk Talk (AAW-3)

Requirements. IAW VMFAT-501 IUT FSG.

Performance Standards. IAW VMFAT-501 IUT FSG.

Instructor. FRSI AAW Stage Stan-I

Prerequisite. 5034

AFRSI-5036 1.0 * B G

Goal. SEAD Chalk Talk (SEAD-1).

Requirements. IAW VMFAT-501 IUT FSG.

Performance Standards. IAW VMFAT-501 IUT FSG.

Instructor. FRSI SEAD Stage Stan-I

Prerequisite. 5015

AFRSI-5037 1.5 * B G

Goal. Demonstrate Section SEAD Brief (SEAD-2).

Requirements. IAW VMFAT-501 IUT FSG.

Performance Standards. IAW VMFAT-501 IUT FSG.

Instructor. FRSI SEAD Stage Stan-I

Prerequisite. 5036

SFRSI-5038 1.7 * B D S 4 FMS

Goal. Demonstrate Division Destructive SEAD (SEAD-3).

Requirements. IAW VMFAT-501 IUT FSG.

Performance Standards. IAW VMFAT-501 IUT FSG.

Instructor. FRSI SEAD Stage Stan-I

Prerequisite. 5037

External Resource Requirements. 1 CI at the console.

AFRSI-5039 1.5 * B G

Goal. SEAD Standardization Chalk Talk (SEAD-4).

Requirements. IAW VMFAT-501 IUT FSG.

Performance Standards. IAW VMFAT-501 IUT FSG.

Instructor. FRSI SEAD Stage Stan-I

Prerequisite. 5038

SFRSI-5040 1.7 * B D S 4 FMS

Goal. Demonstrate Division Strike (STK-1).

Requirements. IAW VMFAT-501 IUT FSG.

Performance Standards. IAW VMFAT-501 IUT FSG.

Instructor. FRSI STK Stage Stan-I

Prerequisite. 6010, 6016, 6018

External Resource Requirements. 1 CI at the console.

SFRSI-5041 1.7 * B D S 4 FMS

Goal. Division Tactical Checkride (STK-2).

Requirements. IAW VMFAT-501 IUT FSG.

Performance Standards. IAW VMFAT-501 IUT FSG.

Instructor. FRSI STK Stage Stan-I

Prerequisite. 5040

External Resource Requirements. 1 CI at the console.

AFRSI-5042 1.0 * B G

Goal. Strike Standardization Chalk Talk (STK-3).

Requirements. IAW VMFAT-501 IUT FSG

Performance Standards. IAW VMFAT-501 IUT FSG

Instructor. FRSI STK Stage Stan-I

Prerequisite. 5041

AFRSI-5043 2.0 * B G

Goal. Demonstrate Night Operations Brief (NO-1).

Requirements. IAW VMFAT-501 IUT FSG.

Performance Standards. IAW VMFAT-501 IUT FSG.

Instructor. FRSI NO Stage Stan-I

Prerequisite. 6000, 6002, 6004, 6006, 6010, 6012, 6014, 6020

FRSI-5044 1.3 * B N A/S 2 F-35

Goal. Demonstrate Night Familiarization and Formation Flight (NO-2).

Requirements. IAW VMFAT-501 IUT FSG.

Performance Standards. IAW VMFAT-501 IUT FSG.

Instructor. FRSI NO Stage Stan-I

Prerequisite. 5043

Range. MOA

FRSI-5045 1.3 * B N A/S 4 F-35

Goal. Demonstrate Night 2v2 Tactical Intercepts (NO-3).

Requirements. IAW VMFAT-501 IUT FSG.

Performance Standards. IAW VMFAT-501 IUT FSG.

Instructor. FRSI NO Stage Stan-I

Prerequisite. 5044

Range. MOA

SFRSI-5046 1.7 * B N S 2 FMS

Goal. Demonstrate Night Chase and Night Strafe Employment (NO-4)

Requirements. IAW VMFAT-501 IUT FSG.

Performance Standards. IAW VMFAT-501 IUT FSG.

Instructor. FRSI NO Stage Stan-I

Prerequisite. 5045

External Resource Requirements. 1 CI at the console.

FRSI-5047 1.3 * B N A 2 F-35

Goal. Demonstrate Night Chase and Night Strafe Employment (NO-5)

Requirements. IAW VMFAT-501 IUT FSG.

Performance Standards. IAW VMFAT-501 IUT FSG.

Instructor. FRSI NO Stage Stan-I

Prerequisite. 5046

Range. MOA

AFRSI-5048 1.0 * B G

Goal. Night Operations Standardization Chalk Talk (NO-6).

Requirements. IAW VMFAT-501 IUT FSG.

Performance Standards. IAW VMFAT-501 IUT FSG.

Instructor. FRSI NO Stage Stan-I

Prerequisite. 5047

SFRSI-5049 1.7 * B D S 1 FMS

Goal. Demonstrate FCLP Procedures and Proficiency (FCLP-1).

Requirements. IAW VMFAT-501 IUT FSG.

Performance Standards. IAW VMFAT-501 IUT FSG.

Instructor. FRSI FCLP Stan-I

Prerequisite. Nominated by CO

External Resource Requirements. 1 CI at the console.

AFRSI-5050 1.0 * B G

Goal. FCLP Standardization Chalk Talk (FCLP-2).

Requirements. IAW VMFAT-501 IUT FSG.

Performance Standards. IAW VMFAT-501 IUT FSG.

Instructor. FRSI FCLP Stage Stan-I

Prerequisite. 5049

2.17.2 AIR COMBAT MANEUVERING INSTRUCTOR (ACMI)

Purpose. To designate pilots as Air Combat Maneuvering Instructors.

General. Upon completion, an ACMI shall be capable of evaluating appropriate 2000-level events.

ACMI Overview

AIR COMBAT MANEUVERING INSTRUCTOR (ACMI) STAGE							
EVENT	TIME	PROFICIENCY PERIOD	POI	COND	DEVICE	NUM	DESCRIPTION
ACMI-5101	1.0	*	B	D	A	2	MAWTS-1 Course Catalog
ACMI-5102	1.0	*	B	D	A	2	MAWTS-1 Course Catalog
ACMI-5103	1.0	*	B	D	A	2	MAWTS-1 Course Catalog

Admin Notes. Reference MAWTS-1 F-35 Course Catalog.

Prerequisite. Work-ups and academic syllabus IAW MAWTS-1 F-35 Course Catalog.

ACMI-5101 1.0 * B D A 2 F-35

Goal. Evaluate BFM.

Requirements. IAW MAWTS-1 F-35 Course Catalog.

Performance Standards. IAW MAWTS-1 F-35 Course Catalog.

Instructor. MAWTS-1 IP

Prerequisite. IAW MAWTS-1 F-35 Course Catalog.

Ordinance. IAW MAWTS-1 F-35 Course Catalog.

Range. BFM, EXP

ACMI-5102 1.0 * B D A 2 F-35

Goal. Evaluate BFM.

Requirements. IAW MAWTS-1 F-35 Course Catalog.

Performance Standards. IAW MAWTS-1 F-35 Course Catalog.

Instructor. MAWTS-1 IP

Prerequisite. IAW MAWTS-1 F-35 Course Catalog.

Ordinance. IAW MAWTS-1 F-35 Course Catalog.

Range. BFM, EXP

ACMI-5103 1.3 * B D A 2 F-35

Goal. Evaluate Mature Fight Entry and Multi-plane Engaged Maneuvering.

Requirements. IAW MAWTS-1 F-35 Course Catalog.

Performance Standards. IAW MAWTS-1 F-35 Course Catalog.

Instructor. MAWTS-1 IP

Prerequisite. IAW MAWTS-1 F-35 Course Catalog.

Ordinance. IAW MAWTS-1 F-35 Course Catalog.

Range. ACM, TACTS, EXP, MACH 1+

2.17.3 LIGHTNING TACTICS INSTRUCTOR (LTI)

Purpose. To designate pilots as Lightning Tactics Instructors.

General. Upon completion, an LTI shall be capable of evaluating appropriate 2000-6000 level events.

LTI Overview

LIGHTNING TACTICS INSTRUCTOR (LTI) STAGE							
EVENT	TIME	PROFICIENCY PERIOD	POI	COND	DEVICE	NUM	DESCRIPTION
LTI-5201	1.3	*	B	N	A	2	MAWTS-1 Course Catalog
SLTI-5202	1.5	*	B	(N)	S	4	MAWTS-1 Course Catalog
SLTI-5203	1.5	*	B	N	S	4	MAWTS-1 Course Catalog

Admin Notes. Reference MAWTS-1 F-35 Course Catalog.

Prerequisite. Work-ups and academic syllabus IAW MAWTS-1 F-35 Course Catalog.

LTI-5201 1.3 * B N A 2 F-35

Goal. Evaluate Night CAS.

Requirements. IAW MAWTS-1 F-35 Course Catalog.

Performance Standards. IAW MAWTS-1 F-35 Course Catalog.

Instructor. MAWTS-1 IP

Prerequisite. IAW MAWTS-1 F-35 Course Catalog.

Ordinance. IAW MAWTS-1 F-35 Course Catalog.

Range

RANGE REQUIREMENTS		
REQUIRED CAPABILITIES	ALLOWABLE SUBSTITUTES	DESIRED CAPABILITIES
RSTD		EXP
STRAFE	TGT	EW, SST
TGT-DISP	COMPLEX	IR TGT, RDR TGT
JCAS		TGT-MOVE, MOCK
JDAM, LGB		HE

External Resource Requirements. JTAC or FAC(A).

SLTI-5202 1.5 * B (N) S 4 FMS

Goal. Evaluate Anti-Air Warfare.

Requirements. IAW MAWTS-1 F-35 Course Catalog.

Performance Standards. IAW MAWTS-1 F-35 Course Catalog.

Instructor. MAWTS-1 IP

Prerequisite. IAW MAWTS-1 F-35 Course Catalog.

External Resource Requirements. 2 CIs to operate AIC and red air.

SLTI-5203 1.5 * B N S 4 FMS

Goal. Evaluate Night Strike.

Requirements. IAW MAWTS-1 F-35 Course Catalog.

Performance Standards. IAW MAWTS-1 F-35 Course Catalog.

Instructor. MAWTS-1 IP

Prerequisite. IAW MAWTS-1 F-35 Course Catalog.

External Resource Requirements. 2 CIs to operate AIC and red air / IADS.

2.17.4 FORWARD AIR CONTROLLER (AIRBORNE) INSTRUCTOR (FAC(A)I)

Purpose. To designate pilots as F-35 FAC(A)Is.

General. Upon completion, an F-35 FAC(A)I shall be capable of evaluating FAC(A) and TAC(A) events.

FAC(A)I Overview

FORWARD AIR CONTROLLER (AIRBORNE) INSTRUCTOR (FAC(A)) STAGE							
EVENT	TIME	PROFICIENCY PERIOD	POI	COND	DEVICE	NUM	DESCRIPTION
SFAC(A)I-5301	2.5	*	B	N	S	4	MAWTS-1 Course Catalog
FAC(A)I-5302	1.5	*	B	(N)	A	2	MAWTS-1 Course Catalog
FAC(A)I-5303	1.5	*	B	(N)	A	2	MAWTS-1 Course Catalog

Admin Notes. Reference MAWTS-1 F-35 Course Catalog.

Prerequisite. Work-ups and academic syllabus IAW MAWTS-1 F-35 Course Catalog.

SFAC(A)I-5301 2.5 * B N S 4 FMS

Goal. Evaluate Night Multi-Element Integration.

Requirements. IAW MAWTS-1 F-35 Course Catalog.

Performance Standards. IAW MAWTS-1 F-35 Course Catalog.

Instructor. MAWTS-1 IP

External Resource Requirements. 2 CIs to operate the console and CAS assets.

FAC(A)I-5302 1.5 * B (N) A 2 F-35

Goal. Evaluate Multi-Element Integration.

Requirements. IAW MAWTS-1 F-35 Course Catalog.

Performance Standards. IAW MAWTS-1 F-35 Course Catalog.

Instructor. MAWTS-1 IP

Prerequisite. IAW MAWTS-1 F-35 Course Catalog.

Ordinance

ORDNANCE	QUANTITY	ALLOWABLE SUBSTITUTES	NOTES
PGM	2		
PGU-32	220	PGU-23	
MJU-61	48	MJU-64, MJU-66	

Range

RANGE REQUIREMENTS		
REQUIRED CAPABILITIES	ALLOWABLE SUBSTITUTES	DESIRED CAPABILITIES
RSTD		EXP
STRAFE	TGT	EW, SST
TGT-DISP	COMPLEX	IR TGT, RDR TGT
JCAS		TGT-MOVE, MOCK
JDAM, LGB		HE

External Resource Requirements. 1+ FW CAS asset, 1+RW CAS asset, and IDF.

FAC(A)I-5303 1.5 * B (N) A 2 F-35

Goal. Evaluate Urban Multi-Element Integration.

Requirements. IAW MAWTS-1 F-35 Course Catalog.

Performance Standards. IAW MAWTS-1 F-35 Course Catalog.

Instructor. MAWTS-1 IP

Prerequisite. IAW MAWTS-1 F-35 Course Catalog.

Ordnance

ORDNANCE	QUANTITY	ALLOWABLE SUBSTITUTES	NOTES
PGM	2		
PGU-32	220	PGU-23	
MJU-61	48	MJU-64, MJU-66	

Range

RANGE REQUIREMENTS		
REQUIRED CAPABILITIES	ALLOWABLE SUBSTITUTES	DESIRED CAPABILITIES
RSTD		EXP
STRAFE	TGT	EW, SST
TGT-DISP	COMPLEX	IR TGT, RDR TGT
JCAS		TGT-MOVE, MOCK
JDAM, LGB		HE

External Resource Requirements. 1+ FW CAS asset, 1+RW CAS asset, and IDF.

2.17.5 LOW ALTITUDE TACTICS INSTRUCTOR (LATI)

Purpose. To designate pilots as F-35 LATIs.

General. Upon completion, an F-35 LATI shall be capable of evaluating LAT events.

LATI Overview

LOW ALTITUDE TACTICS INSTRUCTOR (LATI)							
EVENT	TIME	PROFICIENCY PERIOD	POI	COND	DEVICE	NUM	DESCRIPTION
SLATI-5401	1.5	*	B	D	S	2	MAWTS-1 Course Catalog
LATI-5402	1.3	*	B	D	A	2	MAWTS-1 Course Catalog

Admin Notes. Reference MAWTS-1 F-35 Course Catalog.

Prerequisite. Work-ups and academic syllabus IAW MAWTS-1 F-35 Course Catalog.

SLATI-5401 1.5 * B D S 2 FMS

Goal. Evaluate LAT.

Requirements. IAW MAWTS-1 F-35 Course Catalog.

Performance Standards. IAW MAWTS-1 F-35 Course Catalog.

Instructor. MAWTS-1 IP

Prerequisite. IAW MAWTS-1 F-35 Course Catalog.

External Resource Requirements. 1 CI to operate the console.

LATI-5402 1.3 * B D A 2 F-35

Goal. Evaluate LAT.

Requirements. IAW MAWTS-1 F-35 Course Catalog.

Performance Standards. IAW MAWTS-1 F-35 Course Catalog.

Instructor. MAWTS-1 IP

Prerequisite. IAW MAWTS-1 F-35 Course Catalog.

Range. LAT

2.17.6 FLIGHT LEADERSHIP STANDARDIZATION EVALUATOR (FLSE)

Purpose. To designate pilots as F-35 FLSEs.

General. Upon completion, an F-35 FLSE shall be capable of evaluating appropriate 6000-level events.

FLSE Overview

FLIGHT LEADERSHIP STANDARDIZATION EVALUATOR (FLSE)							
EVENT	TIME	PROFICIENCY PERIOD	POI	COND	DEVICE	NUM	DESCRIPTION
SFLSE-5501	1.5	*	B	(N)	S	4	MAWTS-1 Course Catalog

Admin Notes. Reference MAWTS-1 F-35 Course Catalog.

Prerequisite. Academic syllabus IAW MAWTS-1 F-35 Course Catalog.

SFLSE-5501 1.5 * B (N) S 4 FMS

Goal. Evaluate FLSE Demonstration Event.

Requirements. IAW MAWTS-1 F-35 Course Catalog.

Performance Standards. IAW MAWTS-1 F-35 Course Catalog.

Instructor. IAW MAWTS-1 F-35 Course Catalog.

Prerequisite. IAW MAWTS-1 F-35 Course Catalog.

External Resource Requirements. 2 CIs to operate AIC and red air.

2.17.7 CONTRACT INSTRUCTOR PILOT (CIP)

Purpose. To designate a simulator Contract Instructor (CI) as a Contract Instructor Pilot (CIP).

General. Upon completion, a CIP shall be capable of leading and instructing appropriate 2000-level simulator events.

CIP Overview

CONTRACT INSTRUCTOR PILOT (CIP)							
EVENT	TIME	PROFICIENCY PERIOD	POI	COND	DEVICE	NUM	DESCRIPTION
SCIP-5601	1.5	365	B,R,M	D/NS	S	2	Day/Night PGM Delivery
SCIP-5602	1.5	365	B,R,M	D/NS	S	1	Day/Night Gun Employment
SCIP-5603	1.5	365	B,R,M	D	S	1	Standoff Weapons Employment
SCIP-5604	1.5	365	B,R,M	D	S	1	SA Threat Countertactics

Admin Notes. Upon completion, a designation letter shall be signed by the resident Marine Air Group (MAG) Commander. Annual recertification of each event is required.

Prerequisite. Nominated by the resident MAG Commander.

SCIP-5601 1.5 365 B, R, M D/NS S 2 FMS

Goal. Evaluate Day and Night PGM Employment. Upon completion, CIP is qualified to instruct SAS-2201.

Requirements. IAW SAS-2201. Prospective CIP shall brief, lead, and debrief the event. Target audience is a pilot executing SAS-2201 for the first time.

Performance Standards

Evaluate

Brief
Admin
Tac Admin
AS Timeline
Valid Coordinate Generation

AS Deliveries
Debrief
Delivery Validation

Instructor. FLSE

Prerequisite. IAW 2000-level Air-To-Surface stage.

External Resource Requirements. 1 CI at the console.

SCIP-5602 1.5 365 B, R, M D/NS S 1 FMS

Goal. Evaluate Day and Night Gun Employment. Upon completion, CIP is qualified to instruct SAS-2203.

Requirements. IAW SAS-2203. Prospective CIP shall brief, instruct from the console, and debrief the event. Prospective CIP shall validate all deliveries. Target audience is a pilot executing SAS-2203 for the first time.

Performance Standards

Evaluate
Brief
Admin
Tac Admin
AS Timeline
Z Diagram Instruction
Valid AS Gun Employment Instruction
Debrief
Delivery Validation

Instructor. FLSE

Prerequisite. IAW 2000-level Air-To-Surface stage.

External Resource Requirements. 1 CI at the console.

SCIP-5603 1.5 365 B, R, M D S 1 FMS

Goal. Evaluate Standoff weapons employment. Upon completion, CIP is qualified to instruct SAS-2206.

Requirements. IAW SAS-2206. Prospective CIP shall brief, instruct from the console, and debrief the event. Prospective CIP shall validate all deliveries. Target audience is a pilot executing SAS-2206 for the first time.

Performance Standards

Evaluate
Mission Planning Instruction
Brief
Admin
Tac Admin
AS Timeline
Valid Deliveries Instruction
Debrief
Delivery Validation

Instructor. FLSE

Prerequisite. IAW 2000-level Air-To-Surface stage.

External Resource Requirements. 1 CI at the console.

SCIP-5604 1.5 365 B, R, M D S 1 FMS

Goal. Evaluate SA threat countertactics. Upon completion, CIP is qualified to instruct SSEAD-2601.

Requirements. IAW SSEAD-2601. Prospective CIP shall brief, instruct from the console, and debrief the event.

Target audience is a pilot executing SSEAD-2601 for the first time.

Performance Standards

Evaluate
Brief
Admin
Tac Admin
SA Threat Awareness Instruction
Signature Management Instruction
Countermeasure Employment Instruction
Threat Reactions Instruction
Debrief

Instructor. FLSE

Prerequisite. IAW 2000-level SEAD stage.

External Resource Requirements. 1 CI at the console.

2.18 REQUIREMENTS, QUALIFICATIONS, AND DESIGNATIONS PHASE

Purpose. To track required, qualification and designation events.

General. The following Stages are included in the Requirements, Qualifications, and Designations Phase.

RQD Phase Overview

REQUIREMENTS, QUALIFICATIONS, AND DESIGNATIONS (RQD) PHASE		
STAGE	PARAGRAPH	PAGE NUMBER
DESIG	2.19.1	2-148
RQD	2.19.2	2-152
QUAL	2.19.3	2-154
SL	2.19.4	2-157
DL	2.19.5	2-164
MC	2.19.6	2-169
DESIG	2.19.7	2-172
SWD/TRK	2.19.8	2-174
DEMO	2.19.9	2-176

2.19 REQUIREMENTS, QUALIFICATIONS, AND DESIGNATIONS STAGES

2.19.1 FRSI DESIGNATIONS (DESIG)

Purpose. To track FRSI designations.

DESIG Overview

FRSI DESIGNATIONS (DESIG) STAGE							
EVENT	TIME	PROFICIENCY PERIOD	POI	COND	DEVICE	NUM	DESCRIPTION
DESIG-6000	-	-	B	-	-	-	FRSI FAM Stage Instructor
DESIG-6001	-	-	B	-	-	-	FRSI FAM Stage Stan-I
DESIG-6002	-	-	B	-	-	-	FRSI AAR Stage Instructor
DESIG-6003	-	-	B	-	-	-	FRSI AAR Stage Stan-I
DESIG-6004	-	-	B	-	-	-	FRSI AS Stage Instructor
DESIG-6005	-	-	B	-	-	-	FRSI AS Stage Stan-I
DESIG-6006	-	-	B	-	-	-	FRSI BT Stage Instructor
DESIG-6007	-	-	B	-	-	-	FRSI BT Stage Stan-I
DESIG-6008	-	-	B	-	-	-	FRSI BFM Stage Instructor
DESIG-6009	-	-	B	-	-	-	FRSI BFM Stage Stan-I
DESIG-6010	-	-	B	-	-	-	FRSI TI Stage Instructor
DESIG-6011	-	-	B	-	-	-	FRSI TI Stage Stan-I
DESIG-6012	-	-	B	-	-	-	FRSI AR Stage Instructor
DESIG-6013	-	-	B	-	-	-	FRSI AR Stage Stan-I
DESIG-6014	-	-	B	-	-	-	FRSI CAS Stage Instructor
DESIG-6015	-	-	B	-	-	-	FRSI CAS Stage Stan-I
DESIG-6016	-	-	B	-	-	-	FRSI AAW Stage Instructor
DESIG-6017	-	-	B	-	-	-	FRSI AAW Stage Stan-I
DESIG-6018	-	-	B	-	-	-	FRSI SEAD Stage Instructor
DESIG-6019	-	-	B	-	-	-	FRSI SEAD Stage Stan-I
DESIG-6020	-	-	B	-	-	-	FRSI STK Stage Instructor
DESIG-6021	-	-	B	-	-	-	FRSI STK Stage Stan-I
DESIG-6022	-	-	B	-	-	-	FRSI NS Stage Instructor
DESIG-6023	-	-	B	-	-	-	FRSI NS Stage Stan-I
DESIG-6024	-	-	B	-	-	-	FRSI FCLP Stage Instructor
DESIG-6025	-	-	B	-	-	-	FRSI FCLP Stage Stan-I

DESIG-6000 B

Goal. FRSI FAM Stage Instructor.

Requirements. IAW VMFAT-501 IUT FSG.

Performance Standards. IAW VMFAT-501 IUT FSG.

DESIG-6001 B

Goal. FRSI FAM Stage Stan-I.

Requirements. IAW VMFAT-501 IUT FSG.

Performance Standards. IAW VMFAT-501 IUT FSG.

DESIG-6002 B

Goal. FRSI AAR Stage Instructor.

Requirements. IAW VMFAT-501 IUT FSG.

Performance Standards. IAW VMFAT-501 IUT FSG.

DESIG-6003 B

Goal. FRSI AAR Stage Stan-I.

Requirements. IAW VMFAT-501 IUT FSG.

Performance Standards. IAW VMFAT-501 IUT FSG.

DESIG-6004 B

Goal. FRSI AS Stage Instructor.

Requirements. IAW VMFAT-501 IUT FSG.

Performance Standards. IAW VMFAT-501 IUT FSG.

DESIG-6005 **B**

Goal. FRSI AS Stage Stan-I.

Requirements. IAW VMFAT-501 IUT FSG.

Performance Standards. IAW VMFAT-501 IUT FSG.

DESIG-6006 **B**

Goal. FRSI BT Stage Instructor.

Requirements. IAW VMFAT-501 IUT FSG.

Performance Standards. IAW VMFAT-501 IUT FSG.

DESIG-6007 **B**

Goal. FRSI BT Stage Stan-I.

Requirements. IAW VMFAT-501 IUT FSG.

Performance Standards. IAW VMFAT-501 IUT FSG.

DESIG-6008 **B**

Goal. FRSI BFM Stage Instructor.

Requirements. IAW VMFAT-501 IUT FSG.

Performance Standards. IAW VMFAT-501 IUT FSG.

DESIG-6009 **B**

Goal. FRSI BFM Stage Stan-I.

Requirements. IAW VMFAT-501 IUT FSG.

Performance Standards. IAW VMFAT-501 IUT FSG.

DESIG-6010 **B**

Goal. FRSI TI Stage Instructor.

Requirements. IAW VMFAT-501 IUT FSG.

Performance Standards. IAW VMFAT-501 IUT FSG.

DESIG-6011 **B**

Goal. FRSI TI Stage Stan-I.

Requirements. IAW VMFAT-501 IUT FSG.

Performance Standards. IAW VMFAT-501 IUT FSG.

DESIG-6012 **B**

Goal. FRSI AR Stage Instructor.

Requirements. IAW VMFAT-501 IUT FSG.

Performance Standards. IAW VMFAT-501 IUT FSG.

DESIG-6013 **B**

Goal. FRSI AR Stage Stan-I.

Requirements. IAW VMFAT-501 IUT FSG.

Performance Standards. IAW VMFAT-501 IUT FSG.

DESIG-6014 **B**

Goal. FRSI CAS Stage Instructor.

Requirements. IAW VMFAT-501 IUT FSG.

Performance Standards. IAW VMFAT-501 IUT FSG.

DESIG-6015 **B**

Goal. FRSI CAS Stage Stan-I.

Requirements. IAW VMFAT-501 IUT FSG.

Performance Standards. IAW VMFAT-501 IUT FSG.

DESIG-6016 **B**

Goal. FRSI AAW Stage Instructor.

Requirements. IAW VMFAT-501 IUT FSG.

Performance Standards. IAW VMFAT-501 IUT FSG.

DESIG-6017 **B**

Goal. FRSI AAW Stage Stan-I.

Requirements. IAW VMFAT-501 IUT FSG.

Performance Standards. IAW VMFAT-501 IUT FSG.

DESIG-6018 **B**

Goal. FRSI SEAD Stage Instructor.

Requirements. IAW VMFAT-501 IUT FSG.

Performance Standards. IAW VMFAT-501 IUT FSG.

DESIG-6019 **B**

Goal. FRSI SEAD Stage Stan-I.

Requirements. IAW VMFAT-501 IUT FSG.

Performance Standards. IAW VMFAT-501 IUT FSG.

DESIG-6020 **B**

Goal. FRSI STK Stage Instructor.

Requirements. IAW VMFAT-501 IUT FSG.

Performance Standards. IAW VMFAT-501 IUT FSG.

DESIG-6021 **B**

Goal. FRSI STK Stage Stan-I.

Requirements. IAW VMFAT-501 IUT FSG.

Performance Standards. IAW VMFAT-501 IUT FSG.

DESIG-6022 **B**

Goal. FRSI NS Stage Instructor.

Requirements. IAW VMFAT-501 IUT FSG.

Performance Standards. IAW VMFAT-501 IUT FSG.

DESIG-6023 **B**

Goal. FRSI NS Stage Stan-I.

Requirements. IAW VMFAT-501 IUT FSG.

Performance Standards. IAW VMFAT-501 IUT FSG.

DESIG-6024 **B**

Goal. FRSI FCLP Stage Instructor.

Requirements. IAW VMFAT-501 IUT FSG.

Performance Standards. IAW VMFAT-501 IUT FSG.

DESIG-6025 **B**

Goal. FRSI FCLP Stage Stan-I.

Requirements. IAW VMFAT-501 IUT FSG.

Performance Standards. IAW VMFAT-501 IUT FSG.

2.19.2 REQUIRED TRAINING AND/OR PROFICIENCY EVENTS (RQD)

Purpose. To track required evaluations, training or flight leadership proficiency.

RQD Overview

REQUIRED TRAINING AND/OR PROFICIENCY EVENTS (RQD) STAGE							
EVENT	TIME	PROFICIENCY PERIOD	POI	COND	DEVICE	NUM	DESCRIPTION
ARQD-6101	1.0	365	B,R,M	-	G	-	NATOPS Open Book, F-35B
ARQD-6102	1.0	365	B,R,M	-	G	-	NATOPS Closed Book, F-35B
ARQD-6103	1.0	365	B,R,M	-	G	-	NATOPS Oral Exam, F-35B
SRQD-6104	1.5	365	B,R,M	(N)	S	1	NATOPS Evaluation, F-35B
SRQD-6105	1.5	365	B,R,M	D	S	1	FCF Simulator, F-35B
RQD-6106	1.3	365	B,R,M	D	A	1	FCF Flight, F-35B
ARQD-6107	1.0	365	B,R,M	-	G	-	NATOPS Open Book, F-35C
ARQD-6108	1.0	365	B,R,M	-	G	-	NATOPS Closed Book, F-35C
ARQD-6109	1.0	365	B,R,M	-	G	-	NATOPS Oral Exam, F-35C
SRQD-6110	1.5	365	B,R,M	(N)	S	1	NATOPS Evaluation, F-35C
SRQD-6111	1.5	365	B,R,M	D	S	1	FCF Simulator, F-35C
RQD-6112	1.3	365	B,R,M	D	A	1	FCF Flight, F-35C
ARQD-6113	1.0	365	B,R,M	-	G	-	CRM Academics
SRQD-6114	1.5	365	B,R,M	(N)	S	1	CRM Evaluation
ARQD-6115	4.0	365	B,R,M	-	G	-	Instrument Ground School and Exam
SRQD-6116	1.5	365	B,R,M	(N)	S	1	NATOPS Instrument Evaluation
RQD-6117	1.3	90	B,R,M	(N)	A	2	Section Lead Proficiency Flight
RQD-6118	1.3	180	B,R,M	(N)	A	4	Division Lead Proficiency Flight
RQD-6119	1.3	365	B,R,M	(N)	A	6+	Mission Commander Proficiency Flight
RQD-6120	1.5	545	B,R,M	(N)	A	1	Strategic Tanker

Admin Notes

NATOPS Evaluators/Instructors shall conduct the NATOPS Evaluation IAW CNAF M-3710.7-series and other applicable directives, instructions, and orders. The conduct of the NATOPS Evaluation is IAW the Standard Operating Procedures for USMC F-35 Flight Operations (USMC F-35 SOP).

NATOPS Instrument Evaluators shall conduct the NATOPS Instrument Evaluation IAW CNAF M-3710.7-series, NAVAIR 00-80T-112 (NATOPS Instrument Flight Manual) and FAR/AIM. The conduct of the NATOPS Instrument Evaluation is IAW the Standard Operating Procedures for USMC F-35 Flight Operations.

Flight leadership proficiency tracking codes shall be logged in conjunction with 2000 through 5000-level events, provided the requirements have been met.

ARQD-6101 1.0 365 B,R,M G

Goal. NATOPS Open Book, F-35B.

Requirements. IAW USMC F-35 SOP.

ARQD-6102 1.0 365 B,R,M G

Goal. NATOPS Closed Book, F-35B.

Requirements. IAW USMC F-35 SOP.

ARQD-6103 1.0 365 B,R,M G

Goal. NATOPS Oral Exam, F-35B.

Requirements. IAW USMC F-35 SOP.

SRQD-6104 1.5 365 B,R,M (N) S 1 FMS

Goal. NATOPS Evaluation, F-35B.

Requirements. IAW USMC F-35 SOP.

Instructor. NATOPS Evaluator/Instructor

External Resource Requirements. 1 CI at the console.

SRQD-6105 1.5 365 B,R,M D S 1 FMS

Goal. FCF Simulator, F-35B.

Requirements. IAW USMC F-35 SOP.

Instructor. FCF Standardization Evaluator/Officer

External Resource Requirements. 1 CI at the console.

ROD-6106 1.3 365 B,R,M D A 1 F-35

Goal. FCF Flight, F-35B.

Requirements. IAW USMC F-35 SOP.

Instructor. FCF Standardization Evaluator/Officer

Range. MOA

ARQD-6107 1.0 365 B,R,M G

Goal. NATOPS Open Book, F-35C.

Requirements. IAW USMC F-35 SOP.

ARQD-6108 1.0 365 B,R,M G

Instructor. NATOPS Instrument Evaluator

External Resource Requirements. 1 CI at the console.

RQD-6117 1.3 90 B,R,M (N) A 2 F-35

Goal. Section Lead Proficiency Flight.

Requirements. The pilot shall brief, lead, and debrief the designated event IAW the performance standards for that event.

RQD-6118 1.3 180 B,R,M (N) A 4 F-35

Goal. Division Lead Proficiency Flight.

Requirements. The pilot shall brief, lead, and debrief the designated event IAW the performance standards for that event.

RQD-6119 1.3 365 B,R,M (N) A 6+ F-35

Goal. Mission Commander Proficiency Flight.

Requirements. The pilot shall brief, lead, and debrief the designated event IAW the performance standards for that event.

RQD-6120 1.5 545 B,R,M (N) A 1 F-35

Goal. Strategic Tanker.

Requirements. One contact required.

External Resource Requirements. Strategic tanker.

2.19.3 QUALIFICATIONS (QUAL)

Purpose. To track qualifications.

QUAL Overview

QUALIFICATIONS (QUAL) STAGE							
EVENT	TIME	PROFICIENCY PERIOD	POI	COND	DEVICE	NUM	DESCRIPTION
QUAL-6201	-	365	B,R,M	-	G	-	NS
QUAL-6202	-	180	B,R,M	-	G	-	ACM
QUAL-6203	-	*	B	-	G	-	Day FBO
QUAL-6204	-	*	B	-	G	-	Night FBO
QUAL-6205	-	*	B	-	G	-	LAT
QUAL-6206	-	*	B	-	G	-	Day CQ, F-35B
QUAL-6207	-	*	B	-	G	-	Night CQ, F-35B
QUAL-6208	-	1095	B	-	G	-	Field LSO, F-35B
QUAL-6209	-	1095	B	-	G	-	Shipboard LSO, F-35B
QUAL-6210	-	1095	B	-	G	-	Advanced LSO, F-35B
QUAL-6211	-	1095	B	-	G	-	Training LSO, F-35B
QUAL-6212	-	*	B	-	G	-	FCF, F-35B
QUAL-6213	-	*	B	-	G	-	FAC(A)
QUAL-6214	-	*	B	-	G	-	TAC(A)
QUAL-6215	-	*	B	-	G	-	DEMO
QUAL-6216	-	*	B	-	G	-	CQ, F-35C
QUAL-6217	-	1095	B	-	G	-	Field LSO, F-35C
QUAL-6218	-	1095	B	-	G	-	Shipboard LSO, F-35C
QUAL-6219	-	1095	B	-	G	-	Wing LSO, F-35C
QUAL-6220	-	1095	B	-	G	-	Training LSO, F-35C
QUAL-6221	-	*	B	-	G	-	FCF, F-35C

QUAL-6201 365 B,R,M G

Goal. NS.

Requirements. The Night Systems (NS) Qualification requires completion of the below listed prerequisites at the FRS. Qualification is maintained by flying at night within 365 days. Pilots are NS qualified in both the F-35B and F-35C (regardless of the platform in which the qualification was earned).

Prerequisite. 1700 (B), 1701 (C,R,MR,N), 1703 (B,C,R,MR,SC,N), 1704 (B), 1705 (B), 1706 (B), 1707 (B,C), 1710 (B,C,R), 1711 (B,C)

QUAL-6202	180	B,R,M	G
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Goal. ACM.

Requirements. Air Combat Maneuvering Qualification requirements are IAW CNAF M-3710.7-series, and completion of the below listed prerequisites. Qualification code shall be manually logged by the Training Department after approval by the Commanding Officer. The ACM qualification is maintained by executing BFM within 180 days. Pilots are ACM qualified in both the F-35B and F-35C (regardless of the platform in which the qualification was earned).

Prerequisite. 2301, 2302, 2303, 2304, 2404

QUAL-6203	*	B	G
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Goal. Day FBO.

Requirements. The Day FBO Qualification requires completion of the Day FBO flight.

Prerequisite. 4102

QUAL-6204	*	B	G
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Goal. Night FBO.

Requirements. The Night FBO Qualification requires completion of the Night FBO flight.

Prerequisite. 4103

QUAL-6205	*	B	G
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Goal. LAT

Requirements. The LAT Qualification requires completion of the LAT flight.

Prerequisite. 4201

QUAL-6206	*	B	G
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Goal. Day CQ, F-35B.

Requirements. The Day CQ requires completion of the Day CQ flight.

Prerequisite. 4308

QUAL-6207	*	B	G
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Goal. Night CQ, F-35B.

Requirements. The Night CQ requires completion of the Night CQ flight.

Prerequisite. 4309

QUAL-6208	1095	B	G
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Goal. Field LSO, F-35B.

Requirements. The Field LSO Qualification requires completion of the LSO syllabus IAW STOV LSO NATOPS.

QUAL-6209 1095 B G

Goal. Shipboard LSO, F-35B.

Requirements. The Shipboard LSO Qualification requires completion of the LSO syllabus IAW STOV LSO NATOPS.

QUAL-6210 1095 B G

Goal. Advanced LSO, F-35B.

Requirements. The Advanced LSO Qualification requires completion of the LSO syllabus IAW STOV LSO NATOPS.

QUAL-6211 1095 B G

Goal. Training LSO, F-35B.

Requirements. The Training LSO Qualification requires completion of the LSO syllabus IAW STOV LSO NATOPS.

QUAL-6212 * B G

Goal. FCF, F-35B.

Requirements. The FCF Qualification requires completion of the FCF syllabus IAW USMC F-35 SOP.

Prerequisite. 6106

QUAL-6213 * B G

Goal. FAC(A).

Requirements. The FAC(A) Qualification requires completion of the FAC(A) syllabus.

Prerequisite. 4610

QUAL-6214 * B G

Goal. TAC(A).

Requirements. The TAC(A) Qualification requires completion of the TAC(A) syllabus.

Prerequisite. 4701

QUAL-6215 * B G

Goal. F-35B Air Show Demonstration Pilot (DEMO)

Requirements. The DEMO Qualification requires completion of the DEMO syllabus.

Prerequisite. 6813

QUAL-6216 * B G

Goal. CQ, F-35C.

Requirements. The CQ Qualification requires completion of the CQ syllabus.

Prerequisite. 4316

QUAL-6217 1095 B G

Goal. Field LSO, F-35C.

Requirements. The Field LSO Qualification requires completion of the LSO syllabus IAW CVN LSO NATOPS.

QUAL-6218 1095 B G

Goal. Shipboard LSO, F-35C.

Requirements. The Shipboard LSO Qualification requires completion of the LSO syllabus IAW CVN LSO NATOPS.

QUAL-6219 1095 B G

Goal. Wing LSO, F-35C.

Requirements. The Advanced LSO Qualification requires completion of the LSO syllabus IAW CVN LSO NATOPS.

QUAL-6220 1095 B G

Goal. Training LSO, F-35C.

Requirements. The Training LSO Qualification requires completion of the LSO syllabus IAW CVN LSO NATOPS.

QUAL-6221 * B G

Goal. FCF, F-35C.

Requirements. The FCF Qualification requires completion of the FCF syllabus IAW USMC F-35 SOP.

Prerequisite. 6112

2.19.4 SECTION LEAD (SL)

Purpose. To prepare and evaluate the Prospective Section Lead's (PSL) ability to plan, brief, lead, and debrief a mission-oriented event as a section leader. This syllabus is intended for a PSL who has not held a section lead designation in any other T/M/S. For pilots transitioning from another T/M/S, it is left to the CO's discretion how much of the syllabus is performed based on experience level and background.

SL Overview

SECTION LEAD (SL) STAGE							
EVENT	TIME	PROFICIENCY PERIOD	POI	COND	DEVICE	NUM	DESCRIPTION
SSL-6301	1.5	*	B	D/NS	S	2	Day / Night PGM / Gun Employment
SL-6302	1.3	*	B	D	A	2	Day PGM / Gun Employment
SSL-6303	1.5	*	B	D	S	2	Urban CAS
SL-6304	1.5	*	B	N	A	2	Night CAS
SSL-6305	1.5	*	B	N	S	2	Night AR
SSL-6306	1.5	*	B	D	S	2	SEAD
ASL-6307	1.0	*	B	-	G	-	BFM Briefing Lab
SL-6308	0.8	*	B	D	A	2	Perch BFM
SL-6309	0.8	*	B	D	A	2	HABFM
SL-6310	1.1	*	B	D	A	2	2vX Short Range Recommit
SSL-6311	1.5	*	B	D	S	2	2+4vX FI
SL-6312	1.3	*	B	D	A	2	2+4vX FI
SL-6313	1.3	*	B	N	A	2	Night Strike

Admin Notes

To the max extent possible, PSLs should conduct the SL syllabus in order. SL events shall be evaluated by either a Division Leader, LTI, or FLSE as delineated for each event. The SL evaluator will use the performance standards to determine whether the PSL completed the sortie. The PSL will use the performance standards to debrief the flight. All simulator events will include full mission briefs (excluding admin unless otherwise specified) and should last no longer than 1 hour.

Completion of the SL syllabus meets the requirements for designation as section leader. At the discretion of the squadron commanding officer, a letter designating the pilot as a section leader shall be placed in the NATOPS jacket and APR. Re-designation is at the discretion of the commanding officer.

Flight event length depicts F-35B flight time. Flight event length for F-35C is 1.8 hours.

Section lead administrative training requirements are to be performed during the flights and simulators. They should be completed prior to the SL-6313.

SECTION LEAD ADMINISTRATIVE TRAINING REQUIREMENTS		
TRAINING REQUIREMENTS	FLIGHT	DATE
Lead Overhead Break		
Lead Section PAR/ILS		
Lead Sim NORDO Approach		
Lead Straight-in, Flight Lead Separation on Final		
Lead Overhead Break (Night)		
Lead PAR/ILS (Night)		
Interval Takeoff		
Sensor Trail Departure		
Conduct TCTS Debrief		
Fly as Dash Three in AAW Flight		

Prerequisite. Prior to commencing the section lead syllabus, PSLs should have a minimum of 300 hours in model, with up to 50% in the simulator, as well as have completed all 2000 and 3000-level events. The academic syllabus shall be completed IAW the MAWTS-1 F-35 Course Catalog.

SSL-6301 1.5 * B D/NS S 2 FMS

Goal. Evaluate Day PGM and Night Gun Employment.

Requirements. Conduct day sensor integration and handoff to PGMs and night gun employment. Target audience is 2000-level complete. Execute a departure IAW local procedures and proceed to a local training range to conduct AAR. Following departure from the tanker, conduct a minimum of two LGW deliveries: one self-lase and one buddy-lase as the eyeball. Conduct a minimum of two IAM deliveries: one SAR map delivery and one TFLIR delivery. Conduct a minimum of three night AS gun employments. Emphasis should be on ground operations, local departure/recovery procedures, tanking procedures, tactical conduct, and emergency procedures. One emergency procedure will be injected by evaluator to reinforce flight leadership and crew resource management.

Performance Standards

Evaluate

Brief	Valid Coordinate Generation
Admin	AS Deliveries
Tac Admin	AS Strafe
AAR	Debrief
AS Timeline	Delivery Validation

Instructor. Division Lead

Prerequisite. 8630

External Resource Requirements. 1 CI at the console.

SL-6302 1.3 * B D A 2 F-35

Goal. Evaluate PGM and Gun Employment.

Requirements. Conduct day sensor integration and handoff to PGMs and gun employment. Target audience is 2000-level complete. Conduct a minimum of two LGW deliveries: one self-lase and one buddy-lase as the eyeball. Conduct an IAM delivery using the TFLIR. Generate coordinates from a SAR map and pass via datalink to wingman. Conduct a minimum of two AS gun employments. Emphasis should be on ground operations, local departure/recovery procedures, and safe tactical conduct.

Performance Standards

Evaluate

Brief	AS Timeline
Admin	Valid Coordinate Generation
Tac Admin	AS Deliveries

AS Strafe
Debrief

Delivery Validation

Instructor. Division Lead

Prerequisite. 6301

Ordnance

ORDNANCE	QUANTITY	ALLOWABLE SUBSTITUTES	NOTES
GBU-12	1		
GBU-32	1	GBU-31	
PGU-32	220	PGU-23	
MJU-61	48	MJU-64, MJU-66	

Range

RANGE REQUIREMENTS		
REQUIRED CAPABILITIES	ALLOWABLE SUBSTITUTES	DESIRED CAPABILITIES
RSTD, EXP		EW
STRAFE		SST
TGT-DISP	MOCK, TGT	IR TGT, RDR TGT
LSR		TGT-MOVE
JDAM, LGB		HE

SSL-6303 1.5 * B D S 2 FMS

Goal. Evaluate Urban CAS.

Requirements. Conduct urban CAS in support of the ground scheme of maneuver. Attacks should be under all types of terminal attack control using both BOC and BOT procedures. Emphasize urban impacts on the CAS execution template such as urban canyons, podium effect, and collateral damage methodology and considerations.

Performance Standards

Evaluate

Brief
Tac Admin
CAS TTPs
Target Correlation

Valid AS Deliveries with Clearance
TOT +/- 15 seconds
Debrief
Delivery Validation

Instructor. Division Lead

Prerequisites. 6301

External Resource Requirements. 1 CI at the console.

SL-6304 1.5 * B N A 2 F-35

Goal. Evaluate Night CAS.

Requirements. Conduct night CAS in support of the ground scheme of maneuver utilizing a JTAC or FAC(A). Attacks should be under all types of terminal attack control using both BOC and BOT procedures. Emphasize night considerations for basic CAS execution, JCAS communications and procedures, plotting and evaluating the attack, correlation methods, proper laser usage and communications, and CAS geometry and timing. Two attacks are required for completion.

Performance Standards

Evaluate

Brief
Admin
Tac Admin

CAS TTPs
Target Correlation
Valid AS Deliveries with Clearance

TOT +/- 15 seconds
Debrief

Delivery Validation

Instructor. LTI

Prerequisites. 6303

Ordnance

ORDNANCE	QUANTITY	ALLOWABLE SUBSTITUTES	NOTES
PGM	2		
PGU-32	220	PGU-23	
MJU-61	48	MJU-64, MJU-66	

Range

RANGE REQUIREMENTS		
REQUIRED CAPABILITIES	ALLOWABLE SUBSTITUTES	DESIRED CAPABILITIES
RSTD, EXP		EW
STRAFE		SST
TGT-DISP	COMPLEX, TGT	IR TGT, RDR TGT
JCAS		TGT-MOVE, MOCK
JDAM, LGB		HE

External Resource Requirements. JTAC or FAC(A).

SSL-6305 1.5 * B N S 2 FMS

Goal. Execute Night AR.

Requirements. Conduct a night high altitude search / EW sweep. Utilize sensors and datalinks to find and pass targets. Find, fix, and attack targets IAW the briefed TPL and ROE while executing a minimum of three attacks within the section. Communicate IFREP to simulated MACCS.

Performance Standards

Evaluate

Brief
Tac Admin
Search / EW Sweep
Sensor / Datalink Usage
Find / Fix Targets

Minimize Time-to-Kill IAW the
TPL and ROE
Valid AS Employment
Debrief
Delivery Validation

Instructor. Division Lead

Prerequisites. 6301

External Resource Requirements. 1 CI at the console.

SSL-6306 1.5 * B D A 2 F-35

Goal. Evaluate SEAD.

Requirements. Locate and destroy multiple in-band and out-of-band medium-range SAMs in a littoral scenario in order to clear a lane for follow-on strikes. Using F-35 ESM, locate and destroy tactical SAM arrays. Optimize assets and CAP geometry to minimize time-to-kill. Execute standoff weapons delivery. ALR High.

Performance Standards

Evaluate

Brief
Tac Admin
Geolocation Tactics

Target Acquisition
Valid AS Employment
Signature Management

Threat Countertactics

Debrief

Instructor. FLSE

Prerequisites. 6305

External Resource Requirements. 1 CI to operate AIC / IADS.

ASL-6307 1.0 * B G

Goal. Evaluate BFM Briefing Lab.

Requirements. Conduct a BFM briefing lab. At the discretion of the evaluator, brief offensive, defensive, or high aspect. Target audience is 2000-level complete. Brief tac admin, concepts and definitions specific to each type of BFM, and mechanics. Briefs shall be conducted from memory and use the aid of models and a whiteboard. Perch briefs should include a discussion of 3K', 6K' and 9K' engagements. High aspect briefs should include high AOA maneuvering, energy management, gameplan development, and mission rehearsal.

Performance Standards

Evaluate

Tac Admin
Concepts and Definitions
Mechanics
Model Usage
Whiteboard Usage

Perch Engagements
Energy Management
HABFM Gameplan Development
HABFM Mission Rehearsal

Instructor. Division Lead that is also an ACMI

SL-6308 0.8 * B D A 2 F-35

Goal. Evaluate Perch BFM.

Requirements. Conduct perch BFM. At the discretion of the evaluator, execute specific offensive or defensive 3K', 6K', and 9K' sets. Target audience is 2000-level complete. Brief concepts and definitions, energy management, mechanics, turn circle geometry, and available weapons LARs and employment. Execute a minimum of three perch BFM sets.

Performance Standards

Evaluate

Brief
Tac Admin
Mechanics
Energy Management

Weapons Employment
Debrief
Shot Validation

Instructor. Division Lead that is also an ACMI

Prerequisites. 6307

Ordnance

ORDNANCE	QUANTITY	ALLOWABLE SUBSTITUTES	NOTES
CATM-9X	1		
MJU-61	48	MJU-64, MJU-66	

Range. BFM, EXP

SL-6309 0.8 * B D A 2 F-35

Goal. Evaluate HABFM.

Requirements. Conduct HABFM. At the discretion of the evaluator, execute specific HABFM sets. Target audience is 2000-level complete. Brief concepts and definitions, energy management, mechanics, turn circle geometry, and available weapons LARs and employment. Execute a minimum of three HABFM sets.

Performance Standards

Evaluate

Brief
Tac Admin
Mechanics
Energy Management

Weapons Employment
Debrief
Shot Validation

Instructor. FLSE

Prerequisites. 6308

Ordnance

ORDNANCE	QUANTITY	ALLOWABLE SUBSTITUTES	NOTES
CATM-9X	1		
MJU-61	48	MJU-64, MJU-66	

Range. BFM, EXP

SL-6310 1.1 * B D A 2 F-35

Goal. Evaluate 2vX Short Range Recommit.

Requirements. Conduct the transition from BVR to WVR while balancing intercept priorities to survive. With a minimum of 25nm separation, recommit into an unknown picture. Gain situational awareness in order to balance intercept priorities and neutralize/kill factor adversaries. Execute a minimum of one mature fight entry (MFE) with PSL entering into an established 1v1 (between flight lead and adversary) in order to aid wingman. Execute a minimum of one intercept with PSL transitioning to WVR engaged maneuvering with evaluator entering mature fight to aid PSL. Emphasis shall be on signature management, mutual support, weapons employment IAW ROE, communications, and MFE.

Performance Standards

Evaluate

Brief
Proper Signature Management
Mutual Support
Valid A/A employment IAW ROE

MFE
Communications
Debrief
Shot Validation

Instructor. Division Lead that is also an ACMI

Prerequisites. 6309

Ordnance

ORDNANCE	QUANTITY	ALLOWABLE SUBSTITUTES	NOTES
Virtual CM	N/A	MJU-61/64/66	Virtual CM Preferred

Range. ACM, TACTS, EXP, MACH 1+

External Resource Requirements. 4 Dissimilar Adversaries.

SSL-6311 1.5 * B D S 2 FMS

Goal. Evaluate 2+4vX Fighter Integration.

Requirements. Conduct fighter integration (FI) tactics while operating as a section of F-35s and a division of fourth generation fighters against near-peer/peer threat aircraft. Start with a minimum of 60nm separation between the fighters and adversaries. Execute a minimum of two runs. Emphasis is on inter-flight communication and evaluation of L&D criteria and subsequent decision-making. Utilize simulator entities to replicate fourth generation fighters.

Performance Standards

Evaluate

Brief
FI Tactic and Flow Decision-making
Inter-element FI communications
Proper Signature Management
AA Timeline Adherence

Valid AA Employment
Inter-element FI communications
Debrief
Shot Validation

Instructor. Division Lead

Prerequisite. 6310

External Resource Requirements. 3 CIs to operate blue air, AIC and red air.

SL-6312 1.3 * B D A 2 F-35

Goal. Evaluate 2+4vX Fighter Integration.

Requirements. Conduct fighter integration (FI) tactics while operating as a section of F-35s and a division of fourth generation fighters against near-peer/peer threat aircraft. Start with a minimum of 60nm separation between the fighters and adversaries. Execute a minimum of two runs. Emphasis is on inter-flight communication and evaluation of L&D criteria and subsequent decision-making.

Performance Standards

Evaluate

Brief
FI Tactic and Flow Decision-making
Inter-element FI communications
Proper Signature Management
AA Timeline Adherence

Valid AA Employment
Inter-element FI communications
Debrief
Shot Validation

Instructor. Division Lead

Prerequisite. 6311

Ordnance. Virtual CM recommended.

Range. AA, TACTS, EXP, MACH 1+

External Resource Requirements. AIC, 4+ Blue Fighters, 4+ Dissimilar Adversaries with AEA.

SL-6313 1.3 * B N A 2 F-35

Goal. Evaluate Night Strike.

Requirements. Conduct a night strike against a near-peer/peer threat. The target should be protected by an IADS employing medium and long-range SAMs, GPS jamming, and fighter aircraft. The focus is on mission planning, weaponeering, route/signature management, SEAD requirements, and ordnance delivery.

Performance Standards

Evaluate

Brief
AS Task List
Target Acquisition

Target Area Tactics
AS Timeline
Signature Management

Valid Delivery on Assigned DPI
AA Threat Suppression

SEAD
Debrief

Instructor. LTI

Prerequisites. 6304, 6306, 6312

Ordnance

ORDNANCE	QUANTITY	ALLOWABLE SUBSTITUTES	NOTES
PGM	1		2 Desired
Virtual CM	N/A	MJU-61/64/66	Virtual CM Preferred

Range

RANGE REQUIREMENTS		
REQUIRED CAPABILITIES	ALLOWABLE SUBSTITUTES	DESIRED CAPABILITIES
RSTD, AA, TACTS		EW
MACH 1+, EXP		IR TGT, RDR TGT
Hi Fi EW, SRSAM, MRSAM		HE
COMPLEX	TGT-DISP, STRUCTR	
JDAM		

External Resource Requirements. AIC, 3+ Dissimilar Adversaries with AEA.

2.19.5 DIVISION LEAD (DL)

Purpose. To prepare and evaluate the Prospective Division Lead's (PDL) ability to plan, brief, lead, and debrief a mission-oriented event as a division leader. This syllabus is intended for a PDL who has not held a division lead designation in any other T/M/S. For pilots transitioning from another T/M/S, it is left to the CO's discretion how much of the syllabus is performed based on experience level and background.

DL Overview

DIVISION LEAD (DL) STAGE							
EVENT	TIME	PROFICIENCY PERIOD	POI	COND	DEVICE	NUM	DESCRIPTION
ADL-6401	1.0	*	B	-	G	-	LAT Briefing Lab
SDL-6402	1.5	*	B	D	S	4	SCAR
SDL-6403	1.5	*	B	N	S	4	Night SEAD
DL-6404	1.3	*	B	D	A	4	DCA
SDL-6405	1.5	*	B	D	S	4	Escort
DL-6406	1.3	*	B	D	A	4	Sweep
SDL-6407	1.5	*	B	D	S	4	DCA Fighter Integration
SDL-6408	1.5	*	B	N	S	4	Night Strike
DL-6409	1.3	*	B	N	A	4	Night Strike
ADL-6410	1.0	*	B	-	G	-	Package Commander Considerations Chalk Talk

Admin Notes

To the max extent possible, PDLs should conduct the DL syllabus in order. All DL events shall be evaluated by either a Mission Commander, FLSE, or WTI as delineated for each event. The DL evaluator will use the performance standards to determine whether the PDL completed the sortie. The PDL will use the performance standards to debrief the flight. All simulator events will include full mission briefs (excluding admin unless otherwise specified) and should last no longer than 1 hour.

Completion of the DL syllabus meets the requirements for designation as division leader. At the discretion of the squadron commanding officer, a letter designating the pilot as a division leader shall be placed in the NATOPS jacket and APR. Re-designation is at the discretion of the commanding officer.

A qualified division lead is authorized to act as a Lane Commander in control of multiple fighter elements. Additionally, a division lead is authorized to act as a Package Commander/Team Lead in control of multiple elements conducting the same mission (e.g., SEAD Package Commander) and subordinate to an overall Mission

Commander. The size, scope, and complexity of the package that a division lead should command is at the discretion of the commanding officer.

Flight event length depicts F-35B flight time. Flight event length for F-35C is 1.8 hours.

Division lead administrative training requirements are to be performed during the flights and simulators. They should be completed prior to the DL-6409.

DIVISION LEAD ADMINISTRATIVE TRAINING REQUIREMENTS		
TRAINING REQUIREMENTS	FLIGHT	DATE
Lead Division Sensor Trail Departure		
Lead Overhead Break		
Lead Straight-in, Flight Lead Separation on Final		

Prerequisite. Prior to commencing the division lead syllabus, PDLs should have a minimum of 500 hours in model, with up to 50% in the simulator. The academic syllabus shall be completed IAW the MAWTS-1 F-35 Course Catalog.

ADL-6401 1.0 * B G

Goal. Evaluate LAT Briefing Lab.

Requirements. Conduct a LAT briefing lab which replicates the conduct of SLAT-2501. Brief shall include discussion of descent to comfort level using Small Descent Rule of Thumb, hard/break turns, mission tasking, ridge crossings, 50 Percent Rule, One Percent Dive-Angle Rule and the High-to-Low Transition. LAT mechanics shall be conducted IAW NTTP 3-22.3-F35 Chapter 9, Low-Altitude Operations. Auto-GCAS functionality, PVI, and indications of degradation should be discussed. The 50% rule and Dive Recovery Numbers should be recited verbatim. Reference the MAWTS-1 Low Altitude Tactics lecture series (LAT 1-5) for additional LAT considerations.

Performance Standards

Evaluate
Brief
Admin
Tac Admin
Concepts and Definitions
Mechanics

Instructor. WTI or LATI

Prerequisite. 8640

SDL-6402 1.5 * B D S 4 FMS

Goal. Evaluate SCAR.

Requirements. Conduct a Strike Coordination and Reconnaissance (SCAR) mission IAW the briefed TPL and ROE. Target audience is 2000-level complete. Execute a departure IAW local procedures and/or SPINS routing. Conduct pre-mission AAR prior to executing sortie as the SCAR. Detect, recognize, and PID threats and targets with on-board sensors. Execute coordination of strikes with two FW striker sections, one of them being a section of legacy aircraft. Execute a minimum of four attacks with a minimum of one attack internal to the SCAR flight. Execute opportune SEAD IOT clear the battlespace for legacy platforms. Communicate IFREP to simulated MACCS. One emergency procedure will be injected by evaluator during the mission or recovery to reinforce flight leadership and crew resource management.

Performance Standards

Evaluate	
Brief	Acquire Targets
Admin	Minimize Time-to-kill IAW the TPL and
Tac Admin	ROE
AAR	AS Employment

SCAR TTPs

Delivery Validation

Debrief

Instructor. Mission Commander

External Resource Requirements. 1 CI at the console.

SDL-6403 1.5 * B N S 4 FMS

Goal. Evaluate Night SEAD

Requirements. Locate and destroy multiple in-band and out-of-band medium-range SAMs in a littoral scenario in order to clear a lane for follow-on strikes. Using F-35 ESM, locate and destroy tactical SAM arrays. Optimize assets and CAP geometry to minimize time-to-kill. Execute standoff weapons delivery. ALR High.

Performance Standards

Evaluate

Brief

Tac Admin

Geolocation Tactics

Target Acquisition

Valid AS Employment

Signature Management

Threat Countertactics

Debrief

Instructor. Mission Commander

External Resource Requirements. 1 CI to operate AIC / IADS.

DL-6404 1.3 * B D A 4 F-35

Goal. Evaluate DCA.

Requirements. Conduct a DCA mission to defend the vital area for a 20 minute vulnerability period as the last line of defense. Initial separation between fighters and adversaries no less than 80 NM. Emphasis is on FEZ management, intelligent weapons employment, and tactic/flow decision-making.

Performance Standards

Evaluate

Brief

FEZ Management

Timeline Awareness

Intelligent Targeting and Weapons

Employment IAW MPF

Tactic/Flow Decision-Making

Signature Management

Valid AA Employment IAW ROE

Debrief

Shot Validation

Instructor. Mission Commander

Ordnance. Virtual CM recommended.

Range. AA, TACTS, EXP, MACH 1+

External Resource Requirements. AIC, 6+ Dissimilar Adversaries with AEA (AESA-equipped desired).

SDL-6405 1.5 * B D S 4 FMS

Goal. Evaluate Escort.

Requirements. Conduct a fighter escort in support of a strike package. Gain and maintain localized air superiority. Target area defended by a robust integrated air defense system to include fighter aircraft, and medium and long-range SAMs. Emphasis is on integration with strike package to include fighter spacing, flow options/requirements,

inter-flight communication, and barrier CAP (BARCAP) positioning. Utilize simulator entities to replicate fourth generation fighters.

Performance Standards

Evaluate

Brief

Timeline Awareness

Intelligent Targeting and Weapons

Employment IAW MPF

Tactic/Flow Decision-Making

Signature Management

Valid AA Employment

Debrief

Shot Validation

Instructor. Mission Commander.

External Resource Requirements. 3 CIs to operate blue air, AIC and red air.

DL-6406 1.3 * B D A 4 F-35

Goal. Evaluate Sweep.

Requirements. Conduct a fighter sweep in order to attrite enemy fighters over hostile territory. A minimum of 80nm initial separation between the fighters and adversaries is required. Enemy airfields are defended by SA threat systems. ALR is low. Emphasis is on threat-based targeting, weapons employment mindset, and tactic/flow decision-making.

Performance Standards

Evaluate

Brief

Timeline Awareness

Intelligent Targeting and Weapons

Employment IAW MPF

Tactic/Flow Decision-Making

Signature Management

Valid AA Employment IAW ROE

Debrief

Shot Validation

Instructor. FLSE

Ordnance. Virtual CM recommended.

Range. AA, TACTS, EXP, MACH 1+, EW, SRSAM, MRSAM.

External Resource Requirements. AIC, 6+ Dissimilar Adversaries with AEA (AESA-equipped desired).

SDL-6407 1.5 * B D S 4 FMS

Goal. Evaluate DCA Fighter Integration.

Requirements. Conduct an integrated DCA mission with a division of F-35s and a division of fourth generation fighters against a peer adversary. Initial separation between fighters and adversaries no less than 80nm. Emphasis is on utilizing standard fighter integration tactics to achieve mission success. Utilize simulator entities to replicate fourth generation fighters.

Performance Standards

Evaluate

Brief

Targeting

Tactic/Flow Decision-Making IAW MPF

Inter-flight Communication

Timeline Awareness

Signature Management

Valid AA Employment IAW ROE

Debrief

Shot Validation

Instructor. Mission Commander

Prerequisites. 6404

External Resource Requirements. 3 CIs to operate blue air, AIC and red air.

SDL-6408 1.5 * B N S 4 FMS

Goal. Evaluate Night Strike.

Requirements. Conduct a night strike, delivering PGMs, against a target that is protected by an IADS employing medium and long-range SAMs, GPS jamming, and advanced fighter aircraft. The focus is on mission planning, weaponeering, route/signature management, SEAD requirements, and ordnance delivery.

Performance Standards

Evaluate

Brief
AS Task List
Target Acquisition
Target Area Tactics
AS Timeline
Signature Management

Valid Delivery on Assigned DPI
AA Threat Suppression
SEAD
Debrief
Weapon Validation

Instructor. FLSE

External Resource Requirements. 2 CIs to operate AIC and red air / IADS.

DL-6409 1.3 * B N A 4 F-35

Goal. Evaluate Night Strike.

Requirements. Conduct a night strike, delivering PGMs, against a target that is protected by an IADS employing medium and long-range SAMs, GPS jamming, and advanced fighter aircraft. The focus is on mission planning, weaponeering, route/signature management, SEAD requirements, and ordnance delivery.

Performance Standards

Evaluate

Brief
AS Task List
Target Acquisition
Target Area Tactics
AS Timeline
Signature Management

Valid Delivery on Assigned DPI
AA Threat Suppression
SEAD
Debrief
Weapon Validation

Instructor. Mission Commander

Prerequisites. 6408

Ordnance

ORDNANCE	QUANTITY	ALLOWABLE SUBSTITUTES	NOTES
PGM	1		2 Desired
Virtual CM	N/A	MJU-61/64/66	Virtual CM Preferred

Range

RANGE REQUIREMENTS		
REQUIRED CAPABILITIES	ALLOWABLE SUBSTITUTES	DESIRED CAPABILITIES
RSTD, AA, TACTS		EW
MACH 1+, EXP		IR TGT, RDR TGT
HIFI EW, SRSAM, MRSAM		HE
COMPLEX	TGT-DISP, STRUCTR	
JDAM		

External Resource Requirements. AIC, 3+ Dissimilar Adversaries with AEA.

ADL-6410 1.0 * B G

Goal. Discuss Package Commander considerations.

Requirements. A Weapons and Tactics Instructor shall provide a chalk talk to the PDL which discusses large force employment and the role of a package commander. Discuss mission planning considerations, package briefs, and debrief expectations. Safety considerations for both training and combat shall be discussed.

Instructor. Mission Commander

2.19.6 MISSION COMMANDER (MC)

Purpose. To prepare and evaluate the Prospective Mission Commander's (PMC) ability to plan, brief and lead an event as a mission commander. This syllabus is intended for a PMC who has not held a mission commander designation in any other T/M/S. For pilots transitioning from another T/M/S, it is left to the CO's discretion how much of the syllabus is performed based on experience level and background.

MC Overview

MISSION COMMANDER (MC) STAGE							
EVENT	TIME	PROFICIENCY PERIOD	POI	COND	DEVICE	NUM	DESCRIPTION
SMC-6501	1.5	*	B	N	S	4	Night SEAD
MC-6502	1.3	*	B	(N)	A	4+	DCA
MC-6503	1.3	*	B	(N)	A	4+	Strike

Admin Notes

To the max extent possible, PMCs should conduct the MC syllabus in order. All MC events shall be evaluated by either a WTI, FLSE, or Air Interdiction Mission Commander (AIMC), as delineated for each event. The MC evaluator will use the performance standards to determine whether the PMC completed the sortie. The PMC will use the performance standards to debrief the flight. The simulator event shall include full mission planning, a confirmation brief and a package brief applicable to the mission.

Completion of the MC syllabus meets the requirements for designation as mission commander. At the discretion of the squadron commanding officer, a letter designating the pilot as a mission commander shall be placed in the NATOPS jacket and APR. Re-designation is at the discretion of the commanding officer.

Prerequisite. Prior to commencing the mission commander syllabus, PMCs should have a minimum of 600 hours in model, with up to 50% in the simulator. The academic syllabus shall be completed IAW the MAWTS-1 F-35 Course Catalog.

SMC-6501 1.5 * B N S 4 FMS

Goal. Evaluate Night SEAD.

Requirements. Conduct a night SEAD mission to locate and destroy multiple in-band and out-of-band medium and long-range SAMs in preparation for follow-on strikes. Threat IADS should include advanced fighter aircraft, numerous early warning radars and medium and long-range SAMs. Mission planning and execution should include additional USMC and joint assets required for mission success. Incorporate AAR, an escort fighter element, and additional SEAD/EW assets. Additional assets shall be digitally replicated in the simulator. Simulator conduct should include takeoff and recovery of the element.

Performance Standards

Evaluate

Mission Planning
Brief
Airborne Asset Management
Decision-making
Manage Fallouts, Alibis, and Exceptions

SEAD TTPs
Threat Countertactics
Debrief
Mission Success/Failure Assessment
Debrief Focus Point Generation

Instructor. WTI/AIMC

Prerequisites. 8660

External Resource Requirements. 2 CIs to operate blue air and AIC / IADS.

MC-6502 1.3 * B (N) A 4+ F-35

Goal. Evaluate DCA.

Requirements. Conduct a DCA mission of a defended asset for a continuous defined vulnerability period. Emphasis shall be placed on integrated planning and employment, information flow, lane management, FEZ management, and overall mission accomplishment. Incorporate C2, ground-based air defense, AAR, and multiple fighter elements in the mission planning to achieve a cohesive defense of the defended assets. Fighter weapons control status, PID, and ROE are set according to the theater of operation. Incorporate missile and fighter engagement zones as appropriate. The vulnerability period should require at least one lane handover to an additional fighter element. Conduct the mass brief and the fighter brief. Conduct the mass debrief. Draw valid learning points. Six total blue fighters and an AAR asset are required for completion.

Performance Standards

Evaluate

Mission Planning

Brief

Airborne Asset Management

Decision-making

Manage Fallouts, Alibis, and Exceptions

DCA TTPs

Debrief

Mission Success/Failure Assessment

Debrief Focus Point Generation

Instructor. FLSE

Ordnance. Virtual CM recommended.

Range. AA, TACTS, EXP, MACH 1+.

External Resource Requirements. AIC, 6+ Total Blue Fighters, AAR Asset, 6+ Dissimilar Adversaries with AEA (AESA-equipped desired).

MC-6503 1.3 * B (N) A 4+ F-35

Goal. Evaluate Strike.

Requirements. Conduct a strike mission (Attack Operation or Air Interdiction). Emphasis shall be placed on coordinating mission planning, airborne decision-making, asset management and integration, and control of multiple aircraft elements and agencies. Incorporate multiple blue fighter, SEAD, EW, and strike elements. Conduct the mass brief and the fighter brief. Conduct the mass debrief. Draw valid learning points. Six total blue fighters are required for completion.

Performance Standards

Evaluate

Mission Planning
Brief
Airborne Asset Management
Decision-making
Manage Fallouts, Alibis, and Exceptions
Strike TTPs
Debrief
Mission Success/Failure Assessment
Debrief Focus Point Generation

Instructor. WTI/AIMC

Prerequisite. 6502

Ordnance

ORDNANCE	QUANTITY	ALLOWABLE SUBSTITUTES	NOTES
PGM	1		2 Desired
Virtual CM	N/A	MJU-61/64/66	Virtual CM Preferred

Range

RANGE REQUIREMENTS		
REQUIRED CAPABILITIES	ALLOWABLE SUBSTITUTES	DESIRED CAPABILITIES
RSTD, AA, TACTS		EW
MACH 1+, EXP		IR TGT, RDR TGT
HIFI EW, SRSAM, MRSAM, LRSAM		HE
COMPLEX	TGT-DISP, STRUCTR	
JDAM		

External Resource Requirements. AIC, 6+ Total Blue Assets, 6+ Dissimilar Adversaries with AEA (AESA-equipped desired).

2.19.7 DESIGNATIONS (DESIG)

Purpose. To track designations.

DESIG Overview

DESIGNATIONS (DESIG) STAGE							
EVENT	TIME	PROFICIENCY PERIOD	POI	COND	DEVICE	NUM	DESCRIPTION
DESIG-6601	-	*	B	-	G	-	FRSI
DESIG-6602	-	*	B	-	G	-	SL
DESIG-6603	-	*	B	-	G	-	DL
DESIG-6604	-	*	B	-	G	-	MC
DESIG-6605	-	*	B	-	G	-	ACMI
DESIG-6606	-	*	B	-	G	-	LTI
DESIG-6607	-	*	B	-	G	-	FAC(A)I
DESIG-6608	-	*	B	-	G	-	LATI
DESIG-6609	-	*	B	-	G	-	FLSE
DESIG-6610	-	*	B	-	G	-	NSI
DESIG-6611	-	*	B	-	G	-	SFTI, F-35
DESIG-6612	-	*	B	-	G	-	WTI
DESIG-6613	-	*	B	-	G	-	CFI(1)
DESIG-6614	-	*	B	-	G	-	CFI(2)
DESIG-6615	-	*	B	-	G	-	CFI(4)
DESIG-6616	-	*	B	-	G	-	CIP
DESIG-6617	-	*	B	-	G	-	NATOPS
DESIG-6618	-	*	B	-	G	-	NATOPS INST
DESIG-6619	-	*	B	-	G	-	CRM
DESIG-6620	-	*	B	-	G	-	FCF

DESIG-6601

B

G

Goal. Fleet Replacement Squadron Instructor (FRSI).

Requirement. IAW the VMFAT-501 FRSI Flight Syllabus Guide (FSG).

DESIG-6602 **B** **G**

Goal. Section Lead (SL).

Requirements. IAW the F-35 Training and Readiness Manual.

Prerequisite. 6313

DESIG-6603 **B** **G**

Goal. Division Lead (DL).

Requirements. IAW the F-35 Training and Readiness Manual.

Prerequisite. 6409

DESIG-6604 **B** **G**

Goal. Mission Commander (MC).

Requirements. IAW the F-35 Training and Readiness Manual.

Prerequisite. 6503

DESIG-6605 **B** **G**

Goal. Air Combat Maneuvering Instructor (ACMI)

Requirements. IAW the MAWTS-1 F-35 Course Catalog.

DESIG-6606 **B** **G**

Goal. Lightning Tactics Instructor (LTI)

Requirements. IAW the MAWTS-1 F-35 Course Catalog.

DESIG-6607 **B** **G**

Goal. Forward Air Controller (Airborne) Instructor (FAC(A)I).

Requirements. IAW the MAWTS-1 F-35 Course Catalog.

DESIG-6608 **B** **G**

Goal. Low Altitude Tactics Instructor (LATI).

Requirements. IAW the MAWTS-1 F-35 Course Catalog.

DESIG-6609 **B** **G**

Goal. Flight Leadership Standardization Evaluator (FLSE).

Requirements. IAW the MAWTS-1 F-35 Course Catalog.

DESIG-6610 **B** **G**

Goal. Night Systems Instructor (NSI).

Requirements. IAW the MAWTS-1 F-35 Course Catalog.

DESIG-6611 **B** **G**

Goal. F-35 Strike Fighter Tactics Instructor (SFTI).

Requirements. IAW the NAWDC N7 F-35 Period of Instruction (POI).

DESIG-6612	B	G
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Goal. Weapon and Tactics Instructor (WTI).

Requirements. IAW the MAWTS-1 Course Catalog.

DESIG-6613	B	G
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Goal. Contract FRS Instructor, Basic (CFI(1))

Requirements. Completion of listed prerequisite events.

Admin Notes. Prior to execution of a prerequisite event, prospective CFI must complete associated 1000-level stage, excluding flight events. Prospective CFI shall be nominated by an FRS Commanding Officer. Upon completion of all prerequisite events, a designation letter shall be signed by the nominating FRS Commanding Officer. Prospective CFIs shall utilize M-SHARP for electronic ATFs and event completion.

Prerequisite. 5001, 5003, 5004, 5005, 5012, 5013, 5014, 5015, 5043, 5044

DESIG-6614	B	G
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Goal. Contract FRS Instructor, Section Lead (CFI(2))

Requirements. Completion of listed prerequisite events.

Admin Notes. Prior to execution of a prerequisite event, prospective CFI must complete associated 1000-level stage, excluding flight events. Prospective CFI shall be nominated by an FRS Commanding Officer. Upon completion of all prerequisite events, a designation letter shall be signed by the nominating FRS Commanding Officer. Prospective CFIs shall utilize M-SHARP for electronic ATFs and event completion.

Prerequisite. 5009, 5010, 5022, 5023, 5024, 5028, 5030, 5036, 5037, 5044, 5045

DESIG-6615	B	G
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Goal. Contract FRS Instructor, Division Lead (CFI(4))

Requirements. Completion of listed prerequisite events.

Admin Notes. Prior to execution of a prerequisite event, prospective CFI must complete associated 1000-level stage, excluding flight events. Prospective CFI shall be nominated by an FRS Commanding Officer. Upon completion of all prerequisite events, a designation letter shall be signed by the nominating FRS Commanding Officer. Prospective CFIs shall utilize M-SHARP for electronic ATFs and event completion.

Prerequisite. 5026, 5028, 5033, 5034, 5038, 5040

DESIG-6616	B	G
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Goal. Contract Instructor Pilot (CIP)

Requirements. IAW the F-35 Training and Readiness Manual.

Prerequisite. 5601, 5602, 5603, 5604

DESIG-6617	B	G
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Goal. NATOPS Evaluator or NATOPS Instructor.

Requirements. Designated by the Commanding Officer.

DESIG-6618	B	G
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Goal. NATOPS Instrument Evaluator.

Requirements. Designated by the Commanding Officer.

DESIG-6619 **B** **G**

Goal. CRM Facilitator or CRM Instructor.

Requirements. Designated by the Commanding Officer.

DESIG-6620 **B** **G**

Goal. FCF Stan Officer or FCF Stan Evaluator.

Requirements. Designated by the Commanding Officer.

2.19.8 SPECIFIC WEAPONS DELIVERY / TRACKING (SWD/TRK)

Purpose. To track specific weapons employment and lack of training aids.

SWD/TRK Overview

SPECIFIC WEAPONS DELIVERY / TRACKING (SWD/TRK) STAGE							
EVENT	TIME	PROFICIENCY PERIOD	POI	COND	DEVICE	NUM	DESCRIPTION
SSWD-6701	-	-	B	(N)	A	1	AGM-154
SSWD-6702	-	180	B,R,M	(N)	A	1	GAU-22/A
SSWD-6703	-	180	B,R,M	(N)	A	1	GBU-12
SSWD-6704	-	180	B,R,M	(N)	A	1	GBU-31
SSWD-6705	-	180	B,R,M	(N)	A	1	GBU-32
SSWD-6706	-	365	B,R,M	(N)	A	1	GBU-49
SSWD-6707	-	365	B,R,M	(N)	A	1	GBU-53
ASWD-6708	-	1095	B,R,M	(N)	A	1	GAU-22/A
ASWD-6709	-	1095	B,R,M	(N)	A	1	AIM-9X
ASWD-6710	-	1095	B,R,M	(N)	A	1	AIM-120
TRK-6711	-	-	-	-	-	1	Required Ordnance NA
TRK-6712	-	-	-	-	-	1	Required Adversary NA
TRK-6713	-	-	-	-	-	1	Required Range NA

SSWD-6701 **B** **(N)** **A** **1 F-35**

Goal. AGM-154

Requirements. Employ AGM-154.

SSWD-6702 **180** **B,R,M** **(N)** **A** **1 F-35**

Goal. GAU-22/A.

Requirements. Employ GAU-22/A against a surface target.

SSWD-6703 **180** **B,R,M** **(N)** **A** **1 F-35**

Goal. GBU-12.

Requirements. Employ GBU-12.

SSWD-6704 **180** **B,R,M** **(N)** **A** **1 F-35**

Goal. GBU-31.

Requirements. Employ GBU-31.

SSWD-6705 **180** **B,R,M** **(N)** **A** **1 F-35**

Goal. GBU-32.

Requirements. Employ GBU-32.

SSWD-6706 **365** **B,R,M** **(N)** **A** **1 F-35**

Goal. GBU-49.

Requirements. Employ GBU-49.

SSWD-6707 **365** **B,R,M** (N) A **1 F-35**

Goal. GBU-53.

Requirements. Employ GBU-53.

ASWD-6708 **1095** **B,R,M** (N) A **1 F-35**

Goal. GAU-22/A.

Requirements. Employ GAU-22/A against an air target.

ASWD-6709 **1095** **B,R,M** (N) A **1 F-35**

Goal. AIM-9X.

Requirements. Employ AIM-9X.

ASWD-6710 **1095** **B,R,M** (N) A **1 F-35**

Goal. AIM-120.

Requirements. Employ AIM-120.

TRK-6711

Goal. Required Ordnance Not Available.

Requirements. The ordnance required for the sortie was not available.

TRK-6712

Goal. Required Adversary Not Available.

Requirements. The adversary required for the sortie was not available.

TRK-6713

Goal. Required Range Not Available.

Requirements. The range required for the sortie was not available.

2.19.9 F-35B AIR SHOW DEMONSTRATION PILOT (DEMO)

Purpose. To evaluate a prospective demonstration pilot's ability to conduct air show demonstration.

DEMO Overview

AIR SHOW DEMONSTRATION PILOT (DEMO) STAGE							
EVENT	TIME	PROFICIENCY PERIOD	POI	COND	DEVICE	NUM	DESCRIPTION

SDEMO-6801	1.7	365	B,R	D	S	1	Level II/III High Show Introduction
SDEMO-6802	1.7	365	B,R	D	S	1	Level II/III High Show Practice
SDEMO-6803	1.7	180	B,R,M	D	S	1	High Show Environmental Effects
SDEMO-6804	1.7	180	B,R,M	D	S	1	Level II Low Show Introduction
SDEMO-6805	1.7	180	B,R,M	D	S	1	Level II Low Show Practice
SDEMO-6806	1.7	365	B,R	D	S	1	Low Show Environmental Effects
DEMO-6807	.7	180	B,R,M	D	A	1	Level III High Show – 5000' AGL
DEMO-6808	.7	30	B,R,M	D	A	1	Level III High Show – 2000' AGL
DEMO-6809	.3	365	B,R	D	A	1	Level III High Show
DEMO-6810	.7	180	B,R,M	D	A	1	Level II Low Show – 5000' AGL
DEMO-6811	.7	30	B,R,M	D	A	1	Level II Low Show – 2000' AGL
DEMO-6812	.3	365	B,R	D	A	1	Level II Low Show
DEMO-6813	.3	365	B,R	D	A	1	High/Low Show Demonstration

Admin Notes

Completion of the syllabus meets the requirements to be designated an F-35B Demo Pilot. All events must be monitored by the Model Manager Demo Qualification Stan Evaluator. At the discretion of the squadron commanding officer, a letter designating the pilot an F-35B Demo Pilot shall be placed in the NATOPS jacket and APR.

Academic training per F-35B Demonstration Flight IFC, Ref D.

Prerequisite. Per MCO, F-35B Demonstration Flight IFC, Ref D.

SDEMO-6801 1.7 * B,R D S 1 FMS

Goal. Introduce airshow demonstration operations and Level II and III show profiles.

Requirements. Introduce ground operations, airshow timeline, and Level II and III show profiles.

Performance Standards

Introduce
Airshow timeline
Ground Operations
Marshal

Level II profile
Level III profile
Emergency

Prerequisites. Per MCO and F-35B Demonstration Flight IFC, Ref D.

SDEMO-6802 1.7 * B,R D S 1 FMS

Goal. Practice Level III high show profile.

Requirements. Practice Level III high show profile.

Performance Standards

Practice
High show demonstration profile
Emergency

Prerequisites. 6801

SDEMO-6803 1.7 180 B,R,M D S 1 FMS

Goal. Introduce environmental effects and contingencies on the Level III high show profile.

Requirements. Introduce wind, weather, and elevation effects on the Level III high show profile.

Performance Standards

Introduce	Wind, weather, and elevation changes
Practice	High show demonstration profile
	Emergency

Prerequisites. 6802

SDMO-6804 1.7 180 B,R,M D S 1 FMS

Goal. Introduce Level II low show profile.

Requirements. Introduce the Level II low show profile.

Performance Standards

Introduce
Level II profile

Practice	All low show profile maneuvers
Emergency	

Prerequisites. 6801

SDEMO-6805 1.7 180 B,R,M D S 1 FMS

Goal. Practice the Level II low show profile.

Requirements. Practice the Level II low show profile.

Performance Standards

Practice
Low show profile
Emergency

Prerequisites. 6804

SDMO-6806 1.7 * B,R D S 1 FMS

Goal. Introduce environmental effects and contingencies on the low show profile.

Requirements. Introduce wind, weather, and elevation effects on the low show profile.

Performance Standards

Introduce	Wind, weather, and elevation changes
Practice	Low show demonstration profile
Emergency	

Prerequisites. 6805

DEMO-6807 .7 180 B,R,M D A 1 F-35

Goal. Practice airshow demonstration profile.

Requirements. Demonstrated proficiency in executing the Level III high show profile in the simulator. Fly the high show profile at 5,000' AGL over non-populated area with GSO monitoring. Event must be flown twice for completion, refueling between sorties.

Performance Standards

Practice
High show demonstration profile

Prerequisites. 6803

DEMO-6808 .7 30 B,R,M D A 1 F-35

Goal. Practice airshow demonstration profile.

Requirements. Demonstrated proficiency in executing the Level III high show profile in the simulator. Fly the high show profile at 2,000' AGL over non-populated area with GSO monitoring. Event must be flown twice for completion, refueling between sorties.

Performance Standards

Practice
High show demonstration profile

Prerequisites. 6807

DEMO-6809 .3 * B,R D A 1 F-35

Goal. Practice airshow demonstration profile.

Requirements. Flight the high show profile over an airfield. Event must be flown twice for completion, refueling between sorties.

Performance Standards

Practice
High show demonstration profile

Prerequisites. 6808

DEMO-6810 .7 180 B,R,M D A 1 F-35

Goal. Practice airshow demonstration profile.

Requirements. Demonstrated proficiency in executing the Level II low show profile in the simulator. Fly the low show profile at 5,000' AGL over non-populated area with GSO monitoring. Event must be flown twice for completion, refueling between sorties.

Performance Standards

Practice
Low show demonstration profile

Prerequisites. 6806

DEMO-6811 .7 30 B,R,M D A 1 F-35

Goal. Practice airshow demonstration profile.

Requirements. Demonstrated proficiency in executing the Level II low show profile in the simulator. Fly the low show profile at 2,000' AGL over non-populated area with GSO monitoring. Event must be flown twice for completion, refueling between sorties.

Performance Standards

Practice
Low show demonstration profile

Prerequisites. 6810

DEMO-6812 .3 * B,R D A 1 F-35

Goal. Practice airshow demonstration profile.

Requirements. Fly the Level II low show profile over an airfield. Event must be flown twice for completion, refueling between sorties.

Performance Standards

Practice

Low show demonstration profile

Prerequisites. 6811

DEMO-6813 .3 * B,R D A 1 F-35

Goal. Demonstrate flight in both airshow demonstration profiles. Initial qualification event shall be monitored by MAG commanding officer or his designated representative.

Requirements. Fly the high and low show demonstration profiles over an airfield, refueling between demonstration profiles.

Performance Standards

Evaluate

High show demonstration profile

Low show demonstration profile

Prerequisites. 6812

2.20 MISSION ESSENTIAL TASK PHASE

Purpose. To assess CMMR representative crews during the execution of the unit's specified Mission Essential Tasks (METs) in order to ensure standardization and combat readiness, and to fulfill the requirements of a Marine Corps Combat Readiness Evaluation (MCCRE) as specified in MCO 3502.1, Marine Corps Combat Readiness Evaluation.

Admin Notes

Units not scheduled to be assessed at a service level training venue (i.e. ITX, MTNEX, TALONEX) shall conduct elements of the MET Phase as a minimum requirement for a unit to deploy.

The proficiency period for conducting MET Phase events is once every two years.

The MAW Flight Leadership Standardization Evaluator (FLSE) cadre is the resource used to assess units for MET capability in accordance with the MCCRE Order. The unit's assessor will be designated at the Wing level of the unit to be assessed.

Events in the MET Phase normally require a Force Generation Order prior to commencing the MET Phase. Once a unit deploys, is removed from the Force Generation Order, or completes the required event, currency for that specific event no longer needs to be maintained.

Multiple Events may be accomplished during the same sortie.

Results of the MCCRE assessment shall be formatted per Appendix D, NAVMC 3500.14-series and submitted to CG, MCCDC (via AMHS message attachment to CG TECOM MTESD) no later than 45 days after MCCRE completion.

Prerequisites. Pilots assessed during this phase shall meet the requirements of a Force Generation Order. The pilots should be comprised of deploying personnel to the maximum extent practical.

2.21 MISSION ESSENTIAL TASK STAGE

Purpose. To assess squadrons or detachments executing community specific MET(s) or MET preparatory Events.

MET Overview

MISSION ESSENTIAL TASK (MET) STAGE							
EVENT	TIME	PROFICIENCY PERIOD	POI	COND	DEVICE	NUM	DESCRIPTION
MET-7001	1.5	730	B,R,M	(N)	A	2	Conduct Close Air Support
MET-7002	1.5	730	B,R,M	(N)	A	2	Conduct Strike Coordination and Reconnaissance
MET-7003	1.3	730	B,R,M	(N)	A	4	Conduct Offensive Anti-Air Warfare
MET-7004	1.3	730	B,R,M	(N)	A	4	Conduct Active Air Defense
MET-7005	1.3	730	B,R,M	(N)	A	4	Conduct Strike
MET-7006	1.3	730	B,R,M	(N)	A	4	Conduct Suppression of Enemy Air Defenses
MET-7007	1.3	730	B,R,M	(N)	A	4	Conduct Aviation Electronic Attack
MET-7008	1.3	730	B,R,M	(N)	A	4	Conduct Electronic Support
MET-7009	1.5	730	B,R,M	(N)	A	1	Conduct Aviation Operations from Expeditionary Shore-Based Sites
MET-7010	1.0	730	B,R,M	(N)	A	1	Conduct Aviation Operations from Expeditionary Sea-Based Sites
MET-7011	1.5	730	B,R,M	(N)	A	2	Conduct Aerial Escort
MET-7012	1.5	730	B,R,M	(N)	A	2	Attack Enemy Maritime Targets
MET-7013	1.5	730	B,R,M	(N)	A	1	Conduct Forward Air Control (Airborne)
MET-7014	1.5	730	B,R,M	(N)	A	1	Conduct Tactical Air Coordination (Airborne) Operations

Prerequisites. If an event requires prerequisites in addition to those listed for the MET Phase, they will be covered in the individual event.

Crew Requirements

The participants required for the MET Phase are the evaluated unit and the assessor. The pilot requirement is based on the specific event. The assessment shall be conducted from a crew position of the assessor's T/M/S. At the discretion of the assessor, observation of mission planning, briefing/debriefing, and execution from an OP may satisfy a portion of the assessment.

Respectively, the primary, alternate, and tertiary assessors shall be a MATSS representative, WTI (FLSE) from within the parent command designated by the owning Wing, or MAWTS-1 representative.

The number of pilots evaluated will be based on a percentage required to deploy per the Force Generation Order.

MET-7001 1.5 730 B,R,M (N) A 2 F-35

Goal. Conduct Close Air Support.

Requirements. Conduct CAS per the F-35 Training and Readiness Manual.

MET-7002 1.5 730 B,R,M (N) A 2 F-35

Goal. Conduct Strike Coordination and Reconnaissance.

Requirements. Conduct SCAR per the F-35 Training and Readiness Manual.

MET-7003 1.3 730 B,R,M (N) A 4 F-35

Goal. Conduct Offensive Anti-air Warfare.

Requirements. Conduct AAW per the F-35 Training and Readiness Manual.

MET-7004 1.3 730 B,R,M (N) A 4 F-35

Goal. Conduct Active Air Defense.

Requirements. Conduct AAW per the F-35 Training and Readiness Manual.

MET-7005 1.3 730 B,R,M (N) A 4 F-35

Goal. Conduct Strike.

Requirements. Conduct STK per the F-35 Training and Readiness Manual.

MET-7006 1.3 730 B,R,M (N) A 4 F-35

Goal. Conduct Suppression of Enemy Air Defenses.

Requirements. Conduct SEAD per the F-35 Training and Readiness Manual.

MET-7007 1.3 730 B,R,M (N) A 4 F-35

Goal. Conduct Aviation Electronic Attack.

Requirements. Conduct SEAD per the F-35 Training and Readiness Manual.

MET-7008 1.3 730 B,R,M (N) A 4 F-35

Goal. Conduct Electronic Support.

Requirements. Conduct SEAD per the F-35 Training and Readiness Manual.

MET-7009 1.5 730 B,R,M (N) A 1 F-35

Goal. Conduct Aviation Operations from Expeditionary Shore-Based Sites.

Requirements. Conduct EXP per the F-35 Training and Readiness Manual.

MET-7010 1.0 730 B,R,M (N) A 1 F-35

Goal. Conduct Aviation Operations from Expeditionary Sea-Based Sites.

Requirements. Conduct FCLP/CQ per the F-35 Training and Readiness Manual.

MET-7011 1.5 730 B,R,M (N) A 2 F-35

Goal. Conduct Aerial Escort.

Requirements. Conduct AESC per the F-35 Training and Readiness Manual.

MET-7012 1.5 730 B,R,M (N) A 2 F-35

Goal. Attack Enemy Maritime Targets.

Requirements. Conduct AMT per the F-35 Training and Readiness Manual.

MET-7013 1.5 730 B,R,M (N) A 1 F-35

Goal. Conduct Forward Air Control (Airborne).

Requirements. Conduct FAC(A) per the F-35 Training and Readiness Manual.

MET-7014 1.5 730 B,R,M (N) A 1 F-35

Goal. Conduct Tactical Air Coordination (Airborne) Operations.

Requirements. Conduct TAC(A) per the F-35 Training and Readiness Manual.

2.22 AVIATION CAREER PROGRESSION MODEL PHASE

Purpose

To enhance professional understanding of Marine Aviation and the MAGTF, and to ensure individuals possess the requisite skills to fill battle command and battle staff positions in support of the ACE and the MAGTF in a joint environment. The focus of training in the Aviation Career Progression Model (ACPM) is on academic events in the following areas:

- Marine Air Command and Control System (MACCS)
- Aviation Ground Support
- Joint Air Operations

ACE Battle Staff
MAGTF
Sea-based Operations
Combatant Commander Organizations

ACPM training requirements are embedded within the training phases, including the flight leadership POIs. Refer to NAVMC 3500.14, Aviation T&R Program Manual, as a primary reference for ACPM training requirements.

General

The ACPM is intended to be an integrated series of academic events contained within each phase of training. Accordingly, ACPM academic events are like any other academic event in that they serve as pre-requisites to selected flight events or stages. Additionally, several ACPM academic events are integrated as prerequisites for flight leadership syllabi.

ACPM academic events can be located online, at the Marine Corps Aviation Learning Management System (MCALMS). CAC-enabled web address: <https://mcals.usmc.mil/>. MAWTS-1 is responsible for the update and validity of the ACPM POIs.

ACPM Overview

AVIATION CAREER PROGRESSION MODEL (ACPM) TO F-35 T&R MATRIX				
EVENT	TIME	POI	DEVICE	DESCRIPTION
ACPM-8200	0.6	B	G	Marine Air Command and Control System (MACCS)
ACPM-8201	0.4	B	G	Marine Wing Communications Squadron (MWCS)
ACPM-8202	0.5	B	G	Joint Airspace Control
ACPM-8210	0.6	B	G	Aviation Ground Support (AGS)
ACPM-8230	0.6	B	G	ACE Battlestaff
ACPM-8231	0.3	B	G	Battle Command Display
ACPM-8240	1.5	B	G	Six Functions Integration
ACPM-8241	0.5	B	G	Joint Tactical Air Strike Request (JTAR) and Assault Support Request (ASR)
ACPM-8242	0.7	B	G	Aviation Site Command
ACPM-8250	0.6	B	G	Theater Air Ground System (TAGS)
ACPM-8300	0.6	B	G	Air Defense
ACPM-8310	0.4	B	G	Forward Arming and Refueling Point (FARP)
ACPM-8311	0.2	B	G	USMC Tactical Fuel Systems
ACPM-8320	1.5	B	G	Joint Structure & Joint Air Operations
ACPM-8321	0.3	B	G	Joint Air Tasking Cycle Phase 1: Objectives, Effects, and Guidance
ACPM-8322	0.2	B	G	Joint Air Tasking Cycle Phase 2: Target Development
ACPM-8323	0.2	B	G	Joint Air Tasking Cycle Phase 3: Weaponing and Allocation
ACPM-8324	0.2	B	G	Joint Air Tasking Cycle Phase 4: ATO Production and Dissemination
ACPM-8325	0.2	B	G	Joint Air Tasking Cycle Phase 5: Execution, Planning, and Force Execution
ACPM-8326	0.2	B	G	Joint Air Tasking Cycle Phase 6: Assessment
ACPM-8340	0.5	B	G	ACMs and FSCMs Integration
ACPM-8350	0.5	B	G	Phasing Control Ashore
ACPM-8630	0.7	B	G	Tactical Air Command Center (TACC)
ACPM-8640	0.4	B	G	Joint Data Network
ACPM-8660	0.4	B	G	Introduction to Joint Operations

2.23 F-35 T&R SYLLABUS MATRIX (1000 PHASE)

F-35 T&R SYLLABUS MATRIX (1000 & 5000 FRSI Phase)																												
SKILL	PREFIX	EVENT NUMBER	T&R DESCRIPTION	ATTAIN							ACAD	SIM	FLIGHT	CONDITION	TYPE	# AIRCRAFT or SIM	PROF INTERVAL	PREREQUISITE	PREREQUISITE NOTES	EVAL	FRSI	CI	INSTR	EOM	EVENT CONV			
				B	C	R	MR	SS	SC	N	#	TIME	#													TIME	#	TIME
1000 PHASE (CORE INTRODUCTION)																												
MECHANICS PHASE																												
FAMILIARIZATION (FAM)																												
FAM	ACAD	0001	Welcome & In Processing	X	X	X	X	X	X	X		0.5					G		365			1			FRSI			
	ACAD	0005	Course Overview	X	X	X	X	X	X	X		0.5					G		365	0001			1			FRSI		
	ACAD	0002	International Traffic in Arms Regulations (ITARS)	X	X	X	X	X		X		1.0					G		365	0001				1		CI		
	ACAD	0004	Security Briefing	X	X	X	X	X		X		4.0					G		365	0001								
	ACAD	0007	Training Facility Tour	X	X	X	X	X	X	X		1.0					G		365	0001				1		CI		
	ACAD	0006	Mechanics Phase / Familiarization Stage Brief	X	X	X	X	X	X	X		1.0					G		365	0038			1			FRSI		
	ACAD	0011	F-35 Aircraft Intro & Overview	X	X	X				X		2.0					G		365	0001				1		CI		
	ACAD	0003	ALIS	X	X	X				X		2.5					G		365	0011				1		CI		
	ACAD	0012	F-35 Publications and References	X	X	X				X		1.5					G		365	0011				1		CI		
	ACAD	0013	Pilot Training Aid (PTA) Introduction	X	X	X				X		1.0					G		365	0011				1		CI		
	ACAD	0014	Vehicle Systems Processing (VSP)	X	X	X	X	X		X		1.0					G		365	0011								
	ACAD	0008	Life Support Fitting I	X	X			X		X		2.0					G		*	0011								
	ACAD	0015	Panoramic Cockpit Display (PCD)	X	X	X	X	X		X		2.0					G		365	0011								
	ACAD	0016	HMD	X	X	X	X	X		X		1.5					G		365	0011								
	ACAD	0017	HOTAS	X	X	X	X	X		X		1.5					G		365	0011								
	ACAD	0018	PCD, HOTAS, VR	X	X	X	X	X		X		1.5					G		365	0011				1		CI		
	ACAD	0020	Integrated Caution Advisory Warning System (ICAWS)	X	X	X	X	X		X		1.5					G		365	0011								
	ACAD	0021	Electrical Power System (EPS)	X	X	X	X	X		X		2.5					G		365	0011				1		CI		
	ACAD	0022	Power and Thermal Management System (PTMS)	X	X	X	X	X		X		2.0					G		365	0011				1		CI		
	ACAD	0019	Practice PCD, HOTAS, VR	X	X	X	X	X		X		1.5					G		365	0011				1		CI		
	ACAD	0026	Lighting Systems	X	X	X	X	X		X		1.0					G		365	0011								
	ACAD	0023	Engine System	X	X	X	X	X	X	X		3.0					G		365	0011				1		CI		
	ACAD	0024	Fuel System	X	X	X	X	X	X	X		2.0					G		365	0011				1		CI		
	ACAD	0025	Fire Protection System	X	X	X	X	X		X		1.0					G		365	0011								
	ACAD	0027	Hydraulic System	X	X	X	X	X	X	X		2.0					G		365	0011				1		CI		
	ACAD	0028	Landing Gear Systems	X	X	X	X	X	X	X		1.0					G		365	0011								
	ACAD	0029	Canopy System	X	X	X	X	X		X		1.0					G		365	0011								

F-35 T&R SYLLABUS MATRIX (1000 & 5000 FRSI Phase)																													
SKILL	PREFIX	EVENT NUMBER	T&R DESCRIPTION	ATTAIN							ACAD		SIM		FLIGHT		CONDITION	TYPE	# AIRCRAFT or SIM	PROF INTERVAL	PREREQUISITE	PREREQUISITE NOTES	EVAL	FRSI	CI	INSTR	EOM	EVENT CONV	
				B	C	R	MR	SS	SC	N	#	TIME	#	TIME	#	TIME													
	ACAD	0031	Life Support System	X	X	X	X	X		X		1.0						G		365	0011								
	ACAD	0030	Egress System/ Survival Eqpt	X	X	X	X	X		X		2.0						G		365	0011			1		CI			
	ACAD	0032	Familiarization Stage Test 1 Review	X	X	X	X	X	X			1.5						G		365	0001-0007,0011-0031			1		CI			
	ACAD	0033	Familiarization Stage Test 1 (Systems)	X	X	X	X	X	X			1.0						G		365	0032			1		CI			
	ACAD	0034	Flight Control System (FCS)	X	X	X	X	X	X			4.5						G		365	0033			1		CI			
	ACAD	0035	CNI1 (UHF/VHF, IFF, Datalinks)	X	X	X	X	X		X		2.0						G		365	0033								
	ACAD	0036	CNI2 Navigation	X	X	X	X	X		X		3.0						G		365	0033			1		CI			
	ACAD	0037	Voice Recognition	X	X	X	X	X		X		1.0						G		365	0033								
	ACAD	0038	Tactical Situation Display (TSD)	X	X	X	X	X		X		1.5						G		365	0033								
	ACAD	0039	Autopilot/Flight Management System	X	X	X	X	X		X		1.0						G		365	0033								
	ACAD	0040	Operating Limitations	X	X	X	X	X	X			2.5						G		365	0033			1		CI			
	ACAD	0041	Pre-flight & Post-flight Procedures	X	X	X	X	X		X		1.5						G		365	0033			1		CI			
	ACAD	0043	Local Area Procedures	X	X	X	X	X	X			1.0						G		365	0033			1		CI			
	ACAD	0042	Normal Operating Procedures 1 (Ground)	X	X	X	X	X	X			4.0						G		365	0033			1		CI			
	ACAD	0097	Normal Operating Procedures 2 (Takeoff & Landing Pattern)	X	X	X	X	X	X			3.0						G		365	0042			1		CI			
	ACAD	0044	Basic Display Management / Checklists	X	X	X	X	X		X		1.0						G		365	0033			1		CI			
	ACAD	0045	Operating Procedures	X	X	X	X	X	X			1.0						G		365	0033			1		CI			
	SFAM	0100	FMS Device Orientation	X	X					X				1.7			D	S	1	*	0045			1		CFI(1)			
	ACAD	0064	Human Factors	X	X	X	X	X		X		1.5						G		365	0033								
	ACAD	0054	CRM	X	X	X	X	X		X		2.0						G		365	0033			1		FRSI			
	ACAD	0047	Instrument Flight Procedures	X	X	X	X	X		X		2.0						G		365	0033			1		CI			
	ACAD	0048	Radar System 1 - Radar Theory & APG-81 Radar System	X	X	X	X	X		X		2.5						G		365	0033			1		CI			
	ACAD	0049	Administrative Mission Planning	X	X	X	X	X		X		2.5						G		365	0033			1		CI			
	ACAD	0050	Familiarization Stage Test 2 Review	X	X	X	X	X	X			1.5						G		365	0034-0045,0047-0049, 0097			1		CI			
	ACAD	0051	Familiarization Stage Test 2 (Procedures)	X	X	X	X	X	X			1.0						G		365	0050			1		CI			
	SFAM	0101	Normal Operations 1	X	X	X	X	X		X				1.7			D	S	1	365	0100,0051			1		CFI(1)			
	SFAM	0102	Normal Operations 2	X	X	X	X	X		X				1.7			D	S	1	365	0101			1		CFI(1)			
	SFAM	0098	Aeromedical and ROBD (using FMS)	X	X	X	X	X		X				0.5			D	S	1	365	0102			1		CI			
	ACAD	0046	Instrument Ground School & Test	X	X	X	X	X		X		8.0						G		365	0047,0102			1		CI			

F-35 T&R SYLLABUS MATRIX (1000 & 5000 FRSI Phase)																												
SKILL	PREFIX	EVENT NUMBER	T&R DESCRIPTION	ATTAIN							ACAD		SIM		FLIGHT		CONDITION	TYPE	# AIRCRAFT or SIM	PROF INTERVAL	PREREQUISITE	PREREQUISITE NOTES	EVAL	FRSI	CI	INSTR	EOM	EVENT CONV
				B	C	R	MR	SS	SC	N	#	TIME	#	TIME	#	TIME												
	SFAM	0103	Instrument Procedures 1	X	X	X	X	X		X			1.7			D	S	1	365	0102,0046				1		CFI(1)		
	ACAD	0009	Life Support Fitting II	X	X			X		X		4.0					G		*	0008				1		CI		
	ACAD	0053	Prognostics and Health Management (PHM) System	X	X	X	X	X		X		1.0					G		365	0051								
	ACAD	0052	SMS	X	X	X	X	X		X		1.0					G		365	0051								
	ACAD	0055	Emergencies 1 (Ground)	X	X	X	X	X	X	X		2.0					G		365	0051				1		CI		
	ACAD	0059	Basic IR Theory / DAS and NVC	X	X	X	X	X	X	X		1.5					G		365	0051								
	ACAD	0056	Emergencies 2 (Takeoff)	X	X	X	X	X	X	X		2.5					G		365	0055				1		CI		
	ACAD	0057	Emergencies 3 (Inflight)	X	X	X	X	X	X	X		4.0					G		365	0056				1		CI		
	ACAD	0060	Cross Country Operations	X	X	X	X	X		X		0.5					G		365	0051				1		CI		
	ACAD	0058	Emergencies 4 (Approach/Landing)	X	X	X	X	X	X	X		4.5					G		365	0057				1		CI		
	ACAD	0061	Familiarization Stage Test 3 Review	X	X	X	X	X	X	X		1.5					G		365	0053-0060				1		CI		
	ACAD	0062	Familiarization Stage Test 3 (EP/Boldface)	X	X	X	X	X	X	X		1.0					G		365	0061				1		CI		
	SFAM	0104	Emergency Procedures 1	X	X	X	X	X		X				1.7		D	S	1	365	0103,0062				1		CFI(1)		
	SFAM	0105	Emergency Procedures 2	X	X	X	X	X		X				1.7		D	S	1	365	0104				1		CFI(1)		
	SFAM	0106	Normal Operations 3	X	X	X			X	X				1.7		D	S	1	365	0105(B,C,R,N),0062(SC)				1		CFI(1)		
	SFAM	0107	Normal Operations 4	X	X					X				1.7		D	S	1	*	0106				1		CFI(1)		
	SFAM	0108	Instrument Procedures 2 (STOVL)	X	X					X				1.7		D	S	1	*	0107				1		CFI(1)		
	SFAM	0109	Emergency Procedures 3	X	X	X			X	X				1.7		D	S	1	365	0108(B,C,N),0106(R,SC)				1		CFI(1)		
	SFAM	0110	Emergency Procedures 4	X	X	X				X				1.7		D	S	1	365	0109				1		CFI(1)		
	SFAM	0111	STOVL Pattern 1	X	X	X	X	X	X	X				1.7		D	S	1	365	0110(B,C,R,N), 0105(MR,SS), 109(SC)				1		CFI(1)		
	SFAM	0112	STOVL Pattern 2	X	X	X			X	X				1.7		D	S	1	365	0111				1		CFI(1)		
	SFAM	0113	STOVL Emergency Procedures	X	X	X	X	X	X	X				1.7		D	S	1	365	0112(B,C,R,SC,N), 0111(MR,SS)				1		CFI(1)		
	SFAM	0114	Emergency Procedures 5	X	X	X	X	X		X				1.7		D	S	1	365	0113				1		CFI(1)		
	SFAM	0115	Emergency Procedures 6	X	X	X	X	X		X				1.7		D	S	1	365	0114				1		CFI(1)		
	SFAM	0116	Emergency Procedures 7	X	X	X	X	X	X	X				1.7		D	S	1	365	0115, 0113 (SC)				1		CFI(1)		
	SFAM	0117	Instrument Procedures 3	X	X					X				1.7		D	S	1	*	0116				1		CFI(1)		
	SFAM	0118	Emergency Procedures Validation	X	X	X	X	X	X	X				1.7		D	S	1	365	0117(B,C,N), 0116(R,MR,SS,SC)			1	1		FRSI		
	ACAD	0096	Plane Captain Day & Night Hand Signals	X	X	X	X	X	X	X		0.5					G		365	0111				1		FRSI		
	ACAD	0063	NATOPS Tests	X	X	X	X	X	X	X		1.5					G		365	0116				1		FRSI		
	FAM	0099	Egress Training	X	X	X	X	X		X					0.5	D	A	1	365	0062,0063				1		FRSI		
	FAM	1100	Supervised Ground Operations	X	X					X					1.0	D	A	1	*	0063,0096,0099,0118, 0098				1		FRSI		
	SFAM	0119	First Flight Rehearsal	X	X	X	X	X		X				1.7		D	S	1	365	1100(B,C,N), 0099(R,MR,SS)				1	1	CFI(1)		

F-35 T&R SYLLABUS MATRIX (1000 & 5000 FRSI Phase)																													
SKILL	PREFIX	EVENT NUMBER	T&R DESCRIPTION	ATTAIN							ACAD		SIM		FLIGHT		CONDITION	TYPE	# AIRCRAFT or SIM	PROF INTERVAL	PREREQUISITE	PREREQUISITE NOTES	EVAL	FRSI	CI	INSTR	EOM	EVENT CONV	
				B	C	R	MR	SS	SC	N	#	TIME	#	TIME	#	TIME													
	FAM	1101	Normal Operations 1 (Chased)	X	X	X	X	X		X					1.3	D	A	2	365	0119	Within 7 days of SFAM 0119 with the same FRSI		1			FRSI			
	SFAM	0120	Second Flight Rehearsal	X	X					X				1.7		D	S	1	*	1101			1	1		CFI(1)			
	FAM	1102	Normal Operations 2 (Chased)	X	X					X					1.3	D	A	2	*	0120	Within 7 days of SFAM 0120		1			FRSI			
	SFAM	0125	Series Conversion First Flight Rehearsal						X					1.7		D	S	1	*	0063,0096,0118			1	1		CFI(1)			
	FAM	1110	CTOL/STOVL Combination						X						1.3	D	A	2	*	0125	Within 7 days of SFAM 0125		1			FRSI			
	FAM	1103	Instruments 1 - CTOL (Chased)	X	X										1.3	D	A	2	*	1102			1			FRSI			
	FAM	1105	Instruments 1 & 2 Combination (Chased)			X	X	X		X					1.3	D	A	2	365	1102(N),1101(R,MR,SS)			1			FRSI			
	SFAM	0121	STOVL Pattern	X	X	X	X	X	X	X				1.7		D	S	1	365	0120(B,C,N), 1101(R,MR,SS), 0125(SC)				1		CFI(1)			
	FAM	1107	STOVL Pattern 1	X	X					X					1.3	D	A	1	*	0121,1103			1			FRSI			
	FAM	1108	STOVL Pattern 2	X	X	X	X	X	X	X					1.3	D	A	1	365	1107(B,C,N), 0121(R,MR,SS,SC), 0110(SC)			1			FRSI			
	FAM	1104	Instruments 2 - STOVL (Chased)	X	X										1.3	D	A	2	*	1103			1			FRSI			
	SFAM	0122	Pre-NATOPS Check	X	X					X				1.7		D	S	1	*	1108,1104(B,C)				1		CFI(1)			
	SFAM	0123	NATOPS Check	X	X	X	X	X	X	X				1.7		D	S	1	365	0122(B,C,N), 1108(R,MR,SS,SC)			E	1	1	NATOPS			
SFAM	0124	Instrument Check	X	X	X	X	X		X				1.7		D	S	1	365	1104(B,C), 1105(R,MR,SS,N)	OPNAV Approach Mins Required		E	1	1	NATOPS Inst				
FAM SKILL TOTAL											65	122.0	27	44.7	10	11.9													
AIR-TO-AIR REFUELING (AAR)																													
AAR	ACAD	0070	Air Refueling Academics	X					X			1.0					G		*	0124	SC only if converting from F-35A			1		CI			
	SAAR	0171	Air-to-Air Refueling	X					X				1.7			D/NS	S	1	*	0070	SC only if converting from F-35A			1		CFI(1)			
	AAR	1171	Air-to-Air Refueling	X					X					1.5		D	A	2	*	0171,1304(B,C)	SC only if converting from F-35A		1			FRSI			
AAR SKILL TOTAL											1	1.0	1	1.7	1	1.5													
BASIC TACTICS (BT)																													
BT	ACAD	0994	BT Stage Brief	X	X	X						2.0					G		365	0123	FAM Stage		1			FRSI			
	ACAD	0248	Electronic Warfare Systems	X	X	X						3.0					G		365	0994				1		CI			
	ACAD	0286	Electronic Surveillance (A/G)/ Geolocation	X	X							1.5					G		*	0248				1		CI			
	ACAD	0287	Surface Target Fusion	X	X	X	X					1.0					G		365	0286				1		CI			
	ACAD	0290	EA PPT	X	X							1.0					G		*	0286				1		CI			
	ACAD	0251	Threat Warning Display (TWD)	X	X	X						1.0					G		365	0290									
	ACAD	0252	Low Observable Fundamentals	X	X	X						1.5					G		365	0251				1		CI			
	ACAD	0245	CNI 3 Advanced Communications	X	X							2.0					G		*	0252									
ACAD	0246	Battle Space Knowledge	X	X							2.0					G		*	0245										

F-35 T&R SYLLABUS MATRIX (1000 & 5000 FRSI Phase)																													
SKILL	PREFIX	EVENT NUMBER	T&R DESCRIPTION	ATTAIN							ACAD	SIM		FLIGHT	CONDITION	TYPE	# AIRCRAFT or SIM	PROF INTERVAL	PREREQUISITE	PREREQUISITE NOTES	EVAL	FRSI	CI	INSTR	EOM	EVENT CONV			
				B	C	R	MR	SS	SC	N	#	TIME	#	TIME													#	TIME	
	ACAD	0253	Countermeasures	X	X	X					1.5					G		365	0246										
	ACAD	0235	Low Altitude Fundamentals	X	X	X					1.5					G		365	0994				1		CI				
	ACAD	0289	Surface Threat Countertactics	X	X	X					3.0					G		365	0290				1		CI				
	ACAD	0236	Mission Data File Lab and MAWTS-1 SACT Brief	X	X						1.5					G		*	0289			1			FRSI				
	SBT	0300	Surface Threat Countertactics	X									1.7			D	S	1	*	0236				1		CFI(1)			
	SBT	0301	Low Altitude Fundamentals	X									1.7			D	S	1	*	0300				1		CFI(1)			
	SBT	0302	Low Altitude Threat Countertactics	X									1.7			D	S	1	*	0301				1		CFI(1)			
	SBT	0303	Low Altitude Fundamentals/Threat Countertactics Combination			X							1.7			D	S	1	365	0300(C),0289(R)				1		CFI(1)			
	ACAD	0242	Radar System 3 (A/A Tactical Modes)	X	X	X					2.0					G		365	0236										
	ACAD	0243	EOTS A/A	X	X	X					1.0					G		365	0236										
	ACAD	0244	A/A TSD Procedures	X	X	X					1.0					G		365	0236										
	ACAD	0247	Air Threats	X	X	X					2.0					G		365	0236				1		CI				
	ACAD	0249	Electronic Support Measures (A/A)	X	X	X					2.0					G		365	0248										
	ACAD	0250	Air Track Fusion	X	X	X					1.0					G		365	0246				1		CI				
	ACAD	0254	Electronic Attack (A/A)	X	X	X					1.5					G		365	0247				1		CI				
	ACAD	0255	AIM-120 AMRAAM	X	X						3.0					G		*	0244				1		CI				
	ACAD	0256	Air Threat Countertactics	X	X	X	X				1.5					G		365	0287				1		CI				
	ACAD	0257	Basic Intercepts	X	X	X	X				2.5					G		365	0242-0256				1		CI				
	ACAD	0259	A/A Mission Planning	X	X	X	X				2.0					G		365	0257				1		CI				
	ACAD	0258	Advanced Intercepts (1 v X)	X	X	X	X				3.5					G		365	0259				1		CI				
	ACAD	0260	Tactical Intercept (TI) Part Task Training	X	X		X				1.0					G		365	0257				1		CI				
	ACAD	0067	Day Visual/Non-Visual Formation Procedures	X	X	X				X	1.5					G		365	0994				1		CI				
	SBT	0304	Two-ship Formation	X	X					X			1.7			D	S	2	*	0067				2		CFI(2)			
	BT	1304	Two-ship Formation	X	X					X					1.3	D	A	2	*	0304			1			FRSI			
	SBT	0305	1v1 Basic Intercepts 1	X									1.7			D	S	1	*	0260,0304				1		CFI(1)			
	BT	1305	1v1 Basic Intercepts 1	X											1.3	D	A	2	*	0305				1			FRSI		
	SBT	0306	1vX Advanced Intercepts 1	X									1.7			D	S	1	*	1305				2		CFI(1)			
	SBT	0307	1vX Advanced Intercepts 2	X									1.7			D	S	1	*	0306				2		CFI(1)			
	SBT	0308	1vX Advanced Intercepts 3	X	X	X							1.7			D	S	1	365	0307(B),1304(C), 0067(R)				2		CFI(1)			
	BT	1306	1v1 Advanced Intercepts 1	X											1.3	D	A	2	*	0308			1			FRSI			
	BT	1307	1v1 Advanced Intercepts 2	X											1.3	D	A	2	*	1306				1			FRSI		
	BT	1308	1v1 Advanced Intercepts 3		X	X									1.3	D	A	2	365	0308				1			FRSI		

F-35 T&R SYLLABUS MATRIX (1000 & 5000 FRSI Phase)																													
SKILL	PREFIX	EVENT NUMBER	T&R DESCRIPTION	ATTAIN							ACAD		SIM		FLIGHT		CONDITION	TYPE	# AIRCRAFT or SIM	PROF INTERVAL	PREREQUISITE	PREREQUISITE NOTES	EVAL	FRSI	CI	INSTR	EOM	EVENT CONV	
				B	C	R	MR	SS	SC	N	#	TIME	#	TIME	#	TIME													
	SBT	0309	Four-ship Formation	X									1.7			D	S	4	*	1305				4	CFI(4)				
	BT	1309	Four-ship Formation	X										1.3		D	A	4	*	0309				2		FRSI			
BT SKILL TOTAL										27	48.0	10	17.0	6	7.8														
BASIC FIGHTER MANEUVERS (BFM)																													
BFM	ACAD	0995	BFM/ACM Stage Brief	X	X	X	X					0.5				G			365	1308				1		ACMI			
	ACAD	0270	Advanced Handling	X	X	X	X					1.5				G			365	0995				1		ACMI			
	ACAD	0271	Visual Weapons Envelopes & Employment	X	X	X	X					1.0				G			365	0270				1		ACMI			
	ACAD	0272	Offensive Basic Fighter Maneuvers (OBFM)	X	X	X	X					2.5				G			365	0271				1		ACMI			
	ACAD	0273	Defensive Basic Fighter Maneuvers (DBFM)	X	X	X	X					3.0				G			365	0271				1		ACMI			
	ACAD	0274	High Aspect Basic Fighter Maneuvers (HABFM)	X	X	X	X					2.0				G			365	0272,0273				1		ACMI			
	SBFM	0310	Advanced Handling	X	X		X							1.7		D	S	2	365	0270,1309(B)	2 Students may be scheduled to split one FMS block time		1	1	ACMI				
	BFM	1310	Advanced Handling	X											1.3	D	A	2	*	0310				1		ACMI			
	SBFM	0311	Offensive BFM	X	X	X								1.7		D	S	2	365	0310(B,C),0272(R)	2 Students may be scheduled to split one FMS block time		1	1	ACMI				
	BFM	1311	Offensive BFM 1	X		X									1.3	D	A	2	365	0311,1310				1		ACMI			
	BFM	1312	Offensive BFM 2	X											1.3	D	A	2	*	1311				1		ACMI			
	SBFM	0313	Defensive BFM	X	X	X								1.7		D	S	2	365	0311,0273	2 Students may be scheduled to split one FMS block time		1	1	ACMI				
	BFM	1313	Defensive BFM 1	X		X									1.3	D	A	2	365	0313,1312(B),1311(C,R)				1		ACMI			
	BFM	1314	Defensive BFM 2	X											1.3	D	A	2	*	1313				1		ACMI			
	SBFM	0315	High Aspect BFM	X	X									1.7		D	S	2	*	0313,0274	2 Students may be scheduled to split one FMS block time		1	1	ACMI				
	BFM	1315	High Aspect BFM 1	X		X									1.3	D	A	2	365	1314(B),0315(B,C), 1313(B,R)				1		ACMI			
BFM	1316	High Aspect BFM 2	X											1.3	D	A	2	*	1315				1		ACMI				
BFM	1317	BFM Combination Flight		X										1.3	D	A	2	*	0315				1		ACMI				
BFM SKILL TOTAL										6	10.5	4	6.8	8	10.4														
TACTICAL INTERCEPTS (TI)																													
TI	ACAD	0240	TI Stage Brief	X	X	X						1.0				G			365	1315,1308	BT, BFM Stages Complete		1						
	ACAD	0263	Section TI Tactics	X	X	X						1.5				G			365	0240				1					
	STI	0317	2vX Tactical Intercepts 1	X		X							1.7		D	S	2	365	0263					2	CFI(2)				
	TI	1318	2vX Tactical Intercepts 1	X										1.3	D	A	2	*	0317					1		FRSI			
	STI	0318	2vX Tactical Intercepts 2	X		X							1.7		D	S	2	365	0317						2	CFI(2)			
	TI	1319	2vX Tactical Intercepts 2	X										1.3	D	A	2	*	0318,1318					1		FRSI			
	STI	0319	2vX Tactical Intercepts Combination		X									1.7	D	S	2	*	0263,1308,0319						2	CFI(2)			

F-35 T&R SYLLABUS MATRIX (1000 & 5000 FRSI Phase)																													
SKILL	PREFIX	EVENT NUMBER	T&R DESCRIPTION	ATTAIN							ACAD		SIM		FLIGHT		CONDITION	TYPE	# AIRCRAFT or SIM	PROF INTERVAL	PREREQUISITE	PREREQUISITE NOTES	EVAL	FRSI	CI	INSTR	EOM	EVENT CONV	
				B	C	R	MR	SS	SC	N	#	TIME	#	TIME	#	TIME													
	STI	0320	2vX Tactical Intercepts 3	X			X							1.7			D	S	2	365	0318(B),0310(MR)				2	CFI(2)			
	TI	1320	2vX Tactical Intercepts 3	X												1.3	D	A	2	*	0320(B),1319(B)			1		FRSI			
	STI	0321	2vX Tactical Intercepts 4 (MFE)	X		X								1.7			D	S	2	365	0320,0318(R)	2 Students may be scheduled to split one FMS block time			2	ACMI			
	TI	1321	2vX Tactical Intercepts 4 (MFE)	X												1.3	D	A	2	*	0321,1320			1		ACMI			
	ACAD	0265	Division TI Tactics	X	X							1.5						G		*	0263,1319	Section TI Complete for Syllabus			1		FRSI		
	STI	0322	4 v X Tactical Intercepts 1	X		X								1.7			D	S	4	*	0265(B),0318(R)				5	CFI(4)			
	TI	1322	4 v X Tactical Intercepts 1	X												1.3	D	A	4	*	0322			2		FRSI			
	STI	0323	4 v X Tactical Intercepts 2	X										1.7			D	S	4	*	0322				5	CFI(4)			
	TI	1323	4 v X Tactical Intercepts 2	X												1.3	D	A	4	*	0323,1322			2		FRSI			
STI	0324	4 v X Tactical Intercepts Combination				X							1.7			D	S	4	365	0320(MR)				5	CFI(4)				
TI SKILL TOTAL											3	4.0	8	13.6	6	7.8													
AIR-TO-SURFACE (AS)																													
AS	ACAD	0201	A/G Stage Brief, Air-to-Ground Missions, Range Ops and Procedures	X	X	X	X					1.0						G		365	0191			1					
	ACAD	0203	A/G Symbology and Display Management	X	X	X	X					2.0						G		365	0201								
	ACAD	0205	Radar System 2, Active A/G Radar Modes	X	X	X	X					1.0						G		365	0203				1	CI			
	ACAD	0206	SAR Map Theory, Pilot Techniques & Procedures	X	X	X	X					1.5						G		365	0205				1	CI			
	ACAD	0207	TFLIR/LASER	X	X	X	X					2.0						G		365	0203				1	CI			
	ACAD	0208	TFLIR/DAS/NVD A/G Interpretation	X	X	X						1.5						G		365	0207				1	CI			
	ACAD	0209	Laser Guided Bombs	X	X							2.0						G		*	0206,0208				1	CI			
	ACAD	0210	GPS Guided Bombs	X	X							3.0						G		*	0209				1	CI			
	ACAD	0211	Small Diameter Bomb	X	X							2.0						G		*	0210	SDB Carriage Required			1	CI			
	ACAD	0993	Weapons Preflight Lab	X	X							1.0						G		*	0211			1		FRSI			
	ACAD	0212	Weaponneering / Ballistic Weapons Planner	X	X							1.0						G		*	0211				1	CI			
	ACAD	0213	Precision Guided Munitions Planning System (PGMPS)	X	X							1.0						G		*	0212				1	CI			
	ACAD	0214	Bomb Hit Assessment (BHA)	X	X							1.0						G		*	0213					FRSI			
	ACAD	0215	Basic Air-to-Ground (BAG) Target Engagement	X	X	X						2.0						G		365	0214				1	CI			
	ACAD	0223	A/G OMS Planning Lab	X	X	X	X					2.0						G		365	0215			1		FRSI			
	ACAD	0216	Visual Target Engagement and Dive Deliveries	X	X	X						1.5						G		365	0223			1		FRSI			

F-35 T&R SYLLABUS MATRIX (1000 & 5000 FRSI Phase)																														
SKILL	PREFIX	EVENT NUMBER	T&R DESCRIPTION	ATTAIN								ACAD		SIM		FLIGHT		CONDITION	TYPE	# AIRCRAFT or SIM	PROF INTERVAL	PREREQUISITE	PREREQUISITE NOTES	EVAL	FRSI	CI	INSTR	EOM	EVENT CONV	
				B	C	R	MR	SS	SC	N	#	TIME	#	TIME	#	TIME														
	ACAD	0218	Night Air To Ground Employment	X	X	X	X					1.0						G		365	0216			1		FRSI				
	ACAD	0221	GAU-22/A Gatling Gun System	X	X	X	X					1.5						G		365	0211				1	CI				
	ACAD	0222	Strafe Fundamentals	X	X	X	X					3.0						G		365	0221			1		FRSI				
	SAS	0400	A/S Sensors (Single-Ship)	X	X									1.7			D	S	1	*	0287,0218				1	CFI(2)				
	SAS	0401	SAR Map / GGW Deliveries (Single-ship)	X										1.7			D	S	1	*	0400				1	CFI(2)				
	SAS	0402	SAR Map / GGW Deliveries (Section)	X										1.7			D	S	2	*	0401				2	CFI(2)				
	SAS	0403	TFLIR / LGB Deliveries (Single-ship)	X										1.7			D	S	1	*	0402				1	CFI(2)				
	SAS	0404	TFLIR / LGB Deliveries (Section)	X										1.7			D	S	2	*	0403				2	CFI(2)				
	AS	1401	SAR Map / GGW Deliveries (Section)	X												1.5	D	A	2	*	0402			1		FRSI				
	AS	1402	TFLIR / LGB Deliveries (Section)	X												1.5	D	A	2	*	0404			1		FRSI				
	SAS	0405	GGW and LGB Deliveries / Strafe		X	X	X								1.7		D	S	2	365	0400(C),0287, 0218(R,MR)				2	CFI(2)				
	AS	1405	GGW and LGB Deliveries / Strafe		X	X										1.5	D	A	2	365	0405			1		FRSI				
	AS	1406	A/S Deliveries	X												1.5	D	A	2	*	1402(B),1405(C),0993			1		FRSI				
	SAS	0407	Day A/S Strafe	X											1.7		D	S	1	*	0404				1	FRSI				
	AS	1407	Day A/S Strafe	X												1.3	D	A	2	*	0407			1		FRSI				
AS SKILL TOTAL											19	31.0	7	11.9	5	7.3														
MECHANICS PHASE TOTAL											12	216.5	5	95.7	3	46.7														
MISSION PHASE																														
MSN	ACAD	0996	Mission Phase Academics 1	X		X						1	1.0					G		365		Mechanics Phase Complete			1		FRSI			
ARMED RECONNAISSANCE (AR)																														
AR	ACAD	0225	Armed Reconnaissance	X		X						2.0						G		365	0996	Mechanics Phase Complete			1	CI				
	ACAD	0997	Armed Reconnaissance Stage Brief	X		X						1.0						G		365	0225			1		FRSI				
	SAR	0408	Armed Reconnaissance (Division)	X		X								1.7			D	S	4	365	0997				4	CFI(4)				
	AR	1408	Armed Reconnaissance (Division)	X												1.3	D	A	4	*	0408			2		FRSI				
AR SKILL TOTAL											2	3.0	1	1.7	1	1.3														
CLOSE AIR SUPPORT (CAS)																														
CAS	ACAD	0230	Close Air Support	X								2.0						G		*	0996,1408, AR Stage				1	CI				
	ACAD	0231	CAS Controls & Displays	X								2.0						G		*	0230				1	CI				
	ACAD	0232	CAS Techniques & Procedures	X								2.0						G		*	0231				1	CI				

F-35 T&R SYLLABUS MATRIX (1000 & 5000 FRSI Phase)																																
SKILL	PREFIX	EVENT NUMBER	T&R DESCRIPTION	ATTAIN							ACAD		SIM		FLIGHT		CONDITION	TYPE	# AIRCRAFT or SIM		PROF INTERVAL	PREREQUISITE	PREREQUISITE NOTES	EVAL	FRSI	CI	INSTR	EOM	EVENT CONV			
				B	C	R	MR	SS	SC	N	#	TIME	#	TIME	#	TIME																
	ACAD	0998	CAS Stage Brief	X		X						1.0					G			365	0232				1			FRSI				
	SCAS	0409	Close Air Support (Single-ship)	X									1.7			D	S	1	*	0998					1			CFI(2)				
	SCAS	0410	Close Air Support (Section)	X		X							1.7			D	S	2	365	0409(B),0998(C,R)					2			CFI(2)				
	CAS	1409	Close Air Support (Section)	X											1.3	D	A	2	*	0410					2			FRSI				
	CAS	1410	Close Air Support (Section)	X											1.3	D	A	2	*	1409					2			FRSI				
	SCAS	0411	Urban Close Air Support (Section)	X										1.7		D	S	2	*	0410						2			CFI(2)			
CAS SKILL TOTAL											4	7.0	3	5.1	2	2.6																
MSN	ACAD	0999	Mission Phase Academics 2	X		X						1.0					G			365	0996					1			FRSI			
	ACAD	0241	F-35 Fighter Combat Missions	X		X	X					1.5					G			365	0999						1			CI		
	ACAD	0285	Surface Threats	X		X						1.0					G			365	0241					1			FRSI			
	ACAD	0283	Red Air Tactics	X		X						1.0					G			365	0285					1			FRSI			
	ACAD	0294	Offboard Support Assets/Capabilities	X		X						2.0					G			365	0283											
SUPPRESSION OF ENEMY AIR DEFENSES (SEAD)																																
SEAD	ACAD	0293	SEAD Stage Brief	X								1.0					G			*	0294	AR, CAS Stages Complete				1			FRSI			
	ACAD	0288	Electronic Attack (A/S)	X								1.5					G			*	0293						1			FRSI		
	ACAD	0291	SEAD Tactics	X								2.0					G			*	0288						1			FRSI		
	ACAD	0292	D-SEAD Tactics	X		X						2.0					G			365	0291						1			FRSI		
	SSEAD	0501	SEAD 1 (Section)	X										1.7		D	S	2	*	0291							2			CFI(2)		
	SSEAD	0502	SEAD 2 (Division)	X										1.7		D	S	4	*	0501							4			CFI(4)		
	SSEAD	0503	SEAD 3 (Section)	X										1.7		D	S	2	*	0502							2			CFI(2)		
	SSEAD	0504	SEAD 4 (Division)	X		X								1.7		D	S	4	365	0503(B,C),0292(R)							4			CFI(4)		
SEAD	1501	SEAD 5 (Division)	X												1.3	D	A	4	*	0504					2			FRSI				
SEAD SKILL TOTAL											4	6.5	4	6.8	1	1.3																
ANTI-AIR WARFARE (AAW)																																
AAW	ACAD	0992	AAW Stage Brief	X		X						1.0					G			365	1322(B),1323(C),0294	TI Stage, Mission Phase Academics				1			FRSI			
	ACAD	0280	OCA Tactics	X		X						1.5					G			365	0992						1			FRSI		
	ACAD	0281	DCA Tactics	X		X						1.5					G			365	0280						1			FRSI		
	SAAW	0600	Section DCA	X										1.7		D	S	2	*	0281							3			CFI(4)		
	SAAW	0601	Division DCA	X		X			X					1.7		D	S	4	365	0600(B),0281(C,R,SC)							5			CFI(4)		
	SAAW	0602	Division OCA Screen	X		X								1.7		D	S	4	365	0280							5			CFI(4)		
	AAW	1601	Division DCA	X												1.3	D	A	4	*	0601					2			FRSI			
	AAW	1602	Division OCA Sweep	X												1.3	D	A	4	*	0602					2			FRSI			
AAW SKILL TOTAL											3	4.0	3	5.1	2	2.6																
NIGHT OPERATIONS (NO)																																
NO	ACAD	0065	Night Systems and Operations	X	X	X			X	X		1.0					G			365	1407 or 1319 (B,C), 1407 or 0318 (R), 0123 (SC),1304(N)	Section TI or AS Stage Complete										
	ACAD	0066	Night Lab	X	X	X			X	X		4.0					G			365	0065											

F-35 T&R SYLLABUS MATRIX (1000 & 5000 FRSI Phase)																														
SKILL	PREFIX	EVENT NUMBER	T&R DESCRIPTION	ATTAIN							ACAD		SIM		FLIGHT		CONDITION	TYPE	# AIRCRAFT or SIM	PROF INTERVAL	PREREQUISITE	PREREQUISITE NOTES	EVAL	FRSI	CI	INSTR	EOM	EVENT CONV		
				B	C	R	MR	SS	SC	N	#	TIME	#	TIME	#	TIME														
	SNO	0700	Night Normal Operations	X									1.7		N	S	1	*	0066				1		CFI(1)					
	SNO	0701	Night Normal / Formation Operations		X	X	X			X			1.7		N	S	2	365	0066				2		CFI(2)					
	NO	1700	Night Normal Operations	X										1.3	N	A	2	*	0700				1		NSI					
	NO	1701	Night Normal / Formation Operations		X	X	X			X				1.3	N	A	2	365	0701,0069				1		NSI					
	SNO	0702	Night STOVL Pattern 1	X	X	X	X		X	X			1.7		N	S	1	365	1700(B),1701(C,R,MR,N), 0065(SC)				1		CFI(1)					
	SNO	0703	Night STOVL Pattern 2	X	X	X	X		X	X			1.7		N	S	1	365	0702				1		CFI(1)					
	NO	1703	Night STOVL Pattern	X	X	X	X		X	X				1.3	N	A	1	365	0703				1		NSI					
	ACAD	0069	Night Formation	X	X	X				X		1.0				G		365	0066											
	SNO	0704	Night Section Formation	X									1.7		N	S	2	*	0069				2		CFI(2)					
	NO	1704	Night Section Formation	X										1.3	N	A	2	*	0704				1		NSI					
	NO	1772	Night Air-to-Air Refueling	X										1.3	N	A	2	*	1704				1		FRSI					
	SNO	0705	Night Air-To-Surface	X									1.7		N	S	2	*	1407,1703,1704				2		CFI(2)					
	NO	1705	Night Air-To-Surface	X										1.3	N	A	2	*	0705				1		NSI					
	SNO	0706	Night Strafe	X									1.7		N	S	2	*	0705	AR and CAS stage complete			2		CFI(2)					
	NO	1706	Night Strafe	X										1.3	N	A	2	*	0706,1705				1		NSI					
	SNO	0707	Night Air-To-Surface / Strafe		X	X							1.7		N	S	2	365	1405,1703,0069				2		CFI(2)					
	NO	1707	Night Air-To-Surface / Strafe		X	X								1.3	N	A	2	365	0707				1		NSI					
	SNO	0708	Night Armed Reconnaissance	X									1.7		N	S	2	*	1705,1706				2		CFI(2)		0706			
	NO	1708	Night Armed Reconnaissance	X										1.3	N	A	2	*	0708				1		FRSI		1706			
	SNO	0709	Night Close Air Support (Section)	X									1.7		N	S	2	*	1705,1706				2		CFI(2)		0707			
	NO	1709	Night Close Air Support (Section)	X										1.3	N	A	2	*	0709				1		FRSI		1707			
	ACAD	0264	Night Air-to-Air Employment	X	X	X						1.5				G		365	1319(B),1703,1704(B), 0069						FRSI					
	SNO	0710	Night 1v1 Tactical Intercepts	X	X	X							1.7		N	S	1	365	0264				1		CFI(1)		0708			
	NO	1710	Night 1v1 Tactical Intercepts	X	X	X								1.3	N	A	2	365	0710				1		NSI		1708			
	SNO	0711	Night 2v2 Tactical Intercepts	X	X								1.7		N	S	2	*	1710				2		CFI(2)		0709			
	NO	1711	Night 2v2 Tactical Intercepts	X	X									1.3	N	A	4	*	0711				2		NSI		1709			
	SNO	0712	Division Night Strategic Attack	X									1.7		N	S	4	*	1711,0901				5		CFI(4)		0710			
NO SKILL TOTAL											4	7.5	13	22.1	12	15.6														
FIELD CARRIER LANDING PRACTICE (FCLP)																														
FCLP	ACAD	0084	Shipboard Principles	X		X						2.0				G		365	1709(B,C),1708(R)			1			LSO					
	ACAD	0085	FCLP (Day)	X		X						1.5				G		365	0084			1			LSO					
	ACAD	0086	FCLP (Night)	X		X						1.0				G		365	0085			1			LSO					
	ACAD	0087	CQ Operations (Day)	X		X						1.8				G		365	0086			1			LSO					
	ACAD	0088	CQ Operations (Night)	X		X						1.7				G		365	0087			1			LSO					
	ACAD	0089	CQ Operations (Case III)	X		X						1.3				G		365	0088			1			LSO					
	SFCLP	0801	Day FCLP (Case I, II, III)	X		X							1.7		D	S	1	365	0089			1	1		LSO					

F-35 T&R SYLLABUS MATRIX (1000 & 5000 FRSI Phase)																																
SKILL	PREFIX	EVENT NUMBER	T&R DESCRIPTION	ATTAIN							ACAD		SIM		FLIGHT		CONDITION	TYPE	# AIRCRAFT or SIM	PROF INTERVAL	PREREQUISITE	PREREQUISITE NOTES	EVAL	FRSI	CI	INSTR	EOM	EVENT CONV				
				B	C	R	MR	SS	SC	N	#	TIME	#	TIME	#	TIME																
	SFCLP	0802	Night FCLP (Case I, III)	X									1.7		N	S	1	*	0801				1	1		LSO						
FCLP SKILL TOTAL											6	9.3	2	3.4	0	0.0																
STRIKE (STK)																																
STK	ACAD	0295	Strike Tactics	X		X						2.0				G		365	0802(B,C),0801(R)	Mech Phase, AR, CAS, SEAD, AAW Stages Complete		1			FRSI							
	ACAD	0297	Advanced Route Planning / OMS Review	X		X						3.0				G		365	0295			1			FRSI							
	ACAD	0991	AI Stage Brief	X		X						1.0				G		365	0297			1			FRSI							
	SSTK	0901	Division Strategic Attack	X		X								1.7		D	S	4	365	0991			1	4		CFI(4)						
	STK	1901	4vX Strategic Attack	X											1	1.3	D	A	4	*	0901			2			FRSI					
STK SKILL TOTAL											3	6.0	1	1.7	1	1.3																
MISSION PHASE TOTAL											27	50.8	2	7	45.9	1	8	24.7														
1000 PHASE TOTAL											14	267.8	8	3	141.6	5	4	71.4														
5000 PHASE (INSTRUCTOR TRAINING)																																
FLEET REPLACEMENT SQUADRON INSTRUCTOR (FRSI)																																
FRSI	AFRSI	5001	FAM-1	X								2.0				G		*		Nominated by CO		1			FRSI FAM Stage Stan-I							
	FRSI	5002	FAM-2	X											1.3	D	A	2	*	5001			1			FRSI FAM Stage Stan-I						
	SFRSI	5003	FAM-3	X										1.7		D	S	1	*	5002			1	1		FRSI FAM Stage Stan-I						
	SFRSI	5004	FAM-4	X										1.7		D	S	1	*	5003			1	1		FRSI FAM Stage Stan-I						
	AFRSI	5005	FAM-5	X								1.5				G		*	5004			1			FRSI FAM Stage Stan-I							
	AFRSI	5006	FAM-6	X								1.0				G		*	5005			1			FRSI FAM Stage Stan-I							
	AFRSI	5007	AAR-1	X								1.0				G		*	5004			1			FRSI AAR Stage Stan-I							
	AFRSI	5008	AAR-2	X								0.5				G		*	5007			1			FRSI AAR Stage Stan-I							
	SFRSI	5009	AS-1	X										1.7		D	S	2	*	5004			1	1		FRSI AS Stage Stan-I						
	AFRSI	5010	AS-2	X								1.5				G		*	5009			1	1		FRSI AS Stage Stan-I							
	AFRSI	5011	AS-3	X								1.0				G		*	5010						FRSI AS Stage Stan-I							
	SFRSI	5012	BT-1	X										1.7		D	S	1	*	5005			1			FRSI BT Stage Stan-I						
	AFRSI	5013	BT-2	X								1.5				G		*	5005				1			FRSI BT Stage Stan-I						
	AFRSI	5014	BT-3	X								1.0				G		*	5012,5013				2			FRSI BT Stage Stan-I						
	AFRSI	5015	BT-4	X								1.5				G		*	5014				1			FRSI BT Stage Stan-I						

F-35 T&R SYLLABUS MATRIX (1000 & 5000 FRSI Phase)																														
SKILL	PREFIX	EVENT NUMBER	T&R DESCRIPTION	ATTAIN							ACAD		SIM		FLIGHT		CONDITION	TYPE	# AIRCRAFT or SIM	PROF INTERVAL	PREREQUISITE	PREREQUISITE NOTES	EVAL	FRSI	CI	INSTR	EOM	EVENT CONV		
				B	C	R	MR	SS	SC	N	#	TIME	#	TIME	#	TIME														
	AFRSI	5016	BT-5	X								1.0						G		*	5014,5015				1	FRSI BT Stage Stan-I				
	AFRSI	5017	BFM-1	X								1.5						G		*	ACMI	Nominated by CO,			1	FRSI BFM Stage Stan-I				
	AFRSI	5018	BFM-2	X								1.5						G		*	5017				1	FRSI BFM Stage Stan-I				
	AFRSI	5019	BFM-3	X								1.5						G		*	5018				1	FRSI BFM Stage Stan-I				
	FRSI	5020	BFM-4	X											1.3	D	A	2	*	5019					1	FRSI BFM Stage Stan-I				
	AFRSI	5021	BFM-5	X								1.0						G		*	5020	Nominated by CO			1	FRSI BFM Stage Stan-I				
	AFRSI	5022	TI-1	X								1.0						G		*		Nominated by CO					FRSI TI Stage Stan-I			
	SFRSI	5023	TI-2	X										1.7		D	S	2	*	5022							FRSI TI Stage Stan-I			
	AFRSI	5024	TI-3	X								1.5						G		*	5023	Nominated by CO					FRSI TI Stage Stan-I			
	AFRSI	5025	TI-4	X								2.0						G		*	5023,5024						FRSI TI Stage Stan-I			
	SFRSI	5026	TI-5	X										1.7		D	S	4	*	5025				2	3	FRSI TI Stage Stan-I				
	AFRSI	5027	TI-6	X								1.0						G		*	5026						FRSI TI Stage Stan-I			
	SFRSI	5028	AR-1	X										1.7		D	S	4	*	5010						1	FRSI AR Stage Stan-I			
	AFRSI	5029	AR-2	X								1.0						G		*	5028					1	FRSI AR Stage Stan-I			
	SFRSI	5030	CAS-1	X										1.7		D	S	2	*	5010							2	FRSI CAS Stage Stan-I		
	AFRSI	5031	CAS-2	X										1.7		D	S	2	*	5010						1	1	FRSI CAS Stage Stan-I		
	AFRSI	5032	CAS-3	X								1.0						G		*	5031					1		FRSI CAS Stage Stan-I		
	SFRSI	5033	AAW-1	X										1.7		D	S	4	*	5026						3	1	FRSI AAW Stage Stan-I		
	SFRSI	5034	AAW-2	X										1.7		D	S	4	*	5033						3	1	FRSI AAW Stage Stan-I		
	AFRSI	5035	AAW-3	X								1.0						G		*	5034					3	1	FRSI AAW Stage Stan-I		
	AFRSI	5036	SEAD-1	X								1.0						G		*	5015					1		FRSI SEAD Stage Stan-I		
	AFRSI	5037	SEAD-2	X								1.5						G		*	5036					1		FRSI SEAD Stage Stan-I		
	SFRSI	5038	SEAD-3	X										1.7		D	S	4	*	5037						3	1	FRSI SEAD Stage Stan-I		
	AFRSI	5039	SEAD-4	X								1.0						G		*	5038					1		FRSI SEAD Stage Stan-I		
	SFRSI	5040	STK-1	X										1.7		D	S	4	*	6010,6016,6018						3	1	FRSI STK Stage Stan-I		
	SFRSI	5041	STK-2	X										1.7		D	S	4	*	5040						3	1	FRSI STK Stage Stan-I		
	AFRSI	5042	STK-3	X								1.0						G		*	5041					3	1	FRSI STK Stage Stan-I		

F-35 T&R SYLLABUS MATRIX (1000 & 5000 FRSI Phase)																														
SKILL	PREFIX	EVENT NUMBER	T&R DESCRIPTION	ATTAIN								ACAD		SIM		FLIGHT		CONDITION	TYPE	# AIRCRAFT or SIM	PROF INTERVAL	PREREQUISITE	PREREQUISITE NOTES	EVAL	FRSI	CI	INSTR	EOM	EVENT CONV	
				B	C	R	MR	SS	SC	N	#	TIME	#	TIME	#	TIME														
	AFRSI	5043	NO-1	X								2.0						G		*	6000,6002,6004,6006,6010,6012 ,6014,6020			1		FRSI NO Stage Stan-I				
	FRSI	5044	NO-2	X											1.3	N	A/S	2	*	5043			1		FRSI NO Stage Stan-I					
	FRSI	5045	NO-3	X											1.3	N	A/S	4	*	5044			1		FRSI NO Stage Stan-I					
	SFRSI	5046	NO-4	X										1.7		N	S	2	*	5045			1	1	FRSI NO Stage Stan-I		New Event			
	FRSI	5047	NO-5	X											1.3	N	A	2	*	5046			1		FRSI NO Stage Stan-I		New Event			
	AFRSI	5048	NO-6	X								1.0					G		*	5047			1		FRSI NO Stage Stan-I		5046			
	SFRSI	5049	FCLP-1	X											1.7		D	S	1	*		Nominated by CO		1		FRSI FCLP Stage Stan-I		5047		
	AFRSI	5050	FCLP-2	X								1.0						G		*	5049			1		FRSI FCLP Stage Stan-I		5048		
FRSI TOTAL												29	36.0	16	27.2	5	6.5													

2.24 F-35 RANGE, ORDNANCE, AND EXTERNAL RESOURCE REQUIREMENTS MATRIX (1000 PHASE)

F-35 RANGE, ORDNANCE, AND EXTERNAL RESOURCE REQUIREMENTS 1000 AND 5000 FRSI PHASE																			
SKILL	PREFIX	EVENT NUMBER	T&R DESCRIPTION	ATTAIN							MAINTAIN	CONDITION	TYPE	# AIRCRAFT or SIM	PROF INTERVAL	ORDNANCE	RANGE	EXTERNAL RESOURCE REQUIREMENTS	ADVERSARY REQD
				B	C	R	MR	SS	SC	N									
1000 PHASE (CORE INTRODUCTION)																			
MECHANICS PHASE																			
FAMILIARIZATION (FAM)																			
FAM	ACAD	0043	Local Area Procedures	X	X	X	X	X	X	X			G		365			Local Area Procedures Brief	
	ACAD	0064	Human Factors	X	X	X	X	X		X			G		365			Physiologist	
	ACAD	0054	CRM	X	X	X	X	X		X			G		365			CRM Facilitator	
	SFAM	0098	Aeromedical and ROBD (using FMS)	X	X	X	X	X		X		D	S	1	365			Physiologist	
	ACAD	0046	Instrument Ground School & Test	X	X	X	X	X		X			G		365			MCALMS	
	SFAM	0118	Emergency Procedures Validation	X	X	X	X	X	X	X		D	S	1	365			FRSI Observe	
	ACAD	0096	Plane Captain Day & Night Hand Signals	X	X	X	X	X	X	X			G		365			Plane Captain	
	FAM	1100	Supervised Ground Operations	X	X					X		D	A	1	*			Paddles Truck and Radio	
	FAM	1101	Normal Operations 1 (Chased)	X	X	X	X	X		X		D	A	2	365		MOA / RSTD	Wheels watch, paddles truck, radio	
	FAM	1102	Normal Operations 2 (Chased)	X	X					X		D	A	2	*			Wheels watch, paddles truck, radio	
	FAM	1110	CTOL/STOVL Combination						X			D	A	2	*		MOA / RSTD	Wheels watch, paddles truck, radio	
	FAM	1103	Instruments 1 - CTOL (Chased)	X	X							D	A	2	*			Wheels watch, paddles truck, radio	
	FAM	1105	Instruments 1 & 2 Combination (Chased)			X	X	X		X		D	A	2	365			Wheels watch, paddles truck, radio	
	FAM	1107	STOVL Pattern 1	X	X					X		D	A	1	*			Paddles Truck and Radio	
FAM	1108	STOVL Pattern 2	X	X	X	X	X	X	X		D	A	1	365			Paddles Truck and Radio		
FAM	1104	Instruments 2 - STOVL (Chased)	X	X							D	A	2	*			Wheels watch, paddles truck, radio		
AIR-TO-AIR REFUELING (AAR)																			
AAR	AAR	1171	Air-to-Air Refueling	X					X			D	A	2	*		MOA / RSTD / AAR	1 Strategic or Tactical Tanker	
BASIC TACTICS (BT)																			
BT	SBT	0304	Two-ship Formation	X	X					X		D	S	2	*			1 x CI at Console	
	BT	1304	Two-ship Formation	X	X					X		D	A	2	*		MOA		
	BT	1305	1v1 Basic Intercepts 1	X								D	A	2	*		AA / MACH 1+		
	SBT	0306	1vX Advanced Intercepts 1	X								D	S	1	*			1 x CI AIC/Red	
	SBT	0307	1vX Advanced Intercepts 2	X								D	S	1	*			1 x CI AIC/Red	
	SBT	0308	1vX Advanced Intercepts 3	X	X	X						D	S	1	365			1 x CI AIC/Red	
	BT	1306	1v1 Advanced Intercepts 1	X								D	A	2	*		AA / MACH 1+ / EXP		
	BT	1307	1v1 Advanced Intercepts 2	X								D	A	2	*		AA / MACH 1+ / EXP		
	BT	1308	1v1 Advanced Intercepts 3		X	X						D	A	2	365		AA / MACH 1+ / EXP		
	SBT	0309	Four-ship Formation	X								D	S	4	*			1 x CI at Console, 2 x CI as wingman	
	BT	1309	Four-ship Formation	X								D	A	4	*	EXP	ACM / MACH 1+ / EXP		

F-35 RANGE, ORDNANCE, AND EXTERNAL RESOURCE REQUIREMENTS 1000 AND 5000 FRSI PHASE																			
SKILL	PREFIX	EVENT NUMBER	T&R DESCRIPTION	ATTAIN							MAINTAIN	CONDITION	TYPE	# AIRCRAFT or SIM	PROF INTERVAL	ORDNANCE	RANGE	EXTERNAL RESOURCE REQUIREMENTS	ADVERSARY REQD
				B	C	R	MR	SS	SC	N									
BASIC FIGHTER MANEUVERS (BFM)																			
BFM	BFM	1310	Advanced Handling	X								D	A	2	*	CATM-9X / EXP	BFM / EXP		
	BFM	1311	Offensive BFM 1	X		X						D	A	2	365	CATM-9X / EXP	BFM / EXP		
	BFM	1312	Offensive BFM 2	X								D	A	2	*	CATM-9X / EXP	BFM / EXP		
	BFM	1313	Defensive BFM 1	X		X						D	A	2	365	CATM-9X / EXP	BFM / EXP		
	BFM	1314	Defensive BFM 2	X								D	A	2	*	CATM-9X / EXP	BFM / EXP		
	BFM	1315	High Aspect BFM 1	X		X						D	A	2	365	CATM-9X / EXP	BFM / EXP		
	BFM	1316	High Aspect BFM 2	X								D	A	2	*	CATM-9X / EXP	BFM / EXP		
	BFM	1317	BFM Combination Flight		X							D	A	2	*	CATM-9X / EXP	BFM / EXP		
TACTICAL INTERCEPTS (TI)																			
TI	STI	0317	2vX Tactical Intercepts 1	X		X						D	S	2	365			1 x CI at Console	
	TI	1318	2vX Tactical Intercepts 1	X								D	A	2	*		AA / TACTS / EXP / MACH 1+	AIC / Adversaries	2
	STI	0318	2vX Tactical Intercepts 2	X		X						D	S	2	365			1 x CI at Console	
	TI	1319	2vX Tactical Intercepts 2	X								D	A	2	*		AA / TACTS / EXP / MACH 1+	AIC / Adversaries	2
	STI	0319	2vX Tactical Intercepts Combination		X							D	S	2	*			1 x CI at Console	
	STI	0320	2vX Tactical Intercepts 3	X			X					D	S	2	365			1 x CI at Console	
	TI	1320	2vX Tactical Intercepts 3	X								D	A	2	*		AA / TACTS / EXP / MACH 1+	AIC / Adversaries	2
	STI	0321	2vX Tactical Intercepts 4 (MFE)	X		X						D	S	2	365			1 x CI at Console	
	TI	1321	2vX Tactical Intercepts 4 (MFE)	X								D	A	2	*		ACM / TACTS / EXP / MACH 1+	AIC / Adversaries, Military Aggresor Squadron required	2
	STI	0322	4 v X Tactical Intercepts 1	X		X						D	S	4	*			3 x CI at Console (CI, AIC, Red)	
	TI	1322	4 v X Tactical Intercepts 1	X								D	A	4	*		AA / TACTS / EXP / MACH 1+	AIC / Adversaries	4
	STI	0323	4 v X Tactical Intercepts 2	X								D	S	4	*			3 x CI at Console (CI, AIC, Red)	
	TI	1323	4 v X Tactical Intercepts 2	X								D	A	4	*		AA / TACTS / EXP / MACH 1+	AIC / Adversaries	4
	STI	0324	4 v X Tactical Intercepts Combination				X					D	S	4	365			3 x CI at Console (CI, AIC, Red)	
AIR-TO-SURFACE (AS)																			
AS	ACAD	0993	Weapons Preflight Lab	X	X								G		*			(1) F-35 w/ GBU-12 & GBU-32	
	SAS	0402	SAR Map / GGW Deliveries (Section)	X								D	S	2	*			1 x CI at Console	
	SAS	0404	TFLIR / LGB Deliveries (Section)	X								D	S	2	*			1 x CI at Console	
	AS	1401	SAR Map / GGW Deliveries (Section)	X								D	A	2	*			RSTD / TGT / LSR	
	AS	1402	TFLIR / LGB Deliveries (Section)	X								D	A	2	*			RSTD / TGT / LSR	
	SAS	0405	GGW and LGB Deliveries / Strafe		X	X	X					D	S	2	365			1 x CI at Console	
	AS	1405	GGW and LGB Deliveries / Strafe		X	X						D	A	2	365			RSTD / STRAFE / TGT / LSR	
	AS	1406	A/S Deliveries	X								D	A	2	*	(1) GBU-12 / (1) GBU-32	RSTD / TGT / LSR / JDAM / LGB / HVY INERT		
AS	1407	Day A/S Strafe	X								D	A	2	*	(220) 25mm	RSTD / STRAFE / LSR			
MISSION PHASE																			

F-35 RANGE, ORDNANCE, AND EXTERNAL RESOURCE REQUIREMENTS 1000 AND 5000 FRSI PHASE																			
SKILL	PREFIX	EVENT NUMBER	T&R DESCRIPTION	ATTAIN							MAINTAIN	CONDITION	TYPE	# AIRCRAFT or SIM	PROF INTERVAL	ORDNANCE	RANGE	EXTERNAL RESOURCE REQUIREMENTS	ADVERSARY REQD
				B	C	R	MR	SS	SC	N									
ARMED RECONNAISSANCE (AR)																			
AR	SAR	0408	Armed Reconnaissance (Division)	X		X						D	S	4	365			1 x CI Console, 2 x CI as wingman	
	AR	1408	Armed Reconnaissance (Division)	X								D	A	4	*		MOA		
CLOSE AIR SUPPORT (CAS)																			
CAS	SCAS	0410	Close Air Support (Section)	X		X						D	S	2	365			1 x CI at Console	
	CAS	1409	Close Air Support (Section)	X								D	A	2	*	(1) GBU-12 / (1) GBU-32 / (220) 25mm / EXP	RSTD / LSR / JDAM / LGB / STRAFE / JCAS / HVY INERT / TGT-DISP	JTAC, FAC, FAC(A)	
	CAS	1410	Close Air Support (Section)	X								D	A	2	*	(1) GBU-12 / (1) GBU-32 / (220) 25mm / EXP	RSTD / LSR / JDAM / LGB / STRAFE / JCAS / HVY INERT / TGT-DISP	JTAC, FAC, FAC(A)	
	SCAS	0411	Urban Close Air Support (Section)	X								D	S	2	*			1 x CI at Console	
SUPPRESSION OF ENEMY AIR DEFENSES (SEAD)																			
SEAD	SSEAD	0501	SEAD 1 (Section)	X								D	S	2	*			1 x CI at Console	
	SSEAD	0502	SEAD 2 (Division)	X								D	S	4	*			1 x CI Console, 2 x CI as wingman	
	SSEAD	0503	SEAD 3 (Section)	X								D	S	2	*			1 x CI at Console	
	SSEAD	0504	SEAD 4 (Division)	X		X						D	S	4	365			1 x CI Console, 2 x CI as wingman	
	SEAD	1501	SEAD 5 (Division)	X								D	A	4	*		MOA / RSTD / EXP / EW / HI FI EW / SRSAM / MRSAM		
ANTI-AIR WARFARE (AAW)																			
AAW	SAAW	0600	Section DCA	X								D	S	2	*			2 x CI at Console (CI, AIC, Red)	
	SAAW	0601	Division DCA	X		X				X		D	S	4	365			3 x CI at Console (CI, AIC, Red)	
	SAAW	0602	Division OCA Screen	X		X						D	S	4	365			3 x CI at Console (CI, AIC, Red)	
	AAW	1601	Division DCA	X								D	A	4	*		AA / TACTS / EXP / MACH 1+	AIC / Adversaries	4+
	AAW	1602	Division OCA Sweep	X								D	A	4	*		AA / TACTS / EXP / MACH 1+ / EW / SRSAM / MRSAM	AIC / Adversaries	4+
NIGHT OPERATIONS (NO)																			
NO	ACAD	0066	Night Lab	X	X	X				X	X		G		365			Physiologist	
	SNO	0701	Night Normal / Formation Operations		X	X	X			X		N	S	2	365			1 x CI at Console	
	NO	1700	Night Normal Operations	X								N	A	2	*			MOA	Wheels watch, Paddles truck and radio
	NO	1701	Night Normal / Formation Operations		X	X	X			X		N	A	2	365			MOA	Wheels watch, Paddles truck and radio
	NO	1703	Night STOVL Pattern	X	X	X	X			X	X	N	A	1	365			Paddles Truck and Radio	
	SNO	0704	Night Section Formation	X								N	S	2	*			1 x CI at Console	
	NO	1704	Night Section Formation	X								N	A	2	*			MOA	
	NO	1772	Night Air-to-Air Refueling	X								N	A	2	*		RSTD / MOA / AAR	Strategic or tactical tanker	
	SNO	0705	Night Air-To-Surface	X								N	S	2	*			1 x CI at Console	
	NO	1705	Night Air-To-Surface	X								N	A	2	*		RSTD / LSR / TGT-DISP		

F-35 RANGE, ORDNANCE, AND EXTERNAL RESOURCE REQUIREMENTS 1000 AND 5000 FRSI PHASE																			
SKILL	PREFIX	EVENT NUMBER	T&R DESCRIPTION	ATTAIN							MAINTAIN	CONDITION	TYPE	# AIRCRAFT or SIM	PROF INTERVAL	ORDNANCE	RANGE	EXTERNAL RESOURCE REQUIREMENTS	ADVERSARY REQD
				B	C	R	MR	SS	SC	N									
	SNO	0706	Night Strafe	X								N	S	2	*			1 x CI at Console	
	NO	1706	Night Strafe	X								N	A	2	*	(220) 25mm	RSTD / STRAFE / LSR / TGT-DISP		
	SNO	0707	Night Air-To-Surface / Strafe		X	X						N	S	2	365			1 x CI at Console	
	NO	1707	Night Air-To-Surface / Strafe		X	X						N	A	2	365		RSTD / LSR / TGT-DISP		
	SNO	0708	Night Armed Reconnaissance	X								N	S	2	*			1 x CI at Console	
	NO	1708	Night Armed Reconnaissance	X								N	A	2	*		RSTD / LSR / TGT-DISP		
	SNO	0709	Night Close Air Support (Section)	X								N	S	2	*			1 x CI at Console	
	NO	1709	Night Close Air Support (Section)	X								N	A	2	*		RSTD / LSR / TGT-DISP	JTAC / FAC / FAC(A) / FRSI at TTR	
	SNO	0710	Night 1v1 Tactical Intercepts	X	X	X						N	S	1	365			1 x CI at Console (CI, AIC, Red)	
	NO	1710	Night 1v1 Tactical Intercepts	X	X	X						N	A	2	365	EXP	AA / TACTS / EXP / MACH 1+		
	SNO	0711	Night 2v2 Tactical Intercepts	X	X							N	S	2	*			2 x CI at Console (CI, AIC, Red)	
	NO	1711	Night 2v2 Tactical Intercepts	X	X							N	A	4	*	EXP	AA / TACTS / EXP / MACH 1+	AIC / Adversaries	
	SNO	0712	Division Night Strategic Attack	X								N	S	4	*			3 x CI at Console (CI, AIC, Red)	
STRIKE (STK)																			
STK	SSTK	0901	Division Strategic Attack	X		X						D	S	4	365			3 x CI at Console (CI, AIC, Red)	
	STK	1901	4vX Strategic Attack	X								D	A	4	*	(1) GBU-32	RSTD / AA / TACTS / EXP / MACH 1+ / EW / HIFIEW / SRSAM / MRSAM / LSR / COMPLEX / JDAM	AIC / Adversaries	4+
5000 PHASE (INSTRUCTOR TRAINING)																			
FLEET REPLACEMENT SQUADRON INSTRUCTOR (FRSI)																			
FRSI	FRSI	5002	FAM-2	X								D	A	2	*		MOA		
	AFRSI	5043	FAM-5	X									G		*			Paddles truck	
	FRSI	5020	BFM-4	X								D	A	2	*		RSTD		
	FRSI	5044	NO-2	X								N	A/S	2	*		MOA		
	FRSI	5045	NO-3	X								N	A/S	4	*		MOA		
	FRSI	5047	NO-5	X								N	A	2	*		MOA		

F-35 T&R SYLLABUS MATRIX (2000 - 8000 Phase)																									
SKILL	PREFIX	EVENT NUMBER	T&R DESCRIPTION	ATTAIN		MAINTAIN	ACAD		SIM		FLIGHT		CONDITION	TYPE	# AIRCRAFT or SIM	PROFICIENCY INTERVAL	PREREQUISITE	PREREQUISITE NOTES	CHAINING	EVAL	CI	INSTR	EOM	EVENT CONV	
				B	R		#	TIME	#	TIME	#	TIME													
2000 PHASE (CORE SKILLS)																									
FAMILIARIZATION (FAM)																									
FAM F-35B	SFAM	2101	Fam / Nav / Inst / EP, F-35B	X	X	X				1.5			(N)	S	1	30	8200,8201				1	SL or CIP	X		
	FAM	2103	Fam / Nav / Inst	X	X	X					1.3		(N)	A	1	30	2101(F-35B)		6201~N			SL		2102	
FAM SKILL TOTAL							0	0.0	1	1.5	1	1.3													
FAM F-35C	SFAM	2102	Fam / Nav / Inst / EP, F-35C	X	X	X				1.5			(N)	S	1	30	8200,8201				1	SL or CIP	X	New	
	FAM	2103	Fam / Nav / Inst	X	X	X					1.3		(N)	A	1	30	2102(F-35C)		6201~N			SL		2102	
FAM SKILL TOTAL							0	0.0	1	1.5	1	1.3													
AIR-TO-SURFACE (AS)																									
AS	SAS	2201	Day / Night PGM Employment	X	X					1.5			D/N S	S	2	730	8202				1	SL or CIP			
	AS	2202	Night PGM Employment	X	X	X					1.3		N	A	2	365	2103,2201		2103,2201,6201			SL			
	SAS	2203	Day / Night Gun Employment	X	X	X				1.5			D/N S	S	1	180	2201				1	SL or CIP			
	AS	2204	Day Gun Employment	X	X	X					1.3		D	A	2	365	2103,2203		2103,2203			SL			
	AS	2205	Night Gun Employment	X	X	X					1.3		N	A	2	180	2202,2204		2103,2203,2204,6201			LTI			
	SAS	2206	Standoff Weapons Employment	X	X	X				1.5			D	S	1	365	2201				1	SL or CIP		New	
AS SKILL TOTAL							0	0.0	3	4.5	3	3.9													
BASIC FIGHTER MANEUVERS (BFM)																									
BFM	BFM	2301	Offensive BFM	X	X	X					0.8		D	A	2	180	2103		2103,6202			ACMI		2302	
	BFM	2302	Defensive BFM	X	X	X					0.8		D	A	2	180	2301		2103,6202			ACMI		2304	
	BFM	2303	High Aspect BFM	X	X	X					0.8		D	A	2	180	2302		2103,6202			ACMI		2305	
	BFM	2304	Dissimilar BFM	X	X	X					0.8		D	A	1	365	2303		2103,2303,6202			ACMI		2306	
BFM SKILL TOTAL							0	0.0	0	0.0	4	3.2													
TACTICAL INTERCEPTS (TI)																									
TI	STI	2401	4vX Intercepts	X						1.5			D	S	4	*	8230,8231				2	DL			
	TI	2402	2vX Intercepts	X	X	X					1.3		(N)	A	2	180	2103,2401		2103,6201~N			SL			
	STI	2403	4+4vX Fighter Integration	X	X	X				1.5			(N)	S	4	365	2401		2401			3	DL		
	TI	2404	2vX Short Range Recommit	X	X	X					1.1		D	A	2	365	2304,2402		2103,2402,6202			ACMI		2405	
TI SKILL TOTAL							0	0.0	2	3.0	2	2.4													
LOW ALTITUDE TACTICS (LAT)																									
LAT	SLAT	2501	LAT	X	X	X				1.0			D	S	1	365	8240				1	DL			
LAT SKILL TOTAL							0	0.0	1	1.0	0	0.0													
SUPPRESSION OF ENEMY AIR DEFENSES (SEAD)																									
SEAD	SSEAD	2601	Surface-Air Countertactics (SACT)	X	X	X				1.5			(N)	S	1	365	2501,8241,8242				1	SL or CIP			
	SSEAD	2602	SEAD Basics	X	X	X				1.5			(N)	S	4	365	2601				1	DL		New	
TCT SKILL TOTAL							0	0.0	2	3.0	0	0.0													

F-35 T&R SYLLABUS MATRIX (2000 - 8000 Phase)																									
SKILL	PREFIX	EVENT NUMBER	T&R DESCRIPTION	ATTAIN		MAINTAIN	ACAD		SIM		FLIGHT		CONDITION	TYPE	# AIRCRAFT or SIM	PROFICIENCY INTERVAL	PREREQUISITE	PREREQUISITE NOTES	CHAINING	EVAL	CI	INSTR	EOM	EVENT CONV	
				B	R		#	TIME	#	TIME	#	TIME													
AIR-TO-AIR REFUELING (AAR)																									
AAR	AAR	2701	Day AAR	X	X	X						1.5	D	A	2	365	2103,8250		2103			SL			
	AAR	2702	Night AAR	X	X	X						1.5	N	A	2	365	2701		2103,2701,6201			SL			
AAR SKILL TOTAL							0	0.0	0	0.0	2	3.0													
2000 PHASE TOTAL							0	0	10	14.5	10	10.8													
3000 PHASE (MISSION SKILLS)																									
CLOSE AIR SUPPORT (CAS)																									
CAS	SCAS	3101	Day CAS	X	X					1.5			D	S	2	180	2203,8300,8310		2201		1	LTI			
	CAS	3102	Day CAS	X	X	X						1.5	D	A	2	180	2205,3101		2103,2201,3101			SL			
	SCAS	3103	Night CAS	X	X	X				1.5			N	S	2	180	3101		2201,2203,3101		1	LTI			
	CAS	3104	Night CAS	X	X	X						1.5	N	A	2	180	3102,3103		2103,2201,2202,3101, 3102,3103,6201			LTI			
	SCAS	3105	Urban CAS	X	X	X				1.5			(N)	S	2	180	3103		2201,2203~N,3101,3103~N		1	SL			
CAS SKILL TOTAL							0	0.0	3	4.5	2	3.0													
STRIKE COORDINATION AND RECONNAISSANCE (SCAR)																									
SCAR	SSCAR	3201	Day / Night AR	X	X					1.5			(N)	S	2	180	2203,8311,8320		2201		1	SL			
	SCAR	3202	Day / Night AR	X	X	X						1.5	(N)	A	2	180	2205,3201		2103,2201,2202~N,3201, 6201~N			SL			
	SSCAR	3203	Day / Night SCAR	X	X					1.5			(N)	S	4	180	3201		2201		1	SL		3301	
	SCAR	3204	Day / Night SCAR	X	X	X						1.5	(N)	A	2	180	3202,3203		2103,2201,2202~N,3201, 3202,3203,6201~N			SL		3302	
SCAR SKILL TOTAL							0	0.0	2	3.0	2	3.0													
ANTI-AIR WARFARE (AAW)																									
AAW	SAAW	3301	Sweep	X	X					1.5			(N)	S	4	180	2404,8321,8322		2401		2	DL		3401	
	AAW	3302	Sweep	X	X	X						1.3	(N)	A	4	180	3301		2103,2401,2402,3301 6201~N			LTI		3402	
	SAAW	3303	Escort	X	X	X				1.5			N	S	4	180	2404,8323,8324		2401		3	LTI		3403	
	SAAW	3304	DCA	X	X					1.5			(N)	S	4	180	2404,8325,8326		2401		2	DL		3404	
	AAW	3305	DCA	X	X	X						1.3	(N)	A	4	180	3304		2103,2401,2402,3304,6201~N			LTI		3405	
	SAAW	3306	Fighter Integration	X	X					1.5			N	S	4	365	3301,3303,3304,8340,8350		2401,2403		3	DL		3406	
	AAW	3307	Fighter Integration	X	X	X						1.3	(N)	A	4	365	3306		2103,2401,2402,2403,3306~N,6201~N			LTI		3407	
AAW SKILL TOTAL							0	0.0	3	6.0	4	3.9													
STRIKE (STK)																									
STK	SSTK	3401	Day Strike	X	X					1.5			D	S	4	180	2201,2404,2602		2201,2401		2	LTI		3501	
	STK	3402	Day Strike	X	X	X						1.3	D	A	4	180	3401		2103,2201,2401,2402,3401			DL		3502	
	SSTK	3403	Night Strike	X	X	X				1.5			N	S	4	180	3401		2201,2401,3401		2	DL		3503	
	STK	3404	Night Strike	X	X	X						1.3	N	A	4	180	3402,3403		2103,2201,2202,2401,2402,3401, 3402,3403,6201			LTI		3504	
STK SKILL TOTAL							0	0.0	2	3.0	2	2.6													

F-35 T&R SYLLABUS MATRIX (2000 - 8000 Phase)																									
SKILL	PREFIX	EVENT NUMBER	T&R DESCRIPTION	ATTAIN		MAINTAIN	ACAD		SIM		FLIGHT		CONDITION	TYPE	# AIRCRAFT or SIM	PROFICIENCY INTERVAL	PREREQUISITE	PREREQUISITE NOTES	CHAINING	EVAL	CI	INSTR	EOM	EVENT CONV	
				B	R		#	TIME	#	TIME	#	TIME													
SUPPRESSION OF ENEMY AIR DEFENSES (SEAD)																									
SEAD	SSEAD	3501	Night SEAD	X	X	X				1.5			N	S	4	180	2206,2602		2201,2206,2601,2602		1	LTI		3601	
	SEAD	3502	SEAD	X	X	X					1.3	(N)	A	4	180	3501		2103,2201,2202~N,2206,2601, 2602,3501~N,6201~N			LTI		3602		
SEAD SKILL TOTAL							0	0.0	1	1.5	1	1.3													
3000 PHASE TOTAL							0	0.0	12	18.0	11	13.8													
4000 PHASE (CORE PLUS SKILLS)																									
FORWARD BASE OPERATIONS (FBO)																									
FBO	SFBO	4101	FBO	X	X					1.5			D/N S	S	1	365			4801			SL or CIP			
	FBO	4102	Day FBO	X	X	X					1.0	D	A	1	365	2103,4101		2103			SL				
	FBO	4103	Night FBO	X	X	X					1.0	N	A	1	365	4102		2103,4101,4102,6201~N			SL				
FBO SKILL TOTAL							0	0.0	1	1.5	2	2.0													
LOW ALTITUDE TACTICS (LAT)																									
LAT	LAT	4201	LAT	X	X	X					1.3	D	A	2	365	2103,2501		2103, 2501			LATI				
LAT SKILL TOTAL							0	0.0	0	0.0	1	1.3													
4000 PHASE (MISSION PLUS SKILLS)																									
FIELD CARRIER LANDING PRACTICE / CARRIER QUALIFICATION (FCLP/CQ)																									
FCLP/CQ F-35B	SFCLP	4301	Day FCLP, F-35B	X	X					1.5			D	S	1	365	2101	Per STOVL LSO NATOPS		1	LSO				
	SFCLP	4302	Night FCLP, F-35B	X	X					1.5			N	S	1	365	4301	Per STOVL LSO NATOPS	4301		1	LSO			
	FCLP	4303	Day FCLP, F-35B	X	X						1.0	D	A	1	365	2103,4301	Per STOVL LSO NATOPS	2103,4301			LSO				
	FCLP	4304	Night FCLP, F-35B	X	X						1.0	N	A	1	365	4302,4303	Per STOVL LSO NATOPS	2103,4301,4302,4303,6201			LSO				
	SCQ	4305	Day CQ, F-35B	X	X					1.5			D	S	1	365	4301	Per STOVL LSO NATOPS		1	LSO				
	SCQ	4306	Night CQ, F-35B	X	X					1.5			N	S	1	365	4302	Per STOVL LSO NATOPS	4305		1	LSO			
	SCQ	4307	CQ EP, F-35B	X	X	X				1.5			D/N S	S	1	365	4306		2101		1	LSO			
	CQ	4308	Day CQ, F-35B	X	X	X						1.0	D	A	1	365	4303,4307	Per STOVL LSO NATOPS	2103,4301,4303,4305			LSO			
	CQ	4309	Night CQ, F-35B	X	X	X						1.0	N	A	1	365	4304,4308	Per STOVL LSO NATOPS	2103,4301,4302,4303,4304, 4305,4306,4308,6201			LSO			
FCLP/CQ F-35C	FCLP	4310	Day FCLP, F-35C	X	X						1.0	D	A	1	365	2103	Per CVN LSO NATOPS	2103			LSO		New		
	FCLP	4311	Night FCLP, F-35C	X	X						1.0	N	A	1	365	4310	Per CVN LSO NATOPS	2103,4310,6201			LSO		New		
	SCQ	4312	Day CQ, F-35C	X	X					1.5			D	S	1	365	4310	Per CVN LSO NATOPS		1	LSO		New		
	SCQ	4313	Night CQ, F-35C	X	X					1.5			N	S	1	365	4311,4312	Per CVN LSO NATOPS		1	LSO		New		
	SCQ	4314	CQ EP, F-35C	X	X	X				1.5			D/N S	S	1	365	4313		2102		1	LSO		New	
	CQ	4315	Day CQ, F-35C	X	X	X						1.0	D	A	1	365	4314	Per CVN LSO NATOPS	2103,4310,4312			LSO		New	
	CQ	4316	Night CQ, F-35C	X	X	X						1.0	N	A	1	365	4315	Per CVN LSO NATOPS	2103,4310,4311,4312,4313, 4315,6201			LSO		New	
FCLP/CQ SKILL TOTAL							0	0.0	5	7.5	4	4.0													

F-35 T&R SYLLABUS MATRIX (2000 - 8000 Phase)																								
SKILL	PREFIX	EVENT NUMBER	T&R DESCRIPTION	ATTAIN		MAINTAIN	ACAD		SIM		FLIGHT		CONDITION	TYPE	# AIRCRAFT or SIM	PROFICIENCY INTERVAL	PREREQUISITE	PREREQUISITE NOTES	CHAINING	EVAL	CI	INSTR	EOM	EVENT CONV
				B	R		#	TIME	#	TIME	#	TIME												
AERIAL ESCORT (AESC)																								
AESC	AESC	4401	Convoy Escort	X	X	X						1.5	(N)	A	2	365	3202		2103,2201,2202~N,3201,3202,6201~N			SL or CIP		
	AESC	4402	Assault Support Escort	X	X	X						1.5	(N)	A	2	365	3202		2103,2201,2202~N,3201,3202 6201~N			SL or CIP		
	AESC	4403	FAC(A) Escort	X	X	X						1.5	(N)	A	2	365	3104,3202		2103,2201,2202~N,3101,3102,3103~N,3104~N,3201,3202,6201~N			SL or CIP		
AESC SKILL TOTAL							0	0.0	0	0.0	3	4.5												
ATTACK ENEMY MARITIME TARGETS (AMT)																								
AMT	AMT	4501	Sea Surface Control	X	X	X						1.5	(N)	A	2	365	3202		2103,2201,2202~N,3201,3202,6201~N			SL or CIP		
	AMT	4502	War-at-Sea Exercise	X	X	X						1.5	(N)	A	2	365	3202		2103,2201,2202~N,3201,3202,6201~N			SL or CIP		
AMT SKILL TOTAL							0	0.0	0	0.0	2	3.0												
FORWARD AIR CONTROL (AIRBORNE) (FAC(A))																								
FAC(A)	SFAC(A)	4601	FW (PGM) Permissive	X						1.5			D	S	2	*	3105, 6606, LTI				2	FAC(A)I		
	SFAC(A)	4602	FW (GP / Mark) Permissive	X	X	X				1.5			D	S	2	365	4601				2	FAC(A)I		
	FAC(A)	4603	FW (PGM) Permissive	X	X	X					1.5		(N)	A	2	365	4601		2103			FAC(A)I		
	FAC(A)	4604	FW (GP / Mark) Permissive	X	X						1.5		(N)	A	2	365	4602		4602, 2103			FAC(A)I		
	SFAC(A)	4605	RW / Urban	X						1.5			D	S	2	*	4602				2	FAC(A)I		
	SFAC(A)	4606	Airspot	X						1.5			D	S	2	*	4602				2	FAC(A)I		
	FAC(A)	4607	Night FW/RW	X	X	X					1.5		N	A	2	365	4604		2103,4604			FAC(A)I		
	SFAC(A)	4608	2 Element Integration	X						1.5			D	S	2	*	4605				2	FAC(A)I		
	FAC(A)	4609	2 Element Integration	X							1.5		(N)	A	2	*	4608		2103			FAC(A)I		
SFAC(A)	4610	Night Multi-Element Integration	X	X	X				1.5			N	S	2	365	4608				2	FAC(A)I			
FAC(A) SKILL TOTAL							0	0.0	6	9.0	4	6.0												
TACTICAL AIR COORDINATOR (AIRBORNE) (TAC(A))																								
TAC(A)	TAC(A)	4701	TAC(A)	X	X	X						1.5	(N)	A	1	545	4610, FAC(A)		2102			FAC(A)I		
TAC(A) SKILL TOTAL							0	0.0	0	0.0	1	1.5												
EXPEDITIONARY OPERATIONS (EXP)																								
EXP	SEXP	4801	Expeditionary Operations	X	X	X				1.5			D/N S	S	1	365	2101				1	SL		
EXP SKILL TOTAL							0	0.0	1	1.5	0	0.0												
4000 PHASE TOTAL							0	0.0	13	19.5	17	22												

F-35 T&R SYLLABUS MATRIX (2000 - 8000 Phase)																									
SKILL	PREFIX	EVENT NUMBER	T&R DESCRIPTION	ATTAIN		MAINTAIN	ACAD		SIM		FLIGHT		CONDITION	TYPE	# AIRCRAFT or SIM	PROFICIENCY INTERVAL	PREREQUISITE	PREREQUISITE NOTES	CHAINING	EVAL	CI	INSTR	EOM	EVENT CONV	
				B	R		#	TIME	#	TIME	#	TIME													
5000 PHASE (INSTRUCTOR TRAINING)																									
AIR COMBAT MANEUVERING INSTRUCTOR (ACMI)																									
ACMI	ACMI	5101	MAWTS-1 Course Catalog	X								1.0	D	A	2	*		IAW MAWTS-1 Course Catalog	2103,2301,2302,6202	E		MAWTS		5101	
	ACMI	5102	MAWTS-1 Course Catalog	X								1.0	D	A	2	*		IAW MAWTS-1 Course Catalog	2103 2303,6202	E		MAWTS		5101	
	ACMI	5103	MAWTS-1 Course Catalog	X								1.1	D	A	2	*		IAW MAWTS-1 Course Catalog	2103,2402,2404,6202	E		MAWTS		5102	
ACMI TOTAL							0	0.0	0	0.0	3	3.1													
LIGHTNING TACTICS INSTRUCTOR (LTI)																									
LTI	LTI	5201	MAWTS-1 Course Catalog	X								1.5	N	A	2	*		IAW MAWTS-1 Course Catalog	2103,2201,2202,3101,3102,3103,3104,6201	E		MAWTS		5103	
	SLTI	5202	MAWTS-1 Course Catalog	X						1.5			(N)	S	4	*		IAW MAWTS-1 Course Catalog	2401	E	2	MAWTS		5104	
	SLTI	5203	MAWTS-1 Course Catalog	X							1.5			N	S	4	*		IAW MAWTS-1 Course Catalog	2201,2401,3401,3403	E	2	MAWTS		5105
IP TOTAL							0	0.0	2	3.0	1	1.5													
FORWARD AIR CONTROLLER (AIRBORNE) INSTRUCTOR (FAC(A)I)																									
FAC(A)I	SFAC(A)I	5301	MAWTS-1 Course Catalog	X							2.5			N	S	4	*		IAW MAWTS-1 Course Catalog	4608	E	2	MAWTS		5201
	FAC(A)I	5302	MAWTS-1 Course Catalog	X								1.5	(N)	A	2	*		IAW MAWTS-1 Course Catalog	2103,4609,6201~N	E		MAWTS		5202	
	FAC(A)I	5303	MAWTS-1 Course Catalog	X								1.5	(N)	A	2	*		IAW MAWTS-1 Course Catalog	2103 4609,6201~N	E		MAWTS		5203	
FAC(A)I TOTAL							0	0.0	1	2.5	2	3.0													
LOW ALTITUDE TACTICS INSTRUCTOR (LATI)																									
LATI	SLATI	5401	MAWTS-1 Course Catalog	X							1.5			D	S	2	*		IAW MAWTS-1 Course Catalog	2501	E	1	MAWTS		5301
	LATI	5402	MAWTS-1 Course Catalog	X								1.3	D	A	2	*		IAW MAWTS-1 Course Catalog	2103,2501,4201	E		MAWTS		5302	
LATI TOTAL							0	0.0	1	1.5	1	1.3													
FLIGHT LEADERSHIP STANDARDIZATION EVALUATOR (FLSE)																									
FLSE	SFLSE	5501	MAWTS-1 Course Catalog	X							1.5			(N)	S	4	*		IAW MAWTS-1 Course Catalog		E	2	MAWTS		5401
FLSE TOTAL							0	0.0	1	1.5	0	0.0													
CONTRACT INSTRUCTOR PILOT (IP)																									
CIP	SCIP	5601	Day/Night PGM Delivery	X	X	X					1.5			D/N S	S	2	365		See Event			1	FLSE		5501
	SCIP	5602	Day/Night Gun Employment	X	X	X					1.5			D/N S	S	1	365		See Event			1	FLSE		5502
	SCIP	5603	Standoff Weapons Employment	X	X	X					1.5			N	S	1	365		See Event			1	FLSE		New
	SCIP	5604	SA Threat Countertactics	X	X	X					1.5			N	S	1	365		See Event			1	FLSE		New
IP TOTAL							0	0.0	4	6.0	0	0.0													

F-35 T&R SYLLABUS MATRIX (2000 - 8000 Phase)																									
SKILL	PREFIX	EVENT NUMBER	T&R DESCRIPTION	ATTAIN		MAINTAIN	ACAD		SIM		FLIGHT		CONDITION	TYPE	# AIRCRAFT or SIM	PROFICIENCY INTERVAL	PREREQUISITE	PREREQUISITE NOTES	CHAINING	EVAL	CI	INSTR	EOM	EVENT CONV	
				B	R		#	TIME	#	TIME	#	TIME													
6000 PHASE (REQUIREMENTS, QUALIFICATIONS AND DESIGNATIONS (R,Q,D))																									
FRSI DESIGNATIONS (DESIG)																									
DESIG	DESIG	6000	FRSI FAM Stage Instructor	X												*									
	DESIG	6001	FRSI FAM Stage Stan-I	X												*									
	DESIG	6002	FRSI AAR Stage Instructor	X												*									
	DESIG	6003	FRSI AAR Stage Stan-I	X												*									
	DESIG	6004	FRSI AS Stage Instructor	X												*									
	DESIG	6005	FRSI AS Stage Stan-I	X												*									
	DESIG	6006	FRSI BT Stage Instructor	X												*									
	DESIG	6007	FRSI BT Stage Stan-I	X												*									
	DESIG	6008	FRSI BFM Stage Instructor	X												*									
	DESIG	6009	FRSI BFM Stage Stan-I	X												*									
	DESIG	6010	FRSI TI Stage Instructor	X												*									
	DESIG	6011	FRSI TI Stage Stan-I	X												*									
	DESIG	6012	FRSI AR Stage Instructor	X												*									
	DESIG	6013	FRSI AR Stage Stan-I	X												*									
	DESIG	6014	FRSI CAS Stage Instructor	X												*									
	DESIG	6015	FRSI CAS Stage Stan-I	X												*									
	DESIG	6016	FRSI AAW Stage Instructor	X												*									
	DESIG	6017	FRSI AAW Stage Stan-I	X												*									
	DESIG	6018	FRSI SEAD Stage Instructor	X												*									
	DESIG	6019	FRSI SEAD Stage Stan-I	X												*									
	DESIG	6020	FRSI STK Stage Instructor	X												*									
	DESIG	6021	FRSI STK Stage Stan-I	X												*									
	DESIG	6022	FRSI NS Stage Instructor	X												*									
	DESIG	6023	FRSI NS Stage Stan-I	X												*									
	DESIG	6024	FRSI FCLP Stage Instructor	X												*									
DESIG	6025	FRSI FCLP Stage Stan-I	X												*										
DESIG TOTAL							0	0.0	0	0.0	0	0.0													

F-35 T&R SYLLABUS MATRIX (2000 - 8000 Phase)																								
SKILL	PREFIX	EVENT NUMBER	T&R DESCRIPTION	ATTAIN		MAINTAIN	ACAD		SIM		FLIGHT		CONDITION	TYPE	# AIRCRAFT or SIM	PROFICIENCY INTERVAL	PREREQUISITE	PREREQUISITE NOTES	CHAINING	EVAL	CI	INSTR	EOM	EVENT CONV
				B	R		#	TIME	#	TIME	#	TIME												
REQUIRED TRAINING AND/OR PROFICIENCY EVENTS (RQD)																								
RQD	ARQD	6101	NATOPS Open Book, F-35B	X	X	X		1.0						G		365							X	
	ARQD	6102	NATOPS Closed Book, F-35B	X	X	X		1.0						G		365							X	
	ARQD	6103	NATOPS Oral Exam, F-35B	X	X	X		1.0						G		365							X	
	SRQD	6104	NATOPS Evaluation, F-35B	X	X	X				1.5			(N)	S	1	365	6101,6102,6103		2101	I	1	NATOPS	X	
	SRQD	6105	FCF Simulator, F-35B	X	X	X				1.5			D	S	1	365				I	1	FCF		6113
	RQD	6106	FCF Flight, F-35B	X	X	X						1.3	D	A	1	365			2103	I		FCF		6114
	ARQD	6107	NATOPS Open Book, F-35C	X	X	X		1.0						G		365							X	New Event
	ARQD	6108	NATOPS Closed Book, F-35C	X	X	X		1.0						G		365							X	New Event
	ARQD	6109	NATOPS Oral Exam, F-35C	X	X	X		1.0						G		365							X	New Event
	SRQD	6110	NATOPS Evaluation, F-35C	X	X	X				1.5			(N)	S	1	365	6107,6108,6109		2102	I	1	NATOPS	X	New Event
	SRQD	6111	FCF Simulator, F-35C	X	X	X				1.5			D	S	1	365				I	1	FCF		New Event
	RQD	6112	FCF Flight, F-35C	X	X	X						1.3	D	A	1	365			2103	I		FCF		New Event
	ARQD	6113	CRM Academics	X	X	X		1.0						G		365							X	6105
	SRQD	6114	CRM Evaluation	X	X	X				1.5			(N)	S	1	365	6113			I	1	CRM	X	6106
	ARQD	6115	Instrument Ground School and Exam	X	X	X		4.0						G		365							X	6107
	SRQD	6116	NATOPS Instrument Evaluation	X	X	X				1.5			(N)	S	1	365	6115			I	1	NATOPS INST	X	6108
	RQD	6117	Section Lead Proficiency Flight	X	X	X						1.3	(N)	A	2	90								6109
	RQD	6118	Division Lead Proficiency Flight	X	X	X						1.3	(N)	A	4	180								6110
	RQD	6119	Mission Commander Proficiency Flight	X	X	X						1.3	(N)	A	6+	365								6111
	RQD	6120	Strategic Tanker	X	X	X						1.5	(N)	A	1	545								6112
RQD TOTAL							8	11.0	6	9.0	6	8.0												

F-35 T&R SYLLABUS MATRIX (2000 - 8000 Phase)																								
SKILL	PREFIX	EVENT NUMBER	T&R DESCRIPTION	ATTAIN		MAINTAIN	ACAD		SIM		FLIGHT		CONDITION	TYPE	# AIRCRAFT or SIM	PROFICIENCY INTERVAL	PREREQUISITE	PREREQUISITE NOTES	CHAINING	EVAL	CI	INSTR	EOM	EVENT CONV
				B	R		#	TIME	#	TIME	#	TIME												
QUALIFICATIONS (QUAL)																								
QUAL	QUAL	6201	NS	X	X	X										365	1701,1703,1705,1708,1709							
	QUAL	6202	ACM	X	X	X										180	2301,2302,2303,2304,2404	Must meet CNAF M-3710.7 requirements as well						
	QUAL	6203	Day FBO	X												*	4102							
	QUAL	6204	Night FBO	X												*	4103							
	QUAL	6205	LAT	X												*	4201							
	QUAL	6206	Day CQ, F-35B	X												*	4308							
	QUAL	6207	Night CQ, F-35B	X												*	4309							
	QUAL	6208	Field LSO, F-35B	X												*		Per STOVL LSO NATOPS						
	QUAL	6209	Shipboard LSO, F-35B	X												*		Per STOVL LSO NATOPS						
	QUAL	6210	Advanced LSO, F-35B	X												*		Per STOVL LSO NATOPS						
	QUAL	6211	Training LSO, F-35B	X												*		Per STOVL LSO NATOPS						
	QUAL	6212	FCF, F-35B	X												*	6114							
	QUAL	6213	FAC(A)	X												*	4610							
	QUAL	6214	TAC(A)	X												*	4701							
	QUAL	6215	DEMO	X												*	6813							
	QUAL	6216	CQ, F-35C	X												*	4309							NEW
	QUAL	6217	Field LSO, F-35C	X												*		Per CVN LSO NATOPS						NEW
	QUAL	6218	Shipboard LSO, F-35C	X												*		Per CVN LSO NATOPS						NEW
	QUAL	6219	Wing LSO, F-35C	X												*		Per CVN LSO NATOPS						NEW
	QUAL	6220	Training LSO, F-35C	X												*		Per CVN LSO NATOPS						NEW
	QUAL	6221	FCF, F-35C	X												*	6114							NEW
QUAL TOTAL							0	0.0	0	0.0	0	0.0												

F-35 T&R SYLLABUS MATRIX (2000 - 8000 Phase)																								
SKILL	PREFIX	EVENT NUMBER	T&R DESCRIPTION	ATTAIN		MAINTAIN	ACAD		SIM		FLIGHT		CONDITION	TYPE	# AIRCRAFT or SIM	PROFICIENCY INTERVAL	PREREQUISITE	PREREQUISITE NOTES	CHAINING	EVAL	CI	INSTR	EOM	EVENT CONV
				B	R		#	TIME	#	TIME	#	TIME												
SECTION LEAD (SL)																								
SL	SSL	6301	Day PGM / Night Gun Employment	X					1.5			D/N S	S	2	*	8630	300 Hours (A/C and Sim)	2203	E	1	DL			
	SL	6302	Day PGM / Gun Employment	X							1.3	D	A	2	*	6301		2103,2203,2204	E		DL			
	SSL	6303	Urban CAS	X					1.5			D	S	2	*	6301		2201,3101,3105	E	1	DL			
	SL	6304	Night CAS	X							1.5	N	A	2	*	6303		2103,2201,2202,3101, 3102,3103,3104,6201	E		LTI			
	SSL	6305	Night AR	X					1.5			N	S	2	*	6301		2201,3201	E	1	DL			
	SSL	6306	SEAD	X					1.5			D	S	2	*	6305			E	1	FLSE			
	ASL	6307	BFM Briefing Lab	X				1.0					G		*				E		DL, ACMI			
	SL	6308	Perch BFM	X							0.8	D	A	2	*	6307		2103,2301,2302,6202	E		DL, ACMI			
	SL	6309	HABFM	X							0.8	D	A	2	*	6308		2103,2303,6202	E		FLSE			
	SL	6310	2vX Short Range Recommit	X							1.1	D	A	2	*	6309		2103,2402,2404,6202	E		DL, ACMI			
	SSL	6311	2+4vX Fighter Integration	X					1.5			D	S	2	*	6310			E	3	DL			
	SL	6312	2+4vX Fighter Integration	X							1.3	D	A	2	*	6311		2103,2402	E		DL			
SL	6313	Night Strike	X							1.3	N	A	2	*	6304,6306,6312		2103,6201	E		LTI				
SL TOTAL							1	1.0	5	7.5	7	8.1												
DIVISION LEAD (DL)																								
DL	ADL	6401	LAT Briefing Lab	X				1.0					G		*	8640	500 Hours (A/C and Sim)		E		WTI/LATI		New Event	
	SDL	6402	SCAR	X					1.5			D	S	4	*			2201,3203	E	1	MC		6401	
	SDL	6403	Night SEAD	X					1.5			N	S	4	*			2201,2206,2601,2602,3501	E	1	MC		6402	
	DL	6404	DCA	X							1.3	D	A	4	*			2103,2401,2402,3304,3305	E		MC		6403	
	SDL	6405	Escort	X					1.5			D	S	4	*			2401	E	3	MC		6404	
	DL	6406	Sweep	X							1.3	D	A	4	*			2103,2401,2402,3301,3302	E		FLSE		6405	
	SDL	6407	DCA Fighter Integration	X					1.5			D	S	4	*	6404		2403, 3306	E	3	MC		6406	
	SDL	6408	Night Strike	X					1.5			N	S	4	*			2201,2401,3401,3403	E	2	FLSE		6407	
	DL	6409	Night Strike	X							1.3	N	A	4	*	6408		2103,2201,2202,2401,2402, 3401,3402,3403,3404,6201	E		MC		6408	
ADL	6410	Package Commander Considerations Chalk Talk	X				1.0					G		*							MC		New Event	
DL TOTAL							0	0.0	5	7.5	3	3.9												
MISSION COMMANDER (MC)																								
MC	SMC	6501	Night SEAD	X					1.5			N	S	4	*	8660	600 Hours (A/C and Sim)	2201,2206,2601,2602,3501	E	2	WTI/AIMC			
	MC	6502	DCA	X							1.3	(N)	A	4+	*			2103,2401,2402,3304,3305	E		FLSE			
	MC	6503	Strike	X							1.3	(N)	A	4+	*	6502		2103,2201,2401,2402,3401, 3402	E		WTI/AIMC			
MC TOTAL							0	0.0	0	0.0	2	2.6												

F-35 T&R SYLLABUS MATRIX (2000 - 8000 Phase)																									
SKILL	PREFIX	EVENT NUMBER	T&R DESCRIPTION	ATTAIN		MAINTAIN	ACAD		SIM		FLIGHT		CONDITION	TYPE	# AIRCRAFT or SIM	PROFICIENCY INTERVAL	PREREQUISITE	PREREQUISITE NOTES	CHAINING	EVAL	CI	INSTR	EOM	EVENT CONV	
				B	R		#	TIME	#	TIME	#	TIME													
DESIGNATIONS (DESIG)																									
DESIG	DESIG	6601	FRSI	X												*		IAW VMFAT-501 FRSI FSG							
	DESIG	6602	SL	X												*	6313								
	DESIG	6603	DL	X												*	6409								
	DESIG	6604	MC	X												*	6503								
	DESIG	6605	ACMI	X												*		IAW MAWTS-1 Course Catalog						6605	
	DESIG	6606	LTI	X												*		IAW MAWTS-1 Course Catalog						6605	
	DESIG	6607	FAC(A)I	X												*		IAW MAWTS-1 Course Catalog						6606	
	DESIG	6608	LATI	X												*		IAW MAWTS-1 Course Catalog						6607	
	DESIG	6609	FLSE	X												*		IAW MAWTS-1 Course Catalog						6608	
	DESIG	6610	NSI	X												*		IAW MAWTS-1 Course Catalog						New Event	
	DESIG	6611	SFTI, F-35	X												*		IAW NAWDC N7 F-35 POI						6610	
	DESIG	6612	WTI	X												*		IAW MAWTS-1 Course Catalog						6611	
	DESIG	6613	Contract FRS Instructor, Basic (CFI(1))	X												*	5001,5003,5004,5005,5012,5013,5014,5015,5043,5044	Associated 1000-level acad/sims complete						New Event	
	DESIG	6614	Contract FRS Instructor, Section Lead (CFI(2))	X												*	5009,5010,5022,5023,5024,5028,5030,5036,5037,5044,5045	Associated 1000-level acad/sims complete						New Event	
	DESIG	6615	Contract FRS Instructor, Division Lead (CFI(4))	X												*	5026,5028,5033,5034,5038,5040	Associated 1000-level acad/sims complete						New Event	
	DESIG	6616	Contract Instructor Pilot (CIP)	X												*	5601,5602,5603,5604							6612	
	DESIG	6617	NATOPS	X												*									New Event
	DESIG	6618	NATOPS Instrument	X												*									New Event
	DESIG	6619	CRM	X												*									New event
	DESIG	6620	FCF	X												*									New Event
DESIG TOTAL							0	0.0	0	0.0	0	0.0													
SPECIFIC WEAPONS DELIVERY PROFICIENCY (SURFACE (SSWD), AERIAL (ASWD), TRACKING (TRK))																									
SWD/TRK	SSWD	6701	AGM-154	X								(N)	A	1	*									New	
	SSWD	6702	GAU-22/A	X	X	X						(N)	A	1	180									6701	
	SSWD	6703	GBU-12	X	X	X						(N)	A	1	180									6702	
	SSWD	6704	GBU-31	X	X	X						(N)	A	1	180									New	
	SSWD	6705	GBU-32	X	X	X						(N)	A	1	180									6703	

F-35 T&R SYLLABUS MATRIX (2000 - 8000 Phase)																								
SKILL	PREFIX	EVENT NUMBER	T&R DESCRIPTION	ATTAIN		MAINTAIN	ACAD		SIM		FLIGHT		CONDITION	TYPE	# AIRCRAFT or SIM	PROFICIENCY INTERVAL	PREREQUISITE	PREREQUISITE NOTES	CHAINING	EVAL	CI	INSTR	EOM	EVENT CONV
				B	R		#	TIME	#	TIME	#	TIME												
	SSWD	6706	GBU-49	X	X	X							(N)	A	1	365								6704
	SSWD	6707	GBU-53	X	X	X							(N)	A	1	365								6705
	ASWD	6708	GAU-22/A	X	X	X							(N)	A	1	1095								6706
	ASWD	6709	AIM-9X	X	X	X							(N)	A	1	1095								6707
	ASWD	6710	AIM-120	X	X	X							(N)	A	1	1095								6708
	TRK	6711	Required Ordnance NA													*								6709
	TRK	6712	Required Adversary NA													*								6710
	TRK	6713	Required Range NA													*								6711
SSWD / ASWD / TRK TOTAL							0	0.0	0	0.0	0	0.0												
DEMONSTRATION (DEMO)																								
DEMO	SDEMO	6801	Level II/III High Show Intro	X	X					1.7			D	S	1	365	See Event							
	SDEMO	6802	Level II/III High Show Practice	X	X					1.7			D	S	1	365	6801							
	SDEMO	6803	High Show Environmental Effects	X	X	X				1.7			D	S	1	180	6802							
	SDEMO	6804	Level II Low Show Intro	X	X	X				1.7			D	S	1	180	6801							
	SDEMO	6805	Level II Low Show Practice	X	X	X				1.7			D	S	1	180	6804							
	SDEMO	6806	Low Show Environmental Effects	X	X					1.7			D	S	1	365	6805							
	DEMO	6807	Level III High Show - 5000' AGL	X	X	X					0.7		D	A	1	180	6803							
	DEMO	6808	Level III High Show - 2000' AGL	X	X	X					0.7		D	A	1	30	6807							
	DEMO	6809	Level III High Show	X	X						0.3		D	A	1	365	6808							
	DEMO	6810	Level II Low Show 5000' AGL	X	X	X					0.7		D	A	1	180	6806							
	DEMO	6811	Level II Low Show 2000' AGL	X	X	X					0.7		D	A	1	30	6810							
	DEMO	6812	Level II Low Show	X	X						0.3		D	A	1	365	6811							
	DEMO	6813	High/Low Show Demo	X	X						0.3		D	A	1	365	6812					MAG CO		
DEMO TOTAL							0	0.0	6	10.2	7	3.7												
7000 PHASE (MISSION ESSENTIAL TASK (MET))																								
MET	MET	7001	Conduct Close Air Support	X	X	X					1.5	(N)	A	2	730									
	MET	7002	Conduct Strike Coordination and Reconnaissance	X	X	X					1.5	(N)	A	2	730									7004
	MET	7003	Conduct Offensive Anti-air Warfare	X	X	X					1.3	(N)	A	4	730									7005
	MET	7004	Conduct Active Air Defense	X	X	X					1.3	(N)	A	4	730									7006
	MET	7005	Conduct Strike	X	X	X					1.3	(N)	A	4	730									7007
	MET	7006	Conduct Suppression of Enemy Air Defenses	X	X	X					1.3	(N)	A	4	730									7008
	MET	7007	Conduct Aviation Electronic Attack	X	X	X					1.3	(N)	A	4	730									7009
	MET	7008	Conduct Electronic Support	X	X	X					1.3	(N)	A	4	730									7010
	MET	7009	Conduct Aviation Operations from Expeditionary Shore-Based Sites	X	X	X					1.5	(N)	A	1	730									7011
	MET	7010	Conduct Aviation Operations from Expeditionary Sea-Based Sites	X	X	X					1.0	(N)	A	1	730									7012
	MET	7011	Conduct Aerial Escort	X	X	X					1.5	(N)	A	2	730									7013

F-35 T&R SYLLABUS MATRIX (2000 - 8000 Phase)																								
SKILL	PREFIX	EVENT NUMBER	T&R DESCRIPTION	ATTAIN		MAINTAIN	ACAD		SIM		FLIGHT		CONDITION	TYPE	# AIRCRAFT or SIM	PROFICIENCY INTERVAL	PREREQUISITE	PREREQUISITE NOTES	CHAINING	EVAL	CI	INSTR	EOM	EVENT CONV
				B	R		#	TIME	#	TIME	#	TIME												
	MET	7012	Attack Enemy Maritime Targets	X	X	X						1.5	(N)	A	2	730								7014
	MET	7013	Conduct Forward Air Control (Airborne)	X	X	X						1.5	(N)	A	1	730								7015
	MET	7014	Conduct Tactical Air Coordination (Airborne) Operations	X	X	X						1.5	(N)	A	1	730								7016
7000 PHASE TOTAL							0	0.0	0	0.0	14	19.3												
8000 PHASE (AVIATION CAREER PROGRESSION MODEL (ACPM))																								
ACPM	ACPM	8200	Marine Air Command and Control System (MACCS)	X				0.6								*								
	ACPM	8201	Marine Wing Communications Squadron (MWCS)	X				0.4								*								
	ACPM	8202	Joint Airspace Control	X				0.5								*								
	ACPM	8210	Aviation Ground Support	X				0.6								*								
	ACPM	8230	ACE Battlestaff	X				0.6								*								
	ACPM	8231	Battle Command Display	X				0.3								*								
	ACPM	8240	Six Functions Integration	X				1.5								*								
	ACPM	8241	Joint Tactical Air Strike Request (JTAR) and Assault Support Request (ASR)	X				0.5								*								
	ACPM	8242	Aviation Site Command	X				0.7								*								
	ACPM	8250	Theater Air Ground System (TAGS)	X				0.6								*								
	ACPM	8300	Air Defense	X				0.6								*								
	ACPM	8310	Forward Arming and Refueling Point (FARP)	X				0.4								*								
	ACPM	8311	USMC Tactical Fuel Systems	X				0.2								*								
	ACPM	8320	Joint Structure & Joint Air Operations	X				1.5								*								
	ACPM	8321	Joint Air Tasking Cycle Phase 1: Objectives, Effects, and Guidance	X				0.3								*								
	ACPM	8322	Joint Air Tasking Cycle Phase 2: Target Development	X				0.2								*								
	ACPM	8323	Joint Air Tasking Cycle Phase 3: Weaponeering and Allocation	X				0.2								*								
	ACPM	8324	Joint Air Tasking Cycle Phase 4: ATO Production and Dissemination	X				0.2								*								
	ACPM	8325	Joint Air Tasking Cycle Phase 5: Execution, Planning, and Force Execution	X				0.2								*								
	ACPM	8326	Joint Air Tasking Cycle Phase 6: Assessment	X				0.2								*								
	ACPM	8340	ACMs and FSCMs Integration	X				0.5								*								
	ACPM	8350	Phasing Control Ashore	X				0.5								*								
	ACPM	8630	Tactical Air Command Center (TACC)	X				0.7								*								
	ACPM	8640	Joint Data Network	X				0.4								*								
	ACPM	8660	Introduction to Joint Operations	X				1.5								*								
8000 PHASE TOTAL							25	13.9	0	0.0	0	0.0												

2.26 F-35 RANGE, ORDNANCE, AND EXTERNAL SYLLABUS SUPPORT MATRIX (2000-6000 PHASES)

F-35 RANGE, ORDNANCE, AND EXTERNAL RESOURCE REQUIREMENTS MATRIX (2000 – 6000 Phase)																
SKILL	PREFIX	EVENT NUMBER	T&R DESCRIPTION	ATTAIN		MAINTAIN	CONDITION	TYPE	# AIRCRAFT or SIM	PROFICIENCY INTERVAL	ORDNANCE	RANGE	EXTERNAL RESOURCE REQUIREMENTS	EXTERNAL RESOURCE REQUIREMENT NOTES	ADVERSARY REQD	
				B	R											
2000 PHASE (CORE SKILLS)																
AIR-TO-SURFACE (AS)																
AS	AS	2202	Night PGM Employment	X	X	X	N	A	2	365	(1) LGW / (1) IAM	RSTD / JDAM / LGB / LSR / TGT-DISP				
	AS	2204	Day Gun Employment	X	X	X	D	A	2	365	(220) 25mm / EXP	RSTD / STRAFE / LSR				
	AS	2205	Night Gun Employment	X	X	X	N	A	2	180	(220) 25mm / EXP	RSTD / STRAFE / LSR				
BASIC FIGHTER MANEUVERS (BFM)																
BFM	BFM	2301	Offensive BFM	X	X	X	D	A	2	180	CATM-9X / EXP	BFM / EXP				
	BFM	2302	Defensive BFM	X	X	X	D	A	2	180	CATM-9X / EXP	BFM / EXP				
	BFM	2303	High Aspect BFM	X	X	X	D	A	2	180	CATM-9X / EXP	BFM / EXP				
	BFM	2304	Dissimilar BFM	X	X	X	D	A	1	365	CATM-9X / EXP	BFM / EXP	(1) Fighter Adversary	ACTI Equivalent	1	
TACTICAL INTERCEPTS (TI)																
TI	TI	2402	2vX Intercepts	X	X	X	(N)	A	2	180		AA / TACTS / EXP / MACH 1+			2	
	TI	2404	2vX Short Range Recommit	X	X	X	D	A	2	365		ACM / TACTS / EXP / MACH 1+			4	
AIR-TO-AIR REFUELING (AAR)																
AAR	AAR	2701	Day AAR	X	X	X	D	A	2	365		AAR	Air-to-Air Refueling Aircraft			
	AAR	2702	Night AAR	X	X	X	N	A	2	365		AAR	Air-to-Air Refueling Aircraft			
3000 PHASE (MISSION SKILLS)																
CLOSE AIR SUPPORT (CAS)																
CAS	CAS	3102	Day CAS	X	X	X	D	A	2	180	(1) LGW / (1) IAM / (220) 25mm / EXP	RSTD / JDAM / LGB / STRAFE / JCAS / TGT-DISP	JTAC or FAC(A)			
	CAS	3104	Night CAS	X	X	X	N	A	2	180	(1) LGW / (1) IAM / (220) 25mm / EXP	RSTD / JDAM / LGB / STRAFE / JCAS / TGT-DISP	JTAC or FAC(A)			
STRIKE COORDINATION AND RECONNAISSANCE (SCAR)																
SCAR	SCAR	3202	Day / Night AR	X	X	X	(N)	A	2	180	(2) PGM / (220) 25mm / EXP	RSTD / JDAM / LGB / STRAFE / LSR / TGT-DISP				
	SCAR	3204	Day / Night SCAR	X	X	X	(N)	A	2	180	(2) PGM / (220) 25mm / EXP	RSTD / JDAM / LGB / STRAFE / LSR / TGT-DISP	2+ FW or RW			
ANTI-AIR WARFARE (AAW)																

F-35 RANGE, ORDNANCE, AND EXTERNAL RESOURCE REQUIREMENTS MATRIX (2000 – 6000 Phase)															
SKILL	PREFIX	EVENT NUMBER	T&R DESCRIPTION	ATTAIN		MAINTAIN	CONDITION	TYPE	# AIRCRAFT or SIM	PROFICIENCY INTERVAL	ORDNANCE	RANGE	EXTERNAL RESOURCE REQUIREMENTS	EXTERNAL RESOURCE REQUIREMENT NOTES	ADVERSARY REQD
				B	R										
AAW	AAW	3302	Sweep	X	X	X	(N)	A	4	180		AA / TACTS / EXP / MACH1+, EW, SRSAM, MRSAM	AIC		6+
	AAW	3305	DCA	X	X	X	(N)	A	4	180		AA / TACTS / EXP / MACH 1+	AIC		6+
	AAW	3307	Fighter Integration	X	X	X	(N)	A	4	365		AA / TACTS / EXP / MACH 1+	AIC / 4+ FW Fighters	4th or 5th Gen	6+
STRIKE (STK)															
STK	STK	3402	Day Strike	X	X	X	D	A	4	180	(1) PGM	RSTD / AA / TACTS / EXP / MACH 1+ / EW / HIFIEW / SRSAM / MRSAM / LSR / COMPLEX / JDAM	AIC		3+
	STK	3404	Night Strike	X	X	X	N	A	4	180	(1) PGM	RSTD / AA / TACTS / EXP / MACH 1+ / EW / HIFIEW / SRSAM / MRSAM / LSR / COMPLEX / JDAM	AIC		3+
SUPPRESSION OF ENEMY AIR DEFENSES (SEAD)															
SEAD	SEAD	3502	SEAD	X	X	X	(N)	A	4	180		AA / TACTS / EXP / EW / HIFIEW / SRSAM / MRSAM / LRSAM			
4000 PHASE (CORE PLUS SKILLS)															
FORWARD BASE OPERATIONS (FBO)															
FBO	FBO	4102	Day FBO	X	X	X	D	A	1	365			FBO Site Support, LSS		
	FBO	4103	Night FBO	X	X	X	N	A	1	365			FBO Site Support, LSS		
LOW ALTITUDE TACTICS (LAT)															
LAT	LAT	4201	LAT	X	X	X	D	A	2	365		LAT			
4000 PHASE (MISSION PLUS SKILLS)															
FIELD CARRIER LANDING PRACTICE / CARRIER QUALIFICATION (FCLP/CQ)															
FCLP	FCLP	4303	Day FCLP, F-35B	X	X		D	A	1	365			FCLP Facility		
	FCLP	4304	Night FCLP, F-35B	X	X		N	A	1	365			FCLP Facility		
	CQ	4308	Day CQ, F-35B	X	X	X	D	A	1	365			L-Class Ship		
	CQ	4309	Night CQ, F-35B	X	X	X	N	A	1	365			L-Class Ship		
	FCLP	4310	Day FCLP, F-35C	X	X		D	A	1	365			FCLP Facility		
	FCLP	4311	Night FCLP, F-35C	X	X		N	A	1	365			FCLP Facility		
	CQ	4315	Day CQ, F-35C	X	X	X	D	A	1	365			CVN Ship		
	CQ	4316	Night CQ, F-35C	X	X	X	N	A	1	365			CVN Ship		
AERIAL ESCORT (AESC)															
AESC	AESC	4401	Convoy Escort	X	X	X	(N)	A	2	365	(2) PGM / (220) 25mm / EXP	RSTD / JDAM / LGB / STRAFE / LSR / TGT-DISP	Convoy		
	AESC	4402	Assault Support Escort	X	X	X	(N)	A	2	365	(2) PGM / (220) 25mm / EXP	RSTD / JDAM / LGB / STRAFE / LSR / TGT-DISP	(1+) RW Assault Support		

F-35 RANGE, ORDNANCE, AND EXTERNAL RESOURCE REQUIREMENTS MATRIX (2000 – 6000 Phase)															
SKILL	PREFIX	EVENT NUMBER	T&R DESCRIPTION	ATTAIN		MAINTAIN	CONDITION	TYPE	# AIRCRAFT or SIM	PROFICIENCY INTERVAL	ORDNANCE	RANGE	EXTERNAL RESOURCE REQUIREMENTS	EXTERNAL RESOURCE REQUIREMENT NOTES	ADVERSARY REQD
				B	R										
	AESC	4403	FAC(A) Escort	X	X	X	(N)	A	2	365	(2) PGM / (220) 25mm / EXP	RSTD / JDAM / LGB / STRAFE / LSR / TGT-DISP	FAC(A), (2+) CAS asset		
ATTACK ENEMY MARITIME TARGETS (AMT)															
AMT	AMT	4501	Sea Surface Control	X	X	X	(N)	A	2	365	(2) PGM / (220) 25mm / EXP	MOA	Sea-based targets		
	AMT	4502	War-at-Sea Exercise	X	X	X	(N)	A	2	365	(2) PGM / (220) 25mm / EXP	MOA	Sea-based targets		
FORWARD AIR CONTROL (AIRBORNE) (FAC(A))															
FAC(A)	FAC(A)	4603	FW (PGM) Permissive	X	X	X	(N)	A	2	365	(2) PGM / (220) 25mm / EXP	RSTD / JDAM / LGB / STRAFE / JCAS / TGT-DISP	(1+) FW CAS asset		
	FAC(A)	4604	FW (GP / Mark) Permissive	X	X		(N)	A	2	365	(2) PGM / (220) 25mm / EXP	RSTD / JDAM / LGB / STRAFE / JCAS / TGT-DISP	(1+) FW CAS asset		
	FAC(A)	4607	Night FW/RW	X	X	X	N	A	2	365	(2) PGM / (220) 25mm / EXP	RSTD / JDAM / LGB / STRAFE / JCAS / TGT-DISP	(1+) FW/RW CAS asset		
	FAC(A)	4609	2 Element Integration	X			(N)	A	2	*	(2) PGM / (220) 25mm / EXP	RSTD / JDAM / LGB / STRAFE / JCAS / TGT-DISP	(2+) CAS elements		
TACTICAL AIR COORDINATOR (AIRBORNE) (TAC(A))															
TAC(A)	TAC(A)	4701	TAC(A)	X	X	X	(N)	A	1	545		MOA	JTAC/FAC(A), (2+) CAS elements		
5000 PHASE (INSTRUCTOR TRAINING)															
AIR COMBAT MANEUVERING INSTRUCTOR (ACMI)															
ACMI	ACMI	5101	MAWTS-1 Course Catalog	X			D	A	2	*	IAW MAWTS-1 Course Catalog	BFM / EXP			
	ACMI	5102	MAWTS-1 Course Catalog	X			D	A	2	*	IAW MAWTS-1 Course Catalog	BFM / EXP			
	ACMI	5103	MAWTS-1 Course Catalog	X			D	A	2	*	IAW MAWTS-1 Course Catalog	ACM / TACTS / EXP / MACH 1+			4
LIGHTNING TACTICS INSTRUCTOR (LTI)															
LTI	LTI	5201	MAWTS-1 Course Catalog	X			N	A	2	*	IAW MAWTS-1 Course Catalog	RSTD / JDAM / LGB / STRAFE / JCAS / TGT-DISP	JTAC or FAC(A)		
	SLTI	5202	MAWTS-1 Course Catalog	X			(N)	S	4	*	IAW MAWTS-1 Course Catalog				
	SLTI	5203	MAWTS-1 Course Catalog	X			N	S	4	*	IAW MAWTS-1 Course Catalog				
FORWARD AIR CONTROLLER (AIRBORNE) INSTRUCTOR (FAC(A)I)															
FAC(A)I	FAC(A)I	5302	MAWTS-1 Course Catalog	X			(N)	A	2	*	(2) PGM / (220) 25mm / EXP	RSTD / JDAM / LGB / STRAFE / JCAS / TGT-DISP	(1+) FW, (1+) RW, IDF		
	FAC(A)I	5303	MAWTS-1 Course Catalog	X			(N)	A	2	*	(2) PGM / (220) 25mm / EXP	RSTD / JDAM / LGB / STRAFE / JCAS / TGT-DISP	(1+) FW, (1+) RW, IDF		
LOW ALTITUDE TACTICS INSTRUCTOR (LATI)															

F-35 RANGE, ORDNANCE, AND EXTERNAL RESOURCE REQUIREMENTS MATRIX (2000 – 6000 Phase)															
SKILL	PREFIX	EVENT NUMBER	T&R DESCRIPTION	ATTAIN		MAINTAIN	CONDITION	TYPE	# AIRCRAFT or SIM	PROFICIENCY INTERVAL	ORDNANCE	RANGE	EXTERNAL RESOURCE REQUIREMENTS	EXTERNAL RESOURCE REQUIREME NT NOTES	ADVERSARY REQD
				B	R										
LATI	LATI	5402	MAWTS-1 Course Catalog	X			D	A	2	*		LAT			
FLIGHT LEADERSHIP STANDARDIZATION EVALUATOR (FLSE)															
FLSE	SFLSE	5501	MAWTS-1 Course Catalog	X			(N)	S	4	*			FLSE Program Coordinator		
6000 PHASE (REQUIREMENTS, QUALIFICATIONS AND DESIGNATIONS (R,Q,D))															
REQUIRED TRAINING AND/OR PROFICIENCY EVENTS (RQD)															
RQD	RQD	6106	FCF Flight, F-35B	X	X	X	D	A	1	365		MOA			
	RQD	6112	FCF Flight, F-35C	X	X	X	D	A	1	365		MOA			
	RQD	6120	Strategic Tanker	X	X	X	(N)	A	1	545			Strategic Tanker		
SECTION LEAD (SL)															
SL	SL	6302	Day PGM / Gun Employment	X			D	A	2	*	(1) LGW / (1) IAM / (220) 25mm / EXP	RSTD / JDAM / LGB / LSR / TGT-DISP / STRAFE / EXP			
	SL	6304	Night CAS	X			N	A	2	*	(2) PGM / (220) 25mm / EXP	RSTD / JDAM / LGB / STRAFE / JCAS / TGT-DISP / EXP	JTAC or FAC(A)		
	SL	6308	Perch BFM	X			D	A	2	*	CATM-9X / EXP	BFM / EXP			
	SL	6309	HABFM	X			D	A	2	*	CATM-9X / EXP	BFM / EXP			
	SL	6310	2vX Short Range Recommit	X			D	A	2	*		ACM / TACTS / EXP / MACH 1+			4
	SL	6312	2+4vX Fighter Integration	X			D	A	2	*		AA / TACTS / EXP / MACH 1+	AIC / 4+ FW Fighters	4th or 5th Gen	4+
	SL	6313	Night Strike	X			N	A	2	*	(1) PGM / EXP	RSTD / AA / TACTS / EXP / MACH 1+ / EW / HIFIEW / SRSAM / MRSAM / COMPLEX / JDAM	AIC		3+
DIVISION LEAD (DL)															
DL	DL	6404	DCA	X			D	A	4	*		AA / TACTS / EXP / MACH 1+	AIC		6+
	DL	6406	Sweep	X			D	A	4	*		AA / TACTS / EXP / MACH 1+ / EW / SRSAM / MRSAM	AIC		6+
	DL	6409	Night Strike	X			N	A	4	*	(1) PGM	RSTD / AA / TACTS / EXP / MACH 1+ / EW / HIFIEW / SRSAM / MRSAM / COMPLEX / JDAM	AIC		3+
MISSION COMMANDER (MC)															
MC	MC	6502	DCA	X			(N)	A	4+	*		AA / TACTS / EXP / MACH 1+	AIC / 6+ Total A/C / AAR Asset		6+
	MC	6503	Strike	X			(N)	A	4+	*	(1) PGM / EXP	RSTD / AA / TACTS / EXP / MACH 1+ / EW / HIFIEW / SRSAM / MRSAM / LRSAM / COMPLEX / JDAM	AIC / 6+ Total A/C		6+