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From: Commandant of the Marine Corps
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Subj: RQ-21A TRAINING AND READINESS MANUAL

Ref: (a) NAVMC 3500.14C

Encl: (1) RQ-21 T&R Manual

1. Purpose. In accordance with reference (a), enclosure (1) contains standards and regulations regarding the training of Enlisted and Officer RQ-21A Pilots within Unmanned Aircraft Systems (UAS) squadrons.

2. Scope. Highlights of major Training and Readiness (T&R) planning considerations included in this RQ-21A T&R Manual are as follows:

a. The mapping of the training pipeline for the Enlisted UAS Operator with respect to different Mission Essential Tasks.

b. Incorporating the new Mission Essential Task List that was developed as a result of the fielding of the RQ-21A aircraft.

c. Establishing a syllabus in support of the new UAS Officer Military Occupational Specialty, 7315.


d. Adding new certifications not previously used in other UAS platforms, to include Unmanned Section Lead and Unmanned Division Lead.

3. Information. Recommended changes to this Manual should be submitted via the syllabus sponsor and the appropriate chain of command to: Commanding General (CG), Training and Education Command (TECOM), Marine Air Ground Task Force Training and Education Standards Division (MTESD) (C 466), Aviation Standards Branch using standard Naval correspondence or the Automated Message Handling System plain language address: CG TECOM MTESD.

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

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

5. Certification. Reviewed and approved this date.


J. W. LUKEMAN
By direction

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CHAPTER 1
RQ-21A TRAINING AND READINESS UNIT REQUIREMENTS
VMU

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CHAPTER 1

RQ-21A 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 VMU MISSION. Support the MAGTF commander by conducting electromagnetic spectrum warfare (EW), multi-sensor reconnaissance and surveillance, supporting arms coordination and control, and destroying targets day or night under all-weather conditions, during expeditionary, joint, and combined operations.

1.2 VMU TABLE OF ORGANIZATION (T/O). Refer to Table of Organization managed by Total Force Structure, MCCDC, for current authorized organizational structure and personnel strength for RQ-21A squadrons. As of this publication date, VMU Squadron is authorized:

1.2.1 Table of Organization

VMU RQ-21A					
Squadron		Detachment		Section	
9 RQ-21A Systems*		3 RQ-21A Systems*		1 RQ-21A System*	
7314 Pilot	27	7314 Pilot	9	7314 Pilot	3
7315 Pilot	6	7315 Pilot	2	7315 Pilot	1
* As of the publish date of this manual a system consists of 5 RQ-21A aircraft.					

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

VMU RQ-21 A/C	
MISSION ESSENTIAL TASK LIST (METL)	
CORE	
MET	DESCRIPTION
MCT 2.2.5.2	Conduct Aviation Reconnaissance and Surveillance (AREC)
MCT 6.1.1.11	Conduct Aerial Escort (AESC)
MCT 3.2.5	Control Supporting Arms (SARM)
MCT 3.2.3.1.2.3	Conduct Strike Coordination and Reconnaissance (SCAR)
MCT 3.2.3.1.1.1	Facilitate Close Air Support (CAS)
MCT 1.3.3.3.2	Conduct Aviation Operations from Expeditionary Shore-Based Sites (EXP)
CORE PLUS	
MET	DESCRIPTION
MCT 6.2.1.1	Conduct Aviation Support of Tactical Recovery of Aircraft and Personnel (TRAP)
MCT 1.3.3.3.1	Conduct Aviation Operations From Expeditionary Sea-Based Sites (CQ)
MCT 5.3.4.2	Coordinate Electronic Warfare Capabilities within a Combined Arms Framework (EW)
MCT 3.2.3.2.1	Conduct Suppression of Enemy Air Defenses (SEAD)

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

VMU RQ-21 A/C						
MISSION ESSENTIAL TASK (MET) TO SIX FUNCTIONS OF MARINE AVIATION						
CORE						
MET	SIX FUNCTIONS OF MARINE AVIATION					
	OAS	ASPT	AAW	EW	CoA&M	AerRec
MCT 2.2.5.2 (AREC)	X	X		X		X
MCT 6.1.1.11 (AESC)		X				X
MCT 3.2.5 (SARM)	X	X				
MCT 3.2.3.1.2.3 (SCAR)	X				X	X
MCT 3.2.3.1.1.1 (CAS)	X					
MCT 1.3.3.3.2 (EXP)	X	X		X		X
CORE PLUS						
MCT 6.2.1.1 (TRAP)	X	X				X
MCT 1.3.3.3.1 (CQ)	X	X				X
MCT 5.3.4.2 (EW)				X		
MCT 3.2.3.2.1 (SEAD)	X			X		X

1.5 MET TO CORE/MISSION/CORE PLUS SKILL 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.

1.5.1 There shall be a one-to-one relationship between the MET and a corresponding Mission Skill.

VMU RQ-21A																
MISSION ESSENTIAL TASK (MET) TO CORE/MISSION/CORE PLUS SKILL MATRIX																
MET	CORE SKILLS 2000 Phase				MISSION SKILLS 3000 Phase						CORE PLUS 4000 Phase				Msn Plus	
	FAM	REC	TAC	EXP	AREC	AESC	SARM	SCAR	CAS	EXP	AAESC	TRAP	CQ	EW	SEAD	LFE
MCT.2.2.5.2 (AREC)	X	X	X		X							X				X
MCT 6.1.1.11 (AESC)	X					X					X	X				X
MCT 3.2.5 (SARM)	X	X	X				X									X
MCT 3.2.3.1.2.3 (SCAR)	X	X	X					X							X	X
MCT 3.2.3.1.1.1 (CAS)	X		X						X						X	X
MCT 1.3.3.3.2 (EXP)	X			X						X						X
CORE PLUS																
MCT 6.2.1.1 (TRAP)	X	X										X				X
MCT 1.3.3.3.1 (CQ)	X												X			X
MCT 5.3.4.2 (EW)	X							X	X					X		X
MCT 3.2.3.2.1 (SEAD)	X	X												X	X	X

1.6 MISSION ESSENTIAL TASK (MET) OUTPUT STANDARDS. The following MET output standards are the required level of performance a VMU (RQ-21A) must be capable of sustaining during contingency operations by MET to be considered MET-ready.

1.6.1 Output standards will be demonstrated through the incorporation of unit training Events.

1.6.2 A core capable VMU (RQ-21A) 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 4.0 hour average sortie duration. It assumes >70% FMC aircraft and >90% T/O aircrew on hand. If unit FMC aircraft is <70% or T/O aircrew <90%, core capability will be degraded by a like percentage."

VMU RQ-21A		
MET OUTPUT STANDARDS MATRIX (9/3/1 Systems)		
CORE MAXIMUM DAILY SORTIES		
MET	MAXIMUM SORTIES PER MET	MAXIMUM DAILY SORTIES
	9/3/1 Systems	9/3/1 Systems
MCT.2.2.5.2 (AREC)	12/4/1	12/4/1
MCT 6.1.1.11 (AESC)	12/4/1	
MCT 3.2.5 (SARM)	12/4/1	
MCT 3.2.3.1.2.3 (SCAR)	12/4/1	
MCT 3.2.3.1.1.1 (CAS)	12/4/1	
MCT 1.3.3.3.2 (EXP)	12/4/1	
CORE PLUS		
MCT 6.2.1.1 (TRAP)	3/1/1	
MCT 1.3.3.3.1 (CQ)	1/1/1	
MCT 5.3.4.2 (EW)	3/1/1	
MCT 3.2.3.2.1 (SEAD)	0/0/1	

1.7 CORE MODEL MINIMUM REQUIREMENTS (CMMR) TRAINING STANDARDS FOR READINESS REPORTING (DRRS-MC). The paragraphs and tables below delineate the minimum aircrew qualifications and designations required to execute the MET training standards and MET observed standards of para 1.7. MCO 3000.13 Readiness Reporting provides additional guidance and a detailed description of readiness reporting using DRRS-MC.

1.7.1 The CMMR Readiness Reporting Matrix depicts the minimum crew composition (defined as a combination of qualifications and designations) reflecting the number of crews required per MET and minimum Combat Leadership requirements for readiness reporting purposes. The number of crews formed using the below minimum standards per crew capture the readiness capability of a squadron to perform the MET sortie.

VMU RQ-21A					
CMMR READINESS REPORTING MATRIX					
MISSION					
MET	7314 PILOT	7315 PILOT	Squadron	Detachment	Section
			9 Systems	3 Systems	1 System
MCT.2.2.5.2 (AREC)	MSP	MSP	6	2	1
MCT 6.1.1.11 (AESC)	MSP	MSP	6	2	1
MCT 3.2.5 (SARM)	MSP	MSP	6	2	1
MCT 3.2.3.1.2.3 (SCAR)	MSP	MSP	6	2	1
MCT 3.2.3.1.1.1 (CAS)	MSP	MSP	6	2	1
MCT 1.3.3.3.2 (EXP)	MSP	MSP	6	2	1
CORE PLUS					
MET	7314 PILOT	7315 PILOT	Squadron	Detachment	Section
			9 Systems	3 Systems	1 System
MCT 6.2.1.1 (TRAP)	MSP, BAC	MSP, UAC	3	1	1
MCT 1.3.3.3.1 (CQ)	MSP, CQ	MSP, CQ	1	1	1
MCT 5.3.4.2 (EW)	-	MSP	0	0	1
MCT 3.2.3.2.1 (SEAD)	-	MSP	0	0	1
COMBAT LEADERSHIP					
DESIGNATION			Squadron	Detachment	Section
			9 Systems	3 Systems	1 System
Basic Aircraft Commander (7314)			8	3	1
Unmanned Aircraft Commander (7315)			4	1	0
Unmanned Section Leader (7315)			2	1	0
Unmanned Division Leader			1	1	0

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

VMU RQ-21A		
CORE MODEL TRAINING STANDARD (CMTS)		
CORE/MISSION/CORE PLUS SKILLS CREW POSITION PROFICIENCY REQUIREMENTS 9/3/1 SYSTEMS		
CORE SKILLS (2000 Phase)		
Core Skills	7314 Pilot	7315 Pilot
FAM	20/7/2	6/1/1
REC	20/7/2	6/1/1
TAC	20/7/2	6/1/1
EXP	20/7/2	6/1/1
MISSION SKILLS (3000 Phase)		
Mission Skills	7314 Pilot	7315 Pilot
AREC	16/7/2	6/1/1
AESC	16/7/2	6/1/1
SARM	16/7/2	6/1/1
SCAR	16/7/2	6/1/1
CAS	16/7/2	6/1/1
EXP	16/7/2	6/1/1
CORE PLUS (4000 Phase)		
Core Plus Skills	7314 Pilot	7315 Pilot
TRAP	(1) 3/ (0) 2/ (0) 1	(1) 3/ (0) 1/ (0) 0
CQ	(1) 3/ (0) 2/ (0) 1	(1) 3/ (0) 1/ (0) 0
EW	-	(1) 3/ (1) 3/ (1) 1
SEAD	-	(1) 0/ (1) 0/ (1) 1
LFE	(1) 0/ (1) 0/ (1) 1	(1) 2/ (1) 1/ (1) 1

Note¹: In the Core Plus METS the first number 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 required within an Assigned Mission/Directed Mission Set.

1.9 INSTRUCTOR DESIGNATIONS

VMU RQ-21A		
CORE MODEL TRAINING STANDARD (CMTS)		
INSTRUCTOR DESIGNATIONS (Squadron-9/Detachment-3/Section-1)		
INSTRUCTOR DESIGNATION	7314 Pilot	7315 Pilot
BASIC INSTRUCTOR PILOT	6/3/1	2/1/1
WEAPONS TRAINING OFFICER	2/1/1	2/1/1
WEAPONS AND TACTICS INSTRUCTOR	1/0/1	1/0/0
ELECTRONIC WARFARE TRAINING OFFICER	0/0/0	0/0/1
NATOPS INSTRUCTOR / ASSISTANT NATOPS INSTRUCTOR	2/1/1	1/1/1

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

VMU RQ-21A		
CORE MODEL TRAINING STANDARD (CMTS)		
REQUIREMENTS, CERTIFICATIONS, QUALIFICATIONS, DESIGNATIONS (RCQD) (6000 Phase)		
(Squadron-9/Detachment-3/Section-1)		
RCQD	7314 PILOT	7315 PILOT
SITE STAFF NON-COMMISSIONED OFFICER IN CHARGE	4/2/1	N/A
SITE OFFICER IN CHARGE	N/A	2/1/0
CLOSE AIR SUPPORT	16/7/2	4/1/0
EXPEDITIONARY OPERATIONS	16/7/2	4/1/0
AERIAL ESCORT	16/7/2	4/1/0
CARRIER QUALIFICATION	16/7/2	4/1/0
TACTICAL RECOVERY OF AIRCRAFT AND PERSONNEL	16/7/2	4/1/0
JOINT MISSION QUALIFICATION-B	16/7/2	4/1/0

APPENDIX A

VMU RQ-21A

Core METL

MCT 2.2.5.2 Conduct Aviation Reconnaissance and Surveillance (**AREC**)
MCT 6.1.1.11 Conduct Aerial Escort (**AESC**)
MCT 3.2.5 Control Supporting Arms (**SARM**)
MCT 3.2.3.1.2.3 Conduct Strike Coordination and Reconnaissance (**SCAR**)
MCT 3.2.3.1.1.1 Facilitate Close Air Support (**CAS**)
MCT 1.3.3.3.2 Conduct Aviation Operations from Expeditionary Shore-Based Sites
(**EXP**)

Core Plus

MCT 6.2.1.1 Conduct Aviation Support of Tactical Recovery of Aircraft
and Personnel (**TRAP**)
MCT 1.3.3.3.1 Conduct Aviation Operations From Expeditionary Sea-Based
Sites (**CQ**)
MCT 5.3.4.2 Conduct Electronic Warfare Capabilities within a Combined
Arms Framework (**EW**)
MCT 3.2.3.2.1 Conduct Suppression of Enemy Air Defenses (**SEAD**)

MCT 2.2.5.2 **Conduct Aviation Reconnaissance and Surveillance (AREC)**

Conditions:

1.3.2.3 Aviation Meteorological Conditions

Descriptors; Visual Meteorological Conditions (VMC). (Conditions that permit flight using external cues and a distinguishable horizon.)

1.3.1.3.3 Surface Wind Velocity

C 2.5.4.1.3 Runway Length:

The length of usable runway. Very short (<3500 feet)

The speed at which air moves through the atmosphere at an altitude up to 500 feet. Descriptors; Light (< 7 mph), Moderate (7 to 24 mph)

Standards: Squadron 6 systems

Personnel

- (6) Squadron Crews Formed
- 90% of squadron T/O; MOS Qualified and deployable and Level 2 IAW Alerts.
- 85% critical MOS fill

Equipment

- 70% Full Mission Capable (FMC) Primary Aircraft Authorization (PAA) in reporting
OR
Upon establishment, 100% Ready For Training (RFT) entitlement IAW T/M/S
- Operational support equipment fully supports MCT

Training

- (6) UAS crews MET capable IAW T&R requirements

Output Standards

- (6) Squadron sorties daily sustained during contingency and combat operations

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

Conditions:

1.3.2.3 Aviation Meteorological Conditions

Descriptors; Visual Meteorological Conditions (VMC). (Conditions that permit flight using external cues and a distinguishable horizon.)

1.3.1.3.3 Surface Wind Velocity

The speed at which air moves through the atmosphere at an altitude up to 500 feet. Descriptors; Light (< 7 mph), Moderate (7 to 24 mph)

C 2.5.4.1.3 Runway Length:

The length of usable runway. Very short (<3500 feet)

Standards: Squadron 6 systems

Personnel

- (6) Squadron Crew Formed
- 90% of squadron T/O; MOS Qualified and deployable and Level 2 IAW Alerts.
- 85% critical MOS fill

Equipment

- 70% Full Mission Capable (FMC) Primary Aircraft Authorization (PAA) in reporting
OR
Upon establishment, 100% Ready For Training (RFT) entitlement IAW T/M/S
- Operational support equipment fully supports MCT

Training

- (6) UAS crews MET capable IAW T&R requirements

Output Standards

- (6) Squadron sorties daily sustained during contingency and combat operations

MCT 3.2.5 **Control Supporting Arms (SARM)**

Conditions:

1.3.2.3 Aviation Meteorological Conditions

Descriptors; Visual Meteorological Conditions (VMC). (Conditions that permit flight using external cues and a distinguishable horizon.)

1.3.1.3.3 Surface Wind Velocity

The speed at which air moves through the atmosphere at an altitude up to 500 feet. Descriptors; Light (< 7 mph), Moderate (7 to 24 mph)

C 2.5.4.1.3 Runway Length:

The length of usable runway. Very short (<3500 feet)

Standards: Squadron 6 systems

Personnel

- (6) Squadron Crews Formed
- 90% of squadron T/O; MOS Qualified and deployable and Level 2 IAW Alerts.
- 85% critical MOS fill

Equipment

- 70% Full Mission Capable (FMC) Primary Aircraft Authorization (PAA) in reporting
OR
Upon establishment, 100% Ready For Training (RFT) entitlement IAW T/M/S
- Operational support equipment fully supports MCT

Training

- (6) UAS crews MET capable IAW T&R requirements

Output Standards

- (6) Squadron sorties daily sustained during contingency and combat operations

MCT 3.2.3.1.2.3 Conduct Strike Coordination and Reconnaissance (SCAR)

Conditions:

1.3.2.3 Aviation Meteorological Conditions

Descriptors; Visual Meteorological Conditions (VMC). (Conditions that permit flight using external cues and a distinguishable horizon.)

1.3.1.3.3 Surface Wind Velocity

The speed at which air moves through the atmosphere at an altitude up to 500 feet. Descriptors; Light (< 7 mph), Moderate (7 to 24 mph)

C 2.5.4.1.3 Runway Length:

The length of usable runway. Very short (<3500 feet)

Standards: Squadron 6 systems

Personnel

- (6) Squadron Crews Formed
- 90% of squadron T/O; MOS Qualified and deployable and Level 2 IAW Alerts.
- 85% critical MOS fill

Equipment

- 70% Full Mission Capable (FMC) Primary Aircraft Authorization (PAA) in reporting
OR
Upon establishment, 100% Ready For Training (RFT) entitlement IAW T/M/S
- Operational support equipment fully supports MCT

Training

- (6) UAS crews MET capable IAW T&R requirements

Output Standards

- (6) Squadron sorties daily sustained during contingency and combat operations

MCT 3.2.3.1.1.1 Facilitate Close Air Support (CAS)

Conditions:

1.3.2.3 Aviation Meteorological Conditions

Descriptors; Visual Meteorological Conditions (VMC). (Conditions that permit flight using external cues and a distinguishable horizon.)

1.3.1.3.3 Surface Wind Velocity

The speed at which air moves through the atmosphere at an altitude up to 500 feet. Descriptors; Light (< 7 mph), Moderate (7 to 24 mph)

C 2.5.4.1.3 Runway Length:

The length of usable runway. Very short (<3500 feet)

Standards: Squadron 6 systems

Personnel

- (6) Squadron Crews Formed
- 90% of squadron T/O; MOS Qualified and deployable and Level 2 IAW Alerts.
- 85% critical MOS fill

Equipment

- 70% Full Mission Capable (FMC) Primary Aircraft Authorization (PAA) in reporting
OR
Upon establishment, 100% Ready For Training (RFT) entitlement IAW T/M/S
- Operational support equipment fully supports MCT

Training

- (6) UAS crews MET capable IAW T&R requirements

Output Standards

- (6) Squadron sorties daily sustained during contingency and combat operations

MCT 1.3.3.3.2 **Conduct Aviation Operations from Expeditionary Shore-Based Sites (EXP)**

Conditions:

1.3.2.3 Aviation Meteorological Conditions

Descriptors; Visual Meteorological Conditions (VMC). (Conditions that permit flight using external cues and a distinguishable horizon.)

1.3.1.3.3 Surface Wind Velocity

The speed at which air moves through the atmosphere at an altitude up to 500 feet. Descriptors; Light (< 7 mph), Moderate (7 to 24 mph)

C 2.5.4.1.3 Runway Length:

The length of usable runway. Very short (<3500 feet)

Standards: Squadron 6 systems

Personnel

- (6) Squadron Crews Formed
- 90% of squadron T/O; MOS Qualified and deployable and Level 2 IAW Alerts.
- 85% critical MOS fill

Equipment

- 70% Full Mission Capable (FMC) Primary Aircraft Authorization (PAA) in reporting
OR
Upon establishment, 100% Ready For Training (RFT) entitlement IAW T/M/S
- Operational support equipment fully supports MCT

Training

- (6) UAS crews MET capable IAW T&R requirements

Output Standards

- (6) Squadron sorties daily sustained during contingency and combat operations

Core Plus

**MCT 6.2.1.1 Conduct Aviation Support of Tactical Recovery of Aircraft
and Personnel (TRAP)**

Conditions:

1.3.2.3 Aviation Meteorological Conditions

Descriptors; Visual Meteorological Conditions (VMC). (Conditions that permit flight using external cues and a distinguishable horizon.)

1.3.1.3.3 Surface Wind Velocity

The speed at which air moves through the atmosphere at an altitude up to 500 feet. Descriptors; Light (< 7 mph), Moderate (7 to 24 mph)

C 2.5.4.1.3 Runway Length:

The length of usable runway. Very short (<3500 feet)

Standards: Squadron 3 systems

Personnel

- (3) Squadron Crews Formed
- 90% of squadron T/O; MOS Qualified and deployable and Level 2 IAW Alerts.
- 85% critical MOS fill

Equipment

- 70% Full Mission Capable (FMC) Primary Aircraft Authorization (PAA) in reporting
OR
Upon establishment, 100% Ready For Training (RFT) entitlement IAW T/M/S
- Operational support equipment fully supports MCT

Training

- (3) UAS crews MET capable IAW T&R requirements

Output Standards

- (3) Squadron sorties daily sustained during contingency and combat operations

MCT 1.3.3.3.1 **Conduct Aviation Operations From Expeditionary Sea-Based Sites (CQ)**

Conditions:

1.3.2.3 **Aviation Meteorological Conditions**

Descriptors; Visual Meteorological Conditions (VMC). (Conditions that permit flight using external cues and a distinguishable horizon.)

1.3.1.3.3 **Surface Wind Velocity**

The speed at which air moves through the atmosphere at an altitude up to 500 feet. Descriptors; Light (< 7 mph), Moderate (7 to 24 mph)

C 2.5.4.1.3 **Runway Length:**

The length of usable runway. Very short (<3500 feet)

Standards: Squadron 1 System

Personnel

- (1) Crew Formed

Equipment

- (70%) Full Mission Capable (FMC) systems of Primary Aircraft Authorization (PAA) in reporting

Training

- (1) UAS crews MET capable IAW T&R requirements

Output Standards

- (1) sorties daily sustained during contingency operations

MCT 5.3.4.2 **Coordinate Electronic Warfare (EW) Capabilities within a Combined Arms Framework (EW)**

Conditions:

1.3.2.3 Aviation Meteorological Conditions

Descriptors; Visual Meteorological Conditions (VMC). (Conditions that permit flight using external cues and a distinguishable horizon.)

1.3.1.3.3 Surface Wind Velocity

The speed at which air moves through the atmosphere at an altitude up to 500 feet. Descriptors; Light (< 7 mph), Moderate (7 to 24 mph)

C 2.5.4.1.3 Runway Length:

The length of usable runway. Very short (<3500 feet)

Standards: Squadron 1 System

Personnel

- (1) Crew Formed

Equipment

- (70%) Full Mission Capable (FMC) systems of Primary Aircraft Authorization (PAA) in reporting

Training

- (1) UAS crews MET capable IAW T&R requirements

Output Standards

- (1) sorties daily sustained during contingency operations

MCT 3.2.3.2.1 Conduct Suppression of Enemy Air Defenses (SEAD)

Conditions:

1.3.2.3 Aviation Meteorological Conditions

Descriptors; Visual Meteorological Conditions (VMC). (Conditions that permit flight using external cues and a distinguishable horizon.)

1.3.1.3.3 Surface Wind Velocity

The speed at which air moves through the atmosphere at an altitude up to 500 feet. Descriptors; Light (< 7 mph), Moderate (7 to 24 mph)

C 2.5.4.1.3 Runway Length:

The length of usable runway. Very short (<3500 feet)

Standards: Squadron 1 System

Personnel

- (1) Crews Formed

Equipment

- (70%) Full Mission Capable (FMC) systems of Primary Aircraft Authorization (PAA) in reporting

Training

- (1) UAS crews MET capable IAW T&R requirements

Output Standards

- (1) sorties daily sustained during contingency operations

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APPENDIX B

ABBREVIATIONS

VMU RQ-21A	
CORE/MISSION/CORE PLUS SKILL ABBREVIATIONS	
CORE SKILLS (2000 Phase)	
FAM	Familiarization
REC	Reconnaissance
TAC	Tactical Skills Introduction
EXP	Expeditionary Operations
MISSION SKILLS (3000 Phase)	
AREC	Aviation Reconnaissance and Surveillance
AESC	Aerial Escort
SARM	Control Supporting Arms
CAS	Facilitate Close Air Support
EXP	Expeditionary Operations
SCAR	Strike Coordination and Reconnaissance
CORE PLUS SKILLS (4000 Phase)	
AAESC	Air Assault Aerial Escort
TRAP	Tactical Recovery of Aircraft and Personnel
CQ	Carrier Qualification
EW	Electronic Warfare
SEAD	Suppress Enemy Air Defense
LFE	Large Force Exercise

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APPENDIX C

TERMS

T&R CORE MODEL TERMS	
TERM	DEFINITION
Core Model	The Core Model is the basic foundation or standardized format by which all T&Rs are constructed. The Core model provides the capability of quantifying both unit and individual training requirements and measuring readiness. This is accomplished by linking community Mission Statements, Mission Essential Task Lists, Output Standards, Core Skill Proficiency Requirements and Combat Leadership Matrices
Core Skill	Fundamental, environmental, or conditional capabilities required to perform basic functions. These basic functions serve as tactical enablers that allow crews to progress to the more complex Mission Skills. Primarily 2000 Phase events but may be introduced in the 1000 Phase.
Mission Skill	Mission Skills enable a unit to execute a specific MET. They are comprised of advanced event(s) that are focused on MET performance and draw upon the knowledge, aeronautical abilities, and situational awareness developed during Core Skill training. 3000 Phase events.
Core Plus Skill	Training events that can be theater specific or that have a low likelihood of occurrence. They may be Fundamental, environmental, or conditional capabilities required to perform basic functions. 4000 Phase events.
Core Plus Mission	Training events that can be theater specific or that have a low likelihood of occurrence. They are comprised of advanced event(s) that are focused on Core Plus MET performance and draw upon the knowledge, aeronautical abilities, and situational awareness. 4000 Phase events.
Core Skill Proficiency (CSP)	CSP is a measure of training completion for 2000 Phase events. CSP is attained by executing all events listed in the Attain Table for each Core Skill. The individual must be simultaneously proficient in all events within that Core Skill to attain CSP.
Mission Skill Proficiency (MSP)	MSP is a measure of training completion for 3000 Phase events. MSP is attained by executing all events listed in the Attain Table for each Mission Skill. The individual must be simultaneously proficient in all events within that Mission Skill to attain MSP. MSP is directly related to Training Readiness.
Core Plus Skill Proficiency (CPSP)	CPSP is a measure of training completion for 4000 Phase "Skill" events. CPSP is attained by executing all events listed in the Attain Table for each Core Plus Skill. The individual must be simultaneously proficient in all events within that Core Plus Skill to attain CPSP
Mission Plus Skill Proficiency (MPSP)	CPMP is a measure of training completion for 4000 Phase "Mission" events. CPMP is attained by executing all events listed in the Attain Table for each Core Plus Mission. The individual must be simultaneously proficient in all events within that Core Plus Mission to attain CPMP
Core Model Training Standard (CMTS)	CMTS is an objective optimum training standard used by squadrons that reflects the number of individuals trained to CSP/MSP, per crew position. The CMTS is for internal squadron planning only and is not utilized for readiness reporting. The numbers are determined by individual communities.
Core Model Minimum Requirement (CMMR)	CMMR represents the minimum crew definition qualifications and designations, the number of crews required per MET, and minimum Combat Leadership requirements for readiness reporting purposes.

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APPENDIX D

SIX FUNCTIONS OF MARINE AVIATION

SIX FUNCTIONS OF MARINE AVIATION		
FUNCTION	ABBREVIATION	DESCRIPTION
Offensive Air Support	OAS	OAS involves air operations that are conducted against enemy installations, facilities, and personnel in order to directly assist in the attainment of MAGTF objectives by destroying enemy resources or isolating enemy military forces. Its primary support of the warfighting functions is to provide fires and force protection through CAS and DAS.
Assault Support	ASPT	ASPT contributes to the warfighting functions of maneuver and logistics. Maneuver warfare demands rapid, flexible maneuverability to achieve a decision. Assault support uses aircraft to provide tactical mobility and logistic support to the MAGTF for the movement of high priority personnel and cargo within the immediate area of operations (or the evacuation of personnel and cargo).
Anti-Air Warfare	AAW	AAW is the actions used to destroy or reduce the enemy air and missile threat to an acceptable level. The primary purpose of AAW is to gain and maintain whatever degree of air superiority is required; this permits the conduct of operations without prohibitive interference by opposing air and missile forces. AAW's other purpose is force protection.
Electronic Warfare	EW	EW is any military action involving the use of electromagnetic and directed energy to control the electromagnetic spectrum or to attack the enemy. EW supports the warfighting functions of fires, command and control, and intelligence through the three major subdivisions: electronic attack, electronic protection, and electronic warfare support.
Control of Aircraft & Missiles	CoA&M	The control of aircraft and missiles supports the warfighting function of Command and Control. The ACE commander maintains centralized command, while control is decentralized and executed through the Marine Air Command and Control System (MACCS). CoA&M integrates the other five functions of Marine Aviation by providing the commander with the ability to exercise Command and Control authority over Marine Aviation assets.
Aerial Reconnaissance	AerRec	AerRec employs visual observation and/or sensors in aerial vehicles to acquire intelligence information. It supports the intelligence warfighting function and is employed tactically, operationally, and strategically. The three types of air reconnaissance are visual, multi-sensor imagery, and electronic.

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APPENDIX E
EXTERNAL SYLLABUS SUPPORT
RANGE REQUIREMENTS

CATEGORY	ABBREVIATIONS	NAME	DESCRIPTION	NOTES
CAT I (Airspace)	Abbreviations	Name	Description	Notes
CAT I	MOA	Special Use Airspace or Military Operating Area	Per Flight Information Publications.	
CAT I	RSTD	Restricted/Warning Area	Per Flight Information Publications.	
CAT II (Capability)	Abbreviations	Name	Description	Notes
CAT II	EW	Electronic Warfare	Threat Emitters providing a dynamic red or gray force threat environment to enhance threat recognition, self-protection and defense suppression techniques.	
CAT II	Hi-Fi EW	High Fidelity EW	High Fidelity (Live) emitters. Live actual SAM systems with operators. Can provide feedback via tape debrief.	Often a desired substitute for EW, may be cost prohibitive
CAT II	ARM	Anti-radiation Missile	Supports training to ARM delivery with simulated missile fly-out and kill indications.	
CAT II	CEDS	Countermeasures Employment 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 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	URBN WPNS	Urban Weapons Impact Range	Urban CAS range capable of JCAS, LT INERT and LSR.	
CAT II	URBN TRNG	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	LSR	LASER Safe Range	Supports Airborne LASER firing.	

CATEGORY	ABBREVIATIONS	NAME	DESCRIPTION	NOTES
CAT II	RLSR	Remote LASER capable	A remote operated ground LASER may designate a target.	Should be standard on a RKD RNG
CAT II	WISS	Weapons Impact Scoring Set	Scores bombing to designated targets. Scores can be relayed via voice or FAX.	Should be standard on a RKD RNG
CAT II	TGT	Target	Any point target that is authorized to release INERT weapons on.	May include an un-scored RKD RNG
CAT II	IR TGT	IR Significant TGT	Infrared significant target.	
CAT II	RDR TGT	RADAR Significant TGT	RADAR significant target.	
CAT II	LINK	Link-16	Link-16 available.	
CAT III (Ordnance Restrictions)	Abbreviations	Name	Description	Notes
CAT III	JCAS	JCAS TTPs	Supports all three types of CAS in the range. Allows JTAC personnel on range. Implies LST and either INERT or HE.	
CAT III	LGB	LASER guided bomb Impact Area/Target	Supports LGB (HE or HVY Inert) release and LASER firing.	
CAT III	IAM	Inertially Aided Munitions	Support IAM (HE or HVY Inert) release and guidance.	
CAT III	AS Missile	Air-to-surface missile Firing RNG	Support AS Missile firing.	
CAT III	ARM Missile	Anti-radiation missile Firing RNG	Support ARM Missile Firing. Requires an EW emitter.	
CAT III	EXP	Expendables authorized	Supports use of Chaff & Flare	
CAT IV (Threat Reaction)	Abbreviations	Name	Description	Notes
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	GMVS	Ground Warfare Visual Simulator	Provide 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	ABBREVIATIONS	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 INERT and LSR. WISS 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.	

CHAPTER 2

7314 RQ-21A PILOT INDIVIDUAL TRAINING AND READINESS REQUIREMENTS

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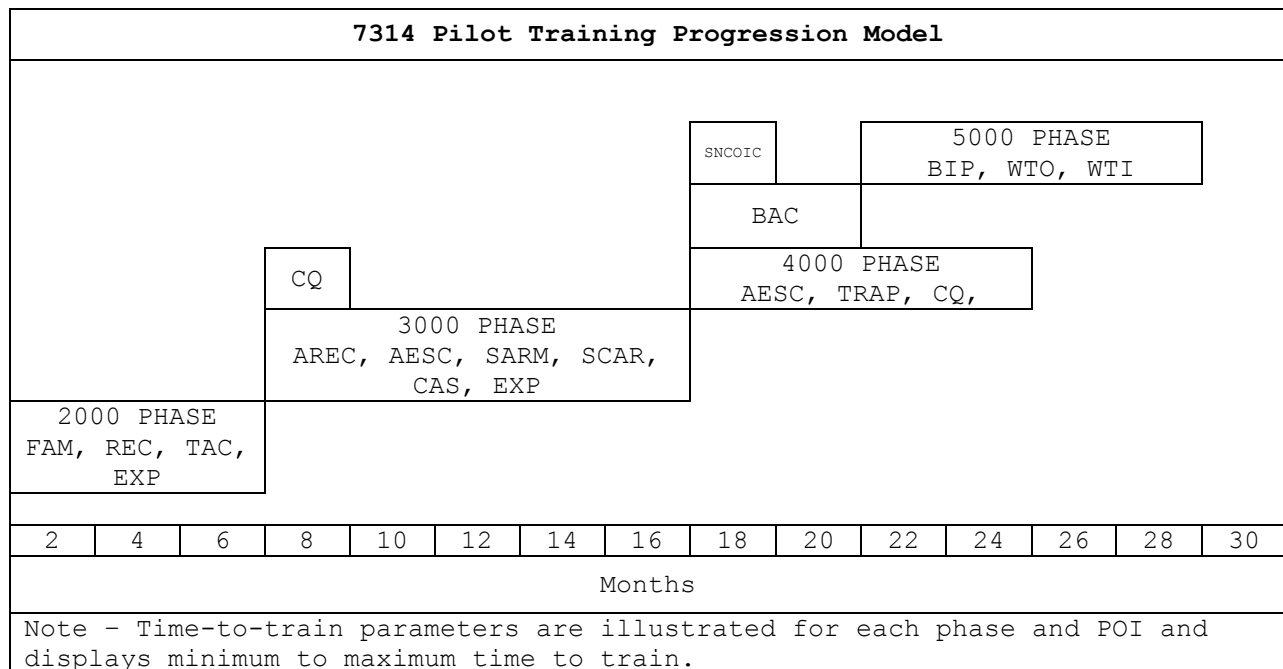
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CHAPTER 2

7314 RQ-21A PILOT INDIVIDUAL TRAINING AND READINESS REQUIREMENTS

2.0 INDIVIDUAL TRAINING AND READINESS REQUIREMENTS. This T&R syllabus is based on specific goals and performance standards designed to ensure individual proficiency in Core, Mission, and Core 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 the average 7314 RQ-21A Pilot. Units should use the model as a guide to generate individual training plans.



2.2 INDIVIDUAL CORE/MISSION/CORE PLUS SKILL PROFICIENCY REQUIREMENTS

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

2.2.2 Individual CSP is a "Yes/No" status assigned to an individual by Core Skill. When an individual attains and maintains CSP in a Core Skill, the individual counts towards CMMR Unit CSP requirements for that Core Skill.

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

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

Note

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

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

7314 RQ-21A PILOT							
ATTAIN AND MAINTAIN CORE/MISSION/CORE PLUS PROFICIENCY MATRIX BY POI							
ATTAIN PROFICIENCY						MAINTAIN POI	
BASIC POI		CONVERSION POI		REFRESHER POI			
CORE SKILL (2000 Phase)							
STAGE	CODE	STAGE	CODE	STAGE	CODE	STAGE	CODE
FAM	A2000						
	A2001						
	S2100	FAM	S2100	FAM	S2101R	FAM	
	S2101R		S2101R		2102R		
	2102R		2102R		2103R		
2103R	2103R		2103R				
REC	A2002						
	A2003						
	S2200	REC		REC		REC	
	S2201				2203R		
2203R	2203R		2203R				
TAC	A2004						
	A2005						
	A2006						
	A2007						
	A2008						
	S2300	TAC	S2300	TAC	S2301	TAC	S2301
S2301							
S2302							
S2303							
EXP	2400	EXP		EXP	2400	EXP	
	2401R		2401R		2401R		
MISSION SKILL (3000 Phase)							
STAGE	CODE	STAGE	CODE	STAGE	CODE	STAGE	CODE
AREC	A3001						
	A3002						
	3100R	AREC	3100R	AREC	3100R	AREC	3100R
	3101						
3102R	3102R		3102R				

	3103				3103		
AESC	3200 3201R	AESC	3201R	AESC	3201R	AESC	3201R
SARM	A3003 A3004 S3300R	SARM	S3300R	SARM	S3300R	SARM	S3300R
SCAR	A3005 A3006 A3007 A3008 S3400	SCAR		SCAR	S3400	SCAR	S3400
CAS	A3009 A3010 A3012 A3013 A3014 A3015 A3016 3500 3501R 3502R	CAS	3502R	CAS	3501R 3502R	CAS	3501R 3502R
EXP	A3011 3600R	EXP	3600R	EXP	3600R	EXP	3600R
CORE PLUS SKILLS (4000 Phase)							
STAGE	CODE	STAGE	CODE	STAGE	CODE	STAGE	CODE
AESC	A4002 A4003 A4004 A4005 4100 4101R	AESC	4100 4101R	AESC	4101R	AESC	4101R
TRAP	A4006 A4007 A4008 S4200	TRAP	S4200	TRAP	S4200	TRAP	S4200
CQ	A4001 S4300R 4301R 4302R	CQ	S4300R 4301R 4302R	CQ	S4300R 4301R 4302R	CQ	4301R 4302R
"S" prefix and blue font = flown in simulator							
"R" suffix and Grey highlight = R-coded "Refresher" event							

2.3 REQUIREMENT, CERTIFICATION, QUALIFICATION, AND DESIGNATION TABLES. The tables below delineate T&R events required to be completed to attain proficiency for select certifications, qualifications and designations. In addition to event requirements, all required stage lectures, briefs, squadron training, prerequisites, and other criteria shall be completed prior to completing final events. Certification, qualification and designation letters signed by the commanding officer shall be placed in training Performance Records and NATOPS. See Chapter 6 of the Aviation T&R Program Manual on regaining lost qualifications.

2.3.1 Instructor Designations

7314 RQ-21A PILOT INSTRUCTOR DESIGNATIONS TO BE TRACKED AT SQUADRON LEVEL (M-SHARP will not track these designations) (5000 Phase)	
INSTRUCTOR DESIGNATION	EVENTS
BIP	5100, 5101, 5102, 5104
WTO	5200, 5201, 5202
NI/ANI	ANNUAL DESIGNATION LETTER SIGNED BY COMMANDING OFFICER
WTI	IAW MAWTS-1 COURSE CATALOG
FRSI	IAW VMU FRS FSG

2.3.2 Requirements, Certifications, Qualifications, and Designations

7314 RQ-21A PILOT REQUIREMENTS, CERTIFICATIONS, QUALIFICATIONS, AND DESIGNATIONS (R,C,Q & D) (6000 Phase) R,C,Q & D EVENTS		
BAC	D	6299
SNCOIC	D	6499
NATOPS	Q	6001, 6002, 6101, 6110, 6120
CAS	Q	3500, 3501, 3502
EXP	Q	3600
AESC	Q	4100, 4101
CQ	Q	S4300, 4301, 4302
TRAP	Q	S4200
JMQ-B	Q	3100, 3101, 3102, 3103

2.4 7314 RQ-21A PILOT PROGRAM OF INSTRUCTION (POI). These tables reflect average time-to-train versus the minimum to maximum time-to-train parameters in the Training Progression Model.

2.4.1 Basic POI.

7314 RQ-21A PILOT Basic POI		
Weeks	Phase of Instruction	Unit
1-6	Core Skill Introduction (1000 Phase)	FRS
7-30	Core Skill (2000 Phase)	Tactical Unit
31-50	Mission Skill (3000 Phase)	Tactical Unit
51-66	Core Plus (4000 Phase)	Tactical Unit

2.4.1.1 Conversion POI

7314 RQ-21A PILOT

Conversion POI		
Weeks	Phase of Instruction	Unit
1-6	Core Skill Introduction (1000 Phase)	FRS
7-19	Core Skill (2000 Phase)	Tactical Unit
20-44	Mission Skill (3000 Phase)	Tactical Unit
45-53	Core Plus (4000 Phase)	Tactical Unit

2.4.2 Refresher POI

7314 RQ-21A PILOT Refresher POI		
Weeks	Phase of Instruction	Unit
1-6	Core Skill Introduction (1000 Phase)	FRS
7-19	Core Skill (2000 Phase)	Tactical Unit
20-44	Mission Skill (3000 Phase)	Tactical Unit
45-53	Core Plus (4000 Phase)	Tactical Unit

2.5 SYLLABUS NOTES

2.5.1 Event Performance Requirements

2.5.1.1 A matrix will be placed in the pilot's Aircrew Performance Record (APR) to track progression of all ground, academic, simulator, and flight events. As each training event is completed, the PTO will input the date of completion.

2.5.1.2 All events, to include simulators, shall begin with detailed planning. All events will include a comprehensive brief emphasizing mission performance standards, administrative procedures, tactical employment, and CRM. All events shall end with a debrief emphasizing pilot performance utilizing all evaluation techniques available.

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

2.5.1.4 The T&R manual is the Marine Corps pilot training document. It details training requirements and standards. When operational commanders assign RQ-21A squadrons to prolonged commitments where specific T&R training is not available (e.g., MEU deployments), it is expected that degradation in some mission areas will occur. Commanding officers are authorized and encouraged to employ the RQ-21A in specific missions relating to their current situation and avoid those mission areas not relevant to their situation. It is not intended for squadrons to focus on specific missions at the expense of others that are difficult to coordinate. This type of mission-specific training is granted only to squadron commanding officers deployed in austere conditions that prevent them from executing pilot training per the T&R manual.

2.5.1.5 New Equipment Training (NET) for Commercial Off-the-shelf Technology and non-program of record payloads will be tracked with the documentation of syllabus and training completion certificates. These documents shall be placed in the pilot's APR once training is complete.

2.5.2 T&R Phases

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

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

2.5.2.3 The 4000 phase (Core Plus) is Core Plus training. This phase contains training standards applicable to large-scale integrated missions, theater specific areas, or mission areas having a low probability of execution. Although Core Plus training events may provide valuable training opportunities, they are not part of the unit's readiness reporting.

2.5.2.4 The 5000 phase (Instructor Training) contains instructor syllabi and certification events and tracking codes.

2.5.2.5 The 6000 phase (R,C,Q,D) contains requirements, certifications, qualifications, and designations events. This phase also contains tracking codes for specific events useful to operations departments.

2.5.2.6 The 8000 phase contains ACPM events.

2.5.3 T&R Codes

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

2.5.3.2 Pilots shall log the mission code and applicable tactic utilized. Aircrew must ensure that they select the proper ordnance in M-SHARP to ensure tracking. Chaining has been incorporated to the largest extent possible. However, codes will not chain if a pilot completes chaining codes but is not proficient in the chained codes.

2.5.3.3 If multiple syllabus events are to be accomplished during a single flight evolution, appropriate planning, briefing, and debriefing time must be allotted to ensure all applicable training event requirements and performance standards are met.

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

2.5.5 Environmental Conditions Matrix

Environmental Conditions	
Code	Meaning
D	Shall be flown during hours of daylight: (by exception - there is no use of a symbol)
N	Shall be flown during hours of darkness, may be aided or unaided
(N)	May be flown during darkness. If flown during hours of darkness, may be flown aided or unaided
Note - If the event is to be flown in the simulator the Simulator Instructor shall set the desired environmental conditions for the event.	

2.5.6 Device Matrix

Environmental Conditions	
Symbol	Meaning
A	Flown in Aircraft
A/S	Aircraft preferred may be flown in Simulator
S	Flown in Simulator
S/A	Simulator preferred may be flown in Aircraft
L	Event shall be conducted live (conducted in the field/garrison, during an exercise, etc.). Requires live (non-simulated) execution of the event.
L/S	Event performed live preferred/simulator optional.
S/L	Event performed in simulator preferred/live optional.
G	Ground/academic training. May include Distance Learning, CBT, lectures, self-paced.
CBT	Computer Based Training
LAB	Laboratory
LEC	Lecture
CP	Command Post
TEN	Tactical Environment Network. Events designated as TEN require an approved tactical TEN environment simulation capable of introducing both semi-autonomous threats and moving models controllable from the tactical operator station.
TEN+	Enhanced Tactical Environment Network. Events designated as TEN+ require an approved tactical environment simulation and at least one additional, networked, TEN+ man-in-the-loop simulator to meet the training objectives. A moving model controlled from the operator station does not satisfy the man-in-the-loop requirement.
Note - If the event is to be flown in the simulator the Simulator Instructor shall set the desired environmental conditions for the event.	

2.5.7 Program of Instruction Matrix

PROGRAM OF INSTRUCTION MATRIX		
Program of Instruction (POI)	Symbol	Aviation Flying
Basic	B	Initial MOS/Skill Training
Transition	T	Moving from one Type to another (Rotary-Wing to Fixed-Wing)
Conversion	C	Moving from one Model to another (RQ-7B to RQ-21A)
Refresher	R	Return to community from non (MOS/Skill) associated tour
Maintain	M	All individuals who have attained CSP/MSP/CP by

		initial POI assignment are re-assigned to the M POI to maintain proficiency
--	--	---

2.5.8 Event Terms

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 aircrew standardization that does not fit another category such as SARCK, HACCK, T2PCK, etc.
E-Coded	This term means an event evaluation form is required each time the event is E-Coded logged. Requires evaluation by a certified standardization instructor (NATOPS I, WTI, INST Evaluator etc.)

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

2.5.9.1 All simulator and flight events shall be planned, briefed, executed, and debriefed in accordance with RQ-21A NATOPS, Air NTTP, OPNAVINST 3710, doctrinal publications, and applicable SOP.

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

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

2.5.10 Range Requirement

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

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

2.6. CORE SKILL INTRODUCTION FLEET REPLACEMENT SQUADRON ACADEMIC PHASE (0000)

2.6.1 Purpose. To ensure Replacement Air Crew (RAC) assigned to the Fleet Replacement Squadron (FRS) are given the proper academic instruction prior to beginning the Core Skill Introduction Phase.

2.6.2 General

Admin Notes

Each RAC assigned to the FRS shall receive all of the academic classes listed in the matrix below prior to beginning the Core Skill Introduction Phase (1000). The academic classes have corresponding T&R codes associated with them and will be tracked and logged in M-SHARP.

The passing grade on written examinations is 80%.

2.6.3 FRS Academics. The following table will be used to track academic and administrative training:

T&R CODE	EVENT
ACAD-0001	Marine Corps UAS Operations
ACAD-0004	VMU Structure, Organization, and Missions
ACAD-0006	FAA COA / MOAs
ACAD-0007	Local Airspace and Operational Area Flight Procedures
ACAD-0008	Introduction to NATOPS and Naval Aviation Differences
ACAD-0009	Aircraft Overview
ACAD-0010	Aircraft Operating Limits
ACAD-0011	Launcher and Retriever Characteristics
ACAD-0012	GCS Characteristics
ACAD-0013	ICOMC2 Interface
ACAD-0014	Basic Networking
ACAD-0015	Aircraft Maneuvering
ACAD-0016	Flight Planning
ACAD-0017	Mission Planning
ACAD-0018	Initial Crew Resource Management Training
ACAD-0019	Operator / Ground Crew Launch Procedures
ACAD-0020	Approach Theory
ACAD-0021	Operator / Ground Crew Recovery Procedures
ACAD-0022	Emergency Procedures
ACAD-0023	Navigation and Communication Failures
ACAD-0024	Control Station Transfers
ACAD-0025	Dual Aircraft Operations
ACAD-0026	Payload Configuration
ACAD-0027	Onboard Vision System
ACAD-0028	LASER Safety
ACAD-0029	LASER Operations
ACAD-0030	Mission Execution Basics
ACAD-0031	Maritime Operations Basics
ACAD-0032	Introduction to ISR and Targeting
ACAD-0033	Introduction to Air Reconnaissance
ACAD-0034	Introduction to UAS Call for Fire
ACAD-0035	Introduction to UAS Laser Operations
ACAD-0036	Flight Line Safety and Hazards

ACAD-0037	System Records
ACAD-0038	Site Survey and System Setup
ACAD-0039	Pre and Post-flight Inspection

2.7 CORE SKILL INTRODUCTION PHASE (1000)

2.7.1 Purpose. To introduce RQ-21A pilots to the fundamental skills required to employ the RQ-21A, conduct normal and emergency procedures, and complete RQ-21A NATOPS qualification.

2.7.2 General

Admin Notes

Performance standards are based on applicable publications (e.g., RQ-21A NATOPS Manual, OPNAVINST 3710, etc.) but are tailored to fit adequate performance that is commensurate with an acceptable level of progression. Additional performance standards are specified, when applicable, for each stage.

The passing grade on written examinations is 80%.

PUI shall complete the NTPS Stage prior to graduating from the FRS.

2.7.2.1 Stages. The following stages are included in the Core Skill Introduction Phase of training.

Par No.	Stage Name
2.7.3	Familiarization (FAM)
2.7.4	Tactical Skills Introduction (TAC)

2.7.3 Familiarization (FAM)

2.7.3.1 Purpose. Introduce systems management, normal, and emergency procedures.

2.7.3.2 General

Prerequisites

0000 Academic Phase.

Admin Notes

An FRS Instructor (FRSI) shall instruct all events within this stage.

2.7.3.3 Ground/Academic Training

Readings

RQ-21A NATOPS Manual (A1-RQ21A-NFM-000):
Chapter 1, Introduction.
Chapter 2, Systems.
Chapter 4, Operating Limitations.

Chapter 5, Indoctrination.
Chapter 6, Flight Preparation.
Chapter 7, Shore-Based Procedures.
Chapter 11, Flight Characteristics.
Chapter 12 through 17, Emergency Procedures.

NTTP 3-22.3-VMU:

Chapter 2, Mission Planning.
Chapter 3, VMU Employment Configuration.
Chapter 4, Mission Flow and Fundamentals.
Chapter 6, Payload Operations and Employment.

Chalk Talks/Practical Application

ICOMC2 Interface.
ICOMC2 Basic Networking.
Troubleshooting System Issues.
Aircraft Maneuvering.
Route Planning.
Mission Planning.
Operator Launch Procedures.
Operator Recovery Procedures.
Identify and Recall Emergency.
Control Station Transfers.
Dual Aircraft Operations.
Operate EO/IR Payload.
Operate LASER.
Maritime Operations.
Air Reconnaissance Procedures.
TGO Procedures.
Inspect the System.
Site Setup, Emplace/Displace.

Exams

AUAC-0401 Combined Exam 1.
AUAC-0402 Combined Exam 2.
AUAC-0403 Combined Exam 3.
AUAC-0404 Combined Exam 4.

FAM-1100 2.0 * B S 1 MTD

Goal. Introduce maneuvering the aircraft.

Requirement

Discuss:

Power plant system.
Propeller system.
Mission planning.
Fuel planning.
Briefing.
Debriefing.
Checklist procedures.
System records.
Aircraft controls.
Mission limits (minimum, safe, and maximum altitude).
Communication procedures.
Controlling agencies.

Introduce:

- Basic NATOPS planning.
- Briefing and debriefing.
- Build and save a set of annotations.
- Conduct a quick launch.
- Build a route that maintains LOS and adequate terrain clearance.
- Track to and direct to waypoints.
- Adjust orbits.

Performance Standard. Conduct local area flight operations in compliance with applicable SOP. Complete the requirements in accordance with RQ-21A NATOPS and with instructor assistance.

Prerequisite. Ground/academic training complete.

FAM-1101	2.0	*	B	S	1 MTD
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Goal. Introduce launch procedures.

Requirement

Discuss:

- Fuel system.
- Aircraft launch procedures.
- Autopilot commands during launch and climb out.
- Wind limitations for launch.
- Lost C2 data link routes.
- Engine out runways.
- Local course rules and flight procedures.

Practice:

- NATOPS planning.
- Briefing and debriefing.
- Conduct aircraft launch checklist and procedures.
- Communicate with controlling agencies to request launch and departure instructions.
- Manipulate routing, altitudes, and airspeeds.
- Introduce CRM concepts.

Performance Standard. Demonstrate mission and fuel planning considerations. Conduct all checklists and procedures in accordance with RQ-21A NATOPS. Conduct local area flight operations and coordinate airspace in compliance with applicable SOPs with instructor assistance.

Prerequisite. FAM-1100.

FAM-1102	2.0	*	B,R	S	1 MTD
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Goal. Perform launch procedures.

Requirement

Discuss:

- Electrical system.
- System monitor panel.
- OWS.
- Configuration for launch.

Performance chart calculations.
Administrative go/no-go criteria.

Practice:

NATOPS planning, briefing, and debriefing.
Conduct aircraft launch checklist and procedures.
Communicate with controlling agencies to request launch and departure instructions.

Performance Standard. Conduct all checklists and procedures in accordance with RQ-21A NATOPS. Coordinate airspace and conduct flight operations in compliance with all applicable SOP. Demonstrate CRM throughout the flight

Prerequisite. FAM-1101.

FAM-1103 2.0 * B S 1 MTD

Goal. Introduce recovery procedures.

Requirement

Discuss:

Flight control system.
Auto flight system.
Launch system.
Hold orbit.
Acquisition orbit.
Final approach fix position.
Closing speed.
Cross wind.
Crab angle limits on final.
Go-around.
Wave-off.
Reject approach.
Cancel approach.
Turn point past touchdown.

Practice:

Planning, briefing and debriefing.
Conduct a quick launch and execute departure instructions, holding, building routes, checklists and flight procedures for normal approach, shallow approach, rejected approach, canceled approach, and a full recovery.

Performance Standard. Demonstrate coordination and communications with external agencies. Demonstrate accurate system records procedures. Conduct flight and recovery operations in accordance with RQ-21A NATOPS. Demonstrate CRM in the terminal flight phase.

Prerequisite. FAM-1102.

FAM-1104 2.0 * B,R S 1 MTD

Goal. Perform recovery procedures.

Requirement

Discuss:

Flight control sensors.
Recovery system.
Post capture checklist.

Practice:

NATOPS planning, briefing and debriefing.
Conduct local flight operations with a minimum of five approaches.
Execute a full start and recovery checklist.
Emphasize fuel planning, wind calculations, appropriate launcher and SRS heading inputs.

Performance Standard. Demonstrate coordination and communications with external agencies. Demonstrate accurate system records procedures. Understand autopilot logic during each phase of an approach. Conduct flight and recovery operations in accordance with RQ-21A NATOPS. Demonstrate CRM in the terminal flight phase.

Prerequisite. FAM-1103

FAM-1105	2.0	*	B,R	S	1 MTD
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Goal. Introduce emergency procedures.

Requirement

Discuss:

Aircraft lighting system.
Environmental control system.
Ground and launch emergencies.
GPS failures.
Lost C2 link.
Stuck throttle.
Degraded recoveries.

Introduce:

Emergencies in each phase of flight to include: Failure of Power Supply to GCS, Uncommanded AIM Reset, Primary Computer Crash, ICOMC2 Software Crash, KVM Switch Fail, Aircraft Fire on Launcher, Launch Not Detected, GPS Emergencies, Intermittent and Lost C2 data link, and Degraded Engine Performance for a Poor Flight Control Emergency Recovery Procedure.

Practice:

NATOPS planning, briefing, and debriefing.
Conduct local area flight operations

Performance Standard. Identify indications, perform immediate action items, and emergency checklists in accordance with RQ-21A NATOPS.

Prerequisite. FAM-1104.

FAM-1106	2.0	*	B,R	S	1 MTD
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Goal. Introduce emergency procedures.

Requirement

Discuss:

- Electrical emergencies
- Aircraft control emergencies.
- Engine emergencies
- Engine out procedures.
- Runway landings.
- Belly landings.

Introduce:

Emergency contingency planning, briefing and debriefing.
Conduct local area flight operations introducing emergencies in each phase of flight to include: Inadvertent Launch, Generator Failure, Airframe Icing, Airspeed Failure, Altimeter Failure, Erratic Flight Control, Stuck Throttle, and Engine Failure procedures.

Performance Standard. Identify indications, perform immediate action items, and emergency checklists in accordance with RQ-21 NATOPS.

Prerequisite. FAM-1105.

FAM-1107 2.0 * B,R S 1 MTD

Goal. Introduce control station transfer and controlling multiple aircraft procedures.

Requirement

Discuss:

- Mission systems.
- Mission systems communication.
- C2 systems.
- Controlling multiple aircraft.
- Aircraft focus.
- System monitor panel.
- Control station transfer.
- Appropriate routing.
- LOS.
- Lost C2 data link considerations.
- C2 data link separation.
- Aircraft chat functions.

Practice:

- NATOPS planning, briefing and debriefing.
- Conduct a quick launch and local area flight operations.
- Conduct flight of two aircraft simultaneously.
- Construct a route to facilitate aircraft transfer.
- Execute both releasing and receiving the aircraft during hub and spoke operations.

Performance Standard. De-conflict two aircraft and comply with all controlling agency instructions for both. Execute all normal and emergency procedures in accordance with RQ-21A NATOPS and applicable directives.

Prerequisite. FAM-1106.

FAM-1108 2.0 * B,R S 1 MTD

Goal. Introduce EO and IR sensor operation, capabilities, and basic search patterns.

Requirement

Discuss:

Payload system.
ICOMC2 payload software configuration.
EO/IR camera.
LASER functionality.

Introduce:

EO and IR Sensor.
IR marker functionality.
Find and plot a minimum three targets.

Practice:

NATOPS planning, briefing and debriefing.
Launch, flight and recovery procedures and checklists.

Performance Standard. Demonstrate coordination and communications with external agencies. Demonstrate accurate system records procedures. Perform all checklists and procedures in accordance with RQ-21 NATOPS. The instructor shall set night environmental conditions within the simulator during the portion of the flight that requires use of the IR pointer.

Prerequisite. FAM-1107.

FAM-1109	2.0	*	B,R	S	1 MTD
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Goal. Conduct pilot safe for flight check ride.

Requirement

Discuss:

Navigation, identification, and storage systems.
National Airspace.
Local FAA COA.
Any aircraft system or emergency procedure.

Review:

Conduct NATOPS planning, briefing, and debriefing.
Execute local area flight procedures and conduct a tactical scenario.
Correlate a minimum of two targets in EO and IR modes.
Four emergency procedures.
Missed approach procedures.

Performance Standard. Demonstrate a complete understanding of National Airspace. Demonstrate understanding of basic mission planning considerations. Identify and execute emergency procedures correctly. Conduct all checklists and procedures correctly. Conduct all flight operations in accordance with applicable SOPs. Demonstrate CRM skills throughout flight.

Prerequisite. FAM-1108.

FAM-1110	4.0	*	B	A	1 RQ-21A
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Goal. Introduce flight operations.

Requirement

Discuss:

Course rules, normal operations and emergency flight procedures.

Practice:

Conduct NATOPS planning, briefing, and debriefing.

Conduct thorough site walk through, GCS preflight, and aircraft preflight.

Normal procedures from start to shut down.

Local area procedures to include departure, en route, and terminal approach procedures.

Performance Standard. Introduce aircraft system setup. Correctly identify aircraft, launcher, SRS and site equipment components. Demonstrate conduct of preflight, screening ADB, engine start, aircraft launch, post launch, and recovery procedures. Execute all normal and emergency procedures IAW NATOPS and applicable directives.

Prerequisite. FAM-1109.

2.7.4 Tactical Skills Introduction (TAC)

2.7.4.1 Purpose. Introduce PUI to the tactical environment.

2.7.4.2 General

Admin Notes

An FRSI shall instruct all events within the stage.

Planning, briefing, and debriefing shall be conducted as a demonstration by the FRSI utilizing MAWTS-1 Tactical Briefing Guide.

2.7.4.3 Ground/Academic Training

Readings

MCWP 3-26 Air Reconnaissance

JP 3-09.3 Close Air Support:

Chapter I, Introduction, Organization and Fundamentals.

Chapter V, Execution.

MAWTS-1 TACP TACSOP:

Chapter 2, Close Air Support.

Chapter 5, UAS Integration.

MCRP 3-42.1A UAS MTP

TAC-1200 2.0 * B,R S 1 MTD

Goal. Introduce reconnaissance mission skills.

Requirement

Discuss:

Reconnaissance profiles.

CCIR.
PIR.
FFIR.
NAI.
TAI.
Aural signature tool.
Overlays.
EOTDA.
Absolute humidity.
Diurnal cross-over.
Demonstrate:
Checklist and flight procedures.
Tactical planning, briefing and debriefing.
Local course rules to operating area.
Locating and passing targets through ICOMC2.
Introduce:
Basic reconnaissance scenario with two NAI, supported unit PIR,
and voice reports.

Performance Standard. Conduct a reconnaissance flight using EO/IR sensors in order to satisfy a simulated supported unit's PIR and target deck. The instructor shall set night environmental conditions within the simulator during the portion of the flight that requires use of the IR sensor.

Prerequisite. SFAM-1109.

TAC-1201	2.0	*	B,R	S	1 MTD
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Goal. Introduce OAS mission skills.

Requirement

Discuss:
Routing considerations.
FENCE checklist.
ACM.
CAS Check-In.
Game Plan.
CAS Attack Brief.
Read-back criteria.
IR marker effective ranges and target marking considerations.
Target handoff.
Execution template.
Demonstrate:
Tactical planning, briefing and debriefing.
Execute local course rules to operating area.
Introduce:
Basic tactical scenario.
Skills required to conduct detailed UAS integration with fire and movement of a supported unit.
Target marking with the IR pointer.

Performance Standard. Conduct a tactical flight supporting the GCE with EO/IR sensor, grid coordinates, VDL, IR marker, and talk-on target correlation. The instructor shall set night environmental conditions within the simulator during the portion of the flight that requires use of the IR pointer.

Prerequisite. STAC-1200.

2.8 CORE SKILL PHASE (2000)

2.8.1 Purpose. This phase contains basic Core Skill training essential to employment of the unit platform/system. This phase should provide aircrew with the skills required to develop proficiency in RQ-21A system fundamentals and introduce mission elements.

2.8.2 General. This phase is intended to provide aircrew with the skills necessary to complete 3000 phase events.

Prerequisites

NTPS Qualified
1000 Phase.

Admin Notes

A certified and designated BIP shall instruct all events within the phase.

The passing grade on written examinations is 80%.

2.8.3 Stages

Par No.	Stage Name
2.8.4	Familiarization (FAM)
2.8.5	Reconnaissance (REC)
2.8.6	Tactical Skills Introduction (TAC)
2.8.7	Expeditionary Operations (EXP)

2.8.4 Familiarization (FAM)

2.8.4.1 Purpose. Maintain proficiency in normal and emergency procedures, navigation, and local flight operations.

2.8.4.2 General. This stage provides aircrew the opportunity to meet currency requirements and provides the squadron with an arrival inventory of aircrew proficiency.

2.8.4.3 Ground/Academic Training

Lectures

ACAD-2000 RQ-21A Communication Relay Payload
ACAD-2001 Aviation Weather

FAM-2100 2.0 * B,C S 1 MTD

Goal. Practice local area procedures.

Requirement

Practice:

NATOPS flight planning, briefing, and debriefing.
Normal procedures from start to shut down.
Local area procedures to include departure, en route, and terminal approach procedures.
CRM throughout the flight.

Performance Standard. PUI demonstrates familiarity with aircraft system setup, conduct of preflight, engine start, aircraft launch, post launch, and recovery procedures. Execute all normal and emergency procedures in accordance with RQ-21A NATOPS and applicable directives.

Prerequisite. FAM ground/academic training.

FAM-2101	2.0	90	B,C,R	(N)	S	1 MTD
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Goal. Review emergency procedures.

Requirement

Review:

NATOPS flight planning, briefing, and debriefing.
Normal and emergency procedures and checklists.
Local area procedures and navigation.
Execute a two simulated emergencies during launch, in-flight, and recovery phases (ship or shore procedure as required by operational requirements).
CRM.

Event shall be flown during the day during the Basic POI.

Performance Standard. Perform NATOPS immediate action items as required by emergency. Execute all normal and emergency procedures in accordance with RQ-21A NATOPS and applicable directives.

Prerequisite. FAM-2100.

FAM-2102	2.0	90	B,C,R,M	(N)	A	1 RQ-21A
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Goal. Review familiarization, navigation, and local Area flight.

Requirement

Review:

NATOPS flight planning, briefing, and debriefing.
Normal and emergency procedures and checklists, local area procedures, and navigation.
Flight in the local operating area.
A minimum of two simulated emergencies during the launch phase.
CRM.

Event shall be flown during the day during the Basic POI.

Performance Standard. Execute all normal and emergency procedures in accordance with RQ-21A NATOPS and applicable directives.

Prerequisite. FAM-2101.

Range. RSTD.

FAM-2103 2.0 365 B,C,R,M (N) A 1 RQ-21A

Goal. Introduce CRP operation.

Requirement

Discuss:

Radio waves.
Wave propagation.
Antenna performance.
Frequency bands.
CRP functionality.
Configuration.
Loading procedures.

Practice:

NATOPS flight planning, briefing, and debriefing.
Normal flight and navigation procedures.

Introduce:

CRP functionality and conduct a communication relay from two ground based radios.
CRP operation in the following configuration: Relay Mode VULOS AM, Plain Text, across VHF(H)/UHF bands.
Pass a CAS check-in.
Receive a situation update.
Pass a MISREP.

Performance Standard. Execute all procedures in accordance with RQ-21A NATOPS and applicable directives. CAS check-in must be passed in accordance with MAWTS-1 TACP TACSOP.

Prerequisite. FAM-2101.

2.8.5 Reconnaissance (REC)

2.8.5.1 Purpose. To develop proficiency in reconnaissance techniques.

2.8.5.2 General

Prerequisites

FAM-2100 and FAM-2101.

Admin Notes

Each event has associated threats to be briefed by the PUI consisting of general working knowledge of the weapon system and its employment; missile characteristics, calibers, propulsion, warhead, and guidance types.

2.8.5.3 Ground/Academic Training

Lectures

ACAD-2002 Geodetics
ACAD-2003 C4ISR

REC-2200 2.0 * B S 1 MTD

Goal. Introduce zone and area reconnaissance techniques.

Requirement

Discuss:

- SA-2.
- Fan Song.
- Spoon Rest.
- SA-3.
- Low Blow.
- Flat Face.
- SA-5.
- Square Pair.
- Tall King.
- UAS TCT.
- Aircraft characteristics.
- Environmental effects on sensors.

Introduce:

Zone reconnaissance and landing zone reconnaissance techniques. Reconnoiter two NAI or two TAI and locate five specified targets. Information requirements for each NAI will include at a minimum: specific targets, LTIOV, collection duration, and reporting procedures.

Performance Standard. Locate all five targets within the parameters of the assigned information requirements. Perform search patterns and tracking techniques based on area size, terrain density, and TOS in accordance with NTTP 3-22.3-VMU.

Prerequisite. FAM ground/academic training, FAM-2101

REC-2201 2.0 * B S 1 MTD

Goal. Introduce route and urban reconnaissance techniques.

Requirement

Discuss:

- SA-9.
- Chaparral.
- ZSU-23-4.
- Gun Dish.
- IPB.
- MCOO.
- PIR.
- POL analysis.

Introduce:

Route reconnaissance of a specific LOC and of an urban area containing vertically developed targets. Locate and pass a SPOTREP for five specified targets. Execute each of the following flight profiles at least once: orbit, racetrack, and figure eight. Apply each technique to avoid audible/visible compromise, over-flight of targets, and urban terrain masking.

Practice:

Observation and tracking of a moving target.

Performance Standard. Execute positioning techniques to maintain a track of a target moving along the specified LOC for at least three minutes with minimum aircraft masking. Find all five targets and pass SPOTREP in accordance with NTTP 3-22.3-VMU.

Prerequisite. REC-2200.

REC-2203 4.0 90 B,C,R,M (N) A/S 1 RQ-21A

Goal. Review zone, area, route and urban reconnaissance techniques.

Requirement

Discuss:

Crotale.
Crotale NG.
Mirador IV.
Castor 2.
Roland II.
M3S.
I-HAWK.
MPQ-64.
MPQ-61.

Review:

Submit EOTDA request prior to flight and incorporate effects of high absolute humidity and diurnal crossover on sensor performance into mission briefing.
Reconnaissance of five specified areas. Locate and pass SPOTREPs for five targets within those specified areas.
Perform each of the following maneuvering techniques at least once: orbit, racetrack, and figure-eight. The instructor will provide conditions that require the use of each technique (e.g. audible/visible compromise avoidance, over-flight avoidance, urban terrain masking avoidance).

Performance Standard. Conduct reconnaissance of five specified areas and TCT in accordance with NTTP 3-22.3-VMU. Record FMV and provide imagery of five targets for debrief or customer unit.

Prerequisite. REC-2201.

Range. RSTD, URBN TRNG.

2.8.6 Tactical Skills Introduction (TAC)

2.8.6.1 Purpose. Introduce UAS skills required to conduct, integrate, and synchronize fires-based missions.

2.8.6.2 General. This stage builds upon skills introduced in the Core Skills Introduction Phase to develop the requisite skill necessary for the Mission Skills Phase.

Prerequisites

REC-2200 and REC 2201.

Admin Notes

Additional aircraft payloads and their basic functionality may be introduced during these events.

2.8.6.3 Ground/Academic Training

Lectures

ACAD-2004 GCE Capabilities
ACAD-2005 Aerial Observer TTPs
ACAD-2006 AV-8 EFL
ACAD-2007 EW Employment
ACAD-2008 GPS Theory

TAC-2300 2.0 * B,C S/A 1 MTD

Goal. Introduce artillery correction techniques with ICOMC2.

Requirement

Discuss:

MCRP 3-16.6A.
AOF.
GTL.
OTL.
CFF Formats.
Fires Communication Nets.
M224.
M252.
EFSS/ITV.
M777.

Introduce:

Conduct reconnaissance of a target area, locate and generate coordinates for five separate targets or five target sets.
Pass five adjust fire missions. Provide artillery adjustment values using reticule tool for each mission.
Receive and record MTO.
RREMS statement.

Performance Standard. Target area reconnaissance and CFF must be executed in accordance with MCRP 3-16.6A and NTTP 3-22.3-VMU. Spotting and corrections must result in effects on target for each fire mission.

Prerequisite. TAC ground/academic training.

TAC-2301 2.0 365 B,R,M S/A 1 MTD

Goal. Introduce TCO escort.

Requirement

Discuss:

Convoy commander responsibilities.
Vehicle marking procedures.

Attached/detached escort procedures.

Introduce:

Route reconnaissance in support of TCO.
Provide escort for one convoy conducting a tactical movement along a single LOC that is approximately 20 kilometers from SP to RP.
Communication with mounted forces.
Marking for TCO using the IR pointer.

Performance Standard. Route reconnaissance must be executed in accordance with NTTP 3-22.3-VMU. Escort techniques must be in accordance with NTTP 3-22.3-VMU and MCRP 4-11.3H. The instructor shall set night environmental conditions within the simulator during the portion of the flight that requires use of the IR pointer.

Prerequisite. TAC-2300.

TAC-2302 2.0 * B S/A 1 MTD

Goal. Introduce operations in DAS environment.

Requirement

Discuss:

Kill Boxes.
GARS.
CGRS.
TPL.
ROE.
SCAR tasking.
BHO.

Introduce:

Airspace management and aircraft routing within an assigned SCAR working area. Three AR assets shall be assigned.
Communication on SCAR frequencies.
Locate ten targets. At least six targets must be located by assigned AR assets.
Prioritize targets based off an assigned TPL.
Issue ten tasks to assigned AR assets. Two tasks must involve coordination between the RQ-21A and an AR asset. Five tasks must be Target or Smack. Two of the Target tasks must be against targets the RQ-21A is unable to observe due to distance. Task assets in accordance with ROE.
Execute threat reaction game plan for one pop-up threat that creates prohibitive interference for at least one AR asset.
SCAR execution template.
Consolidate BDA from AR assets and report to C2 agency.
Conduct a BHO.

Performance Standard. Manage airspace, properly use ACM, route aircraft, and issue restrictions to AR assets in accordance with JP 3-52 and MCRP 3-23C. Tasks must result in the neutralization or destruction of five targets. Execute tasking, use SCAR execution template, SCAR attack brief, pass BDA, and conduct BHO in accordance with MCRP 3-23C. Comply with ROE. Engage targets in accordance with the TPL. Execute briefed TCT in accordance with NTTP 3-22.3-VMU.

Prerequisite. TAC-2301.

TAC-2303 2.0 * B S/A 1 MTD

Goal. Introduce operations in CAS environment.

Requirement

Discuss:

CAS Execution Template.
Type I/II/III controls.
CAS Attack Brief.
TLE.

Introduce:

Target location within a CAS objective area. Locate at least three separate targets or two target sets and pass corresponding grids to TAC.
Navigation within a CAS objective area.
Target correlation with a TAC by passing a grid coordinate.
CAS brevity.
BDA.

Performance Standard. Comply with ACM restrictions, routing instructions, holding instructions, and restrictions directed by the TAC or SPINS. All brevity used must be in accordance with MCRP 3-25B and JP 3-09.3. All targets must be passed in the format specified in NTTP 3-22.3-VMU. All BDA passed must be in the format prescribed by the MAWTS-1 TACP TACSOP.

Prerequisite. TAC-2302.

2.8.7 Expeditionary Operations (EXP).

2.8.7.1 Purpose. Introduce split site operations and employment.

2.8.7.2 General

Prerequisites

FAM-2100.

Admin Notes

Events in EXP stage can be conducted concurrently with other events in 2000 Phase that meet event requirements.

2.8.7.3 Ground/Academic Training. Aircrew shall complete all Core Skill EXP academic codes prior to completion of this phase of training. Refer to MAWTS-1 RQ-21A Course Catalog.

EXP-2400 8.0 * B,R L 1 RQ-21A

Goal. Introduce site setup responsibilities.

Requirement

Discuss:

Hub and spoke employment.
Site set up.
Power requirements.
Communication requirements.

Introduce:

Conduct site setup, pre/post flight checks, communications setup, and ITEG II generator checks.
Attend squadron brief and debrief of squadron site operations.

Performance Standard. Participate in site operations per squadron SOP.

Prerequisite. EXP ground/academic training.

EXP-2401	8.0	365	B,C,R,M	(N)	A	1 RQ-21A
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Goal. Introduce decentralized operations.

Requirement

Discuss:

On-Station relief.
Situation update.
BHO.
Aircraft handoff techniques.
Equipment lighting considerations: covert, NVG compatible and friendly lighting.

Introduce:

Flight operations from a spoke site.

Performance Standard. Conduct flight operations in accordance with RQ-21A NATOPS.

Prerequisite. EXP-2400.

Range. RSTD.

2.8.8 Aviation Career Progression Model (ACPM)

2.8.8.1 Purpose. Purpose. To enhance professional understanding of Marine Aviation and the MAGTF and to ensure that aviators possess the requisite skills to fill battle command and battle staff positions in support of the ACE and the MAGTF in a joint environment.

2.8.8.2 General. ACPM academic training requirements will be embedded in all tactical T/M/S T&R manuals within the progressive training phases to include the 2000, 3000, and 6000 phases of training. These training requirements will be tracked and managed in M-SHARP. Commanding officers shall ensure that the requisite ACPM training requirements have been met prior to designating flight leaders.

ACPM Core Skill Training Events

ACPM-8200 MACCS Agencies, Functions and Control of Aircraft and Missiles
ACPM-8201 MWCS Brief
ACPM-8202 ACA & Airspace
ACPM-8210 Aviation Ground Support

ACPM-8230 ACE Battle Staff
ACPM-8231 Battle Command Display
ACPM-8240 Six Functions of Marine Aviation
ACPM-8241 JTAR/ASR Introduction and Practical Application
ACPM-8242 Site Command Primer
ACPM-8250 Theater Air Ground System (TAGS)

2.9 MISSION SKILL PHASE (3000)

2.9.1 Purpose. To develop proficiency in mission skills executed from expeditionary shore based sites.

2.9.2 General. This phase focuses on developing PUI proficiency in skills necessary to accomplish the unit's METL.

Prerequisites.

2000 Phase.

Admin Notes

A certified and designated WTO shall instruct all events within the phase.

Basic POI events shall be flown as a single ship.

The passing grade on written examinations is 80%.

2.9.3 Stage. The following stages are included in the Mission Skill Phase of training.

Par No.	Stage Name
2.9.4	Aviation Reconnaissance and Surveillance (AREC)
2.9.5	Aerial Escort (AESC)
2.9.6	Supporting Arms Control (SARM)
2.9.7	Strike Coordination and Reconnaissance (SCAR)
2.9.8	Facilitate Close Air Support (CAS)
2.9.9	Expeditionary Operations (EXP)

2.9.4 Aviation Reconnaissance and Surveillance (AREC)

2.9.4.1 Purpose. To develop AREC proficiency and flight leadership skills.

2.9.4.2 General. None.

2.9.4.3 Ground/Academic Training

Lectures

ACAD-3001 Intelligence Preparation of the Battlespace
ACAD-3002 Electro-Optical Tactical Decision Aids

AREC-3100 2.0 365 B,C,R,M A/S 1 RQ-21A

Goal. Practice route reconnaissance.

Requirement

Discuss:

SA-11.
SA-17.
Snow Drift.
Fire Dome.
SA-15.
Scrum Half.
OOB.
Movement requirements.

Practice:

Submit EOTDA request and incorporate EOTDA into sensor game plan.
Reconnaissance of the specified zone or area. Within that area,
Reconnaissance of the specified route and complete a ROUTEREP.
One SPOTREP.
Collect ten still images and one two minute FMV recording to
support the ROUTEREP.

Performance Standard. Complete all reports in accordance with MCRP 2-15.3B. Execute aircraft profiles and sensor game plans in accordance with NTTP 3-22.3-VMU.

Prerequisite. AREC ground/academic training.

Range. RSTD, TGT-FORM, RECCE ARRAY.

AREC-3101 2.0 * B A/S 1 RQ-21A

Goal. Practice zone reconnaissance or area reconnaissance.

Requirement

Discuss:

SA-10A/B.
Tin Shield.
Flap Lid.
SA-12.
Clam Shell.
Grill Pan.
SA-20.
Big Bird.
Tomb Stone.
SA-22.
Nebo SVU.
Grave Stone.
RSTA.
I&W.
OOB.
MIR.
Terrain analysis.
Collection requirements.

Practice:

Submit EOTDA request and incorporate EOTDA into sensor game plan.
Reconnaissance of the specified zone or area. Within that area,

execute: one ROUTEREP, one ALZREP, one HELLSREP, one DZREP.
The ALZREP must be in an urban area.
Aircraft profiles and sensor game plans to avoid audible compromise while conducting the DZREP and overflight of the LOC used for the ROUTEREP.
Collect twenty still images and three one minute FMV recording to support the reports.

Performance Standard. Complete all reports in accordance with MCRP 2-25A. Execute aircraft profiles and sensor game plans in accordance with NTTP 3-22.3-VMU.

Prerequisite. AREC-3100.

Range. RSTD, TGT, RECCE-ARRAY.

AREC-3102 2.0 365 B,C,R,M (N) A/S 1 RQ-21A

Goal. Practice electronic reconnaissance.

Requirement

Discuss:

ES missions.
MCRP 3-25B EW brevity Codes.
Communication procedures.
Signals prioritization.

Practice:

A tactical electronic reconnaissance mission in a dense electromagnetic environment, localizing and cross-cueing a minimum of five signals.

Performance Standard. Conduct electronic reconnaissance of five specified emitters and correctly correlate electronic signals with the EO/IR sensor. Produce target imagery, FMV, and EMS analysis of target environment for debrief. Perform appropriate TCT for threats. Operate EW payload as specified by NET.

Prerequisite. AREC-3101.

Range. TGT, URBN, EW, HI-FI EW.

AREC-3103 2.0 * B,R N A/S 1 RQ-21A

Goal. Review tactical reconnaissance.

Requirement

Discuss:

SA-13.
Dog Ear.
Snap Shot.
2S6.
SA-19.
Hot Shot.
SA-22.
Trick Shot.

HLZ and obstacles in an urban environment.
Structural breach points.
Enemy visual observation points and egress routes.
Point, linear and complex target arrays.
Description techniques.

Review:

A tactical reconnaissance mission to support a follow-on raid. Locate a potential primary and alternate HLZ for assault support aircraft. The primary LZ must be able to support fast-rope operations from two CH-53E. The alternate LZ must be able to support two CH-53E landing in zone. Conduct a HELLSREP of both potential HLZs. HLZs must be within five kilometers of the assigned objective. Provide five still images to support the each HELLSREP.

Locate three avenues of approach from the primary HLZ to the assigned objective and prepare a ROUTEREP for each. Provide a one minute FMV recording to support each ROUTEREP.

Aircraft profiles and sensor game plan must support each report while avoiding audible and visual detection from the assigned objective.

Event must be flown at night during the Basic POI.

Performance Standard. Complete all reports in accordance with MCRP 2-25A. Assault support considerations must be in accordance with NTTP 3-22.5-ASTACSOP. Execute aircraft profiles and sensor game plans in accordance with NTTP 3-22.3-VMU.

Prerequisite. AREC-3102.

Range. TGT, URBN.

2.9.5 Aerial Escort (AESC)

2.9.5.1 Purpose. To develop proficiency in surface based escort.

2.9.5.2 General

Prerequisites

AREC-3103.

2.9.5.2 General. None.

2.9.5.3 Ground/Academic Training. Aircrew shall complete all Mission Skill AESC academic codes prior to completion of this phase of training. Refer to MAWTS-1 RQ-21A Course Catalog.

AESC-3200 2.0 * B A/S 1 RQ-21A

Goal. Practice TCO escort.

Requirement

Discuss:

Attached, detached, and combined escort game plans.
Surface threat to convoy.
Convoy actions on contact.

Fires coordination.
ROE.
Convoy commander responsibilities.
Vehicle marking procedures.
Attached/detached escort procedures.
Practice:
Route reconnaissance in support of TCO.
Provide escort for one convoy conducting a tactical movement along a single LOC that is approximately 20 kilometers from SP to RP.
Communication with mounted forces.
React to a report of a surface to air threat.

Performance Standard. Route reconnaissance and TCT must be executed in accordance with NTTP 3-22.3-VMU. Escort techniques must be in accordance with NTTP 3-22.3-VMU and MCRP 4-11.3H.

Prerequisite. AESC ground/academic training.

Range. TGT, URBN.

External Support Syllabus. Convoy.

AESC-3201 2.0 365 B,C,R,M (N) A/S 1 RQ-21A

Goal. Introduce support to raid operations.

Requirement

Discuss:
SOF brevity terms.
HPT identification.
Supporting actions on the objective.
Audible/visible compromise avoidance.
UAS responsibilities in regard to PID.
Containment.

Introduce:
Surface raid force procedures.
Communication brevity.

Performance Standard. Conduct reconnaissance techniques and procedures in support of a raid force commander. Brevity must be in accordance with MCRP 3-25B. Maintain situational awareness, adhere to ROE and preplanned fires coordination. Avoid audible/visual compromise and conduct escort tactics in accordance with NTTP 3.22-VMU.

Prerequisite. AESC-3200.

Range. TGT, URBN.

External Support Syllabus. Raid force.

2.9.6 Supporting Arms Control (SARM)

2.9.6.1 Purpose. To develop proficiency in control of supporting arms.

2.9.6.2 General

Prerequisite

AREC 3103.

2.9.6.3 Ground/Academic Training

Lectures

ACAD-3003 Integrating Fires and Airspace within the MAGTF
ACAD-3004 Fire Support Coordination

SARM-3300 2.0 365 B,C,R,M S/A 1 MTD

Goal. Practice CFF.

Requirement

Discuss:

Artillery SEAD methods of engagement.
FIRECAP Report.

Practice:

Five fire missions, one of each of the following: adjust fire,
fire for effect, immediate suppression, SEAD, and marking
round.

Performance Standard. Execute all fire missions in accordance with MCRP 3-16.6A and NTTP 3-22.3-VMU. Adjust fire mission must affect the target within three corrections. Fire for effect mission must affect the target without adjustment. Suppression and mark must be placed on correct targets for SEAD mission. Marking round must be within 300 meters of the target.

2.9.7 Strike Coordination and Reconnaissance

2.9.7.1 Purpose. To develop proficiency in SCAR mission execution during day and night conditions in a low to medium threat environment.

2.9.7.2 General

Prerequisites

AREC Stage.

2.9.6.3 Ground/Academic Training

Lectures

ACAD-3005 UAS SCAR
ACAD-3006 Weaponering
ACAD-3007 FW Threat
ACAD-3008 Bombs, Fins, and Fuzes

SCAR-3400 2.0 365 B,R,M S/A 1 MTD

Goal. Introduce supporting a SCAR Mission.

Requirement

Discuss:

- Purpose of a SCAR mission.
- Deliberate vs. dynamic targeting.
- Target precedence.
- Search pattern.
- Sensor employment.
- Target area tactics.
- Information flow through the C2 system.

Introduce:

- Target location within a SCAR working area. Locate at least five separate targets or five target sets and pass corresponding grids to SCAR.
- Navigation within a SCAR working area.
- Target correlation with a SCAR by passing a grid coordinate.
- BDA.

Performance Standard. 100% of routing instructions, holding instructions, and restrictions directed by the SCAR must be complied with. All brevity used must be in accordance with MCRP 3-25B and MCRP 3-23C. All targets must be passed in the format specified in NTTP 3-22.3-VMU. All information must be passed on the proper communication net in accordance with event SPINS. All targets passed to the TAC must have sufficient accuracy and precision to be used in SCAR tasking. All BDA passed must be in the format prescribed by MCRP 3-23C.

Prerequisite. SCAR ground/academic training, AREC-3103.

2.9.8 Facilitate Close Air Support (CAS)

2.9.8.1 Purpose. To complete CAS qualification.

2.9.8.2 General. To develop proficiency conducting day and night CAS in low to medium threat environments.

Prerequisites

AREC Stage.

2.9.6.3 Ground/Academic Training

Lectures

- ACAD-3009 Close Air Support
- ACAD-3010 Close Air Support Execution
- ACAD-3012 Hellfire Part 1
- ACAD-3013 Hellfire Part 2
- ACAD-3014 AV-8 Dual Mode Weapons
- ACAD-3015 F-18 Laser Guided Weapons
- ACAD-3016 F-18 GPS Weapons

CAS-3500 2.0 * B A 1 RQ-21A

Goal. Practice CAS integration.

Requirement

Discuss:

Air to surface timelines.
ACM.
LASER marksmanship.

Practice:

Target location within a CAS objective area. Locate at least three separate targets or three target sets and pass corresponding grids to TAC.
Navigation within a CAS objective area.
Target correlation with a TAC by passing a grid coordinate.
CAS brevity.
BDA.

Performance Standard. 100% of routing instructions, holding instructions, and restrictions directed by the TAC must be complied with. All ACM restrictions specified in the event SPINS must be complied with. All brevity used must be in accordance with MCRP 3-25B and JP 3-09.3. All targets must be passed in the format specified in NTTP 3-22.3-VMU. All information must be passed on the proper communication net in accordance with event SPINS. All information must be passed in a timely manner without disrupting the TAC's tempo. All targets passed to the TAC must have sufficient accuracy and precision to be used as lines 4 and 6 in a CAS attack brief to an armed CAS asset without further refinement. All digital communication must be transmitted in accordance with the MAWTS-1 TACP TACSOP and formatted in accordance with MCRP 3-40.2B. All BDA passed must be in the format prescribed by the MAWTS-1 TACP TACSOP.

Prerequisite. CAS ground/academic training.

Range. LSR, TGT.

External Support Syllabus. One TAC and one section of CAS assets.

CAS-3501	2.0	365	B,R,M	N	A	1 RQ-21A
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Goal. Practice night CAS integration.

Requirement

Discuss:

Target handoff with IR marker.
IR brevity.
IR CAS communications.

Practice:

Target location within a CAS objective area. Locate at least two separate targets or two target sets and pass corresponding grids to TAC.
Navigation within a CAS objective area.
Target correlation with a TAC and one other CAS asset using the IR Pointer. Provide TGO for at least two separate targets or two target sets. The attacking CAS asset must engage at least one target that is being illuminated by the RQ-21A with unguided ordnance.
Target correlation with a TAC by passing a grid coordinate.
CAS brevity.

BDA.

Performance Standard. 100% of routing instructions, holding instructions, and restrictions directed by the TAC must be complied with. All ACM restrictions specified in the event SPINS must be complied with. All brevity used must be in accordance with MCRP 3-25B and JP 3-09.3. All targets must be passed in the format specified in NTTP 3-22.3-VMU. All information must be passed on the proper communication net in accordance with event SPINS. All information must be passed in a timely manner without disrupting the TAC's tempo. All targets passed to the TAC must have sufficient accuracy and precision to be used as lines 4 and 6 in a CAS attack brief to an armed CAS asset without further refinement. For all attacks using the IR pointer, the crew must illuminate the correct target and the attacking aircraft must be able to contact the sparkle. All digital communication must be transmitted in accordance with the MAWTS-1 TACP TACSOP and formatted in accordance with MCRP 3-40.2B. All BDA passed must be in the format prescribed by the MAWTS-1 TACP TACSOP.

Prerequisite. CAS-3500.

Range. LSR, TGT.

External Support Syllabus. One TAC and one section of CAS assets.

CAS-3502	2.0	365	B,C,R,M	(N)	A	1 RQ-21A
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Goal. Practice urban CAS integration.

Requirement

Discuss:

GRG.

Vertically developed targets.

LASER considerations.

Practice:

Target location within a CAS objective area. Locate at least three separate targets or target sets and pass corresponding grids to TAC.

Navigation within a CAS objective area.

Target correlation with a TAC and one other CAS asset using the IR Pointer. Provide TGO for at least two separate targets or two target sets. The attacking CAS asset must engage at least one target that is being illuminated by the RQ-21A with unguided ordnance. (If the event is conducted at night).

Target correlation with a TAC by passing a grid coordinate.

Target location by GRG talk-on. Receive two targets from the TAC and pass two targets to the TAC.

CAS brevity.

BDA.

Performance Standard. 100% of routing instructions, holding instructions, and restrictions directed by the TAC must be complied with. All ACM restrictions specified in the event SPINS must be complied with. All brevity used must be in accordance with MCRP 3-25B and JP 3-09.3. All targets must be passed in the format specified in NTTP 3-22.3-VMU. All information must be passed on the proper communication net in accordance with event SPINS. All information must be passed in a timely manner without

disrupting the TAC's tempo. All targets passed to the TAC must have sufficient accuracy and precision to be used as lines 4 and 6 in a CAS attack brief to an armed CAS asset without further refinement. For all attacks using the IR pointer, the crew must illuminate the correct target and the attacking aircraft must be able to contact the sparkle. For all GRG talk-ons passed by the crew, the correct version of the GRG must be used, and the TAC must be able to locate the target within three minutes. All digital communication must be transmitted in accordance with the MAWTS-1 TACP TACSOP and formatted in accordance with MCRP 3-40.2B. All BDA passed must be in the format prescribed by the MAWTS-1 TACP TACSOP.

Prerequisite. CAS-3501.

Range. LSR, TGT, URBN.

External Support Syllabus. One TAC and one section of CAS assets.

2.9.9 Expeditionary Operations (EXP)

2.9.9.1 Purpose. To complete EXP qualification.

2.9.9.2 General Prerequisite

2000 Phase.

Admin Notes

Stage events shall exceed 24 hours in duration.

PUI should be SNCO.

2.9.9.3 Ground/Academic Training

Lectures

ACAD-3011 Diesel Engine Theory

EXP-3600	25.0	365	B,C,R,M	L	1 RQ-21A
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Goal. Conduct decentralized operations.

Requirement

Discuss:

Decentralized operations.
Squadron SOP.
GCS power and connectivity.
Communication requirements.
Cockpit arrangement.

Introduce:

Site planning.
Site establishment briefing.
Communication setup and establishment supervision.
ITEG II generator check supervision.

Performance Standard. Develop a site plan and brief and supervise site establishment in accordance with NTTP 3-22.3-VMU and Squadron SOP.

2.9.10 ACPM Mission Skill Training Events

ACPM-8300 Air Defense
ACPM-8310 Forward Arming Refueling Point (FARP) Operations
ACPM-8311 Marine Corps Tactical Fuel Systems
ACPM-8320 Joint Structure & Joint Air Operations
ACPM-8321 Joint Air Tasking Cycle Phase 1: Strategy Development
ACPM-8322 Joint Air Tasking Cycle Phase 2: Target Development
ACPM-8323 Joint Air Tasking Cycle Phase 3: Weaponing and Allocation
ACPM-8324 Joint Air Tasking Cycle Phase 4: Joint ATO Production
ACPM-8325 Joint Air Tasking Cycle Phase 5: Force Execution
ACPM-8326 Joint Air Tasking Cycle Phase 6: Combat Assessment
ACPM-8340 Integrating Fires & Airspace Within the MAGTF
ACPM-8350 Phasing Control Ashore
ACPM-8351 TACRON Organizations and Functions

2.10 CORE PLUS SKILLS PHASE (4000)

2.10.1 Purpose. To train for large-scale, integrated missions having unique mission tasking and to introduce skills or missions having a low probability of execution or that are theatre specific.

2.10.2 General

Prerequisites

2000 Phase for PUI undergoing CQ training.

AREC Stage, AESC (3000) Stage, and SARM Stage for all other stages within Core Plus Skill Phase.

Admin Notes

Instructor requirements are specified by stage.

The passing grade on written examinations is 80 percent.

2.10.3 Stages. The following stages are included in the Core Skill Plus Phase of training.

Par No.	Stage Name
2.10.5	Aerial Escort (AESC)
2.10.6	Tactical Recovery of Aircraft and Personnel (TRAP)
2.10.7	Carrier Qualification (CQ)

2.10.4 Ground/Academic Training

Lectures

ACAD-4002 Electromagnetic Interference
ACAD-4003 Environmental Effects on EW

ACAD-4004 EA-6B Capabilities
ACAD-4005 MAGTF Spectrum Warfare

2.10.5 Aerial Escort (AESC)

2.10.5.1 Purpose. To complete AESC qualification.

2.10.5.2 General. This stage introduces and develops aircrew proficiency in aerial escort. PUIs will plan and execute detached escort with Marine air assault task force key players in support of air assault missions.

Admin Notes

Basic POI events shall be flown as a single ship.

Refresher and Maintain POI events may be tailored to PUI qualification and designation and can be flown as either a single ship or multi-ship event.

A qualified and certified WTI or WTO shall instruct all events within the stage.

2.10.5.3 Ground/Academic Training. Aircrew shall complete all Core Plus Skill AESC academic codes prior to completion of this phase of training. Refer to MAWTS-1 RQ-21A Course Catalog.

AESC-4100 2.0 * B,C A 1 RQ-21A

Goal. Introduction to aerial escort.

Requirement

Discuss:

Air assault mission planning.
NTTP 3-22.5-ASTACSOP Planning Checklist.
Air assault force key player roles and responsibilities.

Introduce:

Detached escort for at least one RW assault support aircraft.
LZ reconnaissance. Locate two enemy positions and three obstacles and pass information to EFL.
Assess LZ status.

Performance Standard. Detached escort in accordance with MCWP 3-24, MCWP 3-11.4, and NTTP 3-22.5-ASTACSOP. Report LZ reconnaissance in accordance with NTTP 3-22.5-ASTACSOP. Use brevity in accordance with MCRP 3-25B. Pass information on proper communication net in accordance with event SPINS. LZ status must be assessed in accordance with criteria set in event SPINS or planning.

Prerequisite. AESC (4000) ground/academic training.

Range. RSTD, LSR.

External Support Syllabus. One EFL and one RW assault support asset.

AESC-4101 2.0 365 B,C,R,M N A 1 RQ-21A

Goal. Practice night aerial escort.

Requirement

Discuss:

- Execution checklist.
- Communication plan.
- Assault routing.
- Types of ITG.
- IR Pointer considerations during escort operations.

Practice:

- Detached escort for at least one RW assault support aircraft.
- LZ reconnaissance. Locate two enemy positions, one threat, and three obstacles and pass information to EFL.
- Calling one simulated fire mission on one enemy position.
- Assess LZ status.
- Providing ITG for assault support aircraft using IR pointer.

Performance Standard. Detached escort in accordance with MCWP 3-24 and NTTP 3-22.5-ASTACSOP. Report LZ reconnaissance in accordance with NTTP 3-22.5-ASTACSOP. Use brevity in accordance with MCRP 3-25B. Pass information on proper communication net in accordance with event SPINS. Conduct CFF in accordance with MCRP 3-16.6A. LZ status must be assessed in accordance with criteria set in event SPINS or planning. Assault support aircraft must be able to contact the RQ-21A IP pointer.

Prerequisite. AESC-4100.

Range. RSTD, LSR.

External Support Syllabus. One EFL and one RW assault support asset.

2.10.6 Tactical Recovery of Aircraft and Personnel (TRAP)

2.10.6.1 Purpose. To complete TRAP qualification.

2.10.6.2 General. This stage introduces aircrew and develops On-Scene Commander (OSC) proficiency during preplanned and immediate TRAP scenarios.

Prerequisites

- AESC (4000) Stage.
- ACAD-4006 Personnel Recovery
- ACAD-4007 TRAP TTP
- ACAD-4008 PGM Integration

Admin Notes

A certified and designated WTO shall instruct all events within the stage.

2.10.6.3 Ground/Academic Training. Aircrew shall complete all Core Plus Skill TRAP academic codes prior to completion of this phase of training. Refer to MAWTS-1 RQ-21A Course Catalog.

TRAP-4200 2.0 365 B,C,R,M S 1 MTD

Goal. Introduce TRAP operations.

Requirement

Discuss:

EPA.
TRAP Decision Matrix.
TRAP Packages.
TRAP Template.

Introduce:

TRAP ROZ operating procedures.
OSC responsibilities.
Visual search method use to locate survivor.
CSAR brevity.
TRAP execution procedures.

Performance Standard. Maintain flight profile within the TRAP template specified in 3-22.5-ASTACSOP. Locate the survivor. Use CSAR brevity in accordance with MCRP 3-25B. Execute OSC responsibilities in accordance with Annex C to Appendix M of JP 3-50.

Prerequisite. TRAP ground/academic training.

2.10.7 Carrier Qualification (CQ)

2.10.7.1 Purpose. Complete day and night carrier qualification.

2.10.7.2 General

Prerequisites

Core Skill EXP Stage complete.

ACAD-4001 Maritime Operations

Admin Notes

During live approaches, multiple PUIs may hot seat during a single flight.

A CQ Qualified, certified and designated BIP shall instruct all events within the stage.

2.10.7.3 Ground/Academic Training. Aircrew shall complete all Core Plus Skill CQ academic codes prior to completion of this phase of training. Refer to MAWTS-1 RQ-21A Course Catalog.

CQ-4300 4.0 * B,C,R S 1 MTD

Goal. Introduce shipboard operations.

Requirement

Introduce:

Introduce day and night normal and emergency procedures.

Perform five launches and five recoveries.

Performance Standard. Execute all normal and emergency procedures in accordance with applicable directives. During at least two launches and two recoveries, the instructor shall set night environmental conditions within the simulator.

Prerequisite. CQ ground/academic training.

CQ-4301 2.0 365 B,C,R,M A 1 RQ-21A

Goal. Practice shipboard operations.

Requirement

Practice:

Normal shipboard and emergency procedures.
Conduct three day recovery approaches.

Performance Standard. Execute all procedures in accordance with applicable directives.

Prerequisite. CQ-4300.

External Support Syllabus. L-class ship.

CQ-4302 2.0 365 B,C,R,M N A 1 RQ-21A

Goal. Practice night shipboard operations.

Requirement

Practice:

Night normal shipboard and emergency procedures.
Conduct three night recovery approaches.

Performance Standard. Execute all procedures in accordance with applicable directives.

Prerequisite. CQ-4300.

External Support Syllabus. L-class ship.

2.11 INSTRUCTOR TRAINING PHASE (5000)

2.11.1 MAWTS-1 Certifications

2.11.1.1 Purpose. Enumerate MAWTS-1 instructor training syllabi.

2.11.1.2 General. All certification sorties will be conducted in accordance with the MAWTS-1 RQ-21A Course Catalog. The commanding officer of MAWTS-1 must approve any deviations.

2.11.1.3 Ground/Academic Training. Refer to the MAWTS-1 Course Catalog.

BIP-5100 2.0 * B E S 1 MTD

Goal. BIP certification simulator.

Requirement. See MAWTS-1 RQ-21A Course Catalog.

BIP-5101 2.0 * B E S 1 MTD

Goal. BIP certification simulator.

Requirement. See MAWTS-1 RQ-21A Course Catalog.

BIP-5102 2.0 * B (N) E A/S 1 RQ-21A

Goal. BIP certification sortie.

Requirement. See MAWTS-1 RQ-21A Course Catalog.

BIP-5104 2.0 * B (N) E A 1 RQ-21A

Goal. BIP certification sortie.

Requirement. See MAWTS-1 RQ-21A Course Catalog.

WTO-5200 2.0 * B (N) E A/S 1 RQ-21A

Goal. WTO certification sortie.

Requirement. See MAWTS-1 RQ-21A Course Catalog.

WTO-5201 2.0 * B (N) E A/S 1 RQ-21A

Goal. WTO certification sortie.

Requirement. See MAWTS-1 RQ-21A Course Catalog.

WTO-5202 2.0 * B (N) E A/S 1 RQ-21A

Goal. WTO certification sortie.

Requirement. See MAWTS-1 RQ-21A Course Catalog.

2.11.1 FRS Instructor Under Training (IUT) Syllabus

2.11.1.1 Purpose. Enumerate FRS instructor training syllabi.

2.11.1.2 General. All training shall be conducted in accordance with the FRS IUT FSG. The FRS commanding officer must approve any deviations.

2.11.1.3 Ground/Academic Training. Refer to the FRS IUT FSG.

FRSI-5300 4.0 * B E S 1 MTD

Goal. To qualify as an FRSI.

Requirement. See FRS IUT FSG.

2.12 REQUIREMENTS, CERTIFICATIONS, QUALIFICATIONS, DESIGNATIONS (RQCD) PHASE

2.12.1 NATOPS/Core Skill Introduction Evaluation (NTPS)

2.12.1.1 Purpose. To evaluate the pilot's knowledge of aircraft systems, performance limitations, and both normal and emergency procedures.

2.12.1.2 General

Admin Notes

NATOPS evaluators/instructors shall conduct the NATOPS evaluation in accordance with OPNAVINST 3710.7 series and other applicable directives, instructions, and orders.

The NATOPS evaluator shall utilize the NATOPS model manager-generated NATOPS ATF and the evaluation metrics established for the accomplishment and performance of the standardized criterion to determine whether the pilot successfully completed the sortie.

A letter designating the pilot as NATOPS qualified shall be placed in the NATOPS jacket upon successful completion.

PUI shall complete all Core Skill Introduction stages prior to NATOPS/Core Skill Introduction Evaluation.

A designated RQ-21A NI or ANI will observe and certify that the PUI is NATOPS qualified per RQ-21A NATOPS Manual.

A designated CRMI or CRMF will observe and certify annual CRM training per COMNAVAIRFORINST 1542.7.

2.12.1.3 Ground/Academic Training

Readings. Review RQ-21A NATOPS Manual (A1-RQ21A-NFM-000)

Exams

NTPS-6000, Open Book RQ-21A NATOPS exam.

NTPS-6001, Closed Book RQ-21A NATOPS exam.

NTPS-6002, Oral NATOPS exam.

NTPS-6000	1.5	365	B,C,R,M	E	G
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Goal. Complete the Open Book NATOPS Evaluation.

Requirement. The open book examination shall consist of, but not be limited to, questions selected from the NATOPS question bank. The purpose of the open book examination portion of the written examination is to evaluate the pilot's knowledge of the appropriate publications and the aircraft.

Performance Standard. Achieve a minimum grade of qualified on the open book examination.

NTPS-6001	1.0	365	B,C,R,M	E	G
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Goal. Complete the closed book NATOPS evaluation.

Requirement. The closed book examination shall be limited to RQ-21 operating limits and bold face emergency procedures. The purpose of the closed book examination portion of the written examination is to evaluate the pilot's knowledge concerning normal/emergency procedures and aircraft limitations.

Performance Standard. Achieve a minimum grade of qualified on the closed book examination.

NTPS-6002 1.0 365 B,C,R,M E G

Goal. Complete the Oral NATOPS Evaluation.

Requirement. The oral examination shall consist of, but not be limited to, the NATOPS question bank. The instructors/evaluators may draw upon their experiences to propose questions concerning normal/emergency procedures, aircraft limitations, and performance.

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

NTPS-6101 1.0 365 B,C,R,M E S/A 1 MTD

Goal. Complete NATOPS evaluation flight.

Requirement. The PUI will conduct the flight brief. Perform all takeoffs and landings. The instructor will select simulated emergencies.

Performance Standard. Execute all procedures in accordance with RQ-21A NATOPS and applicable SOPs. Comply with local course rules.

Prerequisite. NTPS-6000, NTPS-6001, NTPS-6002.

NTPS-6110 1.0 365 B,C,R,M E L 1 RQ-21A

Goal. Complete CRM annual refresher training.

Requirement. Satisfactory completion of CRM training.

Performance Standard. Per syllabus description.

NTPS-6120 0.5 365 B,C,R,M E S/A 1 MTD

Goal. Complete CRM evaluation flight.

Requirement. Satisfactory completion of CRM evaluation flight.

Performance Standard. Per syllabus description

2.12.2 Basic Aircraft Commander Standardization and Designation

2.12.2.1 Purpose. The Basic Aircraft Commander (BAC) syllabus trains a prospective BAC for BAC qualification and evaluates their planning, briefing, execution, and debriefing ability.

2.12.2.2 General

Prerequisites

3000 Phase.
50 additional total flight hours (TFT).
FAM-2101 and FAM-2102 conducted as a PIC.

Admin Notes

A certified and designated WTI or WTO shall conduct the BAC evaluation.

The sortie shall be flown as a single sortie and logged under the BAC code.

Once qualified as a BAC, the PUI may be designated as a BAC by the squadron commanding officer. A BAC designation letter shall then be placed in the pilot's NATOPS jacket.

2.12.2.3 Ground/Academic Training

ACPM

ACPM-8620 ESG/CSG Integration
ACPM-8630 Tactical Air Command Center (TACC)
ACPM-8640 Joint Data Network
ACPM-8641 Nation, Theater, and MAGTF ISR Employment
ACPM-8660 Joint Operations Introduction

BAC-6299 4.0 * B,C,R (N) E A/S 1 RQ-21A

Goal. Conduct a BAC evaluation flight.

Requirement

Discuss:

Any RQ-21A subsystem component.
Aircraft and network troubleshooting.
National airspace.
Weather limitations and planning requirements.
AREC mission planning considerations.
Aircraft Commander responsibilities.
CRM.

Evaluate:

Plan, brief, execute and debrief an urban air reconnaissance or air escort mission in support of a unit that requires reconnaissance products, including EO/IR imagery and FMV.

Performance Standard. Conduct mission analysis and mission planning. Correctly execute supported unit requirements and safely direct aircraft operations from pre-mission planning to recovery.

Range. RSTD.

2.12.3 Site Staff Non-Commissioned Officer in Charge Standardization and Designation

2.12.3.1 Purpose. The Site Staff Non-Commissioned Officer in Charge (SNCOIC) syllabus trains a prospective Site SNCOIC for designation, and evaluates their planning, briefing, execution, and debriefing ability.

2.12.3.2 General

Prerequisite

EXP-3600.

Admin Notes

A certified and designated WTI shall evaluate all events within the stage.

SNCOIC-6499 8.0 * B,C,R E L 1 RQ-21A

Goal. Conduct Site SNCOIC evaluation.

Requirement

Evaluate:

Site planning ability.

Site establishment briefing.

Communication setup and establishment supervision.

ITEG II generator check supervision.

Performance Standard. Develop a site plan and brief and supervise site establishment in accordance with NTTP 3-22.3-VMU and Squadron SOP. At the conclusion of the event, equipment must be powered up and a pre-flight check conducted to verify proper setup.

NAVMC 3500.122
7 May 15

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2.13 7314 RQ-21A PILOT T&R SYLLABUS MATRIX

STAGE	EVENT		POI	E	DEVICE			COND	REFLY	GROUND/ ACADEMIC EVENTS		SIM EVENTS		LIVE/FLIGHT EVENTS		PREREQ	CHAIN
	CODE	TITLE			TYPE	#	OPTION			#	TIME	#	TIME	#	TIME		
CORE SKILL INTRODUCTION TRAINING (1000 PHASE EVENTS)																	
ACADEMICS (ACAD-1)																	
ACAD	0001	MARINE UAS OPS	B				G	(N)	*								
ACAD	0004	VMU STRUCTURE	B				G	(N)	*								
ACAD	0006	FAA COA/MOA	B				G	(N)	*								
ACAD	0007	LOCAL AIRSPACE	B				G	(N)	*								
ACAD	0008	INTRO TO NATOPS	B				G	(N)	*								
ACAD	0009	ACFT OVERVIEW	B				G	(N)	*								
ACAD	0010	ACFT OP LIMS	B				G	(N)	*								
ACAD	0011	LAUNCHER CHAR	B				G	(N)	*								
ACAD	0012	GCS CHAR	B				G	(N)	*								
ACAD	0013	ICOMC2 INTERFACE	B				G	(N)	*								
ACAD	0014	BASIC NETWORKING	B				G	(N)	*								
ACAD	0015	ACFT MANEUVERING	B				G	(N)	*								
ACAD	0016	FLIGHT PLANNING	B				G	(N)	*								
ACAD	0017	MISSION PLANNING	B				G	(N)	*								
ACAD	0018	INITIAL CRM	B				G	(N)	*								
ACAD	0019	OP/GND CRW LNCH	B				G	(N)	*								
ACAD	0020	APPROACH THEORY	B				G	(N)	*								
ACAD	0021	OP/GND CRW RCVY	B				G	(N)	*								
ACAD	0022	EP	B				G	(N)	*								
ACAD	0023	NAV AND COM FAIL	B				G	(N)	*								
ACAD	0024	CTRL STA TRNSFR	B				G	(N)	*								
ACAD	0025	DUAL ACFT OPS	B				G	(N)	*								
ACAD	0026	PAYLOAD CONFIG	B				G	(N)	*								
ACAD	0027	OB VISION SYS	B				G	(N)	*								
ACAD	0028	LASER SAFETY	B				G	(N)	*								
ACAD	0029	LASER OPS	B				G	(N)	*								
ACAD	0030	MSN EXE BASICS	B				G	(N)	*								
ACAD	0031	MARITIME OPS	B				G	(N)	*								
ACAD	0032	INTRO TO ISR	B				G	(N)	*								
ACAD	0033	INTRO TO AREC	B				G	(N)	*								
ACAD	0034	INTRO TO UAS CFF	B				G	(N)	*								
ACAD	0035	INTRO TO UAS LAS	B				G	(N)	*								

STAGE	EVENT		POI	E	DEVICE			COND	REFLY	GROUND/ACADEMIC EVENTS		SIM EVENTS		LIVE/FLIGHT EVENTS		PREREQ	CHAIN
	CODE	TITLE			TYPE	#	OPTION			#	TIME	#	TIME	#	TIME		
ACAD	0036	FLT LINE SAFETY	B				G	(N)	*		1.0						
ACAD	0037	SYS RECORDS	B				G	(N)	*		1.0						
ACAD	0038	SITE SURVEY	B				G	(N)	*		8.0						
ACAD	0039	PRE/PST FLT INSP	B				G	(N)	*		6.0						
FRS ACADEMICS TOTAL										36	58.0	0	0	0	0		
FAMILIARIZATION (FAM)																	
FAM	1100	INTRO MNVR ACFT	B		MTD	1	S	D	*				2.0				
FAM	1101	INTRO LAUNCH	B		MTD	1	S	D	*				2.0			1100	
FAM	1102	PERFORM LAUNCH	B,R		MTD	1	S	D	*				2.0			1101	
FAM	1103	INTRO RECOVERY	B		MTD	1	S	D	*				2.0			1102	
FAM	1104	PERFORM RECOVERY	B,R		MTD	1	S	D	*				2.0			1103	
FAM	1105	INTRO EP	B,R		MTD	1	S	D	*				2.0			1104	
FAM	1106	INTRO EP	B,R		MTD	1	S	D	*				2.0			1105	
FAM	1107	INTRO CTRL STA TRNSFR	B,R		MTD	1	S	D	*				2.0			1106	
FAM	1108	INTRO EO/IR	B,R		MTD	1	S	D	*				2.0			1107	
FAM	1109	PILOT SAFE CK RD	B,R		MTD	1	S	D	*				2.0			1108	
FAM	1110	INTRO FLT OPS	B		RQ-21A	1	A	D	*						4.0	1109	
TOTAL FAM STAGE										0	0	10	20.0	1	4.0		
TACTICAL SKILLS INTRODUCTION (TAC)																	
STAC	1200	INTRO RECON MSN	B,R		MTD	1	S	D	*				2.0			1109	
STAC	1201	INTRO CAS MSN	B,R		MTD	1	S	D	*				2.0			1200	
TOTAL TAC STAGE										0	0	2	4.0	0	0		
TOTAL CORE SKILL INTRODUCTION (1000 PHASE EVENTS)										36	58.0	12	28.0	1	4.0		
CORE SKILL TRAINING (2000 PHASE EVENTS)																	
CORE SKILL ACADEMICS (ACAD-2)																	
ACAD	2000	RQ-21A CRP	B				G	(N)	*		1.0						
ACAD	2001	AVIATION WEATHER	B				G	(N)	*		1.0						
ACAD	2002	GEODETTICS	B				G	(N)	*		1.0						
ACAD	2003	C4ISR	B				G	(N)	*		1.0						
ACAD	2004	GCE CAPABILITIES	B				G	(N)	*		1.0						
ACAD	2005	AERIAL OBSERVER	B				G	(N)	*		1.0						
ACAD	2006	AV-8 EFL	B				G	(N)	*		1.0						
ACAD	2007	EW EMPLOYMENT	B				G	(N)	*		1.0						
ACAD	2008	GPS THEORY	B				G	(N)	*		1.0						
CORE SKILL ACADEMICS TOTAL										9	9.0	0	0	0	0		
FAMILIARIZATION (FAM)																	
SFAM	2100	PRAC LOCAL AREA	B,C		MTD	1	S	D	*				2.0			NTPS QUAL 1000 PHSE	
SFAM	2101	REVIEW EP	B,C,R		MTD	1	S	(N)	90				2.0			2100	
FAM	2102	REVIEW FAM, NAV, LOCAL AREA	B,C,R,M		RQ-21A	1	A	(N)	90					2.0		2101	
FAM	2103	INTRO CRP OPS	B,C,R,M		RQ-21A	1	A	(N)	365					2.0		2101	

STAGE	EVENT		POI	E	DEVICE			COND	REFLY	GROUND/ACADEMIC EVENTS		SIM EVENTS		LIVE/FLIGHT EVENTS		PREREQ	CHAIN
	CODE	TITLE			TYPE	#	OPTION			#	TIME	#	TIME	#	TIME		
	TOTAL FAM STAGE																
RECONNAISSANCE (REC)																	
SREC	2200	INTRO ZONE AND AREA RECON	B		MTD	1	S	D	*				2.0			2100 2101	
REC	2201	INTRO ROUTE AND URBAN RECON	B		MTD	1	S	D	*				2.0			2200	
REC	2203	REVIEW ZONE/AREA RTE/URBAN RECON	B,C, R,M		RQ-21A	1	A/S	(N)	90						4.0	2201	2102
TOTAL REC STAGE																	
TACTICAL SKILLS INTRODUCTION (TAC)																	
TAC	2300	INTRO ARTY CORRECTION	B,C		MTD	1	S/A	D	*				2.0			2201	2102
TAC	2301	INTRO TCO ESCORT	B,R, M		MTD	1	S/A	D	365				2.0			2300	
TAC	2302	INTRO DAS OPS	B		MTD	1	S/A	D	*				2.0			2301	
TAC	2303	INTRO CAS OPS	B		MTD	1	S/A	D	*				2.0			2302	
TOTAL TAC STAGE																	
EXPEDITIONARY OPERATIONS (EXP)																	
EXP	2400	INTRO SITE SNCOIC OPS	B,R		RQ-21A	1	L	D	*		8.0				0	2100	
EXP	2401	INTRO DECENTRAL OPS	B,C, R,M		RQ-21A	1	L	D	365		8.0				0	2400	
TOTAL EXP STAGE																	
AVIATION CAREER PROGRESSION MODEL (ACPM)																	
ACPM	8200	MACCS	B				G	(N)	*		1.0						
ACPM	8201	MWCS BRIEF	B				G	(N)	*		1.0						
ACPM	8202	ACA AND AIRSPACE	B				G	(N)	*		1.0						
ACPM	8210	AGS	B				G	(N)	*		1.0						
ACPM	8230	ACE BATTLE STAFF	B				G	(N)	*		1.0						
ACPM	8231	BCD	B				G	(N)	*		1.0						
ACPM	8240	SIX FUNCT MAR AV	B				G	(N)	*		1.0						
ACPM	8241	JTAR/ASR	B				G	(N)	*		1.0						
ACPM	8242	SITE CMD PRIMER	B				G	(N)	*		1.0						
ACPM	8250	TAGS	B				G	(N)	*		1.0						
TOTAL ACPM STAGE																	
TOTAL CORE SKILL (2000 PHASE EVENTS)																	
MISSION SKILL (3000 PHASE EVENTS)																	
MISSION SKILL ACADEMICS (ACAD-3)																	
ACAD	3001	IPB	B				G	(N)	*		1.0						
ACAD	3002	EOTDA	B				G	(N)	*		1.0						
ACAD	3003	INTEGRATING FIRES AND A/S	B				G	(N)	*		1.0						
ACAD	3004	FSC	B				G	(N)	*		1.0						
ACAD	3005	UAS SCAR	B				G	(N)	*		1.0						
ACAD	3006	WEAPONNEERING	B				G	(N)	*		1.0						

STAGE	EVENT		POI	E	DEVICE			COND	REFLY	GROUND/ACADEMIC EVENTS		SIM EVENTS		LIVE/FLIGHT EVENTS		PREREQ	CHAIN
	CODE	TITLE			TYPE	#	OPTION			#	TIME	#	TIME	#	TIME		
ACAD	3007	FW THREAT	B				G	(N)	*		1.0						
ACAD	3008	BOMBS, FINS, FUZES	B				G	(N)	*		1.0						
ACAD	3009	CAS	B				G	(N)	*		1.0						
ACAD	3010	CAS EXECUTION	B				G	(N)	*		1.0						
ACAD	3011	DIESEL ENGINE THEORY	B				G	(N)	*		1.0						
ACAD	3012	HELLFIRE PART 1	B				G	(N)	*		1.0						
ACAD	3013	HELLFIRE PART 2	B				G	(N)	*		1.0						
ACAD	3014	AV-8 DUAL MODE WEAPONS	B				G	(N)	*		1.0						
ACAD	3015	F-18 LGW	B				G	(N)	*		1.0						
ACAD	3016	F-18 GPS WEAPONS	B				G	(N)	*		1.0						
MISSION SKILL ACADEMICS TOTAL										16	16.0	0	0	0	0		
AIR RECONNAISSANCE (AREC)																	
AREC	3100	PRACTICE ROUTE RECON	B, C, R, M		RQ-21A	1	A/S	D	365						2.0	2000 PHSE	2102 2203
AREC	3101	PRACTICE ZONE OR AREA RECON	B		RQ-21A	1	A/S	D	*					2.0	3100		
AREC	3102	PRACTICE ELECTRONIC RECON	B, C, R, M		RQ-21A	1	A/S	(N)	365					2.0	3101	2102 2203	
AREC	3103	REVIEW TACTICAL RECON	B, R		RQ-21A	1	A/S	N	*					2.0	3102		
TOTAL AREC STAGE										0	0	0	0	4	8.0		
AERIAL ESCORT (AESC)																	
AESC	3200	PRACTICE TCO ESCORT	B		RQ-21A	1	A/S	D	*					2.0	3103		
AESC	3201	INTRO SUPPORT TO RAID OPS	B, C, R, M		RQ-21A	1	A/S	(N)	365					2.0	3200	2102 2203	
TOTAL AESC STAGE										0	0	0	0	2	4.0		
CONTROL SUPPORTING ARMS (SARM)																	
SARM	3300	PRACTICE CFF	B, C, R, M		MTD	1	S	D	365				2.0		3103		
TOTAL SARM STAGE										0	0	1	2.0	0	0		
STRIKE COORDINATION AND RECONNAISSANCE (SCAR)																	
SCAR	3400	INTRO SUPT AR OR SCAR MSN	B, R, M		MTD	1	S/A	D	365				2.0		3103		
TOTAL DAS STAGE										0	0	1	2.0	0	0		
CLOSE AIR SUPPORT (CAS)																	
CAS	3500	PRACTICE CAS FACILITATION	B		RQ-21A	1	A	D	*					2.0	3103		
CAS	3501	PRACTICE NIGHT CAS FACILITATING	B, R, M		RQ-21A	1	A	N	365					2.0	3500	2102 3100	
CAS	3502	PRACTICE URBAN CAS FACILITATING	B, C, R, M		RQ-21A	1	A	(N)	365					2.0	3501	2102 3100	

STAGE	EVENT		POI	E	DEVICE			COND	REFLY	GROUND/ACADEMIC EVENTS		SIM EVENTS		LIVE/FLIGHT EVENTS		PREREQ	CHAIN
	CODE	TITLE			TYPE	#	OPTION			#	TIME	#	TIME	#	TIME		
																	3501
CAS	3503	REVIEW CAS FACILITATION	B,C,R,M		RQ-21A	1	A/S	(N)	365					2.0	3502		2102 3100 3502
TOTAL CAS STAGE										0	0	1	2.0	2	4.0		
EXPEDITIONARY OPERATIONS (EXP)																	
EXP	3600	CONDUCT DECENTRAL OPS	B,C,R,M		Ground Control Station	1	L	D	365		25.0			0	2000 PHSE		
TOTAL EXP STAGE										1	25.0	0	0	0	0		
AVIATION CAREER PROGRESSION MODEL (ACPM)																	
ACPM	8300	AIR DEFENSE	B				G	(N)	*		1.0						
ACPM	8310	FARP OPS	B				G	(N)	*		1.0						
ACPM	8311	MCTFS	B				G	(N)	*		1.0						
ACPM	8320	JOINT AIR OPS	B				G	(N)	*		1.0						
ACPM	8321	JOINT ATO 1	B				G	(N)	*		1.0						
ACPM	8322	JOINT ATO 2	B				G	(N)	*		1.0						
ACPM	8323	JOINT ATO 3	B				G	(N)	*		1.0						
ACPM	8324	JOINT ATO 4	B				G	(N)	*		1.0						
ACPM	8325	JOINT ATO 5	B				G	(N)	*		1.0						
ACPM	8326	JOINT ATO 6	B				G	(N)	*		1.0						
ACPM	8340	INTEGRATING FIRES AND A/S	B				G	(N)	*		1.0						
ACPM	8350	PHASING CONTROL ASHORE	B				G	(N)	*		1.0						
ACPM	8351	TACRON	B				G	(N)	*		1.0						
TOTAL ACPM STAGE										13	13.0	0	0	0	0		
TOTAL MISSION SKILL (3000 PHASE EVENTS)										30	54.0	3	6.0	8	16.0		
CORE PLUS SKILL TRAINING (4000 PHASE EVENTS)																	
CORE PLUS SKILL ACADEMICS (ACAD-4)																	
ACAD	4001	MARITIME OPS	B				G	(N)	*		1.0						
ACAD	4002	EMI	B				G	(N)	*		1.0						
ACAD	4003	ENVIRONMENTAL EFFECTS ON EW	B				G	(N)	*		1.0						
ACAD	4004	EA-6B CAPES	B				G	(N)	*		1.0						
ACAD	4005	MAGTF SPECTRUM WARFARE	B				G	(N)	*		1.0						
ACAD	4006	PERSONNEL RECOVERY	B				G	(N)	*		1.0						
ACAD	4007	TRAP TTP	B				G	(N)	*		1.0						
ACAD	4008	PGM INTEGRATION	B				G	(N)	*		1.0						
CORE PLUS SKILL ACADEMICS TOTAL										8	8.0	0	0	0	0		

STAGE	EVENT		POI	E	DEVICE			COND	REFLY	GROUND/ACADEMIC EVENTS		SIM EVENTS		LIVE/FLIGHT EVENTS		PREREQ	CHAIN
	CODE	TITLE			TYPE	#	OPTION			#	TIME	#	TIME	#	TIME		
AERIAL ESCORT (AESC)																	
AESC	4100	INTRODCUCE AERIAL ESCORT	B,C		RQ-21A	1	A	D	*						2.0	3200	
AESC	4101	AERIAL ESCORT	B,C,R,M		RQ-21A	1	A	N	365						2.0	4100	
TOTAL AESC STAGE										0	0	0	0	1	2.0		
TACTICAL RECOVERY OF AIRCRAFT AND PERSONNEL (TRAP)																	
TRAP	4200	INTRO TRAP OPS	B,C,R,M		MTD	1	S	D	365				2.0			4101	
TOTAL TRAP STAGE										0	0	1	2.0	1	2.0		
CARRIER QUALIFICATION (CQ)																	
CQ	4300	INTRO SHIPBOARD OPS	B,C,R		MTD	1	S	(N)	*				4.0			2401	
CQ	4301	PRACTICE SHIPBOARD OPS	B,C,R,M		RQ-21A	1	A	D	365						2.0	4300	4300
CQ	4302	PRACTICE NIGHT SHIPBOARD OPS	B,C,R,M		RQ-21A	1	A	N	365						2.0	4300	4300 4301
TOTAL CQ STAGE										0	0	1	4.0	2	4.0		
TOTAL CORE PLUS SKILL (4000 PHASE EVENTS)										8	8.0	2	6.0	4	8.0		
INSTRUCTOR TRAINING (5000 PHASE EVENTS)																	
BASIC INSTRUCTOR PILOT (BIP)																	
BIP	5100	MAWTS-1 PROGRAM GUIDE	B	E	MTD	1	S	D	*				2.0			MAWTS-1 RQ-21A CC	
BIP	5101	MAWTS-1 PROGRAM GUIDE	B	E	MTD	1	S	D	*				2.0			MAWTS-1 RQ-21A CC	
BIP	5102	MAWTS-1 PROGRAM GUIDE	B	E	RQ-21A	1	A/S	(N)	*						2.0	MAWTS-1 RQ-21A CC	
BIP	5104	MAWTS-1 PROGRAM GUIDE	B	E	RQ-21A	1	A	(N)	*						2.0	MAWTS-1 RQ-21A CC	
TOTAL BIP STAGE										0	0	2	4.0	2	4.0		
WEAPONS TRAINING OFFICER (WTO)																	
WTO	5200	MAWTS-1 PROGRAM GUIDE	B	E	RQ-21A	1	A/S	(N)	*						2.0	MAWTS-1 RQ-21A CC	
WTO	5201	MAWTS-1 PROGRAM GUIDE	B	E	RQ-21A	1	A/S	(N)	*						2.0	MAWTS-1 RQ-21A CC	
WTO	5202	MAWTS-1 PROGRAM GUIDE	B	E	RQ-21A	1	A/S	(N)	*						2.0	MAWTS-1 RQ-21A CC	
TOTAL WTO STAGE										0	0	0	0	3	6.0		
FLEET REPLACEMENT SQUADRON INSTRUCTOR (FRSI)																	
FRSI	5300	FRS IUT FSG	B	E	MTD	1	S	D	*				2.0			FRS FSG IUT	
TOTAL FRSI STAGE										0	0	1	2.0	0	0		
TOTAL INSTRUCTOR TRAINING (5000 PHASE)										0	0	3	6.0	5	10.0		

STAGE	EVENT		POI	E	DEVICE			COND	REFLY	GROUND/ACADEMIC EVENTS		SIM EVENTS		LIVE/FLIGHT EVENTS		PREREQ	CHAIN
	CODE	TITLE			TYPE	#	OPTION			#	TIME	#	TIME	#	TIME		
REQUIREMENTS, CERTIFICATIONS, QUALIFICATIONS, DESIGNATIONS (RCQD) (6000 PHASE)																	
NATOPS/CORE SKILL INTRODUCTION EVALUATION (NTPS)																	
NTPS	6000	OPEN BOOK NATOPS EXAM	B, C, R, M	E			G	(N)	365		1.5						
NTPS	6001	CLOSED BOOK NATOPS EXAM	B, C, R, M	E			G	(N)	365		1.0						
NTPS	6002	ORAL NATOPS EXAM	B, C, R, M	E			G	(N)	365		1.0						
NTPS	6101	NATOPS EVAL FLT	B, C, R, M	E	MTS	1	S	D	365			1.0			6000	6001	6002
NTPS	6110	CRM REFRESHER TRAINING	B, C, R, M	E	RQ-21A	1	L	D	365		1.0						
NTPS	6120	CRM EVAL FLT	B, C, R, M	E	MTD	1	S	D	365			0.5					
TOTAL NTPS STAGE										4	4.5	2	1.5	0	0		
BASIC AIRCRAFT COMMANDER (BAC)																	
BAC	6299	BAC EVAL FLT	B, C, R	E	RQ-21A	1	A/S	(N)	*						4.0	3000 PHSE	
TOTAL UAC STAGE										0	0	0	0	1	4.0		
SITE STAFF NON-COMMISSIONED OFFICER IN CHARGE (SNCOIC)																	
SOIC	6499	SITE OIC EVAL	B, C, R	E	RQ-21A	1	L	D	*		8.0					3600	
TOTAL SNCOIC STAGE										1	8.0	0	0	0	0		
AVIATION CAREER PROGRESSION MODEL (ACPM)																	
ACPM	8620	ESG/CSG INT	B				G	(N)	*		1.0						
ACPM	8630	TACC	B				G	(N)	*		1.0						
ACPM	8640	JDN	B				G	(N)	*		1.0						
ACPM	8641	NTL, THEATER ISR	B				G	(N)	*		1.0						
ACPM	8660	JOINT OPS INTRO	B				G	(N)	*		1.0						
TOTAL ACPM STAGE										5	5.0	0	0	0	0		
TOTAL RCQD (6000 PHASE EVENTS)										10	17.5	2	1.5	1	4.0		

CHAPTER 3

7315 RQ-21A PILOT INDIVIDUAL TRAINING AND READINESS REQUIREMENTS

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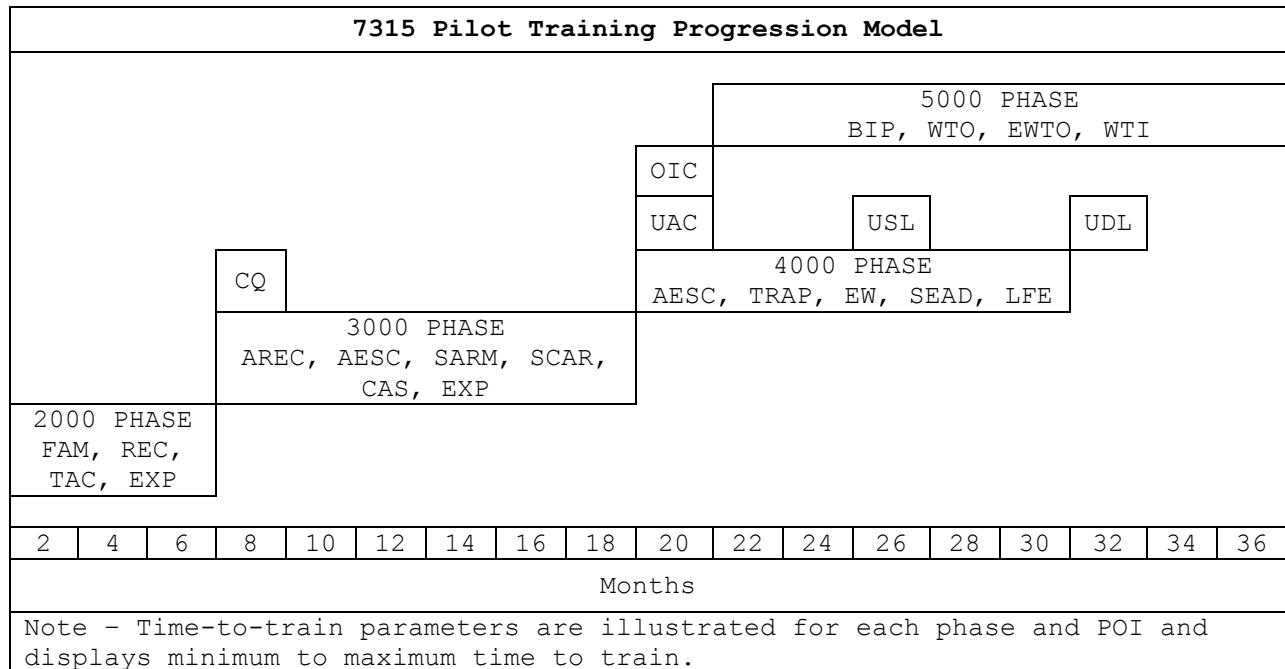
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CHAPTER 3

7315 RQ-21A PILOT INDIVIDUAL TRAINING AND READINESS REQUIREMENTS

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

3.1 TRAINING PROGRESSION MODEL. This model represents the recommended training progression for the minimum to maximum time per phase for the average 7315 RQ-21A Pilot. Units should use the model as a guide to generate individual training plans.



3.2 INDIVIDUAL CORE/MISSION/CORE PLUS SKILL PROFICIENCY REQUIREMENTS

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

3.2.2 Individual CSP is a "Yes/No" status assigned to an individual by Core Skill. When an individual attains and maintains CSP in a Core Skill, the individual counts towards CMMR Unit CSP requirements for that Core Skill.

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

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

Note

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

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

7315 RQ-21A PILOT							
ATTAIN AND MAINTAIN CORE/MISSION/CORE PLUS PROFICIENCY MATRIX BY POI							
ATTAIN PROFICIENCY						MAINTAIN POI	
BASIC POI	CONVERSION POI		REFRESHER POI				
CORE SKILL (2000 Phase)							
STAGE	CODE	STAGE	CODE	STAGE	CODE	STAGE	CODE
FAM	A2000						
	A2001						
	S2100	FAM	S2100	FAM		FAM	
	S2101R		S2101R				
	2102R		2102R		2102R		
	2103R		2103R		2103R		2103R
	2104R		2104R		2104R		2104R
	2105R		2105R		2105R		2105R
2106R	2106R		2106R		2106R		
REC	A2002						
	A2003						
	S2200	REC		REC		REC	
	S2201						
	S2202R		S2202R		S2202R		
2203R	2203R		2203R		2203R		
TAC	A2004						
	A2005						
	A2006						
	A2007						
	A2008						
	S2300	TAC	S2300	TAC		TAC	
	S2301				2301R		2301R
	S2302						
	S2303						
EXP	2400R	EXP		EXP	2400R	EXP	
	2401R		2401R		2401R		2401R
MISSION SKILL (3000 Phase)							
STAGE	CODE	STAGE	CODE	STAGE	CODE	STAGE	CODE
AREC	A3001 A3002						

	3100R	AREC	3100R	AREC	3100R	AREC	3100R		
	3101								
	3102R		3102R		3102R		3102R	3102R	3102R
	3103R						3103R		
AESC	3200	AESC		AESC		AESC			
	3201R		3201R		3201R		3201R	3201R	
	A3003 A3004								
SARM	S3300R	SARM	S3300R	SARM		SARM			
	3301R				3301R				
	3302R				3302R		3302R		
SCAR	A3005 A3006 A3007 A3008	SCAR		SCAR		SCAR			
	S3400								
	3401R		3401R		3401R		3401R		
	3402R				3402R		3402R		
CAS	A3009	CAS		CAS		CAS			
	A3010								
	A3012								
	A3013								
	A3014								
A3015									
A3016									
	3500								
	3501R				3501R		3501R		
	3502R		3502R		3502R		3502R		
	3503R		3503R		3503R		3503R		
	A3011								
EXP	3600R	EXP	3600R	EXP	3600R	EXP	3600R		
CORE PLUS SKILLS (4000 Phase)									
STAGE	CODE	STAGE	CODE	STAGE	CODE	STAGE	CODE		
AESC	A4002	AESC		AESC		AESC			
	A4003								
	A4004								
	A4005								
	4100		4100						
	4101R		4101R		4101R		4101R		
TRAP	A4006	TRAP		TRAP		TRAP			
	A4007								
	A4008								
	S4200		S4200						
	4201R				4201R		4201R		
CQ	A4001	CQ		CQ		CQ			
	S4300R				S4300R				
	4301R				4301R			4301R	
	4302R		4302R		4302R		4302R		
EW	4400		4400						
	4401R		4401R		4401R		4401R		
SEAD	4402R	SEAD	4402R	SEAD	4402R	SEAD	4402R		
	4403				4403		4403		

	4404				4404		4404
MISSION PLUS SKILLS (4500 Phase)							
LFE	4500R	LFE	4500R	LFE	4500R	LFE	4500R
"S" prefix and blue font = flown in simulator							
"R" suffix and Grey highlight = R-coded "Refresher" event							

3.3 REQUIREMENT, CERTIFICATION, QUALIFICATION, AND DESIGNATION TABLES. The tables below delineate T&R events required to be completed to attain proficiency for select certifications, qualifications and designations. In addition to event requirements, all required stage lectures, briefs, squadron training, prerequisites, and other criteria shall be completed prior to completing final events. Certification, qualification and designation letters signed by the commanding officer shall be placed in training Performance Records and NATOPS. See Chapter 6 of the Aviation T&R Program Manual on regaining lost qualifications.

3.3.1 Instructor Designations

7315 RQ-21A PILOT INSTRUCTOR DESIGNATIONS TO BE TRACKED AT SQUADRON LEVEL (M-SHARP will not monitor these designations)	
INSTRUCTOR DESIGNATION	EVENTS
BIP	5100,5101,5102,5103,5104
WTO	5200,5201,5202
WTI	IAW MAWTS-1 COURSE CATALOG
EWTO	5300
NI/ANI	ANNUAL DESIGNATION LETTER SIGNED BY COMMANDING OFFICER
FRSI	IAW VMU FRS FSG

3.3.2 Requirements, Certifications, Qualifications, and Designations

7315 RQ-21A PILOT REQUIREMENTS, CERTIFICATIONS, QUALIFICATIONS, AND DESIGNATIONS (R,C,Q & D) (6000 Phase) R,C,Q & D EVENTS		
UAC	D	6399
OIC	D	6599
USL	D	6600,6699
UDL	D	6700,6799
NATOPS	Q	6001,6002,6101,6110,6120
CAS	Q	3500,3501,3502,3503
EXP	Q	3600
AESC	Q	4100,4101
CQ	Q	S4300,4301,4302
TRAP	Q	S4200,4201
JMQ-B	Q	3100,3101,3102,3103

3.4 7315 RQ-21A PILOT PROGRAM OF INSTRUCTION (POI). These tables reflect average time-to-train versus the minimum to maximum time-to-train parameters in the Training Progression Model.

3.4.1 Basic POI

7315 RQ-21A PILOT Basic POI		
Weeks	Phase of Instruction	Unit
1-16	Core Skill Introduction (1000 Phase)	FRS
17-41	Core Skill (2000 Phase)	Tactical Unit
42-90	Mission Skill (3000 Phase)	Tactical Unit
91-114	Core Plus (4000 Phase)	Tactical Unit

3.4.1.1 Conversion POI

7315 RQ-21A PILOT Conversion POI		
Weeks	Phase of Instruction	Unit
1-16	Core Skill Introduction (1000 Phase)	FRS
17-28	Core Skill (2000 Phase)	Tactical Unit
28-48	Mission Skill (3000 Phase)	Tactical Unit
55-65	Core Plus (4000 Phase)	Tactical Unit

3.4.2 Refresher POI

7315 RQ-21A PILOT Refresher POI		
Weeks	Phase of Instruction	Unit
1-16	Core Skill Introduction (1000 Phase)	FRS
17-30	Core Skill (2000 Phase)	Tactical Unit
31-54	Mission Skill (3000 Phase)	Tactical Unit
55-67	Core Plus (4000 Phase)	Tactical Unit

3.5 SYLLABUS NOTES

3.5.1 Event Performance Requirements

3.5.1.1 A matrix will be placed in the pilot's Aircrew Performance Record (APR) to track progression of all ground, academic, simulator, and flight events. As each training event is completed, the PTO will input the date of completion.

3.5.1.2 All events, to include simulators, shall begin with detailed planning. All events will include a comprehensive brief emphasizing mission performance standards, administrative procedures, tactical employment, and CRM. All events shall end with a debrief emphasizing pilot performance utilizing all evaluation techniques available.

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

3.5.1.4 The T&R manual is the Marine Corps pilot training document. It details training requirements and standards. When operational commanders assign RQ-21A squadrons to prolonged commitments where specific T&R training

is not available (e.g., MEU deployments), it is expected that degradation in some mission areas will occur. Commanding officers are authorized and encouraged to employ the RQ-21A in specific missions relating to their current situation and avoid those mission areas not relevant to their situation. It is not intended for squadrons to focus on specific missions at the expense of others that are difficult to coordinate. This type of mission-specific training is granted only to squadron commanding officers deployed in austere conditions that prevent them from executing pilot training per the T&R manual.

3.5.1.5 New Equipment Training (NET) for Commercial Off-the-shelf Technology and non-program of record payloads will be tracked with the documentation of syllabus and training completion certificates. These documents shall be placed in the pilot's APR once training is complete.

3.5.2 T&R Phases

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

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

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

3.5.2.4 The 5000 phase (Instructor Training) contains instructor syllabi and certification events and tracking codes.

3.5.2.5 The 6000 phase (R,C,Q,D) contains requirements, certifications, qualifications, and designations events. This phase also contains tracking codes for specific events useful to operations departments.

3.5.2.6 The 8000 phase contains ACPM events.

3.5.3 T&R Codes

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

3.5.3.2 Pilots shall log the mission code and applicable tactic utilized. Aircrew must ensure that they select the proper ordnance in M-SHARP to ensure tracking. Chaining has been incorporated to the largest extent possible. However, codes will not chain if a pilot completes chaining codes but is not proficient in the chained codes.

3.5.3.3 If multiple syllabus events are to be accomplished during a single flight evolution, appropriate planning, briefing, and debriefing time must be allotted to ensure all applicable training event requirements and performance standards are met.

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

3.5.5 Environmental Conditions Matrix

Environmental Conditions	
Code	Meaning
D	Shall be flown during hours of daylight: (by exception - there is no use of a symbol)
N	Shall be flown during hours of darkness, may be aided or unaided
(N)	May be flown during darkness. If flown during hours of darkness, may be flown aided or unaided
Note - If the event is to be flown in the simulator the Simulator Instructor shall set the desired environmental conditions for the event.	

3.5.6 Device Matrix

Environmental Conditions	
Symbol	Meaning
A	Flown in Aircraft
A/S	Aircraft preferred may be flown in Simulator
S	Flown in Simulator
S/A	Simulator preferred may be flown in Aircraft
L	Event shall be conducted live (conducted in the field/garrison, during an exercise, etc.). Requires live (non-simulated) execution of the event.
L/S	Event performed live preferred/simulator optional.
S/L	Event performed in simulator preferred/live optional.
G	Ground/academic training. May include Distance Learning, CBT, lectures, self-paced.
CBT	Computer Based Training
LAB	Laboratory
LEC	Lecture
CP	Command Post
TEN	Tactical Environment Network. Events designated as TEN require an approved tactical TEN environment simulation capable of introducing both semi-autonomous threats and moving models controllable from the tactical operator station.
TEN+	Enhanced Tactical Environment Network. Events designated as TEN+ require an approved tactical environment simulation and at least one additional, networked, TEN+ man-in-the-loop simulator to meet the training objectives. A moving model controlled from the operator station does not satisfy the man-in-the-loop requirement.
Note - If the event is to be flown in the simulator the Simulator Instructor shall set the desired environmental conditions for the event.	

3.5.7 Program of Instruction Matrix

PROGRAM OF INSTRUCTION MATRIX		
Program of Instruction (POI)	Symbol	Aviation Flying
Basic	B	Initial MOS/Skill Training
Transition	T	Moving from one Type to another (Rotary-Wing to Fixed-Wing)
Conversion	C	Moving from one Model to another (RQ-7B to RQ-21A)
Refresher	R	Return to community from non (MOS/Skill) associated tour
Maintain	M	All individuals who have attained CSP/MSP/CPD by initial POI assignment are re-assigned to the M POI to maintain proficiency

3.5.8 Event Terms

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 aircrew standardization that does not fit another category such as SARCK, HACCK, T2PCK, etc.
E-Coded	This term means an event evaluation form is required each time the event is E-Coded logged. Requires evaluation by a certified standardization instructor (NATOPS I, WTI, INST Evaluator etc.)

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

3.5.9.1 All simulator and flight events shall be planned, briefed, executed, and debriefed in accordance with RQ-21A NATOPS, Air NTTP, OPNAVINST 3710, doctrinal publications, and applicable SOP.

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

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

3.5.10 Range Requirement

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

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

3.6. CORE SKILL INTRODUCTION FLEET REPLACEMENT SQUADRON ACADEMIC PHASE (0000)

3.6.1 Purpose. To ensure Replacement Air Crew (RAC) assigned to the Fleet Replacement Squadron (FRS) are given the proper academic instruction prior to beginning the Core Skill Introduction Phase.

3.6.2 General

Admin Notes

Each RAC assigned to the FRS shall receive all of the academic classes listed in the matrix below prior to beginning the Core Skill Introduction Phase (1000). The academic classes have corresponding T&R codes associated with them and will be tracked and logged in M-SHARP.

The passing grade on written examinations is 80%.

3.6.3 Stages. The following stages are included in the Core Skill Introduction FRS Academic Phase of training.

Par No.	Stage Name
3.6.4	FRS Academics
3.6.5	Electronic Warfare Core Skill Introduction Academic and Trainer Phase

3.6.4 FRS Academics. The following table will be used to track academic and administrative training:

T&R CODE	EVENT
ACAD-0001	Marine Corps UAS Operations
ACAD-0004	VMU Structure, Organization, and Missions
ACAD-0006	FAA COA / MOAs
ACAD-0007	Local Airspace and Operational Area Flight Procedures
ACAD-0008	Introduction to NATOPS and Naval Aviation Differences
ACAD-0009	Aircraft Overview
ACAD-0010	Aircraft Operating Limits
ACAD-0011	Launcher and Retriever Characteristics
ACAD-0012	GCS Characteristics
ACAD-0013	ICOMC2 Interface
ACAD-0014	Basic Networking
ACAD-0015	Aircraft Maneuvering
ACAD-0016	Flight Planning
ACAD-0017	Mission Planning
ACAD-0018	Initial Crew Resource Management Training
ACAD-0019	Operator / Ground Crew Launch Procedures

ACAD-0020	Approach Theory
ACAD-0021	Operator / Ground Crew Recovery Procedures
ACAD-0022	Emergency Procedures
ACAD-0023	Navigation and Communication Failures
ACAD-0024	Control Station Transfers
ACAD-0025	Dual Aircraft Operations
ACAD-0026	Payload Configuration
ACAD-0027	Onboard Vision System
ACAD-0028	LASER Safety
ACAD-0029	LASER Operations
ACAD-0030	Mission Execution Basics
ACAD-0031	Maritime Operations Basics
ACAD-0032	Introduction to ISR and Targeting
ACAD-0033	Introduction to Air Reconnaissance
ACAD-0034	Introduction to UAS Call for Fire
ACAD-0035	Introduction to UAS Laser Operations
ACAD-0036	Flight Line Safety and Hazards
ACAD-0037	System Records
ACAD-0038	Site Survey and System Setup
ACAD-0039	Pre and Post-flight Inspection

3.6.5 Electronic Warfare Core Skill Introduction Academic and Trainer Phase

3.6.5.1 Academic Introduction to Electronic Warfare (AIEW). To introduce and provide perspective to RAC on the concept of EW and related disciplines.

T&R CODE	EVENT
AIEW-0102	Boyd, the OODA Loop and "On Winning & Losing"
AIEW-0103	History of Electronic Warfare
AIEW-0104	EW in Kosovo Case Study
AIEW-0106	Stoplight Case Study
AIEW-0108	Diyala Bridge Case Study
AIEW-0110	Phantom Fury Case Study
AIEW-0112	EW in Counterinsurgency (COIN) Operations
AIEW-0114	Predator Big Safari Case Study
AIEW-0116	The Radar Game Case Study
AIEW-0118	VHF Repeaters in Operation ENDURING FREEDOM
AIEW-0119	Silent Echo Case Study

3.6.5.2 Academic Basic Electronic Warfare Academics (ABEW). To introduce RAC to the fundamentals of EW.

T&R CODE	EVENT
ABEW-0201	Security of Classified Information
ABEW-0202	Titles and Authorities
ABEW-0203	Joint Electromagnetic Spectrum (EMS) Foundations
ABEW-0204	Introduction to Electromagnetic Energy
ABEW-0205	Radar Fundamentals
ABEW-0206	Introduction to Electromagnetic Applications
ABEW-0207	Basic Radar Operation
ABEW-0208	Advanced Radar Operating Principles
ABEW-0209	Missile Guidance Techniques
ABEW-0210	Introduction to Signals Intelligence and EW
ABEW-0211	United States SIGNIT Directives
ABEW-0212	Introduction to Radio Battalion

ABEW-0213	Introduction to Communications
ABEW-0214	Introduction to Radio Systems
ABEW-0215	Satellite Fundamentals
ABEW-0216	Introduction to Radio Planning
ABEW-0217	Signals Technologies
ABEW-0220	SIGNIT/EW Technical Functions
ABEW-0221	Introduction to SIGNIT/EW Equipment
ABEW-0222	SIGNIT/EW Equipment and Team Employment
ABEW-0223	Radio Battalion SIGNIT/EW Team Operations
ABEW-0224	Radio Battalion Operations Control and Analysis Center (OCAC) and Operations and Control Element (OCE) Operations
ABEW-0225	National-Level Intelligence, SIGNIT and EW Assets
ABEW-0226	Theater-Level Intelligence, SIGNIT and EW Assets
ABEW-0227	Jamming Fundamentals, Principles and Techniques
ABEW-0228	Deception and Confusion Electronic Attack (EA) and Electronic Protect (EP): Indirect
ABEW-0229	Deception and Confusion EA and EP: Direct Threats
ABEW-0230	Communications Jamming and Protect Techniques
ABEW-0231	EW Support (ES) Receivers, Techniques and Data Links
ABEW-0232	Intro to Classified Resources
ABEW-0233	Early Warning and Indirect Threat Radars
ABEW-0234	Land-based Fixed Surface-to-Air Missile (SAM) Systems
ABEW-0235	Mobile SAM Systems
ABEW-0236	Infrared (IR) SAM Systems
ABEW-0237	Non-Radar/Non-IR SAM Systems and Air Defense Artillery (ADA) Systems
ABEW-0240	Intro to the Airborne Environment
ABEW-0241	Former Soviet Union (FSU)/People's Republic of China (PRC) Fighter and Attack Aircraft and Associated Weapon Systems
ABEW-0242	FSU/PRC Bombers and Surveillance Aircraft
ABEW-0243	US/Allied Fighter and Attack Aircraft and Associated Weapon Systems
ABEW-0244	US/Allied Electronic Attack Aircraft
ABEW-0245	Miscellaneous Emitters
ABEW-0246	Naval Non-Threat Emitters
ABEW-0247	Naval Indirect Threat Emitters
ABEW-0248	Naval SAMs
ABEW-0249	Naval Surface-to-Surface Missiles (SSM)
ABEW-0250	Naval ADA
ABEW-0251	Foreign EA Systems

3.6.5.3 Academic Advanced Electronic Warfare Academics (AAEW). To introduce RAC to advanced EW concepts and applications.

T&R CODE	EVENT
AAEW-0301	Intro to Unmanned Aerial Systems (UAS) and EW
AAEW-0302	UAS Payloads
AAEW-0303	Intrepid Tiger II
AAEW-0304	Counter Radio-Controlled Improvised Explosive Device (RCIED) EW (CREW) Systems
AAEW-0305	Introduction to Mission Planning
AAEW-0306	Task Analysis and Mission Administration
AAEW-0307	Electromagnetic Interference (EMI) and Fratricide

AAEW-0308	Publication Review (MCWP, MCIP, JP, etc.)
AAEW-0309	Six Functions of Marine Aviation and Integration
AAEW-0310	Intro to Integrated Air Defense System (IADS)
AAEW-0311	Marine Air Command and Control System (MACCS) Overview
AAEW-0312	External EW Platform Integration
AAEW-0313	Link 16
AAEW-0314	Waveforms (ANW-2, TTNT, etc.) and Software Reprogrammable Payloads (SRP) Overview
AAEW-0315	Fire Support Coordination Measures (FSCMs)
AAEW-0316	Air Tasking Order (ATO), Airspace Control Order (ACO) and Special Instructions (SPINs)
AAEW-0317	Spectrum Management and Joint Restricted Frequency List (JRFL)
AAEW-0320	Joint Mission Planning System (JMPS)
AAEW-0321	Raptor-X and Electronic Warfare Service Architecture (EWSA) Introduction, Familiarization and Applications
AAEW-0322	AAEW-0324 Scenario In-Brief
AAEW-0323	AAEW-0324 Scenario Mission Planning
AAEW-0324	Apply EW and Raptor-X Concepts During an AI Mission
AAEW-0325	AAEW-0327 Scenario In-Brief
AAEW-0326	AAEW-0327 Scenario Mission Planning
AAEW-0327	Apply EW and Raptor-X Concepts During a COIN Mission
AAEW-0328	Attacking the IADS
AAEW-0329	Syrian Electronic and Defensive Missile Order of Battle
AAEW-0330	AAEW-0332 Syrian Map Exercise (MAPEX) In-Brief
AAEW-0331	AAEW-0332 Syrian MAPEX Planning
AAEW-0332	Apply EW Concepts to the Syrian Scenario
AAEW-0333	AAEW-0335 COIN/NEO MAPEX In-Brief
AAEW-0334	AAEW-0335 COIN/NEO MAPEX Planning
AAEW-0335	Apply EW concepts to the COIN/NEO Scenario
AAEW-0336	Cyberspace and Electronic Warfare Coordination Cell (CEWCC) Overview
AAEW-0337	Information Operations (IO)
AAEW-0338	Information-Related Capabilities (IRC) Overview
AAEW-0339	Offensive Cyberspace Operations (OCO)
AAEW-0340	Defensive Cyberspace Operations (DCO)

3.7 CORE SKILL INTRODUCTION PHASE (1000)

3.7.1 Purpose. To introduce RQ-21A pilots to the fundamental skills required to employ the RQ-21A, conduct normal and emergency procedures, and complete RQ-21A NATOPS qualification.

3.7.2 General

Prerequisite

ACAD 0000 Phase.

Admin Notes

Performance standards are based on applicable publications (e.g., RQ-21A NATOPS Manual, OPNAVINST 3710, etc.) but are tailored to fit adequate performance that is commensurate with an acceptable level of progression. Additional performance standards are specified, when applicable, for each stage.

The passing grade on written examinations is 80%.

PUI shall complete the NTPS Stage prior to graduating from the FRS.

3.7.2.1 Stages. The following stages are included in the Core Skill Introduction Phase of training.

Par No.	Stage Name
3.7.3	Familiarization (FAM)
3.7.4	Tactical Skills Introduction (TAC)

3.7.3 Familiarization (FAM)

3.7.3.1 Purpose. Introduce systems management, normal, and emergency procedures.

3.7.3.2 General

Admin Notes

An FRS Instructor (FRSI) shall instruct all events within the stage.

3.7.3.3 Ground/Academic Training

Readings

RQ-21A NATOPS Manual (A1-RQ21A-NFM-000):

- Chapter 1, Introduction.
- Chapter 2, Systems.
- Chapter 4, Operating Limitations.
- Chapter 5, Indoctrination.
- Chapter 6, Flight Preparation.
- Chapter 7, Shore-Based Procedures.
- Chapter 11, Flight Characteristics.
- Chapter 12 through 17, Emergency Procedures.

NTP 3-22.3-VMU:

- Chapter 2, Mission Planning.
- Chapter 3, VMU Employment Configuration.
- Chapter 4, Mission Flow and Fundamentals.
- Chapter 6, Payload Operations and Employment.

Chalk Talks/Practical Application

- ICOMC2 Interface.
- ICOMC2 Basic Networking.
- Troubleshooting System Issues.
- Aircraft Maneuvering.
- Route Planning.
- Mission Planning.
- Operator Launch Procedures.
- Operator Recovery Procedures.
- Identify and Recall Emergency.
- Control Station Transfers.
- Dual Aircraft Operations.

Operate EO/IR Payload.
Operate LASER.
Maritime Operations.
Air Reconnaissance Procedures.
TGO Procedures.
Inspect the System.
Site Setup, Emplace/Displace.

Exams

AUAC-0401 Combined Exam 1.
AUAC-0402 Combined Exam 2.
AUAC-0403 Combined Exam 3.
AUAC-0404 Combined Exam 4.

FAM-1100 2.0 * B S 1 MTD

Goal. Introduce maneuvering the aircraft.

Requirement

Discuss:

Power plant system.
Propeller system.
Mission planning.
Fuel planning.
Briefing.
Debriefing.
Checklist procedures.
System records.
Aircraft controls.
Mission limits (minimum, safe, and maximum altitude).
Communication procedures.
Controlling agencies.

Introduce:

Basic NATOPS planning.
Briefing and debriefing.
Build and save a set of annotations.
Conduct a quick launch.
Build a route that maintains LOS and adequate terrain clearance.
Track to and direct to waypoints.
Adjust orbits.

Performance Standard. Conduct local area flight operations in compliance with applicable SOP. Complete the requirements in accordance with RQ-21A NATOPS and with instructor assistance.

Prerequisite. Ground/academic training complete.

FAM-1101 2.0 * B S 1 MTD

Goal. Introduce launch procedures.

Requirement

Discuss:

Fuel system.
Aircraft launch procedures.

Autopilot commands during launch and climb out.
Wind limitations for launch.
Lost C2 data link routes.
Engine out runways.
Local course rules and flight procedures.

Practice:

NATOPS planning.
Briefing and debriefing.
Conduct aircraft launch checklist and procedures.
Communicate with controlling agencies to request launch and departure instructions.
Manipulate routing, altitudes, and airspeeds.
Introduce CRM concepts.

Performance Standard. Demonstrate mission and fuel planning considerations. Conduct all checklists and procedures in accordance with RQ-21A NATOPS. Conduct local area flight operations and coordinate airspace in compliance with applicable SOPs with instructor assistance.

Prerequisite. FAM-1100.

FAM-1102 2.0 * B,R S 1 MTD

Goal. Perform launch procedures.

Requirement

Discuss:

Electrical system.
System monitor panel.
OWS.
Configuration for launch.
Performance chart calculations.
Administrative go/no-go criteria.

Practice:

NATOPS planning, briefing, and debriefing.
Conduct aircraft launch checklist and procedures.
Communicate with controlling agencies to request launch and departure instructions.

Performance Standard. Conduct all checklists and procedures in accordance with RQ-21A NATOPS. Coordinate airspace and conduct flight operations in compliance with all applicable SOP. Demonstrate CRM throughout the flight

Prerequisite. FAM-1101.

FAM-1103 2.0 * B S 1 MTD

Goal. Introduce recovery procedures.

Requirement

Discuss:

Flight control system.
Auto flight system.
Launch system.

Hold orbit.
Acquisition orbit.
Final approach fix position.
Closing speed.
Cross wind.
Crab angle limits on final.
Go-around.
Wave-off.
Reject approach.
Cancel approach.
Turn point past touchdown.

Practice:

Planning, briefing and debriefing.
Conduct a quick launch and execute departure instructions, holding, building routes, checklists and flight procedures for normal approach, shallow approach, rejected approach, canceled approach, and a full recovery.

Performance Standard. Demonstrate coordination and communications with external agencies. Demonstrate accurate system records procedures. Conduct flight and recovery operations in accordance with RQ-21A NATOPS. Demonstrate CRM in the terminal flight phase.

Prerequisite. FAM-1102.

FAM-1104	2.0	*	B,R	S	1 MTD
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Goal. Perform recovery procedures.

Requirement

Discuss:

Flight control sensors.
Recovery system.
Post capture checklist.

Practice:

NATOPS planning, briefing and debriefing.
Conduct local flight operations with a minimum of five approaches.
Execute a full start and recovery checklist.
Emphasize fuel planning, wind calculations, appropriate launcher and SRS heading inputs.

Performance Standard. Demonstrate coordination and communications with external agencies. Demonstrate accurate system records procedures. Understand autopilot logic during each phase of an approach. Conduct flight and recovery operations in accordance with RQ-21A NATOPS. Demonstrate CRM in the terminal flight phase.

Prerequisite. FAM-1103

FAM-1105	2.0	*	B,R	S	1 MTD
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Goal. Introduce emergency procedures.

Requirement

Discuss:

Aircraft lighting system.
Environmental control system.
Ground and launch emergencies.
GPS failures.
Lost C2 link.
Stuck throttle.
Degraded recoveries.

Introduce:

Emergencies in each phase of flight to include: Failure of Power Supply to GCS, Uncommanded AIM Reset, Primary Computer Crash, ICOMC2 Software Crash, KVM Switch Fail, Aircraft Fire on Launcher, Launch Not Detected, GPS Emergencies, Intermittent and Lost C2 data link, and Degraded Engine Performance for a Poor Flight Control Emergency Recovery Procedure.

Practice:

NATOPS planning, briefing, and debriefing.
Conduct local area flight operations

Performance Standard. Identify indications, perform immediate action items, and emergency checklists in accordance with RQ-21A NATOPS.

Prerequisite. FAM-1104.

FAM-1106 2.0 * B,R S 1 MTD

Goal. Introduce emergency procedures.

Requirement

Discuss:

Electrical emergencies
Aircraft control emergencies.
Engine emergencies
Engine out procedures.
Runway landings.
Belly landings.

Introduce:

Emergency contingency planning, briefing and debriefing.
Conduct local area flight operations introducing emergencies in each phase of flight to include: Inadvertent Launch, Generator Failure, Airframe Icing, Airspeed Failure, Altimeter Failure, Erratic Flight Control, Stuck Throttle, and Engine Failure procedures.

Performance Standard. Identify indications, perform immediate action items, and emergency checklists in accordance with RQ-21 NATOPS.

Prerequisite. FAM-1105.

FAM-1107 2.0 * B,R S 1 MTD

Goal. Introduce control station transfer and controlling multiple aircraft procedures.

Requirement

Discuss:

- Mission systems.
- Mission systems communication.
- C2 systems.
- Controlling multiple aircraft.
- Aircraft focus.
- System monitor panel.
- Control station transfer.
- Appropriate routing.
- LOS.
- Lost C2 data link considerations.
- C2 data link separation.
- Aircraft chat functions.

Practice:

- NATOPS planning, briefing and debriefing.
- Conduct a quick launch and local area flight operations.
- Conduct flight of two aircraft simultaneously.
- Construct a route to facilitate aircraft transfer.
- Execute both releasing and receiving the aircraft during hub and spoke operations.

Performance Standard. De-conflict two aircraft and comply with all controlling agency instructions for both. Execute all normal and emergency procedures in accordance with RQ-21A NATOPS and applicable directives.

Prerequisite. FAM-1106.

FAM-1108	2.0	*	B,R	S	1 MTD
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Goal. Introduce EO and IR sensor operation, capabilities, and basic search patterns.

Requirement

Discuss:

- Payload system.
- ICOMC2 payload software configuration.
- EO/IR camera.
- LASER functionality.

Introduce:

- EO and IR Sensor.
- IR marker functionality.
- Find and plot a minimum three targets.

Practice:

- NATOPS planning, briefing and debriefing.
- Launch, flight and recovery procedures and checklists.

Performance Standard. Demonstrate coordination and communications with external agencies. Demonstrate accurate system records procedures. Perform all checklists and procedures in accordance with RQ-21 NATOPS. The instructor shall set night environmental conditions within the simulator during the portion of the flight that requires use of the IR pointer.

Prerequisite. FAM-1107.

FAM-1109	2.0	*	B,R	S	1 MTD
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Goal. Conduct pilot safe for flight check ride.

Requirement

Discuss:

Navigation, identification, and storage systems.
National Airspace.
Local FAA COA.
Any aircraft system or emergency procedure.

Review:

Conduct NATOPS planning, briefing, and debriefing.
Execute local area flight procedures and conduct a tactical scenario.
Correlate a minimum of two targets in EO and IR modes.
Four emergency procedures.
Missed approach procedures.

Performance Standard. Demonstrate a complete understanding of National Airspace. Demonstrate understanding of basic mission planning considerations. Identify and execute emergency procedures correctly. Conduct all checklists and procedures correctly. Conduct all flight operations in accordance with applicable SOPs. Demonstrate CRM skills throughout flight.

Prerequisite. FAM-1108.

FAM-1110	4.0	*	B	A	1 RQ-21A
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Goal. Introduce flight operations.

Requirement

Discuss:

Course rules, normal operations and emergency flight procedures.

Practice:

Conduct NATOPS planning, briefing, and debriefing.
Conduct thorough site walk through, GCS preflight, and aircraft preflight.
Normal procedures from start to shut down.
Local area procedures to include departure, en route, and terminal approach procedures.

Performance Standard. Introduce aircraft system setup. Correctly identify aircraft, launcher, SRS and site equipment components. Demonstrate conduct of preflight, screening ADB, engine start, aircraft launch, post launch, and recovery procedures. Execute all normal and emergency procedures IAW NATOPS and applicable directives.

Prerequisite. FAM-1109.

3.7.4 Tactical Skills Introduction (TAC)

3.7.4.1 Purpose. Introduce PUI to the tactical environment.

3.7.4.2 General

Admin Notes

An FRSI shall instruct all events within the stage.

Planning, briefing, and debriefing shall be conducted as a demonstration by the FRSI utilizing MAWTS-1 Tactical Briefing Guide.

3.7.4.3 Ground/Academic Training

Readings

MCWP 3-26 Air Reconnaissance

JP 3-09.3 Close Air Support:

Chapter I, Introduction, Organization and Fundamentals.
Chapter V, Execution.

MAWTS-1 TACP TACSOP:

Chapter 2, Close Air Support.
Chapter 5, UAS Integration.

MCRP 3-42.1A UAS MTPP

TAC-1200	2.0	*	B,R	S	1 MTD
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Goal. Introduce reconnaissance mission skills.

Requirement

Discuss:

- Reconnaissance profiles.
- CCIR.
- PIR.
- FFIR.
- NAI.
- TAI.
- Aural signature tool.
- Overlays.
- EOTDA.
- Absolute humidity.
- Diurnal cross-over.

Demonstrate:

- Checklist and flight procedures.
- Tactical planning, briefing and debriefing.
- Local course rules to operating area.
- Locating and passing targets through ICOMC2.

Introduce:

- Basic reconnaissance scenario with two NAI, supported unit PIR, and voice reports.

Performance Standard. Conduct a reconnaissance flight using EO/IR sensors in order to satisfy a simulated supported unit's PIR and target deck. The instructor shall set night environmental conditions within the simulator during the portion of the flight that requires use of the IR sensor.

Prerequisite. FAM-1109.

TAC-1201 2.0 * B,R S 1 MTD

Goal. Introduce OAS mission skills.

Requirement

Discuss:

- Routing considerations.
- FENCE checklist.
- ACM.
- CAS Check-In.
- Game Plan.
- CAS Attack Brief.
- Read-back criteria.
- IR marker effective ranges and target marking considerations.
- Target handoff.
- Execution template.

Demonstrate:

- Tactical planning, briefing and debriefing.
- Execute local course rules to operating area.

Introduce:

- Basic tactical scenario.
- Skills required to conduct detailed UAS integration with fire and movement of a supported unit.
- Target marking with the IR pointer.

Performance Standard. Conduct a tactical flight supporting the GCE with EO/IR sensor, grid coordinates, VDL, IR marker, and talk-on target correlation. The instructor shall set night environmental conditions within the simulator during the portion of the flight that requires use of the IR pointer.

Prerequisite. TAC-1200.

3.8 CORE SKILL PHASE (2000)

3.8.1 Purpose. This phase contains basic Core Skill training essential to employment of the unit platform/system. This phase should provide aircrew with the skills required to develop proficiency in RQ-21A system fundamentals and introduce mission elements.

3.8.2 General. This phase is intended to provide aircrew with the skills necessary to complete 3000 phase events.

Prerequisites

- NTPS Qualified
- 1000 Phase.

Admin Notes

- A certified and designated BIP shall instruct all events within the phase.

- The passing grade on written examinations is 80%.

3.8.3 Stages

Par No.	Stage Name
3.8.4	Familiarization (FAM)
3.8.5	Reconnaissance (REC)
3.8.6	Tactical Skills Introduction (TAC)
3.8.7	Expeditionary Operations (EXP)

3.8.4 Familiarization (FAM)

3.8.4.1 Purpose. Maintain proficiency in normal and emergency procedures, navigation, and local flight operations.

3.8.4.2 General. This stage provides aircrew the opportunity to meet currency requirements and provides the squadron with an arrival inventory of aircrew proficiency.

3.8.4.3 Ground/Academic Training

Lectures

ACAD-2000 RQ-21A Communication Relay Payload
ACAD-2001 Aviation Weather

FAM-2100 2.0 * B,C S 1 MTD

Goal. Practice local area procedures.

Requirement

Practice:

NATOPS flight planning, briefing, and debriefing.
Normal procedures from start to shut down.
Local area procedures to include departure, en route, and terminal approach procedures.
CRM throughout the flight.

Performance Standard. PUI demonstrates familiarity with aircraft system setup, conduct of preflight, engine start, aircraft launch, post launch, and recovery procedures. Execute all normal and emergency procedures in accordance with RQ-21A NATOPS and applicable directives.

Prerequisite. FAM ground/academic training.

FAM-2101 2.0 90 B,C,R (N) S 1 MTD

Goal. Review emergency procedures.

Requirement

Review:

NATOPS flight planning, briefing, and debriefing.
Normal and emergency procedures and checklists.
Local area procedures and navigation.
Execute a two simulated emergencies during launch, in-

flight, and recovery phases (ship or shore procedure as required by operational requirements).
CRM.

Event shall be flown during the day during the Basic POI.

Performance Standard. Perform NATOPS immediate action items as required by emergency. Execute all normal and emergency procedures in accordance with RQ-21A NATOPS and applicable directives.

Prerequisite. FAM-2100.

FAM-2102 2.0 90 B,C,R,M (N) A 1 RQ-21A

Goal. Review familiarization, navigation, and local Area flight.

Requirement

Review:

NATOPS flight planning, briefing, and debriefing.
Normal and emergency procedures and checklists, local area procedures, and navigation.
Flight in the local operating area.
A minimum of two simulated emergencies during the launch phase.
CRM.
Event shall be flown during the day during the Basic POI.

Performance Standard. Execute all normal and emergency procedures in accordance with RQ-21A NATOPS and applicable directives.

Prerequisite. FAM-2101.

Range. RSTD.

FAM-2103 2.0 365 B,C,R,M (N) A 1 RQ-21A

Goal. Introduce CRP operation.

Requirement

Discuss:

Radio waves.
Wave propagation.
Antenna performance.
Frequency bands.
CRP functionality.
Configuration.
Loading procedures.

Practice:

NATOPS flight planning, briefing, and debriefing.
Normal flight and navigation procedures.

Introduce:

CRP functionality and conduct a communication relay from two ground based radios.
CRP operation in the following configuration: Relay Mode VULOS AM, Plain Text, across VHF(H)/UHF bands.
Pass a CAS check-in.
Receive a situation update.

Pass a MISREP.

Performance Standard. Execute all procedures in accordance with RQ-21A NATOPS and applicable directives. CAS check-in must be passed in accordance with MAWTS-1 TACP TACSOP.

Prerequisite. FAM-2101.

FAM-2104 2.0 365 B,C,R,M (N) A 1 RQ-21A

Goal. Introduce signals payload operations.

Requirement

Discuss:

- Signals recognition.
- Target localization.
- ES search patterns.
- EO/IR cross-cueing.

Introduce:

- Electronic signals payload planning, briefing, execution, and debrief.
- EW support techniques.
- Detect, recognize, and identify two signals of interest.

Performance Standard. Accurately identify two signals by band. Operate signals payload as specified by NET.

Prerequisite. FAM-2102.

Range. RSTD, EW.

FAM-2105 2.0 365 B,C,R,M (N) A 1 RQ-21A

Goal. Introduce EA communications payload operation.

Requirement

Discuss:

- Communication systems characteristics.
- Communications jamming fundamentals.
- Advanced jamming techniques.

Introduce:

- EA communications payload planning, briefing, execution, and debrief.
- EW attack techniques.
- Jam three communication signals.

Performance Standard. Jam three communications signal. Operate EA payload as specified by NET.

Prerequisite. FAM-2102.

Range. RSTD, EW.

FAM-2106 2.0 365 B,C,R,M (N) A 1 RQ-21A

Goal. Introduce EA radar payload operation.

Requirement

Discuss:

- Radar systems characteristics.
- Radar jamming fundamentals.
- Advanced jamming techniques.

Introduce:

- EA radar payload planning, briefing, execution, and debrief.
- EW attack techniques.
- Jam three radar signals.

Performance Standard. Jam three radar signals. Operate EA payload as specified by NET.

Prerequisite. FAM-2102.

Range. RSTD, EW.

3.8.5 Reconnaissance (REC)

3.8.5.1 Purpose. To develop proficiency in reconnaissance techniques.

3.8.5.2 General

Prerequisites

FAM-2100 and FAM-2101.

Admin Notes

Each event has associated threats to be briefed by the PUI consisting of general working knowledge of the weapon system and its employment; missile characteristics, calibers, propulsion, warhead, and guidance types.

3.8.5.3 Ground/Academic Training

Lectures

ACAD-2002 Geodetics
ACAD-2003 C4ISR

REC-2200 2.0 * B S 1 MTD

Goal. Introduce zone and area reconnaissance techniques.

Requirement

Discuss:

- SA-2.
- Fan Song.
- Spoon Rest.
- SA-3.

Low Blow.
Flat Face.
SA-5.
Square Pair.
Tall King.
UAS TCT.
Aircraft characteristics.
Environmental effects on sensors.

Introduce:

Zone reconnaissance and landing zone reconnaissance techniques.
Reconnoiter two NAI or two TAI and locate five specified targets.
Information requirements for each NAI will include at a minimum:
specific targets, LTIOV, collection duration, and reporting
procedures.

Performance Standard. Locate all five targets within the parameters of the assigned information requirements. Perform search patterns and tracking techniques based on area size, terrain density, and TOS in accordance with NTTP 3-22.3-VMU.

Prerequisite. FAM ground/academic training, FAM-2101

REC-2201	2.0	*	B	S	1 MTD
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Goal. Introduce route and urban reconnaissance techniques.
Requirement

Discuss:

SA-9.
Chaparral.
ZSU-23-4.
Gun Dish.
IPB.
MCOO.
PIR.
POL analysis.

Introduce:

Route reconnaissance of a specific LOC and of an urban area containing vertically developed targets.
Locate and pass a SPOTREP for five specified targets.
Execute each of the following flight profiles at least once:
orbit, racetrack, and figure eight.
Apply each technique to avoid audible/visible compromise, over-flight of targets, and urban terrain masking.

Practice:

Observation and tracking of a moving target.

Performance Standard. Execute positioning techniques to maintain a track of a target moving along the specified LOC for at least three minutes with minimum aircraft masking. Find all five targets and pass SPOTREP in accordance with NTTP 3-22.3-VMU.

Prerequisite. REC-2200.

SREC-2202	2.0	*	B,R	S	1 MTD
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Goal. Introduce electronic reconnaissance.

Requirement

Discuss:

SA-6.
Long Track.
Straight Flush.
SA-8.
Land Roll.

Demonstrate:

TCT.

Introduce:

Construct appropriate routing and conduct reconnaissance in order to identify threats and correlate ES payload cueing for EO/IR sensors.

Performance Standard. Identify threat and effective ranges in accordance with AFTTP 3-1. Execute positioning techniques and electronic reconnaissance patterns. Plot and report threats in a timely manner. Perform all procedures and TCT in accordance with NTTP 3-22.3-VMU.

Prerequisite. REC-2201.

REC-2203 4.0 90 B,C,R,M (N) A/S 1 RQ-21A

Goal. Review zone, area, route and urban reconnaissance techniques.

Requirement

Discuss:

Crotale.
Crotale NG.
Mirador IV.
Castor 2.
Roland II.
M3S.
I-HAWK.
MPQ-64.
MPQ-61.

Review:

Submit EOTDA request prior to flight and incorporate effects of high absolute humidity and diurnal crossover on sensor performance into mission briefing.
Reconnaissance of five specified areas.
Locate and pass SPOTREPs for five targets within those specified areas.
Perform each of the following maneuvering techniques at least once: orbit, racetrack, and figure-eight.
The instructor will provide conditions that require the use of each technique(e.g. audible/visible compromise avoidance, over-flight avoidance, urban terrain masking avoidance).

Performance Standard. Conduct reconnaissance of five specified areas and TCT in accordance with NTTP 3-22.3-VMU. Record FMV and provide imagery of five targets for debrief or customer unit.

Prerequisite. REC-2202.

Range. RSTD, URBN TRNG.

3.8.6 Tactical Skills Introduction (TAC)

3.8.6.1 Purpose. Introduce UAS skills required to conduct, integrate, and synchronize fires-based missions.

3.8.6.2 General. This stage builds upon skills introduced in the Core Skills Introduction Phase to develop the requisite skill necessary for the Mission Skills Phase.

Prerequisites

REC-2202.

Admin Notes

Additional aircraft payloads and their basic functionality may be introduced during these events.

3.8.6.3 Ground/Academic Training

Lectures

ACAD-2004 GCE Capabilities
ACAD-2005 Aerial Observer TTPs
ACAD-2006 AV-8 EFL
ACAD-2007 EW Employment
ACAD-2008 GPS Theory

TAC-2300 2.0 * B,C S/A 1 MTD

Goal. Introduce artillery correction techniques with ICOMC2.

Requirement

Discuss:

MCRP 3-16.6A.
AOF.
GTL.
OTL.
CFF Formats.
Fires Communication Nets.
M224.
M252.
EFSS/ITV.
M777.

Introduce:

Conduct reconnaissance of a target area, locate and generate coordinates for five separate targets or five target sets.
Pass five adjust fire missions. Provide artillery adjustment

values using reticule tool for each mission.
Receive and record MTO.
RREMS statement.

Performance Standard. Target area reconnaissance and CFF must be executed in accordance with MCRP 3-16.6A and NTTP 3-22.3-VMU. Spotting and corrections must result in effects on target for each fire mission.

Prerequisite. TAC ground/academic training.

TAC-2301 2.0 90 B,R,M S/A 1 MTD

Goal. Introduce TCO escort.

Requirement

Discuss:

Convoy commander responsibilities.
Vehicle marking procedures.
Attached/detached escort procedures.

Introduce:

Route reconnaissance in support of TCO.
Provide escort for one convoy conducting a tactical movement along a single LOC that is approximately 20 kilometers from SP to RP.
Communication with mounted forces.
Marking for TCO using the IR pointer.

Performance Standard. Route reconnaissance must be executed in accordance with NTTP 3-22.3-VMU. Escort techniques must be in accordance with NTTP 3-22.3-VMU and MCRP 4-11.3H. The instructor shall set night environmental conditions within the simulator during the portion of the flight that requires use of the IR pointer.

Prerequisite. TAC-2300.

TAC-2302 2.0 * B S/A 1 MTD

Goal. Introduce operations in DAS environment.

Requirement

Discuss:

Kill Boxes.
GARS.
CGRS.
TPL.
ROE.
SCAR tasking.
BHO.

Introduce:

Airspace management and aircraft routing within an assigned SCAR working area. Three AR assets shall be assigned.
Communication on SCAR frequencies.
Locate ten targets. At least six targets must be located by assigned AR assets.
Prioritize targets based off an assigned TPL.

Issue ten tasks to assigned AR assets. Two tasks must involve coordination between the RQ-21A and an AR asset. Five tasks must be Target or Smack. Two of the Target tasks must be against targets the RQ-21A is unable to observe due to distance. Task assets in accordance with ROE. Execute threat reaction game plan for one pop-up threat that creates prohibitive interference for at least one AR asset. SCAR execution template. Consolidate BDA from AR assets and report to C2 agency. Conduct a BHO.

Performance Standard. Manage airspace, properly use ACM, route aircraft, and issue restrictions to AR assets in accordance with JP 3-52 and MCRP 3-23C. Tasks must result in the neutralization or destruction of five targets. Execute tasking, use SCAR execution template, SCAR attack brief, pass BDA, and conduct BHO in accordance with MCRP 3-23C. Comply with ROE. Engage targets in accordance with the TPL. Execute briefed TCT in accordance with NTTP 3-22.3-VMU.

Prerequisite. TAC-2301.

TAC-2303 2.0 * B S/A 1 MTD

Goal. Introduce operations in CAS environment.

Requirement

Discuss:

CAS Execution Template.
Type I/II/III controls.
CAS Attack Brief.
TLE.

Introduce:

Target location within a CAS objective area. Locate at least three separate targets or two target sets and pass corresponding grids to TAC.
Navigation within a CAS objective area.
Target correlation with a TAC by passing a grid coordinate.
CAS brevity.
BDA.

Performance Standard. Comply with ACM restrictions, routing instructions, holding instructions, and restrictions directed by the TAC or SPINS. All brevity used must be in accordance with MCRP 3-25B and JP 3-09.3. All targets must be passed in the format specified in NTTP 3-22.3-VMU. All BDA passed must be in the format prescribed by the MAWTS-1 TACP TACSOP.

Prerequisite. TAC-2302.

3.8.7 Expeditionary Operations (EXP)

3.8.7.1 Purpose. Introduce split site operations and employment.

3.8.7.2 General

Prerequisites

FAM-2100.

Admin Notes

Events in EXP stage can be conducted concurrently with other events in 2000 Phase that meet event requirements.

3.8.7.3 Ground/Academic Training. Aircrew shall complete all Core Skill EXP academic codes prior to completion of this phase of training. Refer to MAWTS-1 RQ-21A Course Catalog.

EXP-2400 8.0 * B,R L 1 RQ-21A

Goal. Introduce site OIC responsibilities.

Requirement

Discuss:

- Hub and spoke employment.
- Site setup.
- Power requirements.
- Communication requirements.

Introduce:

- Conduct site setup, pre/post flight checks, communications setup, and ITEG II generator checks.
- Attend squadron brief and debrief of squadron site operations.

Performance Standard. Demonstrate site OIC responsibilities per squadron SOP.

Prerequisite. EXP ground/academic training.

EXP-2401 2.0 365 B,C,R,M (N) A 1 RQ-21A

Goal. Introduce decentralized operations.

Requirement

Discuss:

- On-Station relief.
- Situation update.
- BHO.
- Aircraft handoff techniques.
- Equipment lighting considerations: covert, NVG compatible and friendly lighting.

Introduce:

- Flight operations from a spoke site.

Performance Standard. Conduct flight operations in accordance with RQ-21A NATOPS.

Prerequisite. EXP-2400.

Range. RSTD.

3.8.8 Aviation Career Progression Model (ACPM)

3.8.8.1 Purpose. To enhance professional understanding of Marine Aviation and the MAGTF and to ensure that aviators possess the requisite skills to fill battle command and battle staff positions in support of the ACE and the MAGTF in a joint environment.

3.8.8.2 General. ACPM academic training requirements will be embedded in all tactical T/M/S T&R manuals within the progressive training phases to include the 2000, 3000, and 6000 phases of training. These training requirements will be tracked and managed in M-SHARP. Commanding officers shall ensure that the requisite ACPM training requirements have been met prior to designating flight leaders.

ACPM Core Skill Training Events

ACPM-8200 MACCS Agencies, Functions and Control of Aircraft and Missiles
ACPM-8201 MWCS Brief
ACPM-8202 ACA & Airspace
ACPM-8210 Aviation Ground Support
ACPM-8230 ACE Battle Staff
ACPM-8231 Battle Command Display
ACPM-8240 Six Functions of Marine Aviation
ACPM-8241 JTAR/ASR Introduction and Practical Application
ACPM-8242 Site Command Primer
ACPM-8250 Theater Air Ground System (TAGS)

3.9 MISSION SKILL PHASE (3000)

3.9.1 Purpose. To develop proficiency in mission skills executed from expeditionary shore based sites.

3.9.2 General. This phase focuses on developing PUI proficiency in skills necessary to accomplish the unit's METL.

Prerequisites

2000 Phase

Admin Notes

A certified and designated WTO shall instruct all events within the phase.

Basic POI events shall be flown as a single ship.

The passing grade on written examinations is 80%.

3.9.3 Stage. The following stages are included in the Mission Skill Phase of training.

Par No.	Stage Name
3.9.4	Aviation Reconnaissance & Surveillance (AREC)
3.9.5	Aerial Escort (AESC)
3.9.6	Supporting Arms Control (SARM)
3.9.7	Deep Air Support (DAS)
3.9.8	Facilitate Close Air Support (CAS)
3.9.9	Expeditionary Operations (EXP)

3.9.4 Aviation Reconnaissance and Surveillance (AREC)

3.9.4.1 Purpose. To develop AREC proficiency and flight leadership skills.

3.9.4.2 General. None.

3.9.4.3 Ground/Academic Training

Lectures

ACAD-3001 Intelligence Preparation of the Battlespace
ACAD-3002 Electro-Optical Tactical Decision Aids

AREC-3100 2.0 365 B,C,R,M A/S 1 RQ-21A

Goal. Practice route reconnaissance.

Requirement

Discuss:

SA-11.
SA-17.
Snow Drift.
Fire Dome.
SA-15.
Scrum Half.
OOB.
Movement requirements.

Practice:

Submit EOTDA request and incorporate EOTDA into sensor game plan.
Reconnaissance of the specified zone or area. Within that area,
Reconnaissance of the specified route and complete a ROUTEREP.
One SPOTREP.
Collect ten still images and one two minute FMV recording to
support the ROUTEREP.

Performance Standard. Complete all reports in accordance with MCRP 2-15.3B. Execute aircraft profiles and sensor game plans in accordance with NTTP 3-22.3-VMU.

Prerequisite. AREC ground/academic training.

Range. RSTD, TGT-FORM, RECCE ARRAY.

AREC-3101 2.0 * B A/S 1 RQ-21A

Goal. Practice zone reconnaissance or area reconnaissance.

Requirement

Discuss:

SA-10A/B.
Tin Shield.
Flap Lid.
SA-12.
Clam Shell.
Grill Pan.

SA-20.
Big Bird.
Tomb Stone.
SA-22.
Nebo SVU.
Grave Stone.
RSTA.
I&W.
OOB.
MIR.
Terrain analysis.
Collection requirements.

Practice:

Submit EOTDA request and incorporate EOTDA into sensor game plan. Reconnaissance of the specified zone or area. Within that area, execute: one ROUTEREP, one ALZREP, one HELLSREP, one DZREP. The ALZREP must be in an urban area. Aircraft profiles and sensor game plans to avoid audible compromise while conducting the DZREP and overflight of the LOC used for the ROUTEREP. Collect twenty still images and three one minute FMV recording to support the reports.

Performance Standard. Complete all reports in accordance with MCRP 2-25A. Execute aircraft profiles and sensor game plans in accordance with NTTP 3-22.3-VMU.

Prerequisite. AREC-3100.

Range. RSTD, TGT, RECCE-ARRAY.

AREC-3102 2.0 365 B,C,R,M (N) A/S 1 RQ-21A

Goal. Practice electronic reconnaissance.

Requirement

Discuss:

ES missions.
MCRP 3-25B EW brevity Codes.
Communication procedures.
Signals prioritization.

Practice:

A tactical electronic reconnaissance mission in a dense electromagnetic environment, localizing and cross-cueing a minimum of five signals.

Performance Standard. Conduct electronic reconnaissance of five specified emitters and correctly correlate electronic signals with the EO/IR sensor. Produce target imagery, FMV, and EMS analysis of target environment for debrief. Perform appropriate TCT for threats. Operate EW payload as specified by NET.

Prerequisite. AREC-3101.

Range. TGT, URBN, EW, HI-FI EW.

AREC-3103 2.0 * B,R N A/S 1 RQ-21A

Goal. Review tactical reconnaissance.

Requirement

Discuss:

SA-13.
Dog Ear.
Snap Shot.
2S6.
SA-19.
Hot Shot.
SA-22.
Trick Shot.
HLZ and obstacles in an urban environment.
Structural breach points.
Enemy visual observation points and egress routes.
Point, linear and complex target arrays.
Description techniques.

Review:

A tactical reconnaissance mission to support a follow-on raid. Locate a potential primary and alternate HLZ for assault support aircraft. The primary LZ must be able to support fast-rope operations from two CH-53E. The alternate LZ must be able to support two CH-53E landing in zone. Conduct a HELLSREP of both potential HLZs. HLZs must be within five kilometers of the assigned objective. Provide five still images to support the each HELLSREP.
Locate three avenues of approach from the primary HLZ to the assigned objective and prepare a ROUTEREP for each. Provide a one minute FMV recording to support each ROUTEREP.

Aircraft profiles and sensor game plan must support each report while avoiding audible and visual detection from the assigned objective.

Event must be flown at night during the Basic POI.

Performance Standard. Complete all reports in accordance with MCRP 2-25A. Assault support considerations must be in accordance with NTTP 3-22.5-ASTACSOP. Execute aircraft profiles and sensor game plans in accordance with NTTP 3-22.3-VMU.

Prerequisite. AREC-3102.

Range. TGT, URBN.

3.9.5 Aerial Escort (AESC)

3.9.5.1 Purpose. To develop proficiency in surface based escort.

3.9.5.2 General

Prerequisites

AREC-3103.

3.9.5.2 General. None.

3.9.5.3 Ground/Academic Training. Aircrew shall complete all Mission Skill AESC academic codes prior to completion of this phase of training. Refer to MAWTS-1 RQ-21A Course Catalog.

AESC-3200 2.0 * B A/S 1 RQ-21A

Goal. Practice TCO escort.

Requirement

Discuss:

- Attached, detached, and combined escort game plans.
- Surface threat to convoy.
- Convoy actions on contact.
- Fires coordination.
- ROE.
- Convoy commander responsibilities.
- Vehicle marking procedures.
- Attached/detached escort procedures.

Practice:

- Route reconnaissance in support of TCO.
- Provide escort for one convoy conducting a tactical movement along a single LOC that is approximately 20 kilometers from SP to RP.
- Communication with mounted forces.
- React to a report of a surface to air threat.

Performance Standard. Route reconnaissance and TCT must be executed in accordance with NTPP 3-22.3-VMU. Escort techniques must be in accordance with NTPP 3-22.3-VMU and MCRP 4-11.3H.

Prerequisite. AESC ground/academic training.

Range. TGT, URBN.

External Support Syllabus. Convoy.

AESC-3201 2.0 365 B,C,R,M (N) A/S 1 RQ-21A

Goal. Introduce support to raid operations.

Requirement

Discuss:

- SOF brevity terms.
- HPT identification.
- Supporting actions on the objective.
- Audible/visible compromise avoidance.
- UAS responsibilities in regard to PID.
- Containment.

Introduce:

- Surface raid force procedures.
- Communication brevity.

Performance Standard. Conduct reconnaissance techniques and procedures in support of a raid force commander. Brevity must be in accordance with MCRP 3-25B. Maintain situational awareness, adhere to ROE and preplanned fires coordination. Avoid audible/visual compromise and conduct escort tactics in accordance with NTTP 3.22-VMU.

Prerequisite. AESC-3200.

Range. TGT, URBN.

External Support Syllabus. Raid force.

3.9.6 Supporting Arms Control (SARM)

3.9.6.1 Purpose. To develop proficiency in control of supporting arms.

3.9.6.2 General

Prerequisite

AREC 3103.

3.9.6.3 Ground/Academic Training

Lectures

ACAD-3003 Integrating Fires and Airspace within the MAGTF
ACAD-3004 Fire Support Coordination

SARM-3300 2.0 * B,C S/A 1 MTD

Goal. Practice CFF.

Requirement

Discuss:

Artillery SEAD methods of engagement.
FIRECAP Report.

Practice:

Five fire missions, one of each of the following: adjust fire, fire for effect, immediate suppression, SEAD, and marking round.

Performance Standard. Execute all fire missions in accordance with MCRP 3-16.6A and NTTP 3-22.3-VMU. Adjust fire mission must affect the target within three corrections. Fire for effect mission must affect the target without adjustment. Suppression and mark must be placed on correct targets for SEAD mission. Marking round must be within 300 meters of the target.

SARM-3301 2.0 * B,R A/S 1 RQ-21A

Goal. Practice CFF in support of a maneuver element.

Requirement

Practice:

Goal. Introduce supporting a SCAR Mission.

Requirement

Discuss:

- Purpose of an AR mission.
- Deliberate vs. dynamic targeting.
- Target precedence.
- Search pattern.
- Sensor employment.
- Target area tactics.
- Information flow through the C2 system.

Introduce:

- Target location within a SCAR working area. Locate at least five separate targets or five target sets and pass corresponding grids to SCAR.
- Navigation within a SCAR working area.
- Target correlation with a SCAR by passing a grid coordinate.
- BDA.

Performance Standard. 100% of routing instructions, holding instructions, and restrictions directed by the SCAR must be complied with. All brevity used must be in accordance with MCRP 3-25B and MCRP 3-23C. All targets must be passed in the format specified in NTTP 3-22.3-VMU. All information must be passed on the proper communication net in accordance with event SPINS. All targets passed to the TAC must have sufficient accuracy and precision to be used in SCAR tasking. All BDA passed must be in the format prescribed by MCRP 3-23C.

Prerequisite. SCAR ground/academic training, AREC-3103.

SCAR-3401 2.0 365 B,C,R,M A/S 1 RQ-21A

Goal. Practice SCAR.

Requirement

Discuss:

- Prohibitive interference.
- Slide and Scram game plan.

Practice:

- Airspace management and aircraft routing within an assigned SCAR working area.
- Two AR assets shall be assigned.
- Communication on SCAR frequencies.
- Locate ten targets. At least six targets must be located by assigned AR assets.
- Prioritize targets based off an assigned TPL.
- Issue ten tasks to assigned AR assets. Two tasks must involve coordination between the RQ-21A and an AR asset. Five tasks must be Target or Smack. Two of the Target tasks must be against targets the RQ-21A is unable to observe.
- Task assets in accordance with ROE.
- Execute threat reaction game plan for one pop-up threat that creates prohibitive interference for at least one AR asset.
- SCAR execution template.

Consolidate BDA from AR assets and report to C2 agency.
Conduct a BHO.

Performance Standard. Manage airspace, properly use ACM, route aircraft, and issue restrictions to AR assets in accordance with JP 3-52 and MCRP 3-23C. Tasks must result in the neutralization or destruction of five targets. Execute tasking, use SCAR execution template, SCAR attack brief, pass BDA, and conduct BHO in accordance with MCRP 3-23C. Comply with ROE. Engage targets in accordance with the TPL. Execute briefed TCT in accordance with NTTP 3-22.3-VMU.

Prerequisite. AR-3400.

Range. LSR, TGT.

External Support Syllabus. Two AR assets.

SCAR-3402	2.0	365	B,R,M	N	A/S	1 RQ-21A
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Goal. Practice night SCAR.

Requirement

Practice:

Airspace management and aircraft routing within an assigned SCAR working area. Two AR assets shall be assigned.
Communication on SCAR frequencies.
Locate ten targets. At least six targets must be located by assigned AR assets.
Prioritize targets based off an assigned TPL.
Issue ten tasks to assigned AR assets. Two tasks must involve coordination between the RQ-21A and an AR asset. The IR pointer must be used for correlation for at least one task.
Five tasks must be Target or Smack. Two of the Target tasks must be against targets the RQ-21A is unable to observe.
Task assets in accordance with ROE.
Execute threat reaction game plan for one pop-up threat that creates prohibitive interference for at least one AR asset.
SCAR execution template.
Consolidate BDA from AR assets and report to C2 agency.
Conduct a BHO.

Performance Standard. Manage airspace, properly use ACM, route aircraft, and issue restrictions to AR assets in accordance with JP 3-52 and MCRP 3-23C. Tasks must result in the neutralization or destruction of five targets. Execute tasking, use SCAR execution template, SCAR attack brief, pass BDA, and conduct BHO in accordance with MCRP 3-23C. Aircraft must contact the RQ-21A sparkle for all target correlation involving the IR pointer. Comply with ROE. Engage targets in accordance with the TPL. Execute briefed TCT in accordance with NTTP 3-22.3-VMU.

Prerequisite. SCAR-3401.

Range. LSR, TGT.

External Support Syllabus. Two AR assets.

3.9.8 Facilitate Close Air Support (CAS)

3.9.8.1 Purpose. To complete CAS qualification.

3.9.8.2 General. To develop proficiency conducting day and night CAS facilitation in low to medium threat environments.

Prerequisites

AREC Stage.

3.9.6.3 Ground/Academic Training

Lectures

ACAD-3009 Close Air Support
ACAD-3010 Close Air Support Execution
ACAD-3012 Hellfire Part 1
ACAD-3013 Hellfire Part 2
ACAD-3014 AV-8 Dual Mode Weapons
ACAD-3015 F-18 Laser Guided Weapons
ACAD-3016 F-18 GPS Weapons

CAS-3500 2.0 * B A 1 RQ-21A

Goal. Practice CAS integration.

Requirement

Discuss:

Air to surface timelines.
ACM.
LASER marksmanship.

Practice:

Target location within a CAS objective area. Locate at least three separate targets or three target sets and pass corresponding grids to TAC.
Navigation within a CAS objective area.
Target correlation with a TAC by passing a grid coordinate.
CAS brevity.
BDA.

Performance Standard. 100% of routing instructions, holding instructions, and restrictions directed by the TAC must be complied with. All ACM restrictions specified in the event SPINS must be complied with. All brevity used must be in accordance with MCRP 3-25B and JP 3-09.3. All targets must be passed in the format specified in NTTP 3-22.3-VMU. All information must be passed on the proper communication net in accordance with event SPINS. All information must be passed in a timely manner without disrupting the TAC's tempo. All targets passed to the TAC must have sufficient accuracy and precision to be used as lines 4 and 6 in a CAS attack brief to an armed CAS asset without further refinement. All digital communication must be transmitted in accordance with the MAWTS-1 TACP TACSOP and formatted in accordance with MCRP 3-40.2B. All BDA passed must be in the format prescribed by the MAWTS-1 TACP TACSOP.

Prerequisite. CAS ground/academic training.

Range. LSR, TGT.

External Support Syllabus. One TAC and one section of CAS assets.

CAS-3501 2.0 365 B,R,M N A 1 RQ-21A

Goal. Practice night CAS integration.

Requirement

Discuss:

Target handoff with IR marker.

IR brevity.

IR CAS communications.

Practice:

Target location within a CAS objective area. Locate at least two separate targets or two target sets and pass corresponding grids to TAC.

Navigation within a CAS objective area.

Target correlation with a TAC and one other CAS asset using the IR Pointer. Provide TGO for at least two separate targets or two target sets. The attacking CAS asset must engage at least one target that is being illuminated by the RQ-21A with unguided ordnance.

Target correlation with a TAC by passing a grid coordinate.

CAS brevity.

BDA.

Performance Standard. 100% of routing instructions, holding instructions, and restrictions directed by the TAC must be complied with. All ACM restrictions specified in the event SPINS must be complied with. All brevity used must be in accordance with MCRP 3-25B and JP 3-09.3. All targets must be passed in the format specified in NTTP 3-22.3-VMU. All information must be passed on the proper communication net in accordance with event SPINS. All information must be passed in a timely manner without disrupting the TAC's tempo. All targets passed to the TAC must have sufficient accuracy and precision to be used as lines 4 and 6 in a CAS attack brief to an armed CAS asset without further refinement. For all attacks using the IR pointer, the crew must illuminate the correct target and the attacking aircraft must be able to contact the sparkle. All digital communication must be transmitted in accordance with the MAWTS-1 TACP TACSOP and formatted in accordance with MCRP 3-40.2B. All BDA passed must be in the format prescribed by the MAWTS-1 TACP TACSOP.

Prerequisite. CAS-3500.

Range. LSR, TGT.

External Support Syllabus. One TAC and one section of CAS assets.

CAS-3502 2.0 365 B,C,R,M (N) A 1 RQ-21A

Goal. Practice urban CAS integration.

Requirement

Discuss:

GRG.
Vertically developed targets.
LASER considerations.

Practice:

Target location within a CAS objective area. Locate at least three separate targets or target sets and pass corresponding grids to TAC.
Navigation within a CAS objective area.
Target correlation with a TAC and one other CAS asset using the IR Pointer. Provide TGO for at least two separate targets or two target sets. The attacking CAS asset must engage at least one target that is being illuminated by the RQ-21A with unguided ordnance. (If the event is conducted at night).
Target correlation with a TAC by passing a grid coordinate.
Target location by GRG talk-on. Receive two targets from the TAC and pass two targets to the TAC.
CAS brevity.
BDA.

Performance Standard. 100% of routing instructions, holding instructions, and restrictions directed by the TAC must be complied with. All ACM restrictions specified in the event SPINS must be complied with. All brevity used must be in accordance with MCRP 3-25B and JP 3-09.3. All targets must be passed in the format specified in NTTP 3-22.3-VMU. All information must be passed on the proper communication net in accordance with event SPINS. All information must be passed in a timely manner without disrupting the TAC's tempo. All targets passed to the TAC must have sufficient accuracy and precision to be used as lines 4 and 6 in a CAS attack brief to an armed CAS asset without further refinement. For all attacks using the IR pointer, the crew must illuminate the correct target and the attacking aircraft must be able to contact the sparkle. For all GRG talk-ons passed by the crew, the correct version of the GRG must be used, and the TAC must be able to locate the target within three minutes. All digital communication must be transmitted in accordance with the MAWTS-1 TACP TACSOP and formatted in accordance with MCRP 3-40.2B. All BDA passed must be in the format prescribed by the MAWTS-1 TACP TACSOP.

Prerequisite. CAS-3501.

Range. LSR, TGT, URBN.

External Support Syllabus. One TAC and one section of CAS assets.

CAS-3503	2.0	365	B,C,R,M	(N)	A/S	1 RQ-21A
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Goal. Review CAS integration.

Requirement

Review:

Target location within a CAS objective area. Locate at least three separate targets or target sets and pass corresponding grids to TAC.
Navigation within a CAS objective area.
Target correlation with a TAC and one other CAS asset using the IR Pointer. Provide TGO for at least two separate targets or two target sets. The attacking CAS asset must engage at

least one target that is being illuminated by the RQ-21A with unguided ordnance. (If the event is conducted at night).
Target correlation with a TAC by passing a grid coordinate.
Target location by GRG talk-on. Pass one target to the TAC. (If the event is conducted on an URBN range).
CAS brevity.
TCT. Respond to one pop-up threat in the objective area in accordance with the TAC's threat reaction game plan.
BDA.

Performance Standard. 100% of routing instructions, holding instructions, and restrictions directed by the TAC must be complied with. All ACM restrictions specified in the event SPINS must be complied with. All brevity used must be in accordance with MCRP 3-25B and JP 3-09.3. All targets must be passed in the format specified in NTTP 3-22.3-VMU. All information must be passed on the proper communication net in accordance with event SPINS. All information must be passed in a timely manner without disrupting the TAC's tempo. All targets passed to the TAC must have sufficient accuracy and precision to be used as lines 4 and 6 in a CAS attack brief to an armed CAS asset without further refinement. For all attacks using the IR pointer, the crew must illuminate the correct target and the attacking aircraft must be able to contact the sparkle. For all GRG talk-ons passed by the crew, the correct version of the GRG must be used, and the TAC must be able to locate the target within three minutes. All digital communication must be transmitted in accordance with the MAWTS-1 TACP TACSOP and formatted in accordance with MCRP 3-40.2B. All TCT must be executed in accordance with NTTP 3-22.3-VMU. All BDA passed must be in the format prescribed by the MAWTS-1 TACP TACSOP.

Prerequisite. CAS-3502.

Range. LSR, TGT.

External Support Syllabus. One TAC and one section of CAS assets.

3.9.9 Expeditionary Operations (EXP)

3.9.9.1 Purpose. To complete EXP qualification.

3.9.9.2 General

Prerequisite

2000 Phase.

Admin Notes

Stage events shall exceed 24 hours in duration.

3.9.9.3 Ground/Academic Training

Lectures

ACAD-3011 Diesel Engine Theory

EXP-3600	25.0	365	B,C,R,M	L	1 RQ-21A
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Goal. Conduct decentralized operations as an OIC.

Requirement

Discuss:

Decentralized operations.
Squadron SOP.
GCS power and connectivity.
Communication requirements.
Cockpit arrangement.

Introduce:

Site planning.
Site establishment briefing.
Communication setup and establishment supervision.
ITEG II generator check supervision.
Ability to write a comprehensive squadron AAR based on site operations.

Performance Standard. Develop a site plan and brief and supervise site establishment in accordance with NTTP 3-22.3-VMU and Squadron SOP. AAR must completely and accurately capture all salient points from the operation.

3.9.10 ACPM Mission Skill Training Events

ACPM-8300 Air Defense
ACPM-8310 Forward Arming Refueling Point (FARP) Operations
ACPM-8311 Marine Corps Tactical Fuel Systems
ACPM-8320 Joint Structure & Joint Air Operations
ACPM-8321 Joint Air Tasking Cycle Phase 1: Strategy Development
ACPM-8322 Joint Air Tasking Cycle Phase 2: Target Development
ACPM-8323 Joint Air Tasking Cycle Phase 3: Weaponing and Allocation
ACPM-8324 Joint Air Tasking Cycle Phase 4: Joint ATO Production
ACPM-8325 Joint Air Tasking Cycle Phase 5: Force Execution
ACPM-8326 Joint Air Tasking Cycle Phase 6: Combat Assessment
ACPM-8340 Integrating Fires & Airspace Within the MAGTF
ACPM-8350 Phasing Control Ashore
ACPM-8351 TACRON Organizations and Functions

3.10 CORE PLUS SKILLS PHASE (4000)

3.10.1 Purpose. To train for large-scale, integrated missions having unique mission tasking and to introduce skills or missions having a low probability of execution or that are theatre specific.

3.10.2 General

Prerequisites

2000 Phase for PUI undergoing CQ training.

AREC Stage, AESC (3000) Stage, and SARM Stage for all other stages within Core Plus Skill Phase.

Admin Notes

Instructor requirements are specified by stage.

The passing grade on written examinations is 80%.

3.10.3 Stages. The following stages are included in the Core Skill Plus Phase of training.

Par No.	Stage Name
3.10.5	Aerial Escort (AESC)
3.10.6	Tactical Recovery of Aircraft and Personnel (TRAP)
3.10.7	Carrier Qualification (CQ)
3.10.8	Electronic Warfare (EW)
3.10.9	Large Force Exercise (LFE)

2.10.4 Ground/Academic Training

Lectures

ACAD-4002 Electromagnetic Interference
ACAD-4003 Environmental Effects on EW
ACAD-4004 EA-6B Capabilities
ACAD-4005 MAGTF Spectrum Warfare

3.10.5 Aerial Escort (AESC)

3.10.5.1 Purpose. To complete AESC qualification.

2.10.5.2 General. This stage introduces and develops aircrew proficiency in aerial escort. PUIs will plan and execute detached escort with Marine air assault task force key players in support of air assault missions.

Admin Notes

Basic POI events shall be flown as a single ship.

Refresher and Maintain POI events may be tailored to PUI qualification and designation and can be flown as either a single ship or multi-ship event.

A qualified and certified WTI or WTO shall instruct all events within the stage.

3.10.5.3 Ground/Academic Training. Aircrew shall complete all Core Plus Skill AESC academic codes prior to completion of this phase of training. Refer to MAWTS-1 RQ-21A Course Catalog.

AESC-4100 2.0 * B,C A 1 RQ-21A

Goal. Introduction to aerial escort.

Requirement

Discuss:

Air assault mission planning.
NTTP 3-22.5-ASTACSOP Planning Checklist.
Air assault force key player roles and responsibilities.

Introduce:

Detached escort for at least one RW assault support aircraft.
LZ reconnaissance. Locate two enemy positions and three obstacles and pass information to EFL.
Assess LZ status.

Performance Standard. Detached escort in accordance with MCWP 3-24, MCWP 3-11.4, and NTTP 3-22.5-ASTACSOP. Report LZ reconnaissance in accordance with NTTP 3-22.5-ASTACSOP. Use brevity in accordance with MCRP 3-25B. Pass information on proper communication net in accordance with event SPINS. LZ status must be assessed in accordance with criteria set in event SPINS or planning.

Prerequisite. AESC (4000) ground/academic training.

Range. RSTD, LSR.

External Support Syllabus. One EFL and one RW assault support asset.

AESC-4101 2.0 365 B,C,R,M N A 1 RQ-21A

Goal. Practice night aerial escort.

Requirement

Discuss:

Execution checklist.
Communication plan.
Assault routing.
Types of ITG.
IR Pointer considerations during escort operations.

Practice:

Detached escort for at least one RW assault support aircraft.
LZ reconnaissance. Locate two enemy positions, one threat, and three obstacles and pass information to EFL.
Calling one simulated fire mission on one enemy position.
Assess LZ status.
Providing ITG for assault support aircraft using IR pointer.

Performance Standard. Detached escort in accordance with MCWP 3-24 and NTTP 3-22.5-ASTACSOP. Report LZ reconnaissance in accordance with NTTP 3-22.5-ASTACSOP. Use brevity in accordance with MCRP 3-25B. Pass information on proper communication net in accordance with event SPINS. Conduct CFF in accordance with MCRP 3-16.6A. LZ status must be assessed in accordance with criteria set in event SPINS or planning. Assault support aircraft must be able to contact the RQ-21A IP pointer.

Prerequisite. AESC-4100.

Range. RSTD, LSR.

External Support Syllabus. One EFL and one RW assault support asset.

3.10.6 Tactical Recovery of Aircraft and Personnel (TRAP)

3.10.6.1 Purpose. To complete TRAP qualification.

3.10.6.2 General. This stage introduces aircrew and develops On-Scene Commander (OSC) proficiency during preplanned and immediate TRAP scenarios.

Prerequisites

- AESC (4000) Stage.
- ACAD-4006 Personnel Recovery
- ACAD-4007 TRAP TTP
- ACAD-4008 PGM Integration

Admin Notes

A certified and designated WTO shall instruct all events within the stage.

2.10.6.3 Ground/Academic Training. Aircrew shall complete all Core Plus Skill TRAP academic codes prior to completion of this phase of training. Refer to MAWTS-1 RQ-21A Course Catalog.

TRAP-4200	2.0	*	B,C		S	1 MTD
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Goal. Introduce TRAP operations.

Requirement

Discuss:

- EPA.
- TRAP Decision Matrix.
- TRAP Packages.
- TRAP Template.

Introduce:

- TRAP ROZ operating procedures.
- OSC responsibilities.
- Visual search method use to locate survivor.
- CSAR brevity.
- TRAP execution procedures.

Performance Standard. Maintain flight profile within the TRAP template specified in 3-22.5-ASTACSOP. Locate the survivor. Use CSAR brevity in accordance with MCRP 3-25B. Execute OSC responsibilities in accordance with Annex C to Appendix M of JP 3-50.

Prerequisite. TRAP ground/academic training.

TRAP-4201	2.0	365	B,R,M	N	A/S	1 RQ-21A
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Goal. Practice aviation support to TRAP.

Requirement

Discuss:

- IR Marker considerations.
- TRAP Launch Criteria.

Practice:

- TRAP ROZ operating procedures.
- OSC responsibilities.

Visual search method use to locate survivor.
CSAR brevity.
Passing survivor location to RV.
Locating one adversary position and passing location to RESCORT.
Assess Cherry/Ice criteria.

Performance Standard. Maintain assigned position and altitude within the TRAP template specified in 3-22.5-ASTACSOP. Locate the survivor. Use CSAR brevity in accordance with MCRP 3-25B. Pass information on proper the communication net in accordance with event SPINS. Ensure that RV lands at proper LZ or within one kilometer of the isolated personnel. Locate adversary and pass enemy position to RESCORT and RV on time to prevent adversary from creating prohibitive interference. Cherry/Ice must be assessed in accordance with criteria set in event SPINS or planning. Execute other OSC duties in accordance with NTTP 3-22.5-ASTACSOP and Annex C to Appendix M of JP 3-50.

Prerequisite. TRAP-4200.

Range. RSTD, LSR.

External Support Syllabus. One RW RV asset and one RESCORT asset.

3.10.7 Carrier Qualification (CQ)

3.10.7.1 Purpose. Complete day and night carrier qualification.

3.10.7.2 General

Prerequisites

Core Skill EXP Stage complete.

ACAD-4001 Maritime Operations

Admin Notes

During live approaches, multiple PUIs may hot seat during a single flight.

A CQ Qualified, certified and designated BIP shall instruct all events within the stage.

3.10.7.3 Ground/Academic Training. Aircrew shall complete all Core Plus Skill CQ academic codes prior to completion of this phase of training. Refer to MAWTS-1 RQ-21A Course Catalog.

CQ-4300 4.0 * B,C,R (N) S 1 MTD

Goal. Introduce shipboard operations.

Requirement

Introduce:

Introduce day and night normal and emergency procedures.
Perform five launches and five recoveries.

Goal. Introduce EW in support of ground combat operations.

Requirement

Discuss:

Convoy Support.
MCWP 3-36.1.

Introduce:

Employment of an EW payload in support of ground combat operations.
Spectrum/information related capabilities, EA/ES communications, and RCIED.

Performance Standard. Conduct mission analysis, mission planning, and EW targeting. Execute planned mission and react appropriately to pop-up threats. Operate EW payload as specified by NET.

Prerequisite. EW ground/academic training, SCAR-3404, and AESC-4100.

Range. RSTD, EW.

External Support Syllabus. MAGTF EW Payload.

EW-4401	2.0	*	B,C,R	(N)	A/S	1 RQ-21A
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Goal. Introduce EW in support of an air assault mission.

Requirement

Discuss:

EW in support of combat assault transport.
CSAR/TRAP mission.

Introduce:

Employment of an EW payload in support of an air assault mission.
Spectrum/information related capabilities, communications EA/ES, and RCIED.

Performance Standard. Conduct mission analysis, mission planning, and EW targeting. Execute planned mission and react appropriately to pop-up threats. Operate EW payload as specified by NET.

Prerequisite. EW ground/academic training, SCAR-3404, and AESC-4100.

Range. RSTD, EW.

External Support Syllabus. MAGTF EW Payload.

3.10.8.1 Suppression of Enemy Air Defense (SEAD)

3.10.8.1.2 Purpose. Introduce SEAD operations utilizing electronic spectrum warfare.

3.10.8.2.3 General.

Prerequisite.

EW ground/academic training and EW stage complete

Admin Notes

A certified and designated EWTO shall instruct all events within the stage.

3.10.8.3.4 Ground/Academic Training. Aircrew shall complete all Core Plus Skill EW academic codes prior to completion of this phase of training. Refer to MAWTS-1 RQ-21A Course Catalog.

SEAD-4402 2.0 365 B,C,R,M (N) A/S 1 RQ-21A

Goal. Practice EA and ES in support of an AI mission.

Requirement

Discuss:

Appropriate EW support for AI missions.
Use of required weapon systems.

Practice:

Employment of an EA payload in support of kinetic fires timeline for a strike package.
Spectrum/information related capabilities and communications EA/ES.

Performance Standard. Conduct mission analysis, mission planning, and EW targeting. Correctly execute planned mission and react appropriately to mission developments and pop-up threats. Operate EW payload as specified by NET.

Prerequisite. EW-4401.

Range. RSTD, EW.

External Support Syllabus. MAGTF EW Payload.

SEAD-4403 2.0 365 B,C,M (N) A/S 1 RQ-21A

Goal. Practice EA in support of a SCAR mission.

Requirement

Discuss:

RSEAD game plan/template.

Practice:

SEAD mission and integration of EA and ES in conjunction with a SCAR or Armed Reconnaissance asset conducting a minimum of one attack conducting a minimum of one threat is the target and one threat is not the target attacks.
Spectrum/information related capabilities and communications EA/ES.

Performance Standard. Conduct mission analysis, mission planning, and EW targeting. Execute planned mission and RSEAD game plan.

Prerequisite. EW-4401.

Range. RSTD, EW.

External Support Syllabus. MAGTF EW Payload.

SEAD-4404 2.0 365 B,C,M (N) A/S 1 RQ-21A

Goal. Practice EA in support of a CAS mission.

Requirement

Discuss:

EW in support of CAS missions.

Practice:

SEAD mission and integration of EA and ES in conjunction with a TAC and CAS assets.

Spectrum/information related capabilities, communications EA/ES, and RCIED.

Performance Standard. Conduct mission analysis, mission planning, and EW targeting. Correctly Execute planned mission and react appropriately to mission developments and pop-up threats.

Prerequisite. EW-4401.

Range. RSTD, EW.

External Support Syllabus. MAGTF EW Payload.

3.10.9 Large Force Exercise (LFE)

3.10.9.1 Purpose. To develop planning and integration proficiency during LFE events.

3.10.9.2 General

Prerequisites

3000 Phase.

AESC (4000) Stage.

Admin Notes

The LFE shall include at least four of the following asset types:

- 1) One SEAD element.
- 2) One EA asset.
- 3) One ES asset.
- 4) One section of rotary wing assault support assets.
- 5) One section of fixed wing or rotary wing OAS assets.
- 6) One artillery platoon.
- 7) One C2 agency.

The LFE shall include one surface-to-air threat.

A certified and designated WTI shall instruct this event.

LFE-4500 2.0 540 B,C,R,M (N) A 1 RQ-21A

Goal. Integrate UAS flight operations during an LFE.

Requirement. Plan, brief, execute and debrief a Mission Skill or Core Plus Skill event during a tactical scenario that incorporates assets specified in the stage description.

Performance Standard. Perform the associated Mission Skill or Core Plus Skill event in accordance with the performance standards listed for that event. Adhere to all integrated air-to-surface timelines. React to threats in accordance with the briefed threat reaction game plan. Utilize communication brevity in accordance with MCRP 3-25B and evolution SPINS.

Range. RSTD. Additional requirements per external support syllabus and RQ-21A Mission Skill or Core Plus Skill requirements.

3.11 INSTRUCTOR TRAINING PHASE (5000)

3.11.1 MAWTS-1 Certifications

3.11.1.1 Purpose. Enumerate MAWTS-1 instructor training syllabi.

3.11.1.2 General. All certification sorties will be conducted in accordance with the MAWTS-1 RQ-21A Course Catalog. The commanding officer of MAWTS-1 must approve any deviations.

3.11.1.3 Ground/Academic Training. Refer to the MAWTS-1 Course Catalog.

BIP-5100 2.0 * B E S 1 MTD

Goal. BIP certification simulator.

Requirement. See MAWTS-1 RQ-21A Course Catalog.

BIP-5101 2.0 * B E S 1 MTD

Goal. BIP certification simulator.

Requirement. See MAWTS-1 RQ-21A Course Catalog.

BIP-5102 2.0 * B (N) E A/S 1 RQ-21A

Goal. BIP certification sortie.

Requirement. See MAWTS-1 RQ-21A Course Catalog.

BIP-5103 2.0 * B (N) E A/S 1 RQ-21A

Goal. BIP certification sortie.

Requirement. See MAWTS-1 RQ-21A Course Catalog.

BIP-5104 2.0 * B (N) E A 1 RQ-21A

Goal. BIP certification sortie.

Requirement. See MAWTS-1 RQ-21A Course Catalog.

WTO-5200 2.0 * B (N) E A/S 1 RQ-21A

Goal. WTO certification sortie.

Requirement. See MAWTS-1 RQ-21A Course Catalog.

WTO-5201 2.0 * B (N) E A/S 1 RQ-21A

Goal. WTO certification sortie.

Requirement. See MAWTS-1 RQ-21A Course Catalog.

WTO-5202 2.0 * B (N) E A/S 1 RQ-21A

Goal. WTO certification sortie.

Requirement. See MAWTS-1 RQ-21A Course Catalog.

EWTO-5300 2.0 * B (N) E A 1 RQ-21A

Goal. WTO certification sortie.

Requirement. See MAWTS-1 RQ-21A Course Catalog.

3.11.1 FRS Instructor Under Training (IUT) Syllabus

3.11.1.1 Purpose. Enumerate FRS instructor training syllabi.

3.11.1.2 General. All training shall be conducted in accordance with the FRS IUT FSG. The FRS commanding officer must approve any deviations.

3.11.1.3 Ground/Academic Training. Refer to the FRS IUT FSG.

FRSI-5700 4.0 * B E S 1 MTD

Goal. Qualify as an FRSI.

Requirement. See FRS IUT FSG.

3.12 REQUIREMENTS, CERTIFICATIONS, QUALIFICATIONS, DESIGNATIONS (RQCD) PHASE

3.12.1 NATOPS/Core Skill Introduction Evaluation (NTPS)

3.12.1.1 Purpose. To evaluate the pilot's knowledge of aircraft systems, performance limitations, and both normal and emergency procedures.

3.12.1.2 General

Admin Notes

NATOPS evaluators/instructors shall conduct the NATOPS evaluation in accordance with OPNAVINST 3710.7 series and other applicable directives, instructions, and orders.

The NATOPS evaluator shall utilize the NATOPS model manager-generated NATOPS ATF and the evaluation metrics established for the accomplishment and performance of the standardized criterion to determine whether the pilot successfully completed the sortie.

A letter designating the pilot as NATOPS qualified shall be placed in the NATOPS jacket upon successful completion.

PUI shall complete all Core Skill Introduction stages prior to NATOPS/Core Skill Introduction Evaluation.

A designated RQ-21A NI or ANI will observe and certify that the PUI is NATOPS qualified per RQ-21A NATOPS Manual.

A designated CRMI or CRMF will observe and certify annual CRM training per COMNAVAIRFORINST 1542.7.

3.12.1.3 Ground/Academic Training

Readings. Review RQ-21A NATOPS Manual (A1-RQ21A-NFM-000)

Exams

NTPS-6000, Open Book RQ-21A NATOPS exam.

NTPS-6001, Closed Book RQ-21A NATOPS exam.

NTPS-6002, Oral NATOPS exam.

NTPS-6000 1.5 365 B,C,R,M E G

Goal. Complete the Open Book NATOPS Evaluation.

Requirement. The open book examination shall consist of, but not be limited to, questions selected from the NATOPS question bank. The purpose of the open book examination portion of the written examination is to evaluate the pilot's knowledge of the appropriate publications and the aircraft.

Performance Standard. Achieve a minimum grade of qualified on the open book examination.

NTPS-6001 1.0 365 B,C,R,M E G

Goal. Complete the closed book NATOPS evaluation.

Requirement. The closed book examination shall be limited to RQ-21 operating limits and bold face emergency procedures. The purpose of the closed book examination portion of the written examination is to evaluate the pilot's knowledge concerning normal/emergency procedures and aircraft limitations.

Performance Standard. Achieve a minimum grade of qualified on the closed book examination.

NTPS-6002 1.0 365 B,C,R,M E G

Goal. Complete the Oral NATOPS Evaluation.

Requirement. The oral examination shall consist of, but not be limited to, the NATOPS question bank. The instructors/evaluators may draw upon their experiences to propose questions concerning normal/emergency procedures, aircraft limitations, and performance.

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

NTPS-6101 1.0 365 B,C,R,M E S/A 1 MTD

Goal. Complete NATOPS evaluation flight.

Requirement. The PUI will conduct the flight brief. Perform all takeoffs and landings. The instructor will select simulated emergencies.

Performance Standard. Execute all procedures in accordance with RQ-21A NATOPS and applicable SOPs. Comply with local course rules.

Prerequisite. NTPS-6000, NTPS-6001, NTPS-6002.

NTPS-6110 1.0 365 B,C,R,M E L 1 RQ-21A

Goal. Complete CRM annual refresher training.

Requirement. Satisfactory completion of CRM training.

Performance Standard. Per syllabus description.

NTPS-6120 0.5 365 B,C,R,M E S/A 1 MTD

Goal. Complete CRM evaluation flight.

Requirement. Satisfactory completion of CRM evaluation flight.

Performance Standard. Per syllabus description.

3.12.2 Unmanned Aircraft Commander Standardization and Designation

3.12.2.1 Purpose. The Unmanned Aircraft Commander (UAC) syllabus trains a prospective UAC for UAC qualification and evaluates their planning, briefing, execution, and debriefing ability.

3.12.2.2 General

Prerequisites
3000 Phase.

Admin Notes
A certified and designated WTI or WTO shall conduct the UAC

evaluation.

The sortie shall be flown as a single sortie and logged under the UAC code. The mission will follow the event requirements of a 3000 or 4000 Phase OAS event.

Once qualified as a UAC, the PUI may be designated as a UAC by the squadron commanding officer. A UAC designation letter shall then be placed in the pilot's NATOPS jacket.

3.12.2.3 Ground/Academic Training

ACPM

ACPM-8630 Tactical Air Command Center (TACC).
ACPM-8660 Joint Operations Introduction.

UAC-6399 4.0 365 B,C,R (N) E A/S 1 RQ-21A

Goal. Conduct a UAC evaluation flight.

Requirement

Discuss:

Any RQ-21A subsystem component.
Any concept or knowledge item from JP 3-09.3, MCRP 3-23C or MCRP 3-16.6A.

Evaluate:

Mission Skill or Core Plus Skill OAS event requirements as a UAC.

Performance Standard. Perform the associated Mission Skill or Core Plus Skill OAS event in accordance with the performance standards listed for that event. The instructor will focus on the PUI's performance of responsibilities as PIC.

Range. RSTD.

3.12.3 Site Officer in Charge Standardization and Designation

3.12.3.1 Purpose. The Site Officer in Charge (OIC) syllabus trains a prospective Site OIC for designation, and evaluates their planning, briefing, execution, and debriefing ability. This syllabus also evaluates a prospective Site OIC's ability to prepare a squadron AAR for a unit conducting decentralized operations.

3.12.3.2 General

Prerequisite

EXP-3600.

Admin Notes

A certified and designated WTI shall evaluate all events within the stage.

OIC-6599 8.0 365 B,C,R E L 1 RQ-21A

Goal. Conduct Site OIC evaluation.

Requirement

Evaluate:

Site planning ability.
Site establishment briefing.
Communication setup and establishment supervision.
ITEG II generator check supervision.
Ability to write a comprehensive squadron AAR based on site operations.

Performance Standard. Develop a site plan and brief and supervise site establishment in accordance with NTTP 3-22.3-VMU and Squadron SOP. At the conclusion of the event, equipment must be powered up and a pre-flight check conducted to verify proper setup. AAR must completely and accurately capture all salient points from the operation.

3.12.4 Unmanned Section Lead Standardization and Designation

3.12.4.1 Purpose. The Unmanned Section Lead (USL) syllabus trains a prospective USL to lead a UA section during a mission, and evaluates their planning, briefing, execution, and debriefing ability.

3.12.4.2 General

Prerequisite

Designated BIP.
3000 Phase.
AESC-4101 and TRAP-4201
25 flight hours as a designated UAC.

Admin Notes

USL syllabus completion meets the USL designation requirements. Designation is at the discretion of the squadron commanding officer. Once designated, a letter shall be placed in the pilot's APR and NATOPS jacket.

A certified and designated WTI shall instruct all introduction events and evaluate all E-Coded events within the stage.

One event must be flown during the day and one event must be flown at night.

A UA division shall consist of one of the following configurations:

- 1) One OWS and two RQ-21A aircraft.
- 2) One GCS and two RQ-21A aircraft.
- 2) One RQ-21A and one other UAS.

3.12.4.3 Ground/Academic Training

ACPM

ACPM-8640 Joint Data Network.
ACPM-8641 Nation, Theater, and MAGTF ISR Employment.

USL-6600 3.0 * B,C,R (N) S 1 MTD

Goal. Introduce USL flight operations.

Requirement

Discuss:

Multiple aircraft frequency management.
Active, Passive, and Simultaneous Control.

Introduce:

Lead a flight of two RQ-21A during a day or night air reconnaissance, OAS or aerial escort mission in a medium threat environment.
Lead section during en route and objective area operations and delegate tasks as required within the section.

Performance Standard. Execute in accordance with NTTP 3-22.3-VMU and applicable publications. PUI shall maintain situational awareness of wingman and mutual support during en route portion of flight and in the objective area. Capture lessons learned and tie errors in execution to planning, briefing, or basic execution for the section.

USL-6699 3.0 365 B,C,R (N) E A 2 UAS

Goal. Conduct USL evaluation flight.

Requirement

Evaluate:

Lead a flight of 2 UAS during a day or night CAS mission in a medium threat environment.
Control section during en route and objective area operations optimizing sensors and payloads and delegating tasks as required within the section.

Performance Standard. Execute in accordance with NTTP 3-22.3-VMU and applicable publications. PUI shall maintain situational awareness of wingman and mutual support during en route portion of flight and in the objective area. Capture lessons learned and tie errors in execution to planning, briefing, or basic execution for the section.

Prerequisite. USL-6600.

Range. RSTD, TGT.

3.12.5 Unmanned Division Lead Standardization and Designation

3.12.5.1 Purpose. The Unmanned Division Lead (UDL) syllabus trains a prospective UDL to lead a UA division during a mission, and evaluates their planning, briefing, execution, and debriefing ability.

3.12.5.2 General

Prerequisite

Designated WTO.
4000 Phase.

25 flight hours as a designated USL.

Admin Notes

UDL syllabus completion meets the UDL designation requirements. Designation is at the discretion of the squadron commanding officer. Once designated, a letter shall be placed in the pilot's APR and NATOPS jacket.

A certified and designated WTI shall instruct all introduction events and evaluate all E-Coded events within the stage.

One event must be flown during the day and one event must be flown at night.

A UA division shall consist of one of the following configurations:

- 1) Two GCS and three RQ-21A aircraft.
- 2) One RQ-21A and two other UAS.

3.12.5.3 Ground/Academic Training

ACPM

ACPM-8620 ESG/CSG Integration.

UDL-6700 2.0 * B,C,R S 1 MTD

Goal. Introduce UDL flight operations.

Requirement

Discuss:

- Slide plans.
- Degraded GPS operations.
- Get well ACAs.

Introduce:

- Lead a division of UAS during an air reconnaissance, OAS or aerial escort mission in a medium threat environment.

Performance Standard. Execute the tactical mission in accordance with NTTP 3-22.3-VMU and applicable publications. PUI shall maintain situational awareness of wingmen and mutual support during en route portion of flight and within the objective area. Capture lessons learned and tie errors in execution to planning, briefing, or basic execution for the division.

UDL-6799 2.0 365 B,C,R (N) E A 3 UAS

Goal. Conduct UDL evaluation flight.

Requirement

Evaluate:

- Plan, brief, execute and debrief a division of UAS during an assault support escort, OAS, or EW mission in a medium to high threat environment.
- Lead a division during en route and objective area operations.
- Optimize payload employment and delegate tactical tasks as

required within the division.

Performance Standard. Execute the tactical mission in accordance with NTTP 3-22.3-VMU and applicable publications. PUI shall maintain situational awareness of wingmen and mutual support during en route portion of flight and in the objective area. Capture lessons learned and tie errors in execution to planning, briefing, or basic execution for the division.

Prerequisite. UDL-6700.

Range. RSTD, TGT, EW.

BLANK

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Enclosure (1)

3.13 7315 RQ-21A PILOT T&R SYLLABUS MATRIX

STAGE	EVENT		POI	E	DEVICE			COND	REFLY	GROUND/ACADEMIC EVENTS		SIM EVENTS		LIVE/FLIGHT EVENTS		PREREQ	CHAIN
	CODE	TITLE			TYPE	#	OPTION			#	TIME	#	TIME	#	TIME		
CORE SKILL INTRODUCTION TRAINING (1000 PHASE EVENTS)																	
ACADEMICS (ACAD-1)																	
ACAD	0001	MARINE UAS OPS	B				G	(N)	*		1.0						
ACAD	0004	VMU STRUCTURE	B				G	(N)	*		1.0						
ACAD	0006	FAA COA/MOA	B				G	(N)	*		1.0						
ACAD	0007	LOCAL AIRSPACE	B				G	(N)	*		2.0						
ACAD	0008	INTRO TO NATOPS	B				G	(N)	*		2.0						
ACAD	0009	ACFT OVERVIEW	B				G	(N)	*		1.5						
ACAD	0010	ACFT OP LIMS	B				G	(N)	*		2.0						
ACAD	0011	LAUNCHER CHAR	B				G	(N)	*		1.0						
ACAD	0012	GCS CHAR	B				G	(N)	*		1.0						
ACAD	0013	ICOMC2 INTERFACE	B				G	(N)	*		2.0						
ACAD	0014	BASIC NETWORKING	B				G	(N)	*		1.0						
ACAD	0015	ACFT MANEUVERING	B				G	(N)	*		1.5						
ACAD	0016	FLIGHT PLANNING	B				G	(N)	*		2.5						
ACAD	0017	MISSION PLANNING	B				G	(N)	*		1.0						
ACAD	0018	INITIAL CRM	B				G	(N)	*		2.0						
ACAD	0019	OP/GND CRW LNCH	B				G	(N)	*		1.5						
ACAD	0020	APPROACH THEORY	B				G	(N)	*		2.5						
ACAD	0021	OP/GND CRW RCVY	B				G	(N)	*		2.0						
ACAD	0022	EP	B				G	(N)	*		1.0						
ACAD	0023	NAV AND COM FAIL	B				G	(N)	*		1.0						
ACAD	0024	CTRL STA TRNSFR	B				G	(N)	*		0.5						
ACAD	0025	DUAL ACFT OPS	B				G	(N)	*		0.5						
ACAD	0026	PAYLOAD CONFIG	B				G	(N)	*		1.0						
ACAD	0027	OB VISION SYS	B				G	(N)	*		1.0						
ACAD	0028	LASER SAFETY	B				G	(N)	*		0.5						
ACAD	0029	LASER OPS	B				G	(N)	*		1.0						
ACAD	0030	MSN EXE BASICS	B				G	(N)	*		1.5						

STAGE	EVENT		POI	E	DEVICE			COND	REFLY	GROUND/ACADEMIC EVENTS		SIM EVENTS		LIVE/FLIGHT EVENTS		PREREQ	CHAIN
	CODE	TITLE			TYPE	#	OPTION			#	TIME	#	TIME	#	TIME		
ACAD	0031	MARITIME OPS	B			G	(N)	*		1.5							
ACAD	0032	INTRO TO ISR	B			G	(N)	*		1.0							
ACAD	0033	INTRO TO AREC	B			G	(N)	*		1.0							
ACAD	0034	INTRO TO UAS CFF	B			G	(N)	*		1.0							
ACAD	0035	INTRO TO UAS LAS	B			G	(N)	*		1.0							
ACAD	0036	FLT LINE SAFETY	B			G	(N)	*		1.0							
ACAD	0037	SYS RECORDS	B			G	(N)	*		1.0							
ACAD	0038	SITE SURVEY	B			G	(N)	*		8.0							
ACAD	0039	PRE/PST FLT INSP	B			G	(N)	*		6.0							
FRS ACADEMICS TOTAL									36	58.0	0	0	0	0			
INTRODUCTION TO ELECTRONIC WARFARE (IEW)																	
ACAD	0102	BOYD, 01.5ODA LOOP	B			G	(N)	*		2.0							
ACAD	0103	HISTORY OF EW	B			G	(N)	*		2.0							
ACAD	0104	EW IN KOSOVO	B			G	(N)	*		1.5							
ACAD	0105	EW IN KOSOVO	B			G	(N)	*		1.5							
ACAD	0106	NOVA AND STPLGHT	B			G	(N)	*		1.5							
ACAD	0107	NOVA AND STPLGHT	B			G	(N)	*		1.0							
ACAD	0108	DIYALA BRDG STDY	B			G	(N)	*		1.5							
ACAD	0109	DIYALA BRDG STDY	B			G	(N)	*		1.0							
ACAD	0110	PHANTOM FRY STDY	B			G	(N)	*		1.5							
ACAD	0111	PHANTOM FRY STDY	B			G	(N)	*		1.0							
ACAD	0112	EW IN COIN	B			G	(N)	*		1.5							
ACAD	0113	EW IN COIN	B			G	(N)	*		1.0							
ACAD	0114	PRED BIG SAFARI	B			G	(N)	*		1.5							
ACAD	0115	PRED BIG SAFARI	B			G	(N)	*		1.0							
ACAD	0116	RADAR GAME	B			G	(N)	*		1.5							
ACAD	0117	RADAR GAME	B			G	(N)	*		1.0							
ACAD	0118	VHF RPTR IN OEF	B			G	(N)	*		1.0							
ACAD	0119	SILENT ECHO	B			G	(N)	*		1.0							
INTRODUCTION TO ELECTRONIC WARFARE TOTAL									19	32.0	0	0	0	0			
BASIC ELECTRONIC WARFARE ACADEMICS (BEW)																	
ACAD	0201	SECRTY OF CLSIFY	B			G	(N)	*		1.0							
ACAD	0202	TITLE AND ATHRTY	B			G	(N)	*		1.0							
ACAD	0203	JOINT EMS	B			G	(N)	*		1.0							
ACAD	0204	INTRO TO EM	B			G	(N)	*		1.0							

STAGE	EVENT		POI	E	DEVICE			COND	REFLY	GROUND/ACADEMIC EVENTS		SIM EVENTS		LIVE/FLIGHT EVENTS		PREREQ	CHAIN		
	CODE	TITLE			TYPE	#	OPTION			#	TIME	#	TIME	#	TIME				
		ERGY																	
ACAD	0205	RADAR FUND	B			G	(N)	*		1.0									
ACAD	0206	INTRO TO EM APS	B			G	(N)	*		3.0									
ACAD	0207	BASIC RADAR OPS	B			G	(N)	*		3.0									
ACAD	0208	ADV RADAR OPS	B			G	(N)	*		2.0									
ACAD	0209	MISSILE GUIDANCE	B			G	(N)	*		4.0									
ACAD	0210	INTRO TO SIGINT	B			G	(N)	*		1.0									
ACAD	0211	US SIGINT DIR	B			G	(N)	*		1.0									
ACAD	0212	INTRO TO RADBN	B			G	(N)	*		2.0									
ACAD	0213	INTRO TO COMM	B			G	(N)	*		3.0									
ACAD	0214	INTRO TO RADIO	B			G	(N)	*		3.0									
ACAD	0215	SATELITE FUND	B			G	(N)	*		3.0									
ACAD	0216	INTRO TO RAD PLN	B			G	(N)	*		3.0									
ACAD	0217	SIGNALS TECH	B			G	(N)	*		3.0									
ACAD	0218	ABEW CRS REVIEW	B			G			FRS REQUIREMENTS										
ACAD	0219	ABEW CRS EXAM	B			G			FRS REQUIREMENTS										
ACAD	0220	SIGINT/EW TECH	B			G	(N)	*		1.0									
ACAD	0221	SIGINT/EW EQUIP	B			G	(N)	*		1.0									
ACAD	0222	SIGINT/EW TM EMP	B			G	(N)	*		1.0									
ACAD	0223	RADBN SIGINT OPS	B			G	(N)	*		1.0									
ACAD	0224	RADBN OCAC	B			G	(N)	*		1.0									
ACAD	0225	NAT LVL INTEL	B			G	(N)	*		1.0									
ACAD	0226	THEATER LVL INTL	B			G	(N)	*		1.0									
ACAD	0227	JAMMING FUND	B			G	(N)	*		1.0									
ACAD	0228	DECEP EW INDIR	B			G	(N)	*		2.0									
ACAD	0229	DECEP EA AND EP	B			G	(N)	*		2.0									
ACAD	0230	COMM JAM	B			G	(N)	*		2.0									
ACAD	0231	ES RCVRS	B			G	(N)	*		2.0									
ACAD	0232	INTRO TO IADS	B			G	(N)	*		1.0									
ACAD	0233	EW THRT RADAR	B			G	(N)	*		2.0									
ACAD	0234	LAND BASED SAM	B			G	(N)	*		2.0									
ACAD	0235	MOBILE SAM	B			G	(N)	*		2.0									
ACAD	0236	IR SAM	B			G	(N)	*		2.0									
ACAD	0237	NON-IR SAM	B			G	(N)	*		2.0									
ACAD	0238	ABEW CRS REVIEW	B			G			FRS REQUIREMENTS										
ACAD	0239	ABEW CRS EXAM	B			G			FRS REQUIREMENTS										
ACAD	0240	INTRO TO AB ENV	B			G	(N)	*		2.0									
ACAD	0241	FSU/PRC ACFT	B			G	(N)	*		4.0									
ACAD	0242	FSU/PRC BOMBERS	B			G	(N)	*		3.0									
ACAD	0243	US/ALLIED FGHTR	B			G	(N)	*		4.0									
ACAD	0244	US/ALLIED EW AC	B			G	(N)	*		2.0									

STAGE	EVENT		POI	E	DEVICE			COND	REFLY	GROUND/ACADEMIC EVENTS		SIM EVENTS		LIVE/FLIGHT EVENTS		PREREQ	CHAIN		
	CODE	TITLE			TYPE	#	OPTION			#	TIME	#	TIME	#	TIME				
ACAD	0245	MISC EMITTERS	B			G	(N)	*		2.0									
ACAD	0246	NAVAL NON-THRT	B			G	(N)	*		1.0									
ACAD	0247	NVL INDRCT THRT	B			G	(N)	*		1.0									
ACAD	0248	NVL SAM	B			G	(N)	*		2.0									
ACAD	0249	NVL SSM	B			G	(N)	*		1.0									
ACAD	0250	NVL ADA	B			G	(N)	*		1.0									
ACAD	0251	FOREIGN EA	B			G	(N)	*		1.5									
ACAD	0252	ABEW CRS REVIEW	B			G			FRS REQUIREMENTS										
ACAD	0253	ABEW CRS EXAM	B			G			FRS REQUIREMENTS										
BASIC ELECTRONIC WARFARE ACADEMICS TOTAL									53	98.0	0	0	0	0					
ADVANCED ELECTRONIC WARFARE ACADEMICS (AEW)																			
ACAD	0301	INTRO UAS EW	B			G	(N)	*		1.0									
ACAD	0302	UAS PAYLOADS	B			G	(N)	*		2.0									
ACAD	0303	IT II	B			G	(N)	*		2.0									
ACAD	0304	CRCIED EW CREW	B			G	(N)	*		2.0									
ACAD	0305	INRO MSN PLAN	B			G	(N)	*		2.0									
ACAD	0306	TASK ANALYSIS	B			G	(N)	*		1.5									
ACAD	0307	EMI AND FRTRCID	B			G	(N)	*		1.5									
ACAD	0308	PUB REVIEW	B			G	(N)	*		6.0									
ACAD	0309	SIX FNCT MAR AV	B			G	(N)	*		2.0									
ACAD	0310	TAC RESOURCE	B			G	(N)	*		2.0									
ACAD	0311	MACCS	B			G	(N)	*		2.0									
ACAD	0312	EXT EW PLAT INT	B			G	(N)	*		1.0									
ACAD	0313	LINK-16	B			G	(N)	*		2.0									
ACAD	0314	WAVEFORMS	B			G	(N)	*		2.0									
ACAD	0315	FSCM	B			G	(N)	*		2.0									
ACAD	0316	ATO ACO SPINS	B			G	(N)	*		2.0									
ACAD	0317	SPCTRM MGMT JRFL	B			G	(N)	*		2.0									
ACAD	0318	AAEW CRS REVIEW	B			G			FRS REQUIREMENTS										
ACAD	0319	AAEW CRS EXAM	B			G			FRS REQUIREMENTS										
ACAD	0320	JMPS	B			G	(N)	*		6.0									
ACAD	0321	RAPTOR-X	B			G	(N)	*		30.0									
ACAD	0322	SCENARIO IN-BRF	B			G	(N)	*		2.0									
ACAD	0323	SCENARIO MSN PLN	B			G	(N)	*		8.0									
ACAD	0324	APPLY EW AI	B			G	(N)	*		2.0									
ACAD	0325	SCENARIO IN-BRF	B			G	(N)	*		2.0									
ACAD	0326	SCENARIO MSN PLN	B			G	(N)	*		8.0									
ACAD	0327	APPLY EW COIN	B			G	(N)	*		2.0									
ACAD	0328	ATTACKING IADS	B			G	(N)	*		2.0									
ACAD	0329	SYRIAN OOB	B			G	(N)	*		2.0									
ACAD	0330	SYRIAN MAP BRF	B			G	(N)	*		2.0									
ACAD	0331	SYRIAN MAP PLN	B			G	(N)	*		10.0									

STAGE	EVENT		POI	E	DEVICE			COND	REFLY	GROUND/ACADEMIC EVENTS		SIM EVENTS		LIVE/FLIGHT EVENTS		PREREQ	CHAIN
	CODE	TITLE			TYPE	#	OPTION			#	TIME	#	TIME	#	TIME		
ACAD	0332	APPLY EW SYRIAN	B				G	(N)	*		2.0						
ACAD	0333	NEO MAP BRF	B				G	(N)	*		2.0						
ACAD	0334	NEO MAP PLN	B				G	(N)	*		10.0						
ACAD	0335	APPLY EW NEO	B				G	(N)	*		2.0						
ACAD	0336	CEWCC	B				G	(N)	*		1.0						
ACAD	0337	IO	B				G	(N)	*		2.0						
ACAD	0338	IRC	B				G	(N)	*		1.0						
ACAD	0339	OCO	B				G	(N)	*		1.0						
ACAD	0340	DCO	B				G	(N)	*		1.0						
ACAD	0341	AAEW CRS REVIEW	B				G			FRS REQUIREMENTS							
ACAD	0342	AAEW CRS EXAM	B				G										
ADVANCED ELECTRONIC WARFARE ACADEMICS TOTAL										42	141.0	0	0	0	0		
FAMILIARIZATION (FAM)																	
FAM	1100	INTRO MNVR ACFT	B			MTD	1	S	D	*			2.0				
FAM	1101	INTRO LAUNCH	B			MTD	1	S	D	*			2.0			1100	
FAM	1102	PERFORM LAUNCH	B,R			MTD	1	S	D	*			2.0			1101	
FAM	1103	INTRO RECOVERY	B			MTD	1	S	D	*			2.0			1102	
FAM	1104	PERFORM RECOVERY	B,R			MTD	1	S	D	*			2.0			1103	
FAM	1105	INTRO EP	B,R			MTD	1	S	D	*			2.0			1104	
FAM	1106	INTRO EP	B,R			MTD	1	S	D	*			2.0			1105	
FAM	1107	INTRO CTRL STA TRNSFR	B,R			MTD	1	S	D	*			2.0			1106	
FAM	1108	INTRO EO/IR	B,R			MTD	1	S	D	*			2.0			1107	
FAM	1109	PILOT SAFE CK RD	B,R			MTD	1	S	D	*			2.0			1108	
FAM	1110	INTRO FLT OPS	B			RQ-21A	1	A	D	*					4.0	1109	
TOTAL FAM STAGE										0	0	10	20.0	1	4.0		
TACTICAL SKILLS INTRODUCTION (TAC)																	
TAC	1200	INTRO RECON MSN	B,R			MTD	1	S	D	*			2.0			1109	
TAC	1201	INTRO CAS MSN	B,R			MTD	1	S	D	*			2.0			1200	
TOTAL TAC STAGE										0	0	2	4.0	0	0		
TOTAL CORE SKILL INTRODUCTION (1000 PHASE EVENTS)										150	329.0	12	28.0	1	4.0		
CORE SKILL TRAINING (2000 PHASE EVENTS)																	
CORE SKILL ACADEMICS (ACAD-2)																	
ACAD	2000	RQ-21A CRP	B					G	(N)	*			1.0				
ACAD	2001	AVIATION WEATHER	B					G	(N)	*			1.0				
ACAD	2002	GEODETICS	B					G	(N)	*			1.0				
ACAD	2003	C4ISR	B					G	(N)	*			1.0				
ACAD	2004	GCE CAPABILITIES	B					G	(N)	*			1.0				
ACAD	2005	AERIAL OBSERVER	B					G	(N)	*			1.0				
ACAD	2006	AV-8 EFL	B					G	(N)	*			1.0				
ACAD	2007	EW EMPLOYMENT	B					G	(N)	*			1.0				
ACAD	2008	GPS THEORY	B					G	(N)	*			1.0				

STAGE	EVENT		POI	E	DEVICE			COND	REFLY	GROUND/ACADEMIC EVENTS		SIM EVENTS		LIVE/FLIGHT EVENTS		PREREQ	CHAIN
	CODE	TITLE			TYPE	#	OPTION			#	TIME	#	TIME	#	TIME		
CORE SKILL ACADEMICS TOTAL									9	9.0	0	0	0	0			
FAMILIARIZATION (FAM)																	
FAM	2100	PRAC LOCAL AREA	B,C		MTD	1	S	D	*				2.0			NTPS QUAL 1000 PHSE	
FAM	2101	REVIEW EP	B,C,R		MTD	1	S	(N)	90				2.0			2100	
FAM	2102	REVIEW FAM, NAV, LOCAL AREA	B,C,R,M		RQ-21A	1	A	(N)	90						2.0	2101	
FAM	2103	INTRO CRP OPS	B,C,R,M		RQ-21A	1	A	(N)	365						2.0	2101	
FAM	2104	INTRO SIGNALS PAYLOAD	B,R,M		RQ-21A	1	A	(N)	365						2.0	2102	
FAM	2105	INTRO EA COMM PAYLOAD	B,R,M		RQ-21A	1	A	(N)	365						2.0	2102	
FAM	2106	INTRO EA RADAR PAYLAOD	B,R,M		RQ-21A	1	A	(N)	365						2.0	2102	
TOTAL FAM STAGE									0	0	2	4.0	5	10.0			
RECONNAISSANCE (REC)																	
REC	2200	INTRO ZONE AND AREA RECON	B		MTD	1	S	D	*				2.0			2100 2101	
REC	2201	INTRO ROUTE AND URBAN RECON	B		MTD	1	S	D	*				2.0			2200	
REC	2202	INTRO ELECTONIC RECON	B,R		MTD	1	S	D	*				2.0			2201	
REC	2203	REVIEW ZONE/AREA RTE/URBAN RECON	B,C,R,M		RQ-21A	1	A/S	(N)	90						4.0	2202	2102
TOTAL REC STAGE									0	0	3	6.0	1	4.0			
TACTICAL SKILLS INTRODUCTION (TAC)																	
TAC	2300	INTRO ARTY CORRECTION	B,C		MTD	1	S/A	D	*				2.0			2202	2102
TAC	2301	INTRO TCO ESCORT	B,R,M		MTD	1	S/A	D	90				2.0			2300	
TAC	2302	INTRO DAS OPS	B		MTD	1	S/A	D	*				2.0			2301	
TAC	2303	INTRO CAS OPS	B		MTD	1	S/A	D	*				2.0			2302	
TOTAL TAC STAGE									0	0	4	8.0	0	0			
EXPEDITIONARY OPERATIONS (EXP)																	
EXP	2400	INTRO SITE OIC OPS	B,R		RQ-21A	1	L	D	*		8.0				0	2100	
EXP	2401	INTRO DECENTRAL OPS	B,C,R,M		RQ-21A	1	L	D	365		8.0				0	2400	
TOTAL EXP STAGE									2	16.0	0	0	0	0			
AVIATION CAREER PROGRESSION MODEL (ACPM)																	
ACPM	8200	MACCS	B				G	(N)	*		1.0						
ACPM	8201	MWCS BRIEF	B				G	(N)	*		1.0						
ACPM	8202	ACA AND AIRSPACE	B				G	(N)	*		1.0						
ACPM	8210	AGS	B				G	(N)	*		1.0						

STAGE	EVENT		POI	E	DEVICE			COND	REFLY	GROUND/ACADEMIC EVENTS		SIM EVENTS		LIVE/FLIGHT EVENTS		PREREQ	CHAIN
	CODE	TITLE			TYPE	#	OPTION			#	TIME	#	TIME	#	TIME		
ACPM	8230	ACE BATTLE STAFF	B				G	(N)	*		1.0						
ACPM	8231	BCD	B				G	(N)	*		1.0						
ACPM	8240	SIX FUNCT MAR AV	B				G	(N)	*		1.0						
ACPM	8241	JTAR/ASR	B				G	(N)	*		1.0						
ACPM	8242	SITE CMD PRIMER	B				G	(N)	*		1.0						
ACPM	8250	TAGS	B				G	(N)	*		1.0						
TOTAL ACPM STAGE										10	10.0	0	0	0	0		
TOTAL CORE SKILL (2000 PHASE EVENTS)										21	35.0	9	18.0	8	14.0		
MISSION SKILL (3000 PHASE EVENTS)																	
MISSION SKILL ACADEMICS (ACAD-3)																	
ACAD	3001	IPB	B				G	(N)	*		1.0						
ACAD	3002	EOTDA	B				G	(N)	*		1.0						
ACAD	3003	INTEGRATING FIRES AND A/S	B				G	(N)	*		1.0						
ACAD	3004	FSC	B				G	(N)	*		1.0						
ACAD	3005	UAS SCAR	B				G	(N)	*		1.0						
ACAD	3006	WEAPONERING	B				G	(N)	*		1.0						
ACAD	3007	FW THREAT	B				G	(N)	*		1.0						
ACAD	3008	BOMBS, FINS, FUZES	B				G	(N)	*		1.0						
ACAD	3009	CAS	B				G	(N)	*		1.0						
ACAD	3010	CAS EXECUTION	B				G	(N)	*		1.0						
ACAD	3011	DIESEL ENGINE THEORY	B				G	(N)	*		1.0						
ACAD	3012	HELLFIRE PART 1	B				G	(N)	*		1.0						
ACAD	3013	HELLFIRE PART 2	B				G	(N)	*		1.0						
ACAD	3014	AV-8 DUAL MODE WEAPONS	B				G	(N)	*		1.0						
ACAD	3015	F-18 LGW	B				G	(N)	*		1.0						
ACAD	3016	F-18 GPS WEAPONS	B				G	(N)	*		1.0						
MISSION SKILL ACADEMICS TOTAL										16	16.0	0	0	0	0		
AIR RECONNAISSANCE (AREC)																	
AREC	3100	PRACTICE ROUTE RECON	B,C,R,M			RQ-21A	1	A/S	D	365				2.0	2000 PHSE	2102 2203	
AREC	3101	PRACTICE ZONE OR AREA RECON	B			RQ-21A	1	A/S	D	*				2.0	3100		
AREC	3102	PRACTICE ELECTRONIC RECON	B,C,R,M			RQ-21A	1	A/S	(N)	365				2.0	3101	2102 2105	
AREC	3103	REVIEW TACTICAL RECON	B,R			RQ-21A	1	A/S	N	*				2.0	3102		
TOTAL AREC STAGE										0	0	0	0	4	8.0		
AERIAL ESCORT (AESC)																	
AESC	3200	PRACTICE TCO	B			RQ-21A	1	A/S	D	*				2.0	3103		

STAGE	EVENT		POI	E	DEVICE			COND	REFLY	GROUND/ACADEMIC EVENTS		SIM EVENTS		LIVE/FLIGHT EVENTS		PREREQ	CHAIN
	CODE	TITLE			TYPE	#	OPTION			#	TIME	#	TIME	#	TIME		
		ESCORT															
AESC	3201	INTRO SUPPORT TO RAID OPS	B,C,R,M		RQ-21A	1	A/S	(N)	365					2.0	3200	2102 2203	
TOTAL AESC STAGE										0	0	0	0	2	4.0		
CONTROL SUPPORTING ARMS (SARM)																	
SARM	3300	PRACTICE CFF	B,C		MTD	1	S	D	*				2.0		3103		
SARM	3301	PRACTICE CFF IN SUPT MANEUVER	B,R		RQ-21A	1	A/S	D	*					2.0	3300		
SARM	3302	PRACTICE CFF IN SUPT TACP	B,R,M		RQ-21A	1	A/S	D	365					2.0	3301	2102 2203	
TOTAL SARM STAGE										0	0	1	2.0	2	4.0		
STRIKE COORDINATION AND RECONNAISSANCE (SCAR)																	
SCAR	3400	INTRO SUPT AR OR SCAR MSN	B		MTD	1	S/A	D	*				2.0		3103		
SCAR	3401	PRACTICE SCAR	B,C,R,M		RQ-21A	1	A/S	D	365					2.0	3400	2102 3100	
SCAR	3402	PRACTICE NIGHT SCAR	B,R,M		RQ-21A	1	A/S	N	365					2.0	3401	2102 3100 3401	
TOTAL DAS STAGE										0	0	1	2.0	2	4.0		
FACILITATE CLOSE AIR SUPPORT (CAS)																	
CAS	3500	PRACTICE CAS INTEGRATION	B		RQ-21A	1	A	D	*				2.0		3103		
CAS	3501	PRACTICE NIGHT CAS INTEGRATION	B,R,M		RQ-21A	1	A	N	365					2.0	3500	2102 3100	
CAS	3502	PRACTICE URBAN CAS INTEGRATION	B,C,R,M		RQ-21A	1	A	(N)	365					2.0	3501	2102 3100 3501	
CAS	3503	REVIEW CAS INTEGRATION	B,C,R,M		RQ-21A	1	A/S	(N)	365					2.0	3502	2102 3100 3502 3502	
TOTAL CAS STAGE										0	0	1	2.0	3	6.0		
EXPEDITIONARY OPERATIONS (EXP)																	
EXP	3600	CONDUCT DECENTRAL OPS	B,C,R,M		RQ-21A Ground Control Station	1	L	D	365		25.0			0	2000 PHSE		
TOTAL EXP STAGE										1	25.0	0	0	0	0		
AVIATION CAREER PROGRESSION MODEL (ACPM)																	
ACPM	8300	AIR DEFENSE	B				G	(N)	*		1.0						
ACPM	8310	FARP OPS	B				G	(N)	*		1.0						
ACPM	8311	MCTFS	B				G	(N)	*		1.0						
ACPM	8320	JOINT AIR OPS	B				G	(N)	*		1.0						
ACPM	8321	JOINT ATO 1	B				G	(N)	*		1.0						
ACPM	8322	JOINT ATO 2	B				G	(N)	*		1.0						

STAGE	EVENT		POI	E	DEVICE			COND	REFLY	GROUND/ACADEMIC EVENTS		SIM EVENTS		LIVE/FLIGHT EVENTS		PREREQ	CHAIN
	CODE	TITLE			TYPE	#	OPTION			#	TIME	#	TIME	#	TIME		
ACPM	8323	JOINT ATO 3	B				G	(N)	*		1.0						
ACPM	8324	JOINT ATO 4	B				G	(N)	*		1.0						
ACPM	8325	JOINT ATO 5	B				G	(N)	*		1.0						
ACPM	8326	JOINT ATO 6	B				G	(N)	*		1.0						
ACPM	8340	INTEGRATING FIRES AND A/S	B				G	(N)	*		1.0						
ACPM	8350	PHASING CONTROL ASHORE	B				G	(N)	*		1.0						
ACPM	8351	TACRON	B				G	(N)	*		1.0						
TOTAL ACPM STAGE										13	13.0	0	0	0	0		
TOTAL MISSION SKILL (3000 PHASE EVENTS)										30	44.0	3	6.0	13	26.0		
CORE PLUS SKILL TRAINING (4000 PHASE EVENTS)																	
CORE PLUS SKILL ACADEMICS (ACAD-4)																	
ACAD	4001	MARITIME OPS	B				G	(N)	*		1.0						
ACAD	4002	EMI	B				G	(N)	*		1.0						
ACAD	4003	ENVIRONMENTAL EFFECTS ON EW	B				G	(N)	*		1.0						
ACAD	4004	EA-6B CAPES	B				G	(N)	*		1.0						
ACAD	4005	MAGTF SPECTRUM WARFARE	B				G	(N)	*		1.0						
ACAD	4006	PERSONNEL RECOVERY	B				G	(N)	*		1.0						
ACAD	4007	TRAP TTP	B				G	(N)	*		1.0						
ACAD	4008	PGM INTEGRATION	B				G	(N)	*		1.0						
CORE PLUS SKILL ACADEMICS TOTAL										8	8.0	0	0	0	0		
AERIAL ESCORT (AESC)																	
AESC	4100	INTRODUCE AERIAL ESCORT	B,C			RQ-21A	1	A	D	*					2.0	3200	
AESC	4101	PRACTICE NIGHT AERIAL ESCORT	B,C,R,M			RQ-21A	1	A	N	365					2.0	4100	2102 3100 3200
TOTAL AESC STAGE										0	0	0	0	2	4.0		
TACTICAL RECOVERY OF AIRCRAFT AND PERSONNEL (TRAP)																	
TRAP	4200	INTRO TRAP OPS	B,C			MTD	1	S	D	*			2.0			4101	
TRAP	4201	PRACTICE TRAP	B,C,R,M			RQ-21A	1	A/S	N	365					2.0	4200	2102 3100 4101
TOTAL TRAP STAGE										0	0	1	2.0	1	2.0		
CARRIER QUALIFICATION (CQ)																	
CQ	4300	INTRO SHIPBOARD OPS	B,C,R			MTD	1	S	(N)	*		4.0				2401	
CQ	4301	PRACTICE SHIPBOARD OPS	B,C,R,M			RQ-21A	1	A	D	365				2.0	4300	4300	
CQ	4302	PRACTICE NIGHT SHIPBOARD OPS	B,C,R,M			RQ-21A	1	A	N	365				2.0	4300	4300 4301	
TOTAL CQ STAGE										0	0	1	4.0	2	4.0		
ELECTRONIC WARFARE (EW)																	

STAGE	EVENT		POI	E	DEVICE			COND	REFLY	GROUND/ACADEMIC EVENTS		SIM EVENTS		LIVE/FLIGHT EVENTS		PREREQ	CHAIN
	CODE	TITLE			TYPE	#	OPTION			#	TIME	#	TIME	#	TIME		
EW	4400	INTRO EW IN SUPT GRND COMBAT OPS	B,C		RQ-21A	1	A/S	(N)	*					2.0	4100	2102	
EW	4401	INTRO EW IN SUPT AIR ASLT MSN	B,C,R		RQ-21A	1	A/S	(N)	*					2.0	4100	2102 4400	
TOTAL EW STAGE										0	0	0	0	2	4.0		
SUPPRESSION OF ENEMY AIR DEFENSE (SEAD)																	
SEAD	4402	PRACTICE EA AND ES IN SUPT AI	B,C,M		RQ-21A	1	A/S	(N)	365					2.0	4401	2105	
SEAD	4403	PRACTICE EA IN SUPT SCAR MSN	B,C,M		RQ-21A	1	A/S	(N)	365					2.0	4401	2105	
SEAD	4404	PRACTICE EA IN SUPT CAS MSN	B,C,M		RQ-21A	1	A/S	(N)	365					2.0	4401	2105 4400	
TOTAL SEAD STAGE										0	0	0	0	3	6.0		
LARGE FORCE EXERCISE (LFE)																	
LFE	4500	INTEGRATE UAS IN LFE	B,C,R,M		RQ-21A	1	A	(N)	540					2.0	3000 PHSE	3100 3302 3503 3600 4101	
TOTAL LFE STAGE										0	0	0	0	1	2.0		
TOTAL CORE PLUS SKILL (4000 PHASE EVENTS)										8	8.0	2	6.0	11	22.0		
INSTRUCTOR TRAINING (5000 PHASE EVENTS)																	
BASIC INSTRUCTOR PILOT (BIP)																	
BIP	5100	MAWTS-1 PROGRAM GUIDE	B	E	MTD	1	S	D	*				2.0			MAWTS-1 RQ-21A CC	
BIP	5101	MAWTS-1 PROGRAM GUIDE	B	E	MTD	1	S	D	*				2.0			MAWTS-1 RQ-21A CC	
BIP	5102	MAWTS-1 PROGRAM GUIDE	B	E	RQ-21A	1	A/S	(N)	*				2.0			MAWTS-1 RQ-21A CC	
BIP	5103	MAWTS-1 PROGRAM GUIDE	B	E	RQ-21A	1	A/S	(N)	*				2.0			MAWTS-1 RQ-21A CC	
BIP	5104	MAWTS-1 PROGRAM GUIDE	B	E	RQ-21A	1	A	(N)	*				2.0			MAWTS-1 RQ-21A CC	
TOTAL BIP STAGE										0	0	2	4.0	3	6.0		
WEAPONS TRAINING OFFICER (WTO)																	
WTO	5200	MAWTS-1 PROGRAM GUIDE	B	E	RQ-21A	1	A/S	(N)	*				2.0			MAWTS-1 RQ-21A CC	
WTO	5201	MAWTS-1 PROGRAM GUIDE	B	E	RQ-21A	1	A/S	(N)	*				2.0			MAWTS-1 RQ-21A CC	
WTO	5202	MAWTS-1 PROGRAM GUIDE	B	E	RQ-21A	1	A/S	(N)	*				2.0			MAWTS-1 RQ-21A CC	
TOTAL WTO STAGE										0	0	0	0	3	6.0		

STAGE	EVENT		POI	E	DEVICE			COND	REFLY	GROUND/ACADEMIC EVENTS		SIM EVENTS		LIVE/FLIGHT EVENTS		PREREQ	CHAIN
	CODE	TITLE			TYPE	#	OPTION			#	TIME	#	TIME	#	TIME		
ELECTRONIC WARFARE TRAINING OFFICER (EWTO)																	
EWTO	5300	MAWTS-1 PROGRAM GUIDE	B	E	RQ-21A	1	A	(N)	*					2.0		MAWTS-1 RQ-21A CC	
TOTAL EWTO STAGE										0	0	0	0	1	2.0		
FLEET REPLACEMENT SQUADRON INSTRUCTOR (FRSI)																	
FRSI	5700	FRS IUT FSG	B	E	MTD	1	S	D	*				2.0			FRS FSG IUT	
TOTAL FRSI STAGE										0	0	1	2.0	0	0		
TOTAL INSTRUCTOR TRAINING (5000 PHASE)										0	0	3	6.0	7	14.0		
REQUIREMENTS, CERTIFICATIONS, QUALIFICATIONS, DESIGNATIONS (RCQD) (6000 PHASE)																	
NATOPS/CORE SKILL INTRODUCTION EVALUATION (NTPS) / (EOM)																	
NTPS	6000	OPEN BOOK NATOPS EXAM	B,C,R,M	E			G	(N)	365		1.5						
NTPS	6001	CLOSED BOOK NATOPS EXAM	B,C,R,M	E			G	(N)	365		1.0						
NTPS	6002	ORAL NATOPS EXAM	B,C,R,M	E			G	(N)	365		1.0						
NTPS	6101	NATOPS EVAL FLT	B,C,R,M	E	MTS	1	S	D	365			1.0			6001 6002 6003		
NTPS	6110	CRM REFRESHER TRAINING	B,C,R,M	E	RQ-21A	1	L	D	365		1.0						
NTPS	6120	CRM EVAL FLT	B,C,R,M	E	MTD	1	S	D	365			0.5					
TOTAL NTPS STAGE										4	4.5	2	1.5	0	0		
UNMANNED AIRCRAFT COMMANDER (UAC)																	
UAC	6399	UAC EVAL FLT	B,C,R	E	RQ-21A	1	A/S	(N)	365					4.0		3000 PHSE	
TOTAL UAC STAGE										0	0	0	0	1	4.0		
SITE OFFICER IN CHARGE (OIC)																	
OIC	6599	SITE OIC EVAL	B,C,R	E	RQ-21A	1	L	D	365		8.0					3600	
TOTAL OIC STAGE										1	8.0	0	0	0	0		
UNMANNED SECTION LEAD (USL)																	
USL	6600	INTRO USL FLT OPS	B,C,R		MTD	1	S	(N)	*			3.0				3000 PHSE 4101 4201	
USL	6699	USL EVAL FLT	B,C,R	E	UAS	2	A	(N)	*					3.0		6600	
TOTAL USL STAGE										0	0	1	3.0	1	3.0		
UNMANNED DIVISION LEAD (UDL)																	
UDL	6700	INTRO UDL FLT OPS	B,C,R		MTD	1	S	D	*			2.0				4000 PHSE	
UDL	6799	UDL EVAL FLT	B,C,R	E	UAS	3	A	(N)	365					2.0		6700	
TOTAL UDL STAGE										0	0	1	2.0	1	2.0		
AVIATION CAREER PROGRESSION MODEL (ACPM)																	
ACPM	8620	ESG/CSG INT	B				G	(N)	*		1.0						
ACPM	8630	TACC	B				G	(N)	*		1.0						
ACPM	8640	JDN	B				G	(N)	*		1.0						
ACPM	8641	NTL, THEATER	B				G	(N)	*		1.0						

STAGE	EVENT		POI	E	DEVICE			COND	REFLY	GROUND/ACADEMIC EVENTS		SIM EVENTS		LIVE/FLIGHT EVENTS		PREREQ	CHAIN
	CODE	TITLE			TYPE	#	OPTION			#	TIME	#	TIME	#	TIME		
		ISR															
ACPM	8660	JOINT OPS INTRO	B			G	(N)	*		1.0							
TOTAL ACPM STAGE										5	5.0	0	0	0	0		
TOTAL RCQD (6000 PHASE EVENTS)										10	17.5	4	11.5	3	9.0		