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

NAVMC 3500.52C
C 465

NOV 0 1 2013

NAVMC 3500.52C

From: Commandant of the Marine Corps
To: Distribution List

Subj: KC-130T TRAINING AND READINESS MANUAL

Ref: (a) NAVMC 3500.14C

Encl: (1) KC-130T T&R Manual

1. Purpose. In accordance with reference (a), the Training and Readiness (T&R) Manual, contained in enclosure (1), encompasses revised standards and regulations regarding the training of KC-130T aircrew.

2. Cancellation. NAVMC 3500.52B

3. Scope. Highlights of major training and readiness planning considerations included in this KC-130T T&R Manual are as follows:

a. The Flight Mechanic and Loadmaster chapters were merged into the Crew Master chapter.

b. A new Series Conversion (SC) Pilot syllabus is more closely aligned with the refresher syllabus. It leverages the experience and previous qualifications of SC Pilots.

c. Chapter 1 now mirrors the KC-130J T&R Chapter 1 with regard to covering scalable detachments in increments of three up to a full twelve plane squadron.

d. Addition of a new table - Core Model Training Standard; applies to the optimum training proficiency for Core, Mission, Core Plus skills, and Instructor Training.

4. Information. Recommended changes to this manual should be submitted via the syllabus sponsor and the appropriate chain of

NOV 0 1 2013

4. 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 (MTESD) Division (C 465), Aviation Standards Branch, Quantico, Virginia 22134 using standard Naval correspondence or the Automated Message Handling System plain language address: CG TECOM MTESD.

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

6. Certification. Reviewed and approved this date.

T. M. MURRAY
By direction

DISTRIBUTION: PCN 10031977300

# CHAPTER 1

## KC-130T TRAINING AND READINESS UNIT REQUIREMENTS

# CHAPTER 1

## KC-130T TRAINING AND READINESS UNIT REQUIREMENTS

1.0 TRAINING AND READINESS REQUIREMENTS. The Marine Aviation Training and Readiness (T&R) Program provides the Marine Air-Ground Task Force (MAGTF) commander with an Aviation Combat Element (ACE) capable of executing the six functions of Marine Aviation. The T&R Program is the fundamental tool used by commanders to construct, attain, and maintain effective training programs. The standards established in this program are validated by subject matter experts to maximize combat capabilities for assigned METs while conserving resources. 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 VMGR MISSION. Support the MAGTF Commander by providing air-to-air refueling and assault support, day or night under all weather conditions during expeditionary, joint, or combined operations.

1.2 VMGR 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 KC-130T squadrons. As of this publication date; VMGR Squadrons are authorized:

| KC-130T Table of Organization | | | | | |
|---|---|---|---|---|---|
| Squadron | VMGR-234 | VMGR-452 | Squadron (-) | Detachment | Detachment |
| T/O # | 8820A | 8820B | 9 Aircraft | 6 Aircraft | 3 Aircraft |
| KC-130T | 12 | 12 | 9 | 6 | 3 |
| Pilots | 48 | 49 | 33 | 22 | 11 |
| TPC | 32 | 33 | 21 | 14 | 7 |
| CP (T2P/T3P) | 16 | 16 | 12 | 8 | 4 |
| TSO | 31 | 32 | 16 | 11 | 5 |
| Flight Engineer | 26 | 26 | 18 | 12 | 6 |
| Crewmaster | 48 | 45 | 36 | 24 | 12 |

## 1.3 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. |

## 1.4 ABBREVIATIONS

| VMGR KC-130T | |
|---|---|
| CORE SKILLS (2000 PHASE) | |
| NS | NIGHT SYSTEMS |
| FAM | FAMILIARIZATION |
| LRN | LONG RANGE NAVIGATION |
| TN | TACTICAL NAVIGATION |
| LAT | LOW ALTITUDE TACTICS |
| FORM | FORMATION |
| SEC FORM | SECTION FORMATION |
| DIV FORM | DIVISION FORMATION |
| TR | THREAT REACTION |
| RF TR | RADAR THREAT REACTION |
| IR TR | IR THREAT REACTION |
| MISSION SKILLS (3000 PHASE) | |
| ALZ | ASSAULT LANDING ZONE |
| AT | CARGO AND PASSENGER LOADING |
| AAR | AIR-TO-AIR REFUELING |
| ADGR | AVIATION DELIVERED GROUND REFUELING |
| AD | AIR DELIVERY |
| CORE PLUS SKILLS (4000 PHASE) | |
| TN | TACTICAL NAVIGATION |
| AAR | AIR-TO-AIR REFUELING |
| TR | THREAT REACTION |
| RF TR | RADAR THREAT REACTION |
| DT | DEFENSIVE TACTICS |
| AD | AIR DELIVERY |
| CORE PLUS MISSION SKILLS (4000 PHASE) | |
| BI | BATTLEFIELD ILLUMINATION |

## 1.5 DEFINITIONS

| 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 |
| Core Plus Mission Skills Proficiency (CPMP) | 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. |

1.6 MISSION ESSENTIAL TASK LIST (METL). The METL is a list of specified tasks a unit is expected to execute. Core METs are drawn from the Marine Corps Task List (MCTL), are standardized by type unit, and are used for reporting Core squadron readiness in DRRS-MC. Core Plus METs reflect 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 for that Assigned Mission. Chapter 7 of the Aviation T&R Program Manual provides additional information on Aviation Training Readiness policy.

| VMGR KC-130T | | |
|---|---|---|
| MISSION ESSENTIAL TASK LIST (METL) | | |
| CORE | | |
| MET | ABBREVIATION | DESCRIPTION |
| MCT 1.3.3.3.2 | ALZ | Conduct Aviation Operations from Expeditionary Shore-Based Sites |
| MCT 1.3.4.1 | AT | Conduct Combat Assault Transport |
| MCT 1.3.4.2 | AAR | Conduct Air Refueling |
| MCT 1.3.4.2.1 | ADGR | Provide Aviation-Delivered Ground Refueling |
| MCT 4.3.4 | AD | Conduct Air Delivery |
| CORE PLUS | | |
| MET | ABBREVIATION | DESCRIPTION |
| MCT 1.3.4.3 | BI | Provide Aviation Delivered Battlefield Illumination |

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

| VMGR KC-130T | | | | | | | |
|---|---|---|---|---|---|---|---|
| MISSION ESSENTIAL TASK (MET) TO SIX FUNCTIONS OF MARINE AVIATION | | | | | | | |
| CORE | | | | | | | |
| MET | ABBREVIATION | SIX FUNCTIONS OF MARINE AVIATION | | | | | |
| | | OAS | ASPT | AAW | EW | CoA&M | AerRec |
| MCT 1.3.3.3.2 | ALZ | | X | | | | |
| MCT 1.3.4.1 | AT | | X | | | | |
| MCT 1.3.4.2 | AAR | X | X | | | | |
| MCT 1.3.4.2.1 | ADGR | | X | | | | |
| MCT 4.3.4 | AD | | X | | | | |
| CORE PLUS | | | | | | | |
| MCT 1.3.4.3 | BI | X | X | | | | |

1.8 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. There shall be a one-to-one relationship between the MET and a corresponding Mission Skill. For example: the MET for EXP shows a one-to-one relationship with the ALZ Mission Skill; the AAR MET shows a one-to-one relationship with the AAR Mission Skill, and so on. Shading indicates Core Plus.

| VMGR KC-130T | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MET TO CORE SKILLS/MISSION SKILLS/CORE PLUS SKILLS/MISSION PLUS SKILLS | | | | | | | | | | | | | | | | | | | | | | | |
| MET | CORE SKILLS 2000 PHASE | | | | | | | | | | MISSION SKILLS 3000 PHASE | | | | | CORE PLUS 4000 PHASE | | | | | | |
| | | | | | | | | | | | | | | | | CORE PLUS SKILLS | | | | MISSION PLUS SKILLS | | |
| | FAM | NS | LRN | TN | LAT | FORM | SEC FORM | DIV FORM | TR | IR TR | ALZ | AT | AAR | ADGR | AD | TN | TR | RF TR | DT | AAR | AD | BI |
| MCT 1.3.3.3.2 ALZ | X | X | | | X | | | | X | X | **X** | | | | | | X | X | X | | | |
| MCT 1.3.4.1 AT | X | X | X | X | X | | | | X | X | | **X** | | | | | X | X | X | | | |
| MCT 1.3.4.2 AAR | X | X | | X | | X | X | X | X | X | | | **X** | | | X | X | X | X | X | | |
| MCT 1.3.4.2.1 ADGR | X | X | | | | | | | | | | | | **X** | | | | | | | | |
| MCT 4.3.4 AD | X | X | | X | | X | X | X | X | X | | | | | **X** | X | X | X | X | | X | |
| CORE PLUS | | | | | | | | | | | | | | | | | | | | | | |
| MCT 1.3.4.3 BI | X | X | | | | | | | X | X | | | | | | | X | X | X | | | **X** |

1.9 MISSION ESSENTIAL TASK (MET) OUTPUT STANDARDS. The following MET output standards are the required level of performance a VMGR squadron must be capable of sustaining during contingency/combat operations by MET to be considered MET-ready. Output standards will be demonstrated through the incorporation of unit training events. A core capable VMGR 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 2.0 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.

| VMGR KC-130T SQUADRONS/DETACHMENTS (12/9/6/3 AIRCRAFT) | | | |
|---|---|---|---|
| MET OUTPUT STANDARDS MATRIX | | | |
| CORE | | | |
| MET | ABBREVIATION | MAXIMUM DAILY SORTIES SQUADRON/DETACHMENT | MAXIMUM SORTIES PER MET SQUADRON/DETACHMENT |
| MCT 1.3.3.3.2 | ALZ | 10/7/5/2 | 10/7/5/2 |
| MCT 1.3.4.1 | AT | | 10/7/5/2 |
| MCT 1.3.4.2 | AAR | | 10/7/5/2 |
| MCT 1.3.4.2.1 | ADGR | | 2 Points* |
| MCT 4.3.4 | AD | | 6/4/3/1 |
| CORE PLUS | | | |
| MET | ABBREVIATION | MAXIMUM DAILY SORTIES SQUADRON/DETACHMENT | MAXIMUM SORTIES PER MET SQUADRON/DETACHMENT |
| MCT 1.3.4.3 | BI | 10/7/5/2 | 6/4/3/1 |

*The output standard for Aviation-Delivered Ground Refueling is not stated in sorties but on refueling points provided.

1.10 CORE MODEL MINIMUM REQUIREMENTS (CMMR) FOR READINESS REPORTING (DRRS-MC). The paragraphs and tables below delineate the minimum aircrew qualifications and designations required to execute the MET output standards of para 1.9. Chapter 7 of the Aviation T&R Program Manual provides additional guidance and a detailed description of readiness reporting using the Defense Readiness Reporting System - Marine Corps (DRRS-MC).

1.10.1 The CMMR Readiness Reporting Matrix delineates the minimum crew definition qualifications and designations, 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 under all light levels.

| VMGR KC-130T | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| CMMR READINESS REPORTING MATRIX | | | | | | | | | |
| VMGR MINIMUM CREW QUALIFICATIONS / DESIGNATIONS REQUIRED FOR MET CAPABILITY | | | | | | | | | |
| CORE | | | | | | | | | |
| MET | CREW POSITION | | | | | CREWS REQUIRED PER MET (CREW CMMR) | | | |
| | PILOT | COPILOT | TSO | FE | CM | SQDN 12 A/C | SQDN (-) 9 A/C | DET 6 A/C | DET 3 A/C |
| MCT 1.3.3.3.2 (ALZ) | MSP, TPC | ALZ STAGE COMPLETE* | MSP | MSP | 1 MSP/ 1 STAGE COMPLETE* | 6 | 4 | 3 | 1 |
| MCT 1.3.4.1 (AT) | N/A | N/A | N/A | N/A | 1 MSP | 8 | 6 | 4 | 2 |
| MCT 1.3.4.2 (AAR) | MSP, TPC | AAR STAGE COMPLETE* | MSP | MSP | 2 x MSP | 8 | 6 | 4 | 2 |
| MCT 1.3.4.2.1 (ADGR) | MSP, TPC | ADGR STAGE COMPLETE* | MSP | MSP | 1 MSP**/ 2 x STAGE COMPLETE* | 6 | 4 | 3 | 1 |
| MCT 4.3.4 (AD) | MSP, TPC | AD STAGE COMPLETE* | MSP | MSP | 1 MSP/ 1 STAGE COMPLETE* | 4 | 3 | 2 | 1 |
| CORE PLUS | | | | | | | | | |
| MET | CREW POSITION | | | | | CREWS REQUIRED PER MET (CREW CMMR) | | | |
| | PILOT | COPILOT | TSO | FE | CM | SQDN 12 A/C | SQDN (-) 9 A/C | DET 6 A/C | DET 6 A/C |
| MCT 1.3.4.3 (BI) | MSP, TPC | BI STAGE COMPLETE* | MSP | MSP | 1 MSP***/ 2 x STAGE COMPLETE* | 4 | 3 | 2 | 1 |

* Stage Complete is defined as having completed all events for that particular stage but it does not require that the crew member is proficient in those events.

** One crew member shall be a Refueling Supervisor (RS).

*** One crew member shall be a Quality Assurance Safety Officer (QASO).

1.11 CORE MODEL TRAINING STANDARD (CMTS). The CMTS is the optimum training standard reflecting the number of aircrews 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). For single-seat aircraft, the number of aircrews trained to MSP standards in the CMTS Matrix and CMMR may be the same.

| VMGR KC-130T CMTS MATRIX | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CORE SKILLS (2000 PHASE) | | | | | | | | | | | | | | | | |
| SKILL | PILOT | | | | TSO | | | | FE | | | | CM | | | |
| | SQDN | SQDN(-) | DET | DET | SQDN | SQDN(-) | DET | DET | SQDN | SQDN(-) | DET | DET | SQDN | SQDN(-) | DET | DET |
| NS | 18 | 15 | 10 | 5 | 9 | 7 | 5 | 2 | 9 | 7 | 5 | 2 | 18 | 15 | 10 | 5 |
| FAM | 24 | 18 | 12 | 6 | 12 | 9 | 6 | 3 | 12 | 9 | 6 | 3 | N/A | N/A | N/A | N/A |
| LRN | 24 | 18 | 12 | 6 | 12 | 9 | 6 | 3 | 12 | 9 | 6 | 3 | 24 | 18 | 12 | 6 |
| TN | 16 | 12 | 8 | 4 | 8 | 6 | 4 | 2 | 8 | 6 | 4 | 2 | 16 | 12 | 8 | 4 |
| LAT | 8 | 6 | 4 | 2 | 4 | 3 | 2 | 1 | 4 | 3 | 2 | 1 | N/A | N/A | N/A | N/A |
| FORM | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | 8 | 6 | 4 | 2 | N/A | N/A | N/A | N/A |
| SEC FORM | 16 | 12 | 8 | 4 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| DIV FORM | 8 | 6 | 4 | 2 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| TR | N/A | N/A | N/A | N/A | 6 | 4 | 3 | 1 | 6 | 4 | 3 | 1 | 12 | 9 | 6 | 3 |
| IR TR | 12 | 9 | 6 | 3 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| MISSION SKILLS (3000 PHASE) | | | | | | | | | | | | | | | | |
| MISSION | PILOT | | | | TSO | | | | FE | | | | CM | | | |
| | SQDN | SQDN(-) | DET | DET | SQDN | SQDN(-) | DET | DET | SQDN | SQDN(-) | DET | DET | SQDN | SQDN(-) | DET | DET |
| ALZ | 12 | 9 | 6 | 3 | 6 | 4 | 3 | 1 | 6 | 4 | 3 | 1 | 12 | 9 | 6 | 3 |
| AT | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | 8 | 6 | 4 | 2 |
| AAR | 16 | 12 | 8 | 4 | 8 | 6 | 4 | 2 | 8 | 6 | 4 | 2 | 16 | 12 | 8 | 4 |
| ADGR | 12 | 9 | 6 | 3 | N/A | N/A | N/A | N/A | 6 | 4 | 3 | 1 | 18* | 12* | 9* | 3* |
| AD | 8 | 6 | 4 | 2 | 4 | 3 | 2 | 1 | 4 | 3 | 2 | 1 | 12 | 9 | 6 | 3 |
| CORE PLUS (4000 PHASE) | | | | | | | | | | | | | | | | |
| CORE PLUS SKILL | PILOT[1] | | | | TSO[1] | | | | FE[1] | | | | CM[1] | | | |
| | SQDN | SQDN(-) | DET | DET | SQDN | SQDN(-) | DET | DET | SQDN | SQDN(-) | DET | DET | SQDN | SQDN(-) | DET | DET |
| TN | 4/4 | 3/3 | 2/2 | 1/1 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| RF TR | 6/6 | 4/4 | 2/2 | 1/1 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| TR | N/A | N/A | N/A | N/A | 3/1 | 2/1 | 1/1 | 0/1 | 3/3 | 1/1 | 1/1 | 0/1 | N/A | N/A | N/A | N/A |
| DT | 4/4 | 3/3 | 2/2 | 1/1 | 2/2 | 1/1 | 1/1 | 0/1 | 2/2 | 1/1 | 1/1 | 0/1 | N/A | N/A | N/A | N/A |
| MISSION PLUS SKILL | PILOT[1] | | | | TSO[1] | | | | FE[1] | | | | CM[1] | | | |
| | SQDN | SQDN (-) | DET | DET | SQDN | SQDN(-) | DET | DET | SQDN | SQDN(-) | DET | DET | SQDN | SQDN(-) | DET | DET |
| AAR | N/A | N/A | N/A | N/A | 4/4 | 3/3 | 2/2 | 1/1 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| AD | 4/4 | 3/3 | 2/2 | 1/1 | 2/2 | 1/1 | 1/1 | 0/1 | 2/2 | 1/1 | 1/1 | 0/1 | 6/6 | 4/4 | 2/2 | 1/1 |
| BI | 8/8 | 6/6 | 4/4 | 2/2 | 4/4 | 3/3 | 2/2 | 1/1 | N/A | N/A | N/A | N/A | 16/16** | 12/12** | 8/8** | 4/4** |

Note[1]: 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 must train if that MET becomes required within an Assigned Mission/Directed Mission Set.

* Three ADGR qualified crew members are required per crew, at least one of which shall be a Refueling Supervisor (RS).

** One crew member shall be a Quality Assurance Safety Officer.

1.12 INSTRUCTOR DESIGNATIONS (5000 Phase)

| INSTRUCTOR DESIGNATIONS | PILOTS | | | | TSO | | | | FLIGHT ENGINEER | | | | CREWMASTER | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 12 A/C | 9 A/C | 6 A/C | 3 A/C | 12 A/C | 9 A/C | 6 A/C | 3 A/C | 12 A/C | 9 A/C | 6 A/C | 3 A/C | 12 A/C | 9 A/C | 6 A/C | 3 A/C |
| BIP | 5 | | 3 | 3 | | | | | | | | | | | | |
| TSOI | | | | | 3 | 2 | 1 | 1 | | | | | | | | |
| FEI | | | | | | | | | 5 | 4 | 3 | 1 | | | | |
| CPLI | | | | | | | | | | | | | 6 | 5 | 3 | 1 |
| CMI | | | | | | | | | | | | | 6 | 5 | 3 | 1 |
| SI | | | | | | | | | * | * | * | * | 6 | 5 | 3 | 1 |
| ADI | | | | | | | | | | | | | 4 | 3 | 2 | 1 |
| ANI | 4 | 3 | 2 | 1 | 4 | 3 | 2 | 1 | 4 | 3 | 2 | 1 | 6 | 5 | 3 | 1 |
| FRSI | 3 | 3 | | | | | | | | | | | | | | |
| LATI | 4 | 3 | 2 | 1 | | | | | | | | | | | | |
| NSI | 3 | 2 | 1 | 1 | 3 | 2 | 1 | 0 | 3 | 2 | 1 | 1 | 6 | 5 | 3 | 1 |
| WTI | 2 | 2 | 1 | 1 | 2 | 2 | 1 | 0 | 2 | 2 | 1 | 0 | 4 | 3 | 2 | 1 |
| DTI | 0 | 0 | 0 | 0 | | | | | | | | | | | | |
| FLSE | 2 | 1 | 1 | 1 | | | | | | | | | | | | |

*Flight Engineers may augment the Crew Master SI designations.

1.13 REQUIREMENTS, CERTIFICATIONS, QUALIFICATIONS, AND DESIGNATIONS (RCQD) (6000 Phase)

| VMGR KC-130T | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| REQUIREMENTS, CERTIFICATIONS, QUALIFICATIONS, DESIGNATIONS (R,C,Q,D) (6000 Phase) CMMR [T-2] | | | | | | | | | | | | | | | | |
| QUALIFICATIONS | PILOTS | | | | TSO | | | | FLIGHT ENGINEER | | | | CREWMASTER | | | |
| | 12 A/C | 9 A/C | 6 A/C | 3 A/C | 12 A/C | 9 A/C | 6 A/C | 3 A/C | 12 A/C | 9 A/C | 6 A/C | 3 A/C | 12 A/C | 9 A/C | 6 A/C | 3 A/C |
| FCP | 4 | 3 | 2 | 1 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| FCF | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | 4 | 3 | 2 | 1 | 4 | 3 | 2 | 1 |
| COMBAT/FLIGHT LEADERSHIP | | | | | | | | | | | | | | | | |
| DESIGNATIONS | PILOTS | | | | TSO | | | | FLIGHT ENGINEER | | | | CREWMASTER | | | |
| | 12 A/C | 9 A/C | 6 A/C | 3 A/C | 12 A/C | 9 A/C | 6 A/C | 3 A/C | 12 A/C | 9 A/C | 6 A/C | 3 A/C | 12 A/C | 9 A/C | 6 A/C | 3 A/C |
| TPC | 18 | 13 | 9 | 4 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| SEC LDR | 8 | 6 | 4 | 2 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| DIV LDR | 4 | 3 | 2 | 1 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| TAC RAC | 6 | 5 | 3 | 1 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| STRAT RAC | 2 | 1 | 1 | 0 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| RC | N/A | N/A | N/A | N/A | 2 | 1 | 1 | 0 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| RS | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | 6 | 4 | 3 | 1 |
| QASO | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | 4 | 3 | 2 | 1 |

1.14 ORDNANCE REQUIREMENTS. See KC-130T CCRM (Ordnance Module) for specific squadron requirements.

THIS PAGE BLANK

# VMGR

## Core

| | |
|---|---|
| MCT 1.3.3.3.2 | Conduct Aviation Operations From Expeditionary Shore-Based Sites |
| MCT 1.3.4.1 | Conduct Combat Assault Transport |
| MCT 1.3.4.2 | Conduct Air Refueling |
| MCT 1.3.4.2.1 | Provide Aviation-Delivered Ground Refueling |
| MCT 4.3.4 | Conduct Air Delivery |

## Core Plus

| | |
|---|---|
| MCT 1.3.4.3 | Provide Aviation Delivered Battlefield Illumination |

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

**Conditions:**

**C 2.5.4.1.3 Runway Length:**
Long (> 8200 ft); Commercial (5000 to 8200 ft); Short (3500 to 5000 ft); Very short (< 3500 ft).

**C 1.3.2.1 Light**
Light available to illuminate objects from natural or manmade sources. Descriptors: Bright (sunny day); Day (overcast day); low (dusk, dawn, moonlit, streetlight lit); Negligible (overcast night)

**C 1.3.1.3.1 Air Temperature**
Atmospheric temperature at ground level (degrees Fahrenheit). Descriptors: Hot (> 85 F); Temperate (40 to 85 F); Cold (10 to 39 F); Very cold (< 10 F).

**C 2.7.2 Air Superiority**
The extent to which operations in the air, over sea and/or, over land can be conducted with acceptable losses due to hostile air forces and air defense systems action. Descriptors: Full (Air Supremacy); General; Local.

**C 2.5.4.1.4 Runway Weight Bearing Capacity**
Descriptors: Low (C-130).

**Standards:**
**KC-130T [12 A/C Squadron/9 A/C Squadron(-)/6 A/C Det/3 A/C Det]**

**Personnel**

- 18/13/9/4 aircrews formed (KC-130T)
- 90% of squadron T/O personnel MOS qualified and deployable
  - o And Level 2 (L2) IAW ALERTS.
- 100% critical MOS fill

**Equipment**

- 70% Full Mission Capable (FMC) aircraft of PAA
  - o 8/6/4/2 aircraft (KC-130T)

  OR

  Upon establishment, 100 percent RFT entitlement IAW T/M/S standard.
- Operational support equipment fully supports MCT

**Training**

- o 6/4/3/1 Crews ALZ Mission Skill proficient IAW T&R requirements

**Output Standards**

- **KC-130 T - 10/7/5/2 sorties daily sustained during contingency/combat operations**

MCT 1.3.4.1 Conduct Combat Assault Transport (AT)

Conditions:

**C 2.5.4.1.3 Runway Length:**
Long (> 8200 ft); Commercial (5000 to 8200 ft); Short (3500 to 5000 ft); Very short (< 3500 ft).
**C 1.3.2.1 Light**
Light available to illuminate objects from natural or manmade sources.
Descriptors: Bright (sunny day); Day (overcast day); low (dusk, dawn, moonlit, streetlight lit); Negligible (overcast night)
**C.1.3.2.3 Aviation Meteorological Conditions**
Current weather/flight conditions affecting flight rules next 24 hours.
Descriptors: VMC (Conditions that permit flight using external cues and a distinguishable horizon.)
**C 2.5.4.1.4 Runway Weight Bearing Capacity** Low (C-130).
**C 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); Strong (25 to 46 mph) KTS -
**C 1.1.1.2 Terrain Elevation**
Height of immediate terrain in reference to sea level.
Descriptors: Very high (> 10,000 ft); High (6,000 to 10,000 ft); Moderately high (3,000 to 6,000 ft); Moderately low (1,000 to 3,000 ft); Low (500 to 1,000 ft); Very low (< 500 ft).
**C 2.7.2 Air Superiority**
The extent to which operations in the air, over sea and/or, over land can be conducted with acceptable losses due to hostile air forces and air defense systems action. Descriptors: Full (Air Supremacy); General; Local.

Standards:
**KC-130T [12 A/C Squadron/9 A/C Squadron(-)/6 A/C Det/3 A/C Det]**

Personnel

- 18/13/9/4 aircrews formed (KC-130T)
- 90% of squadron T/O personnel MOS qualified and deployable
  - o And Level 2 (L2) IAW ALERTS.
- 100% critical MOS fill

Equipment

- 70% Full Mission Capable (FMC) aircraft of PAA
  - o 8/6/4/2 aircraft (KC-130T)

OR

Upon establishment, 100 percent RFT entitlement IAW T/M/S standard.

- Operational support equipment fully supports MCT

Training

- KC-130T - 8/6/4/2 Crews AT/CPL Mission Skill proficient IAW T&R requirements

Output Standards

- **KC-130T - 10/7/5/2 sorties daily sustained during contingency/combat operations**

MCT 1.3.4.2 Conduct Air Refueling (AAR)

Conditions:

C 1.3.2.1 Light
Light available to illuminate objects from natural or manmade sources. Descriptors: Bright (sunny day); Day (overcast day); low (dusk, dawn, moonlit, streetlight lit); Negligible (overcast night)

C 2.7.2 Air Superiority
The extent to which operations in the air, over sea and/or, over land can be conducted with acceptable losses due to hostile air forces and air defense systems action. Descriptors: Full (Air Supremacy); General; Local.

Standards:
KC-130T [12 A/C Squadron/9 A/C Squadron(-)/6 A/C Det/3 A/C Det]

Personnel:
- 18/13/9/4 aircrews formed (KC-130T)
- 90% of squadron T/O personnel MOS qualified and deployable
  - And Level 2 (L2) IAW ALERTS.
- 100% critical MOS fill

Equipment:
- 70% Full Mission Capable (FMC) aircraft of PAA
  - 8/6/4/2 F aircraft (KC-130T)
    OR
  - Upon establishment, 100 percent RFT entitlement IAW T/M/S standard.
- Operational support equipment fully supports MCT

Training:
- KC-130T - 8/6/4/2 Crews AAR Mission Skill proficient IAW T&R requirements

Output Standards:
- **KC-130T - 10/7/5/2 sorties daily sustained during contingency/combat operations**

MCT 1.3.4.2.1 Provide Aviation-Delivered Ground Refueling (ADGR)

Conditions:

**C 2.5.4.1.3 Runway Length:**
Long (> 8200 ft); Commercial (5000 to 8200 ft); Short (3500 to 5000 ft)

**C 1.3.2.1 Light**
Light available to illuminate objects from natural or manmade sources. Descriptors: Bright (sunny day); Day (overcast day); low (dusk, dawn, moonlit, streetlight lit); Negligible (overcast night)

**C 2.7.2 Air Superiority**
The extent to which operations in the air, over sea and/or, over land can be conducted with acceptable losses due to hostile air forces and air defense systems action. Descriptors: Full (Air Supremacy); General; Local.

**C 2.5.4.1.4 Runway Weight Bearing Capacity:** Low (C-130).

Standards:

**KC-130T [12 A/C Squadron/9 A/C Squadron(-)/6 A/C Det/3 A/C Det]**

Personnel

- 18/13/9/4 aircrews formed (KC-130T)
- 90% of squadron T/O personnel MOS qualified and deployable
  - And Level 2 (L2) IAW ALERTS.
- 100% critical MOS fill

Equipment

- 70% Full Mission Capable (FMC) aircraft of PAA
  - 8/6/4/2 F/R/T aircraft (KC-130T)
    OR
  - Upon establishment, 100 percent RFT entitlement IAW T/M/S standard.
- Operational support equipment fully supports MCT

Training

- KC-130T - 6/4/3/1 Crews ADGR Mission Skill proficient IAW T&R requirements

Output Standards:

- **Provide (2) refueling points capable of transferring 90 GPM IFR Drogue and Probe, One IFR Pump**

MCT 4.3.4 Conduct Air Delivery (AD)

Conditions:

**C 1.3.2.1 Light**
Light available to illuminate objects from natural or manmade sources. Descriptors: Bright (sunny day); Day (overcast day); low (dusk, dawn, moonlit, streetlight lit); Negligible (overcast night)

**C 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); Strong (25 to 46 mph) KTS -

**C 2.7.2 Air Superiority**
The extent to which operations in the air, over sea and/or, over land can be conducted with acceptable losses due to hostile air forces and air defense systems action. Descriptors: Full (Air Supremacy); General; Local.

Standards:

**KC-130T [12 A/C Squadron/9 A/C Squadron(-)/6 A/C Det/3 A/C Det]**

Personnel

- 18/13/9/4 aircrews formed (KC-130T)
- 90% of squadron T/O personnel MOS qualified and deployable
  - And Level 2 (L2) IAW ALERTS.
- 100% critical MOS fill

Equipment:

- 70% Full Mission Capable (FMC) aircraft of PAA
  - 8/6/4/2 aircraft (KC-130T)
    OR
  - Upon establishment, 100 percent RFT entitlement IAW T/M/S standard.
- Operational support equipment fully supports MCT

Training:

- KC-130T - 4/3/2/1 Crews AD Mission Skill proficient IAW T&R requirements

Output Standards:

- **KC-130T - 6/4/3/1 sorties daily sustained during contingency/combat operations**

Core Plus

MCT 1.3.4.3 Provide Aviation Delivered Battlefield Illumination (BI)

Conditions:

C 2.7.2 Air Superiority
The extent to which operations in the air, over sea and/or, over land can be conducted with acceptable losses due to hostile air forces and air defense systems action. Descriptors: Full (Air Supremacy); General; Local.

Standards

KC-130T [12 A/C Squadron/9 A/C Squadron(-)/6 A/C Det/3 A/C Det]

Personnel

- 18/13/9/4 aircrews formed (KC-130T)
- 90% of squadron T/O personnel MOS qualified and deployable
  - And Level 2 (L2) IAW ALERTS.
- 100% critical MOS fill

Equipment

- 70% Full Mission Capable (FMC) aircraft of PAA
  - 8/6/4/2 T aircraft (KC-130T)
    OR
  - Upon establishment, 100 percent RFT entitlement IAW T/M/S standard.
- Operational support equipment fully supports MCT

Training

- KC-130T - 4/3/2/1 Crews proficient in AD-4710 IAW T&R requirements

Output Standards

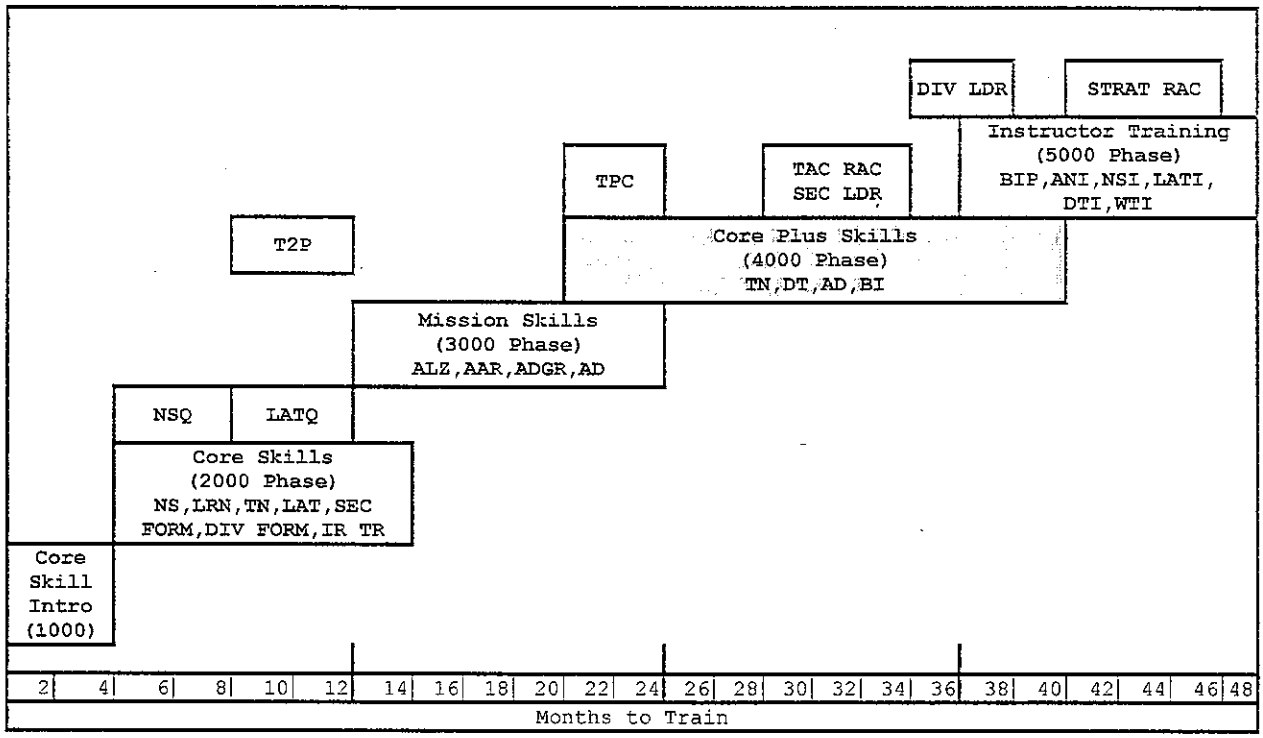
- KC-130T - 6/4/3/1 sorties daily sustained during contingency/combat operations

# CHAPTER 2
# KC-130T PILOT (MOS 7556/7557)

# CHAPTER 2
# KC-130T PILOT MOS 7556/7557

2.0 KC-130T PILOT 7556/7557 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 KC-130T PILOT TRAINING PROGRESSION MODEL. This model represents the recommended training progression for the average KC-130T Pilot. Units should use the model as a point of departure to generate individual training plans.




2.2 INDIVIDUAL CORE/MISSION/CORE PLUS SKILL PROFICIENCY REQUIREMENTS. A CSP crew consists of individuals representing each crew position who have achieved and currently maintain individual CSP. In order to be considered proficient in a Core Skill, an individual must attain and maintain proficiency in Core Skill events as delineated in the below paragraphs.

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.

| KC-130T PILOT ATTAIN AND MAINTAIN TABLE CORE/MISSION/CORE PLUS | | | | | | | |
|---|---|---|---|---|---|---|---|
| ATTAIN PROFICIENCY | | | | | | MAINTAIN PROFICIENCY | |
| BASIC POI | | SERIES CONV POI | | REFRESHER POI | | MAINTAIN POI | |
| SKILL | EVENT # | SKILL | EVENT # | SKILL | EVENT # | SKILL | EVENT # |
| CORE SKILLS (2000 PHASE) | | | | | | | |
| FAM | 2100R | FAM | 2100R | FAM | 2100R | FAM | 2100R |
| NS | 2150R | NS | 2150R | NS | 2150R | NS | |
| | 2151R | | 2151R | | 2151R | | 2151R |
| LRN | 2160R | LRN | | LRN | 2160R | LRN | 2160R |
| TN | 2200R | TN | | TN | 2200R | TN | |
| | 2250R | | | | 2250R | | |
| | 2251R | | 2251R | | 2251R | | 2251R |
| LAT | 2260R | LAT | | LAT | 2260R | LAT | |
| | 2261R | | 2261R | | 2261R | | 2261R |
| SEC FORM | 2300R | SEC FORM | | SEC FORM | 2300R | SEC FORM | |
| | 2350R | | | | 2350R | | 2350R |
| DIV FORM | 2301R | DIV FORM | 2301R | DIV FORM | 2301R | DIV FORM | 2301R |
| IR TR | 2400R | IR TR | | IR TR | 2400R | IR TR | 2400R |
| MISSION SKILLS (3000 PHASE) | | | | | | | |
| ALZ | 3500R | ALZ | 3500R | ALZ | 3500R | ALZ | |
| | 3501R | | | | 3501R | | |
| | 3502R | | | | 3502R | | 3502R |
| | 3550R | | 3550R | | 3550R | | 3550R |
| AAR | 3600R | AAR | | AAR | 3600R | AAR | 3600R |
| | 3601R | | 3601R | | 3601R | | |
| | 3650R | | 3650R | | 3650R | | 3650R |
| ADGR | 3660R | ADGR | | ADGR | 3660R | ADGR | 3660R |
| AD | 3700R | AD | | AD | 3700R | AD | |
| | 3750R | | | | 3750R | | 3750R |
| CORE PLUS (4000 PHASE) | | | | | | | |
| TN | 4200R | TN | | TN | 4200R | TN | |
| | 4201R | | | | 4201R | | 4201R |
| | 4250R | | | | 4250R | | 4250R |
| RF TR | 4400R | RF TR | | RF TR | 4400R | RF TR | 4400R |
| DT | 4410R | DT | | DT | 4410R | DT | |
| | 4411R | | | | 4411R | | 4411R |
| AD | 4700R | AD | | AD | 4700R | AD | 4700R |
| BI | 4710R | BI | | BI | 4710R | BI | 4710R |

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. Loss of proficiency in all qualification events causes the associated qualification to be lost. Regaining a qualification requires completing all R-coded syllabus events associated with that qualification.

| INDIVIDUAL QUALIFICATION REQUIREMENTS | |
|---|---|
| **Qualification** | **Event Requirements** |
| LEFT SEAT QUAL | 6100 |
| NSQ | 2150,2151,2250,2251; {Manual tracking in M-SHARP, 10 hours total NVD time (minimum 5 hours LLL)} |
| LATQ | 2260,2261 |
| DTQ | 4410,4411 |
| T3P | 6010,6011,6012,6110 |

| INDIVIDUAL DESIGNATION REQUIREMENTS | |
|---|---|
| **Designation** | **Event Requirements** |
| T2P | 6010,6011,6012,6013,6111 |
| TPC | 6010,6011,6012,6112,6113,6114,6115,6117,6118 |
| Standard Instrument | 6130,6030,6031 |
| Special Instrument | 6131,6130,6030,6031 |
| FCF PILOT | 6106 |
| BIP | 5100,6118 |
| SECT LEAD | 6300,6301,8630,8660 |
| TACRAC | 6311,6301 |
| DIV LEAD | 6303,6304,8640,8641,8620 |
| STRATRAC | 6314,6304,6311 |
| ANI/NI/NE | 5140,5141 |
| FLSE | 5320,6305,6312; MAWTS-1 CC |
| FRSI | 5145,5146,5147,5141; 1000 hours in T/M/S |
| LATI | 5210,5211,5212,5213; MAWTS-1 CC |
| NSI | 5150,5151,5152 5153; MAWTS-1 CC |
| WTI | 5999; MAWTS-1 CC |
| DTI | 5410,5411,5412; MAWTS-1 CC |

## 2.4 PROGRAMS OF INSTRUCTION (POI)

2.4.1 General. The time required to train a KC-130T Pilot to completion of the Core Plus phase will vary depending on previous Pilot's experience. Basic (B) and Transition (T) Pilots shall fly the entire syllabus. Refresher and Series Conversion Pilots represent a varying background and should fly flights coded with an (R) or (SC) respectively. All KC-130J Pilots with no prior KC-130F/R/T experience shall attend the abbreviated CIQ course offered by the HTU followed by the SC flying syllabus. Commanding officers will review the qualifications, previous experience, and demonstrated ability of previously qualified KC-130F/R/T/J Pilots with a view towards waiving and/or combining required flights on a case by case basis. When a crewmember completes a stage of training, that crewmember need only maintain proficiency in the R coded events for that stage to remain proficient.

2.4.2 Basic/Transition (B/T) POI. Basic (B) and Transition (T) Pilots shall fly the entire syllabus.

| WEEKS | COURSE | PERFORMING ACTIVITY |
|---|---|---|
| 1-3 | USMC C-130 Co-Pilot Initial Qualification (CIQ) Simulator Training | Herc Training Unit NAS JRB Ft. Worth |
| 4-7 | Core Skill Introduction Training | Tactical Squadron |
| 8-56 | Core Skill Training | Tactical Squadron |
| 56-104 | Mission Skill Training | Tactical Squadron |
| 104-188 | Core Plus Training | Tactical Squadron |

2.4.3 Series Conversion (SC) POI. The Series Conversion (SC) syllabus incorporates an abbreviated CIQ simulator training course, largely mirrors the Refresher syllabus, and is intended to leverage skills and experience already demonstrated by previous KC-130J Aircraft Commanders. SC pilots represent a varying background and should fly all flights and simulator events coded with an SC. Commanding Officers will review the currency, qualifications, experience, and demonstrated ability of SC pilots with a view toward adding, combining, deferring or waiving required flights.

| WEEKS | COURSE | PERFORMING ACTIVITY |
|---|---|---|
| 1-2 | Abbreviated USMC CO-PILOT INITIAL QUALIFICATION TRAINING (CIQ) | HERC TRAINING UNIT JRB FT WORTH, TX |
| 3-4 | Core Skill Introduction Training | Tactical Squadron |
| 4-13 | Core Skill Training | Tactical Squadron |
| 14-17 | Mission Skill Training | Tactical Squadron |
| 17-25 | Core Plus Training | Tactical Squadron |

2.4.4 Modified Refresher/Refresher (MR/R) POI. The MR POI mirrors the R POI. Refresher Pilots represent a varying background and should fly flights coded with an (R). Commanding officers will review the qualifications, previous experience, currency and demonstrated ability of Refresher Pilots with a view towards waiving and/or combining required flights.

| WEEKS | COURSE | PERFORMING ACTIVITY |
|---|---|---|
| 1 | Core Skill Introduction Simulator Training | Herc Training Unit NAS JRB Ft. Worth |
| 2-3 | Core Skill Introduction Training | Tactical Squadron |
| 3-12 | Core Skill Training | Tactical Squadron |
| 13-16 | Mission Skill Training | Tactical Squadron |
| 17-24 | Core Plus Training | Tactical Squadron |

2.4.5 Instructor Pilot POI

| WEEKS | COURSE | PERFORMING ACTIVITY |
|---|---|---|
| 1 | Fleet Replacement Squadron Instructor (FRSI) | Tactical Squadron (NE) |
| 1 | Basic Instructor Pilot (BIP) | Tactical Squadron |
| 1 | NATOPS Instructor | Tactical Squadron |
| 2 | Low Altitude Tactics Instructor | Tactical Squadron |
| 1 | Defensive Tactics Instructor | MAWTS-1 |
| 2 | Night Systems Instructor | MAWTS-1 |
| 7 | Weapons and Tactics Instructor | MAWTS-1 |
| 1 | Flight Leadership Standardization Evaluator (FLSE) | Tactical Squadron (Program Coordinator) |

2.5 FRS ACADEMIC PHASE

2.5.1 Academic training shall be conducted for each phase/stage of the syllabus. Where indicated, standardized academic training materials exist and may be obtained from the sponsoring activity.

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

| COURSE | ACTIVITY |
|---|---|
| Survival, Evasion, Resistance, and Escape (SERE) Course | NAS Brunswick ME<br>NAS North Island CA |
| NITE lab | Tactical Squadron |
| Weapons and Tactics Instructor (WTI) | MAWTS-1 |
| Environmental Survival Courses | Regional/Seasonal Survival Schools |
| Advanced Airlift Tactics Training Course (AATTC) | AATTC, St. Joseph MO |

2.6 CORE SKILL INTRODUCTION PHASE (1000)

2.6.1 General

2.6.1.1 The KC-130T Model Manager shall be responsible for Core Skill Introduction phase standardization. Squadrons shall maintain a qualified NATOPS Instructor (NI) responsible for training and qualifying squadron Fleet Replacement Squadron Instructor (FRSI) and Contract Simulator Instructors (CSI). In order to maintain community standardization, the squadron NATOPS Instructor (NI) shall receive a standardization evaluation from the Model Manager every 18 months.

2.6.1.2 All academic requirements for this phase of training are incorporated into the CIQ course, per paragraph 2.4.1.

2.6.1.3 All events in the Core Skill Introduction phase shall be instructed/evaluated by a FRSI/CSI via appropriate aircrew evaluation form.

2.6.1.4 Instructors shall be responsible for mission briefs. Students may conduct a mission brief only after observing the instructor brief a mission in that specific phase.

2.6.1.5 Syllabus Assignment

2.6.1.6 Basic and Transition Pilots. Basic (B) and Transition (T) Pilots shall be assigned to the Basic POI as per paragraph 2.6 and complete the full Core Skill Introduction Phase (1000). Basic and Transition Pilots shall be trained and evaluated in the right seat. Upon completion of Core Skill Introduction training the Pilot will be a designated a NATOPS Transport Third Pilot (T3P), MOS 7556, by the squadron commanding officer. The Pilot will be capable of basic aircraft co-pilot duties to include normal and emergency procedures, crew resource management, and mission planning.

2.6.1.7 Refresher and Series Conversion Pilots. Refresher (R), Modified Refresher (MR), and Series Conversion (SC) Pilots shall be assigned to the Refresher/Series Conversion (R, SC) POI as per paragraph 2.6. TPC/T2P in the Refresher/Series Conversion syllabus shall be trained and evaluated in the left and right seat. A minimum of one flight event shall be flown at night. Upon completion of Core Skill Introduction training the Series Conversion Pilot should be a designated a NATOPS Transport Second Pilot (T2P) by the squadron commanding officer.

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

| Par No. | Stage Name |
|---|---|
| 2.6.2 | Familiarization (FAM) |
| 2.6.3 | Long Range Navigation (LRN) |
| 2.6.4 | Tactical Navigation (TN) |
| 2.6.5 | Formation (FORM) |
| 2.6.6 | Air to Air Refueling (AAR) |

2.6.2 Familiarization (FAM)

2.6.2.1 Purpose. Introduce Pilots to fundamental KC-130 NATOPS, instrument, and CRM procedures.

2.6.2.2 General

2.6.2.3 Basic, Transition and Refresher/Series Conversion third Pilots (T3P) shall be trained and evaluated in the right seat. A minimum of two (N) coded flights shall be flown at night. TPC and T2P refresher/ series conversion pilots shall be trained and evaluated in the left and right seat. One of the (N) coded flights shall be flown at night. Additionally, Basic, Transition, and Series Conversion Pilots should complete the USMC KC-130 CIQ offered by the HTU at NAS JRB Ft. Worth prior to this stage.

2.6.2.4 Crew Requirements. Shall be instructed/evaluated by a FRSI/CSI.

2.6.2.5 Academic/Ground Training

2.6.2.6 Prior to FAM-1100, all Basic, Transition and Series Conversion Pilots will complete a familiarization training evolution to include cockpit management, aircraft preflight and post flight, TFOA inspections, emergency evacuation, and use and donning of all emergency equipment to include bailout training.

Core Skill Introduction syllabus overview.

NATOPS flight manual overview.

VMGR squadron Mission Essential Task List (METL).

Six functions of Marine aviation.

KC-130 capabilities review.

NATOPS briefing techniques.

NITE Lab is optional for Core Skill Introduction training but should be completed at the earliest possible time as it is required to begin the NS stage of Core Skill Training.

SFAM-1001 2.0 * B,SC D E S OFT/WST

Goal. Introduce expanded checklists up to and including takeoff, CRM, aircraft limitations, and performance computations.

Requirement. Introduce expanded cockpit checklists up to the takeoff checklist. The Pilot under instruction shall practice the expanded cockpit checklists to include all appropriate responses and associated actions.

Performance Standard. Per the NATOPS FLIGHT MANUAL (NFM). The Pilot shall be able to recall aircraft limitations with associated checklists.

SFAM-1002 2.0 * B,SC D E S OFT/WST

Goal. Introduce expanded checklists from takeoff to secure; introduce takeoff and approach brief.

Requirement. Introduce expanded cockpit checklists from takeoff to secure. The Pilot shall practice the expanded cockpit checklists up to and including the secure checklist. The Pilot shall practice previously introduced checklists.

Performance Standard. Per the NFM. Pilot shall be able to recall aircraft limitations.

Prerequisite. SFAM-1001.

SFAM-1003 2.0 * B,SC D E S OFT/WST

Goal. Train the Pilot in normal procedures and system malfunctions. Introduce start malfunctions.

Requirement. Introduce start malfunctions. The Pilot shall practice normal checklists and aircraft limitations associated with the checklists. The Pilot should compute Takeoff and Landing Data (TOLD) card.

Performance Standard. Per the NFM. The Pilot shall diagnose and handle all start malfunctions per NFM.

Prerequisite. SFAM-1002.

SFAM-1004 2.0 * B,SC D E S OFT/WST

Goal. Train the Pilot in normal procedures, system malfunctions, and ground emergency procedures.

Requirement. Introduce ground emergencies. The Pilot shall practice normal checklists and start malfunctions. The Pilot should compute TOLD card.

Performance Standard. Per the NFM. Pilot shall diagnose and handle all ground emergencies per NFM.

Prerequisite. SFAM-1003.

SFAM-1005 2.0 * B,R,SC D E S OFT/WST

Goal. Cockpit procedures stage progress review. Review normal checklists, start malfunctions, and emergency procedures. Practice ground emergencies.

Requirement. Review normal checklists, start malfunctions, and emergency procedures. The Pilot shall practice ground emergencies and compute TOLD card.

Performance Standard. Per the NATOPS FLIGHT MANUAL.

Prerequisite. SFAM-1004.

SFAM-1006 4.0 * B,SC D E S OFT/WST

Goal. Train the Pilot in normal procedures, propeller system malfunctions, and emergency procedures.

Requirement. Introduce VFR departure and climb, basic airwork, VFR approach, landings, and abort procedures. The Pilot shall practice VFR approach and landings with coaching as necessary. The Pilot should compute TOLD card.

Performance Standard. Per the NFM. Pilot shall diagnose and handle all aborts and propeller malfunctions per NFM.

Prerequisite. SFAM-1005.

SFAM-1007 4.0 * B,SC D E S OFT/WST

Goal. Train the Pilot in normal procedures, system malfunctions, and emergency procedures. Introduce steep turns and approach to stalls.

Requirement. Introduce steep turns, approach to stalls, and engine systems failures. The Pilot shall practice steep turns and approach to stalls. The Pilot should compute 3-engine go-around capabilities.

Performance Standard. Per the NFM. The Pilot shall diagnose and handle all engine systems malfunctions per NFM.

Prerequisite. SFAM-1006.

SFAM-1008 4.0 * B D E S OFT/WST

Goal. Train the Pilot in normal procedures, electrical system, system malfunctions, emergency procedures, and instrument procedures. Introduce flight planning, clearance procedures, radio NAVAID IFF/SIF management, and GCA approaches.

Requirement. Introduce flight planning, clearance procedures, radio NAVAID IFF/SIF management, and GCA approaches. Introduce electrical system and associated malfunctions. The Pilot shall practice duties associated with instrument flight procedures. The Pilot should compute 3-engine climb performance.

Performance Standard. Per the NFM. The Pilot shall diagnose and handle all electrical malfunctions per NFM.

Prerequisite. SFAM-1007.

SFAM-1009 4.0 * B D E S OFT/WST

Goal. Train the Pilot in normal and instrument flight procedures, bleed air and anti-icing system and malfunctions, and emergency procedures. Introduce ILS procedures.

Requirement. Introduce ILS procedures, and bleed air and anti-icing system malfunctions.

Performance Standard. Per the NFM. Pilot shall diagnose and handle bleed air and anti-icing emergencies per NFM.

Prerequisite. SFAM-1008.

SFAM-1010 4.0 * B D E S OFT/WST

Goal. Train the Pilot in normal and instrument flight procedures, fuel system malfunctions and emergency procedures. Introduce TACAN, VOR, ADF approaches, and holding procedures.

Requirement. Introduce TACAN, VOR, ADF approaches, and holding procedures. Introduce fuel system malfunctions.

Performance Standard. Per the NFM. Pilot shall diagnose and handle fuel system malfunctions per NFM.

Prerequisite. SFAM-1009.

SFAM-1011 4.0 * B D E S OFT/WST

Goal. Train the Pilot in normal procedures, hydraulic system and malfunctions, emergency procedures, and instrument procedures to include circling and penetration/high altitude approaches.

Requirement. Introduce circling approaches, and penetrations/high altitude approaches. Introduce hydraulic malfunctions, trim, flaps, and landing gear failures. The Pilot shall practice circling approaches and penetration/high altitude approaches.

Performance Standard. Per the NFM. The Pilot shall diagnose and handle hydraulic malfunctions and trim, flaps and landing gear failures per NFM.

Prerequisite. SFAM-1010.

SFAM-1012 4.0 * B,R,SC D E S OFT/WST

Goal. Train the Pilot in normal procedures, system malfunctions, emergency procedures, and instrument procedures. Introduce engine-out approaches, landings, and missed approach/go-around procedures. Introduce takeoff continued after engine failure.

Requirement. Introduce engine-out approaches, landings, and missed approach/go-around procedures. Introduce takeoff continued after engine failure. The Pilot should compute certain performance computations.

Performance Standard. Per the NFM. Pilot shall practice takeoff continued after engine failure procedures per NFM.

Prerequisite. SFAM-1011.

SFAM-1013 4.0 * B,R,SC D E S OFT/WST

Goal. Train the Pilot in normal procedures, system malfunctions, emergency procedures, and instrument procedures. Introduce two-engine approach, landing, and go-around. Introduce partial panel/no-gyro approach.

Requirement. Introduce two-engine approach, landing, go-around, and partial panel/no-gyro approaches. Introduce fuel/cargo jettison and NAVAID/radio failure. Pilot shall practice two-engine approaches, landings, and go-around with coaching from the CSI as necessary.

Performance Standard. Per the NFM. The Pilot shall conduct fuel/cargo jettison procedures and handle NAVAID/radio failure per NFM.

Prerequisite. SFAM-1012.

SFAM-1014 2.0 * B,R,SC D E S OFT/WST

Goal. Simulator stage progress review. Review all previously introduced procedures and system malfunctions.

Requirement. Review all previously introduced procedures and system malfunctions.

Performance Standard. Per the NFM. Pilot shall practice all procedures and handle all emergencies per NFM.

Prerequisite. SFAM-1013.

FAM-1100 3.0 * B D E A 1 KC-130

Goal. Train the Pilot in normal flight procedures. Introduce preflight, taxi, take-off, VFR departure, aerodynamic performance, stability and control, approach to stalls, VFR approach, VFR break, 100 percent and 50 percent flap landings.

Requirement. Instructor shall introduce preflight, taxi, take-off, VFR departure, aerodynamic performance, stability and control, approach to stalls, VFR approach, VFR break, 100 percent and 50 percent flap landings. Instructor should introduce start malfunctions. The Pilot should compute VMC, take-off speed, refusal speed, stall speed, climb, approach, threshold, and touchdown speed.

Performance Standard. Per the NFM. Pilot should diagnose and handle all start malfunctions per NFM.

Prerequisite. SFAM-1014.

FAM-1101 3.0 * B,R,SC D E A 1 KC-130

Goal. Train the Pilot in normal and instrument flight procedures. Introduce instrument departure, basic instrument maneuvers to include timed turns, climbs, and descents, GCA procedures, and oil system malfunctions.

Requirement. Instructor shall introduce instrument departure, basic instrument maneuvers to include timed turns, climbs, and descents, GCA procedures, and oil system malfunctions. Instructor shall introduce NAVAID configuration and NAV MODE selector operation. The Pilot shall practice 100 percent and 50 percent flap landings. The Pilot should compute VMC, takeoff speed, refusal speed, specific range, approach, threshold, and touchdown speed.

Performance Standard. Per the NFM and IFM. The Pilot shall diagnose and handle all oil system malfunctions per NFM.

Prerequisite. FAM-1100.

FAM-1102 3.0 * B N E A 1 KC-130

Goal. Train the Pilot in normal procedures, instrument flight procedures to include ILS and Localizer approach procedures, bleed air system malfunctions, and ground emergency procedures.

Requirement. Instructor shall introduce ILS/Localizer procedures, the bleed air system, and ground emergencies. The Pilot shall practice 100 percent and 50 percent flap landings. The Pilot should compute VMC, takeoff speed, refusal speed, approach speed, threshold speed, and touchdown speed.

Performance Standard. Per the NFM and IFM. Pilot shall demonstrate an operational knowledge of the bleed air system. The Pilot shall diagnose and handle ground emergencies per NFM.

Prerequisite. FAM-1101.

FAM-1103 3.0 * B,R,SC (N*) E A 1 KC-130

Goal. Train the Pilot in normal procedures, instrument flight procedures to include TACAN, VOR, and ADF approach procedures, system malfunctions, and emergency procedures.

Requirement. Instructor shall introduce TACAN, VOR, and ADF approaches. Instructor shall introduce hydraulics system. The Pilot should practice TACAN, VOR, and ADF approaches to 100 percent and 50 percent flap landings. The Pilot should compute VMC, takeoff speed, refusal speed, service ceiling (3 engines with pods), approach speed, threshold speed, and touchdown speed.

Performance Standard. Per the NFM and IFM. Pilot shall demonstrate an operational knowledge of the hydraulics system.

Prerequisite. FAM-1102.

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| FAM-1104 | 3.0 | * | B | D | E | A | 1 KC-130 |

Goal. Train the Pilot in normal procedures, instrument flight procedures to include holding, circling approaches and penetrations/high altitude approaches, system malfunctions, abort procedures, and in-flight emergency procedures.

Requirement. Instructor shall introduce abort procedures. Instructor shall introduce holding, circling approaches, penetrations/high altitude approaches, and in-flight emergencies. Pilot should practice circling approaches, penetration/high approaches to 100 percent and 50 percent flap landings. The Pilot should compute VMC, takeoff speed, refusal speed, maximum endurance (4 engines, normal bleed), approach speed, threshold speed, and touchdown speed.

Performance Standard. Per the NFM and IFM. Pilot shall diagnose and handle aborts and in-flight emergencies per NFM.

Prerequisite. FAM-1103.

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| FAM-1105 | 3.0 | * | B,R,SC | N* | E | A | 1 KC-130 |

Goal. Train the Pilot in normal procedures, instrument flight procedures, system malfunctions, in-flight emergency procedures to include engine-out operations.

Requirement. Instructor shall introduce propeller and engine malfunctions. Instructor shall introduce engine-out operations, 3-engine precision approaches, landings, missed approaches and go-around procedures. Pilot should compute VMC, takeoff speed, refusal speed, cruise ceiling (3 engines with pods), approach, threshold, and touchdown speeds.

Performance Standard. Per the NFM and IFM. Pilot shall diagnose and handle propeller and engine malfunctions per NFM.

Prerequisite. FAM-1104.

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| FAM-1106 | 3.0 | * | B | D | E | A | 1 KC-130 |

Goal. Train the Pilot in normal procedures, instrument flight procedures, electrical system malfunctions, and in-flight emergency procedures to include 3-engine non-precision approaches, missed approaches and go-around procedures.

Requirement. Instructor shall introduce 3-engine non-precision approaches, missed approaches and go-around procedures. Instructor shall introduce the electrical system and nacelle overheat warning. Pilot should practice aborts and engine out non-precision approaches and landings. Pilot should compute VMC, takeoff speed, refusal speed, specific range (3 engines, 20,000 feet), 3-engine approach, threshold, and touchdown speeds.

Performance Standard. Per the NFM and IFM. Pilot shall demonstrate an operational knowledge of the electrical system and procedures for nacelle overheat warning.

Prerequisite. FAM-1105.

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| FAM-1107 | 3.0 | * | B,R,SC | D | E | A | 1 KC-130 |

Goal. Train the Pilot in normal procedures, instrument flight procedures, fuel and oxygen system malfunctions, and in-flight

emergency procedures to include fuselage fire and smoke and fume elimination. Introduce take-off continued after engine failure and demonstrate 2-engine approach.

Requirement. Instructor shall introduce 3-engine circling approach and take-off continued after engine failure. Instructor shall introduce fuel and oxygen systems and associated malfunctions. Instructor shall demonstrate 2- engine and no-flap approaches and landings. Flight will be conducted in daylight VFR conditions. Pilot should compute 2-engine VMC (air), takeoff speed, refusal speed, 2-engine downwind, base, approach, threshold, and touchdown speeds.

Performance Standard. Per the NFM and IFM. Pilot shall demonstrate an operational knowledge of the fuel and oxygen systems and associated malfunctions.

Prerequisite. FAM-1106.

FAM-1108 3.0 * B N* E A KC-130

Goal. Train the Pilot in normal procedures, instrument flight procedures to include partial panel/no-gyro approaches. Introduce Auxiliary Power Unit malfunctions. Introduce pressurization, air conditioning, and anti-icing/de-icing system malfunctions, and in-flight emergency procedures.

Requirement. Instructor shall introduce partial panel/no-gyro approaches. Instructor shall introduce APU systems. Instructor shall introduce pressurization, air conditioning, and anti-icing/de-icing systems and associated malfunctions. Pilot should practice all previously introduced procedures. Pilot should compute TOLD card.

Performance Standard. Per the NFM and IFM. Pilot shall diagnose and handle all system malfunctions per NFM.

Prerequisite. FAM-1107.

FAM-1109 3.0 * B,R,SC (N*) E A 1 KC-130

Goal. Familiarization stage progress review. Review NATOPS normal, emergency, and instrument flight procedures.

Requirement. Instructor and Pilot shall review NATOPS normal, emergency, and instrument flight procedures. The Pilot shall perform all maneuvers required for a standard instrument rating. The Pilot should compute TOLD card.

Performance Standard. Per the NFM/IFM and OPNAVINST 3710.7_.

Prerequisite. FAM-1108.

2.6.3 Long Range Navigation (LRN)

2.6.3.1 Purpose. Introduce the Pilot to long range, overwater, International Civil Aviation Organization (ICAO) environment procedures.

2.6.3.2 Crew Requirement. Shall be instructed/evaluated by a FRSI.

2.6.3.3 Academic/Ground Training. ICAO procedures, FLIP APs, and Foreign Clearance Guide familiarization.

LRN-1160 16.0 * B (N*) E A 1 KC-130

Goal. Introduce the Pilot to long-range overwater and ICAO procedures.

Requirement. Instructor shall introduce overwater navigation, CRM, flight publications, fuel management, types of cruise schedules,

factors affecting range, and operation in an ICAO environment. Flight will be conducted in an ICAO environment. Pilot shall compute performance data via overwater progress chart.

Performance Standard. Per the NFM.

Prerequisite. FAM-1105.

2.6.4 Tactical Navigation (TN)

2.6.4.1 Purpose. To introduce Pilots to low level navigation and air delivery operations.

2.6.4.2 Crew Requirements. Shall be instructed/evaluated by a FRSI.

2.6.4.3 Academic/Ground Training

Chart Preparation utilizing Portable Flight Planning System (PFPS).

Low level flight planning and navigation procedures IAW the Tactical Navigation chapter of the KC-130 ANTTP.

Basic Air Delivery Procedures IAW the Air Delivery chapter of the ANTTP.

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| TN-1200 | 2.0 | * | B | D | E | A | 1 KC-130 |

Goal. Introduce the Pilot to low-level (LL) navigation and simulated air delivery (AD).

Requirement. Instructor shall introduce procedures, limitations, and hazards associated with tactical navigation. Instructor shall introduce AD procedures from LL ingress utilizing a modified slowdown profile. Pilot will plan and navigate a low level route of at least 6 checkpoints. Minimum altitude per T&R Program Manual.

Performance Standard. Per the NFM and ANTTP. Demonstrate competence in time navigation by arriving at the objective within +/-90 seconds.

Prerequisite. FAM-1105.

External Syllabus Support. Military Training Route.

2.6.5 Formation (FORM)

2.6.5.1 Purpose. Introduce Pilots to basic section formation procedures.

2.6.5.2 Crew Requirements. Shall be instructed/evaluated by a FRSI.

2.6.5.3 Academic/Ground Training. KC-130 ANTTP.

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| FORM-1300 | 2.0 | * | B | D | E | A | 2 KC-130 |

Goal. Introduce the Pilot to section formation procedures.

Requirement. Instructor shall introduce ground formation procedures, takeoff, climb, and join-ups. Instructor shall introduce parade, trail, free cruise positions, and VFR section recovery. Pilot should perform a minimum of 3 join-ups.

Performance Standard. Per the NFM and ANTTP.

Prerequisite. FAM-1105.

External Syllabus Support. Special Use Airspace (SUAS).

2.6.6 Air-to-Air Refueling (AAR)

2.6.6.1 Purpose. To introduce Pilots to basic Air-to-Air Refueling (AAR) procedures.

2.6.6.2 Crew Requirements. Shall be instructed/evaluated by a FRSI. The minimum crew as defined by the NFM and ANTTP is required for flight events to include 1 observer per operated refueling pod.

2.6.6.3 Academic/Ground Training

ATP-56B NATO Air-to-Air Refueling Manual In-flight refueling system.

KC-130 ANTTP

AAR briefing using the Tactical Pocket Guide (TPG).

AAR-1600 3.0 * B (N*) E A 1 KC-130

Goal. Train the Pilot in Fixed-Wing AAR (FWAAR) procedures. Introduce radio procedures, tanker/receiver management, and emergency procedures related to FWAAR.

Requirement. Instructor shall introduce radio procedures, tanker/receiver management, and emergency procedures related to Fixed-Wing AAR. Instructor shall introduce Pilot responsibilities during AAR. Instructor shall introduce emergencies associated AAR to include hose jettison, landing with hose extended, and breakaway procedures.

Performance Standard. Per the NFM, ANTTP, and ATP-56B Part 2.

Prerequisite. FAM-1105.

External Syllabus Support. Fixed-wing receiver aircraft and Special Use Airspace (SUAS).

AAR-1601 3.0 * B D E A 1 KC-130

Goal. Train the Pilot in Helicopter AAR (HAAR) procedures. Introduce radio procedures, tanker/receiver management, and emergency procedures related to HAAR.

Requirement. Instructor shall introduce rendezvous procedures, helicopter refueling procedures, and emergency procedures related to HAAR. Pilot should compute air refueling performance calculations. Flight will be conducted in day VMC conditions. Two (2) rendezvous' shall be conducted IAW the ATP-56 Part 3.

Performance Standard. Per the NFM, ANTTP, and ATP-56B Part 3.

Prerequisite. FAM-1105.

External Syllabus Support. Helicopter receiver aircraft and Special Use Airspace (SUAS).

2.6.7 NATOPS Check

2.6.7.1 Purpose. Conduct a NATOPS evaluation.

2.6.7.2 General. An annual NATOPS check may be conducted any time after completion of the Core Skill Introduction FAM stage. Commanders shall not designate replacement Pilots as a T3P and assign MOS 7556 until satisfactory completion of the entire Core Skill Introduction phase. Upon completion of Core Skill Introduction training the Series Conversion Pilot should be a designated a NATOPS Transport Second Pilot (T2P) by the squadron commanding

officer. The provisions of the NFM and OPNAVINST 3710.7_ apply. All Pilots shall log appropriate RQD code upon completion.

2.6.7.3 Crew Requirements. Shall be instructed/evaluated by an ANI.

2.6.7.4 Academic/Ground Training. Open and Closed book NATOPS examination taken within previous 60 days of flight.

2.7 CORE SKILL PHASE (2000)

2.7.1 General. The focus of Core Skill Phase is to train the Pilot in duties essential to wartime employment. This includes: Left Seat Familiarization Flight (LSF), Night Systems (NS), Long Range Navigation (LRN), Tactical Navigation (TN), Low Altitude Tactics (LAT), Formation (FORM), and IR Threat Reaction (TR). The TPC should conduct the mission brief for each initial event, but all Pilots will assist in the planning of the mission.

2.7.1.1 Pilots shall receive initial training by the appropriate instructor as delineated in the respective event. Once a Pilot has completed the initial event, subsequent events may be flown with proficient aircrew.

2.7.1.2 Pilots conducting initial Night Systems (NS) training shall be instructed by an NSI.

2.7.1.3 At the completion of this phase, the Pilot may be recommended for upgrade to T2P by the APRB. While T2P designation is not a requirement to begin Mission Skill training, it should be obtained as soon as possible to provide the commander a measure of Pilot skill progression.

2.7.1.4 Stages. The following stages are included in the Core Skill Phase of training. Refer to the MAWTS-1 Course Catalog for all stage pre-requisite academic support packages (ASPs).

| Par No. | Stage Name |
|---|---|
| 2.7.2 | Left Seat Fam (LSF) |
| 2.7.3 | Night Systems High [NS(H)] |
| 2.7.4 | Long Range Navigation (LRN) |
| 2.7.5 | Tactical Navigation (TN) |
| 2.7.6 | Low Altitude Training (LAT) |
| 2.7.7 | Section Formation (SEC FORM) |
| 2.7.8 | Division Formation (DIV FORM) |
| 2.7.9 | Infared Threat Reaction (IR TR) |

2.7.2 Left Seat Fam (LSF)

2.7.2.1 Purpose. Introduce left seat flight procedures and crew coordination.

2.7.2.2 Crew Requirements. Shall be instructed by an ANI.

LSF 2100 2.0 * B,SC,R,M D A/S 1 KC-130

Goal. Introduce the Pilot to left seat familiarization operations.

Requirements. Left Seat Familiarization Flight shall be flown by an ANI. Instruct the Pilot in normal and emergency procedures on the ground, at altitude and in the terminal environment. The instructor shall demonstrate and introduce the VFR pattern to the student. A minimum of 5 touch and go's and 1 full stop shall be completed by the Pilot. Initial flight shall be conducted in aircraft.

Performance Standard. The Pilot shall demonstrate the ability to properly taxi the aircraft, diagnose emergencies and apply corrective

action, understand capabilities and limitations of the aircraft and demonstrate the ability to land the aircraft from the left seat.

Prerequisite. FAM 1000 STAGE

2.7.3 Night Systems (NS)

2.7.3.1 Purpose. To train the Pilot in NS. The Pilot will be capable of performing crew duties using NVDs during High Light Level (HLL) and Low Light Level (LLL) conditions.

2.7.3.2 General

The NSQ qualification syllabus consists of NS-2150, NS-2151, TN-2250, TN-2251 and requires 10 hours of total NVD time with at least 5 hours of Low Light Level (LLL) time. The initial 10 hours shall be flown in the aircraft. Pilots successfully completing these requirements shall be issued a Night Systems Qualified letter by the squadron commanding officer.

Series Conversion Pilots that were previously designated NSQ may be issued the NSQ qualification letter upon successful completion of NS-2150 and NS-2151.

2.7.3.3 Crew Requirements. Pilots conducting initial and refresher Night Systems (NS) training shall be instructed by an NSI.

2.7.3.4 Academic/Ground Training. MAWTS-1 KC-130 NVD 1 and 2 Academic Support Package (ASP) courses and NITE lab.

| | | | | | | |
|---|---|---|---|---|---|---|
| NS-2150 | 2.0 | 365 | B,SC,R | NS | A/S | 1 KC-130 |

Goal. Introduce the Pilot to NVD operations under HLL conditions.

Requirements. Instruct the Pilot in the use of NVDs to include normal and emergency procedures at altitude and in the terminal environment. The instructor shall demonstrate and introduce the NVD pattern to the student. A minimum of 5 touch and go's and 1 full stop shall be completed by the Pilot. Emphasize NVD considerations, calibration, preflight, and in-flight normal and emergency procedures. Initial flight shall be conducted in aircraft.

Performance Standard. The Pilot shall demonstrate the ability to properly pre-flight and don NVDs, diagnose NVD emergencies and apply corrective action, understand capabilities and limitations of NVDs under HLL conditions, and demonstrate the ability to land the aircraft on NVDs.

Prerequisite. RQD-6110

| | | | | | | |
|---|---|---|---|---|---|---|
| NS-2151 | 2.0 | 180 | B,SC,R,M | NS | A/S | 1 KC-130 |

Goal. Introduce Pilot to NVD operations under LLL conditions.

Requirements. Instruct the Pilot in the use of NVDs during LLL conditions to include normal and emergency procedures at altitude and in the terminal environment. The instructor shall demonstrate and introduce the NVD pattern to the student. A minimum of 5 touch and go's and 1 full stop shall be completed by the Pilot. Focus on the capabilities and limitations of the NVDs under LLL conditions, preflight, emergency procedures, calibration, preparation and in-flight use. The Pilot will review NVD mission planning software, and demonstrate knowledge of normal and emergency procedures outlined in

the KC-130 ANTTP and NVD specific items in the MAWTS-1 NVD Fixed-Wing manual. Initial flight shall be conducted in aircraft.

Performance Standard. The Pilot shall demonstrate the ability to properly pre-flight and don NVDs, diagnose NVD emergencies and apply corrective action, understand capabilities and limitations of NVDs under LLL conditions and demonstrate the ability to land the aircraft on NVDs.

Prerequisite. 2150

2.7.4 Long Range Navigation (LRN)

2.7.4.1 Purpose. Review long-range, over water navigation procedures and introduce the Pilot to squadron SOPs concerning deployment operations.

2.7.4.2 General

This stage shall train the Pilot in long-range over water navigation to include performance computations, fuel planning, ICAO procedures, and Pilot duties associated with aircraft deployment operations.

Upon completion of this stage, the Pilot shall be capable of deploying as a qualified Pilot on long-range over water operations.

2.7.4.3 Crew Requirements. This sortie may be instructed by a BIP.

2.7.4.4 Academic/Ground Training. The TPC shall introduce mission planning utilizing applicable SOPs, Foreign Clearance Guide, FLIPs, and review performance computations referencing the KC-130T NFM and NATOPS Performance Manual.

LRN-2160 8.0 365 B,R,M (N) A/S 1 KC-130

Goal. Introduce T3P to copilot duties involved in long-range, over water navigation procedures.

Requirement. Review aircraft performance computations to include cruise profiles, fuel planning/monitoring, passenger and crew oxygen requirements, cargo considerations and over water emergency procedures. Pilot administrative duties involving aircraft deployment operations shall also be introduced. Initial flight shall be conducted in aircraft.

Prerequisite. RQD-6110

Performance Standard. The Pilot shall be familiar with the NATOPS Performance Manual, focusing on the different cruise profiles and appropriate application, and be proficient in the use of DOD FLIPs.

2.7.5 Tactical Navigation (TN)

2.7.5.1 Purpose. To attain and maintain the Tactical Navigation Core Skill. Upon completion of this stage, the Pilot will be capable of single ship tactical ingress and egress to mission objective areas during day or night.

2.7.5.2 Crew Requirements. TN-2200 shall be instructed by a BIP. TN-2250 and TN-2251 shall be instructed by an NSI.

2.7.5.3 Academic/Ground Training. Utilize academic courseware as outlined in the MAWTS-1 Course Catalog and review MAWTS-1 ASPs, NFM and KC-130 ANTTP.

TN-2200 2.0 365 B,R D A/S 1 KC-130

Goal. Introduce the Pilot to day low-level navigation procedures.

Requirements. Initial event shall be instructed by a BIP. Plan and execute a VFR navigation route consisting of at least 6 points on a published MTR. Emphasize chart-to-ground interpretation and tactical pilotage. The route should terminate in an actual or simulated objective area requiring actions from IP inbound. The TSO shall be the primary navigator. Initial flight shall be conducted in aircraft.

Prerequisite. RQD-6110.

Performance Standard. Arrive over the objective +/- 30 seconds; demonstrate an understanding of terrain masking, CRM, timing corrections, chart-to-ground interpretation, and low-level considerations/hazards.

External Syllabus Support. Approved Military Training Route (MTR) or restricted area.

TN-2250 2.0 365 B,R NS A/S 1 KC-130

Goal. Introduce the Pilot to NVD low-level navigation under HLL.

Requirement. The initial event shall be instructed by a NSI. Plan and execute a low-level navigation route consisting of at least 6 points on a published MTR. The route should terminate in an actual or simulated objective area requiring actions from IP inbound (either to a simulated airdrop or self-contained approach). Emphasize chart-to-ground interpretation and tactical pilotage while utilizing NVDs. Initial flight shall be conducted in aircraft.

Performance Standard. Arrive over the objective +/- 30 seconds; demonstrate an understanding of terrain masking, CRM, timing corrections, chart-to-ground interpretation, and NVD considerations/hazards.

Prerequisite. TN-2200

External Syllabus Support. Approved MTR or restricted area.

TN-2251 2.0 180 B,SC,R,M NS A/S 1 KC-130

Goal. Introduce the Pilot to NVD low-level navigation under LLL.

Requirement. The initial event shall be instructed by an NSI. Plan and execute a low-level navigation route consisting of at least 6 points on a published MTR. The route should terminate in an actual or simulated objective area requiring actions from IP inbound (either to a simulated airdrop or self-contained approach). The NSI shall discuss and introduce procedures and CRM required under LLL. Emphasize chart-to-ground interpretation and tactical pilotage while utilizing NVDs. Upon successful completion of this sortie and with the requisite NVD hours the Pilot will be NSQ. Initial flight shall be conducted in aircraft.

Performance Standard. Arrive over the objective +/- 30 seconds; demonstrate an understanding of terrain masking, CRM, timing corrections, chart-to-ground interpretation, and LLL NVD considerations/hazards.

Prerequisite. TN-2200, TN-2250

External Syllabus Support. Approved MTR or restricted area.

2.7.6 Low Altitude Tactics (LAT)

2.7.6.1 Purpose. To attain and maintain the Low Altitude Tactics Core Skill Proficiency. Upon completion of this stage, the Pilot will be capable of single ship low altitude ingress and egress to mission objective areas during the day.

2.7.6.2 General. General LAT Rules of Conduct (ROC) are contained in NAVMC 3500.14 and KC-130 specific LAT guidance is contained in the KC-130 ANTTP. Pilots conducting initial LAT training shall be instructed by a proficient LATI occupying the other Pilot seat. The LAT qualification requirement consists of LAT-2260 and LAT-2261. Upon completion of LAT qualification requirements, Pilots shall be issued a LAT qualification letter from the squadron commanding officer.

2.7.6.3 Crew Requirements. Shall be instructed by a LATI or WTI.

2.7.6.4 Academic/Ground Training. Review the low level navigation and LAT chapters of the KC-130 ANTTP. A squadron LATI or WTI shall administer KC-130 LAT 1, LAT 2, LAT Maneuvering, and KC-130 Stress and Performance Limitations from the MAWTS-1 KC-130 Specific Academic Support Package.

| | | | | | | |
|---|---|---|---|---|---|---|
| LAT-2260 | 2.0 | 180 | B,R | D | A/S | 1 KC-130 |

Goal. Demonstrate Pilot LAT procedures.

Requirements. The initial event shall be instructed by a LAT I. The LAT I shall demonstrate flying at comfort level, terrain masking, ridgeline crossing, lookout doctrine, hard turns, break turns, bunts, jinks and IR threat reaction maneuvers. The route flown should afford the opportunity to perform LAT maneuvering, e.g. ridges, valleys, open areas and easily identifiable terrain features. The Pilot will focus on Pilot duties during this sortie. Initial flight shall be conducted in aircraft.

Performance Standard. The Pilot must be capable of performing Pilot duties in the LAT/threat environment to include tactical pilotage, secondary navigator, and CRM.

Prerequisite. TN-2200.

External Syllabus Support. LAT approved MTR or restricted area.

| | | | | | | |
|---|---|---|---|---|---|---|
| LAT-2261 | 2.0 | 180 | B,SC,R,M | D | A | 1 KC-130 |

Goal. Introduce Pilot LAT procedures.

Requirements. The event shall be instructed by a LAT I. The LAT I shall introduce flying at comfort level, terrain masking, ridgeline crossing, lookout doctrine, hard turns, break turns, bunts, jinks and IR threat reaction maneuvers. The route flown should afford the opportunity to perform LAT maneuvering, e.g. ridges, valleys, open areas and easily identifiable terrain features. The Pilot will focus on Pilot duties during this sortie. Upon successful completion of TN-2261, the Pilot shall be considered LAT Qualified and may be issued an appropriate qualification letter by the squadron commanding officer.

Performance Standard. The Pilot must be capable of performing Pilot duties in the LAT/threat environment to include tactical pilotage, secondary navigator, and CRM.

Prerequisite. TN-2260.

External Syllabus Support. LAT approved MTR or restricted area.

2.7.7 Section Formation (SEC FORM)

2.7.7.1 Purpose. To attain and maintain Section Formation Core Skill Proficiency. Upon completion of this stage, the Pilot will be capable of flying in a section during high altitude tactical ingress/egress in day or night conditions.

2.7.7.2 Crew Requirements. Initial events other than NS shall be flown with a BIP. Initial NS formation training shall be flown with an NSI.

2.7.7.3 Academic/Ground Training. The instructor and student shall review the KC-130 ANTTP Formation chapter.

FORM-2300 2.0 365 B,R D A/S 2 KC-130

Goal. Introduce section formation procedures.

Requirement. The instructor shall introduce day section formation procedures, proper start, taxi, run-up, and takeoff procedures in a formation. Introduce management of all comm/nav equipment as associated with formation flight and proper formation communications procedures. Demonstrate day section formation positions and procedures, break-up/rendezvous and lead changes. Initial flight shall be conducted in aircraft.

Performance Standard. The Pilot shall accurately describe formation positions and demonstrate the ability to operate as a KC-130 wingman. Attain and maintain the 45 degree bearing line while in the parade position on the left and right side of lead. Recognize excessive closure and safely execute the underrun procedure. Satisfactory completion of the maneuvers and procedures per the NFM and KC-130 ANTTP.

Prerequisite. RQD-6110.

External Syllabus Support. Special Use Airspace (SUAS).

FORM-2350 2.0 365 B,R,M NS A/S 2 KC-130

Goal. Night formation procedures.

Requirement. Initial event shall be instructed by an NSI. The instructor shall review formation mission briefing requirements and demonstrate NVD formation positions and procedures, break-up and rendezvous and lead change. Introduce proper start, taxi, run-up, takeoff, recovery, and landing procedures in an NVD formation, review proper management of all comm/nav equipment as associated with formation flight and proper formation communications procedures. Initial flight shall be conducted in aircraft.

Performance Standard. The Pilot shall accurately describe and demonstrate NVD formation positions, NVD considerations and be familiar with all applicable references.

Prerequisite. FORM-2300

External Syllabus Support. Special Use Airspace (SUAS).

2.7.8 Division Formation (DIV FORM)

2.7.8.1 Purpose. To attain and maintain Division Formation Core Skill Proficiency. Upon completion of this stage, the Pilot will be capable of flying in a Division during high altitude tactical ingress/egress in day or night conditions.

2.7.8.2 Crew Requirements. Initial events other than NS shall be flown with a BIP. Initial NS formation training shall be flown with an NSI.

2.7.8.3 Academic/Ground Training. The instructor and student shall review the KC-130 ANTTP Formation chapter.

FORM-2301 2.0 365 B,R,M (NS) A/S 3+ KC-130

Goal. Introduce division formation procedures.

Requirement. Initial event shall be during the day. The instructor shall introduce division formation procedures, proper start, taxi, run-up, and takeoff procedures in a formation. Introduce management of all comm/nav equipment as associated with formation flight and proper formation communications procedures. Demonstrate division formation positions, procedures, and lead changes. Initial flight shall be conducted in aircraft.

Performance Standard. The Pilot shall be capable of applying proper corrective control inputs to establish and maintain dash 3 or 4 formation positions. The Pilot shall demonstrate knowledge of KC-130 division formation considerations.

Prerequisite. FORM-2300. (IF NS - FORM-2350, NSQ (2150, 2151, 2250, 2251 or flown with a NSI)).

External Syllabus Support. Special Use Airspace (SUAS).

2.7.9 Infrared (IR)/Threat Reaction (IRTR)

2.7.9.1 Purpose. To attain and maintain the Threat Reaction (IR) Core Skill in a low to medium infrared (IR) threat environment. Upon completion of this stage, the Pilot will be capable of flying in a ground infrared threat environment during day or night.

2.7.9.2 General. Pilots shall be introduced to the KC-130T ASE suite and mission planning considerations for IR SAM defense. The sortie should focus on aircrew immediate action drills when confronted with threat systems from both front and rear aspects under varying mission profiles. Aircraft must have an operational ASE suite that supports infrared (IR) threat reaction. Ordnance must be expended on all initial events. Subsequent events can be simulated. Appropriate ground threat emitters should be available.

2.7.9.3 Crew Requirements. Shall be instructed by a LATI or WTI.

2.7.9.4 Academic/Ground Training. Review the NFM, KC-130 ANTTP, Classified ANTTP, AFTTP 3-1 Threat Reference Guide. A LATI or WTI should administer the KC-130 ASE classes from the MAWTS-1 KC-130 Specific Academic Support Package.

IRTR-2400 2.0 365 B,R,M (NS) A/S 1 KC-130

Goal. Introduce the operational use of ASE and threat counter-tactics against small arms, AAA and IR SAM threat systems.

Requirement. Introduce the ASE counter measures dispensing system setup, missile warning system setup, jamming system, and threat reaction. The Pilot should be exposed to a variety of threat situations of increasing intensity using both the Automatic and Manual modes of the dispensing system. Threat reaction maneuvering should include the take-off, cruise and approach phases of flight.

Performance Standard. The Pilot should be able to correctly operate the aircraft's ASE suite in an IR SAM environment, and react correctly

and in a timely manner to threat calls. Proper aircrew coordination shall be performed in threat reaction.

Prerequisite. LAT Qualified (2260, 2261), (If NS, then NSQ (2150, 2151, 2250, 2251).

Ordnance. 120 flare expendables (required for initial event).

External Syllabus Support. Appropriate counter-measures range, a Smokey SAM crew with a minimum of 5 Smokey SAMs, MWS stimulator team if available.

2.8 MISSION SKILL PHASE (3000)

2.8.1 General. The focus of the Mission Skill Phase is to train the Pilot in the skills required to meet the Marine Corps Tasks (MCT). These missions include: Assault Landing Zone (ALZ) operations, Air-to-Air Refueling (AAR), Aviation Delivered Ground Refueling (ADGR) and Air Delivery (AD).

2.8.1.1 At the completion of this phase, the Pilot may be recommended for upgrade to Transport Plane Commander (TPC) by the APRB, complete the TPC upgrade syllabus, and be designated a TPC by the squadron commanding officer.

2.8.1.2 Pilots shall receive initial training by the appropriate instructor as delineated in the respective event. Once a Pilot has completed the initial event, subsequent events may be flown with proficient aircrew.

2.8.1.3 Pilots conducting initial Night Systems (NS) training shall be instructed by an NSI.

2.8.1.4 While TPCs remain responsible for the conduct of the mission brief, T2Ps and T3Ps should be introduced to preparing and conducting briefs in this phase in preparation for upgrade.

2.8.1.5 Stages. The following stages are included in the Mission Skill Phase of training. Refer to the MAWTS-1 Course Catalog for all stage pre-requisite ASPs.

| Par No. | Stage Name |
|---|---|
| 2.8.2 | Assault Landing Zone (ALZ) |
| 2.8.3 | Air-to-Air Refueling (AAR) |
| 2.8.4 | Aviation Delivered Ground Refueling (ADGR) |
| 2.8.5 | Air Delivery (AD) |

2.8.2 Assault Landing Zone (ALZ)

2.8.2.1 Purpose. To attain and maintain the Mission Skill of operating from an ALZ. Upon completion of this stage, the Pilot will be capable of day or night ALZ operations and will be knowledgeable of unimproved ground operation considerations.

2.8.2.2 General. The Pilot shall be introduced to DAY and NS ALZ operations with an emphasis on visual and self-contained approach procedures, precision landings to short fields and ground operating procedures in the improved and unimproved environment. Dirt, grass, coral or any other unimproved surface requiring footprint loading analysis should be considered for unimproved ALZs. Emphasis in the unimproved environment is to introduce operating procedures designed to increase safety and reduce wear on the aircraft, footprint loading techniques, and airfield suitability services within the Marine Corps and DOD. For the purposes of this training syllabus, ALZ operations are defined as terminal area operations from an airfield prepared with either day or night EAF markings as defined in the KC-130 ANTTP. Ideally, MMT will be utilized for terminal control with tactical NAVAIDS available.

2.8.2.3 Crew Requirements. Initial ALZ events shall be flown from the left seat and instructed by a WTI, NSI or ANI. All NS ALZ codes shall be instructed by an NSI.

2.8.2.4 Academic/Ground Training. Pilots should review the KC-130 ANTTP ALZ chapter, maximum effort performance calculations in the KC-130 NATOPS Performance Manual, and the ALZ class in the MAWTS-1 KC-130 Specific Academic Support Package.

ALZ-3500 2.0 365 B,SC,R D A/S 1 KC-130

Goal. To fly day, improved ALZ operations.

Requirement. The Pilot shall conduct the ALZ mission brief and prepare a TOLD card for the mission per the NFM. The instructor shall introduce max effort takeoff and landing procedures, and EAF ground operating and taxi procedures. A minimum of 1 max-effort take-off/full-stop and 5 touch and go's shall be completed. A simulated or actual Combat Offload (COL) should be conducted. Initial flight shall be conducted in aircraft.

Performance Standard. The Pilot shall consistently land within the 500' touchdown zone and demonstrate the situational awareness to manage crew duties on approach to an ALZ and during departure.

Prerequisite. RQD-6100.

External Syllabus Support. Standard USMC ALZ day panel setup utilizing AMP-1, 2 or 3 markings. MMT or MWSS EAF personnel for terminal control, or USAF Special Tactics Team (SST).

ALZ-3501 2.0 365 B,R (NS) A/S 1 KC-130

Goal. Tactical Arrivals.

Requirement. This flight can be done in conjunction with ALZ-3500, ALZ-3550 or ALZ-3502. The Pilot shall introduce the random high, random low/shallow, IR cooled, and self-contained approaches. Emphasize terrain study with respect to ingress/egress of the terminal area and method of arrival based on threat. Discuss energy management. Initial flight shall be conducted in aircraft.

Performance Standard. Satisfactory completion of the maneuvers and procedures per NFM and KC-130 ANTTP.

Prerequisite. RQD-6100.

External Syllabus Support. Standard USMC ALZ Day or IR lighting setup utilizing AMP-1, 2 or 3 markings. MMT or MWSS EAF personnel for terminal control.

ALZ-3502 2.0 730 B,R,M (NS) A/S 1 KC-130

Goal. Train the Pilot to conduct flight operations at unimproved ALZ.

Requirement. The instructor shall review airfield assessment services available from MWSS and DOD. Discuss footprint loading/ground flotation determination and impacts on KC-130 operations. The Pilot shall conduct the ALZ mission brief and prepare a TOLD card for the mission per the NFM. The instructor shall introduce austere airfield ground and taxi procedures, max effort takeoff and landing procedures from an unimproved surface, and review ALZ approaches. A simulated or actual COL should be conducted during this event. Initial flight shall be conducted in aircraft.

Performance Standard. The Pilot shall consistently land within the 500' touchdown zone, and demonstrate the situational awareness to manage crew duties on approach to an ALZ and during departure.

Prerequisite. ALZ-3500 (ALZ-3550 if NS).

External Syllabus Support. Standard USMC ALZ Day or IR lighting or day panel setup utilizing AMP-1, 2 or 3 markings. MMT or MWSS EAF personnel for terminal control.

ALZ-3550 2.0 180 B,SC,R,M NS A/S 1 KC-130

Goal. NVD ALZ operations.

Requirement. The Pilot shall conduct the ALZ mission brief and prepare a TOLD card for the mission per the NFM. The instructor shall introduce NS max effort takeoff and landing procedures, and practice improved EAF ground operating and taxi procedures. A minimum of 1 max-effort take-off/full-stop and 5 touch and go's shall be completed. NVD ALZ considerations/procedures and tactical checklists (max-effort, COL) should be reviewed. CRM shall be emphasized during this event. COL is optional. Initial flight shall be conducted in aircraft.

Performance Standard. The Pilot shall consistently land within the 500' touchdown zone and demonstrate the situational awareness to manage crew duties on approach to an ALZ and during departure.

Prerequisite. ALZ-3500, NS-2150 (IF NS), NS-2151 (IF LLL)

External Syllabus Support. Standard USMC ALZ IR lighting utilizing AMP-1, 2 or 3 markings. MMT or MWSS EAF personnel for terminal control.

2.8.3 Air-to-Air Refueling (AAR)

2.8.3.1 Purpose. To attain and maintain the Air-to-Air Refueling (AAR) Mission Skill. Upon completion of this stage, the Pilot will be capable of fixed wing, tilt rotor, and helicopter AAR operations in the day or night environment.

2.8.3.2 Crew Requirements. Initial AAR events shall be flown by the Pilot in the left seat and instructed by a Basic Instructor Pilot (BIP) with the exception of AAR-3650 which shall be instructed by an NSI. One observer per operated refueling pod is required.

2.8.3.3 Academic/Ground Training. Utilize academic courseware as outlined in the MAWTS-1 Course Catalog and review MAWTS-1 ASPs, NFM, KC-130 ANTTP, and ATP-56(B).

AAR-3600 3.0 365 B,R,M (N) A/S 1 KC-130

Goal. FWAAR/TRAAR procedures.

Requirement. This event can be flown in either day or night conditions with NVDs optional. Conduct single tanker rendezvous procedures and receiver management. Discuss emergency procedures related with AAR. Focus on basic airwork and navigation/coordination to and from the refueling area. EMCON procedures should be introduced for the completion of the initial syllabus event. Initial flight shall be conducted in aircraft.

Performance Standard. Satisfactorily demonstrate the ability to maintain a stable platform, maintain fuel state awareness and receiver management. Additionally, demonstrate knowledge of normal and

emergency procedures, and CRM outlined in the KC-130 NFM, ANTTP and ATP-56B.

Prerequisite. RQD-6110.

External Syllabus Support. Fixed Wing or Tilt Rotor receiver aircraft and special use airspace.

AAR-3601 3.0 365 B,SC,R D A/S 1 KC-130

Goal. Day Helicopter AAR (HAAR) procedures.

Requirement. This event shall be flown during the day. Fly a rotary-wing AAR mission, conducting a minimum of three (3) rendezvous'. Discuss emergency procedures related to AAR. Focus on basic airwork and navigation/coordination to and from the refueling area. If flown in conjunction with a low level route, plan for an ARCP, ARCT and ENDAR. Initial flight shall be conducted in aircraft.

Performance Standard. Satisfactorily demonstrate the ability to effect the rendezvous, maintain a stable platform, maintain fuel planning awareness and receiver management. Additionally, demonstrate knowledge of normal and emergency procedures outlined in the NFM, ANTTP, and ATP-56B.

Prerequisite. RQD-6110.

External Syllabus Support. Helicopter receiver aircraft and special use airspace.

AAR-3650 3.0 180 B,SC,R,M NS A/S 1 KC-130

Goal. NVD HAAR procedures.

Requirement. Conduct single tanker rendezvous procedures and receiver management. Fly a helicopter AAR mission conducting a minimum of three (3) rendezvous'. The initial event shall be instructed by a NSI. Discuss emergency procedures related to air-to-air refueling and NVD considerations. Focus on basic airwork and navigation/coordination to and from the refueling area. If flown in conjunction with a low level route, plan for an ARCP, ARCT and ENDAR. Initial flight shall be conducted in aircraft.

Performance Standard. Satisfactorily demonstrate the ability to affect the rendezvous, maintain a stable platform, maintain

fuel planning awareness and receiver management. Additionally, demonstrate knowledge of normal and emergency procedures outlined in the NFM, ANTTP, and ATP-56B.

Prerequisite. AAR-3601, NS-2150 (HLL), NS-2151 (LLL).

External Syllabus Support. Helicopter receiver aircraft and special use airspace.

2.8.4 Aviation Delivered Ground Refueling (ADGR)

2.8.4.1 Purpose. To attain and maintain the Aviation Delivered Ground Refueling Mission Skill. Upon completion of this stage, the Pilot will be capable of conducting Aviation Delivered Ground Refueling of aircraft and ground vehicles in any environment, day or night.

2.8.4.2 Crew Requirements. Initial ADGR events shall be instructed by a Basic Instructor Pilot (BIP).

2.8.4.3 Academic/Ground Training. Pilots should review the KC-130 ANTTP ADGR chapter and the ADGR class in the MAWTS-1 KC-130 Specific Academic Support Package.

ADGR-3660 0.0 730 B,R,M (N) A/S 1 KC-130

Goal. Introduce the Pilot to duties during ADGR operations.

Requirement. Instructor shall demonstrate briefing requirements for ADGR operations. Introduce personnel qualifications, duties, responsibilities and ADGR crew coordination. Introduce ADGR equipment, site weapons and passenger considerations, site configurations and threat considerations. Introduce ADGR fuel planning, site setup, operation, and breakdown procedures, and NVD considerations during ADGR operations (optional). If aircraft cockpit lighting is NVD compatible, (NS) applies. Initial flight shall be conducted in aircraft.

Performance Standard. Pilot shall control receivers per the NFM and ANTTP. Integrate with loadmasters in mission planning; ensure that a tanker egress plan has been established and forecast winds are factored for receiver traffic pattern.

Prerequisite. RQD-6110.

External Syllabus Support. Crash/Fire/Rescue Support. Receiver aircraft or ground vehicle (as appropriate).

2.8.5 Air Delivery (AD)

2.8.5.1 Purpose. To attain and maintain the Air Delivery Mission Skill. Upon completion of this stage, the Pilot will be capable of planning and executing an AD of cargo or static line personnel, day or night.

2.8.5.2 General. Initial AD event shall be actual drop of cargo, personnel or a combination. Subsequent updating of the event can be achieved by conducting a simulated drop.

2.8.5.3 Crew Requirements. Initial AD events shall be instructed by a Basic Instructor Pilot (BIP) with the exception of AD-3750 which shall be instructed by an NSI.

2.8.5.4 Academic/Ground Training. Review KC-130 ANTTP Air Delivery chapter, KC-130 Tactical Pocket Guide, and MAWTS-1 KC-130 Specific Academic Support Package.

AD-3700 2.0 365 B,R D A/S 1 KC-130

Goal. Train and evaluate the Pilot in day air delivery procedures.

Requirement. Review personnel, CDS, combination and HE air delivery procedures. The Pilot shall display a sound working knowledge of administrative and logistical requirements associated with DZ coordination and aircraft rigging (load certification). The Pilot shall demonstrate the ability to fly the ingress, objective area profile and manage checklists for AD procedures. Emphasis should be placed on CRM and AD procedures. Initial flight shall be conducted in aircraft.

Performance Standard. Safely perform AD that lands within the drop zone safety criteria.

Prerequisite. RQD-6110.

External Syllabus Support. AD unit of any service for cargo rigging and DZ control.

AD-3750 2.0 365 B,R,M NS A/S 1 KC-130

Goal. Train and evaluate the Pilot in NS air delivery procedures.

Requirement. Review personnel, CDS, combination and HE air delivery procedures while on NVDs. The Pilot shall display a sound working knowledge of administrative and logistical requirements associated with DZ coordination and aircraft rigging (load certification). The Pilot shall demonstrate the ability to fly the ingress, objective area profile and manage checklists for AD procedures. Emphasis should be placed on CRM and AD procedures. Initial flight shall be conducted in aircraft.

Performance Standard. Safely perform AD that lands within the drop zone safety criteria.

Prerequisite. AD-3700

External Syllabus Support. AD unit of any service for cargo rigging and DZ control.

2.9 CORE PLUS SKILL PHASE (4000)

2.9.1 General. Upon completion of this phase of training, the Pilot will be qualified to plan and execute low level section formation operations, RADAR Threat Reaction (RF TR), Air-to-Air Defensive Tactics (DT), advanced Air Delivery (AD), and Battlefield Illumination (BI).

2.9.1.1 Stages. The following stages are included in the Core Plus Phase of training. Refer to the MAWTS-1 Course Catalog for all stage pre-requisite ASPs.

| Par No. | Stage Name |
|---|---|
| 2.9.2 | Tactical Navigation (TN) |
| 2.9.3 | Threat reaction (RF TR) |
| 2.9.4 | Defensive Tactics (DT) |
| 2.9.5 | Air Delivery (AD) |
| 2.9.6 | Battlefield Illuminations (BI) |

2.9.2 Tactical Navigation (TN)

2.9.2.1 Purpose. To attain and maintain the Core Plus Skill of TN Formation. Upon completion of this stage, the Pilot will be capable of flying as lead or -2 in a section formation in the low level/LAT environment. Emphasize low altitude formation techniques, formation control, tactical formations and mutual support in a low to medium threat environment.

2.9.2.2 Crew Requirements. The initial TN-4200 event shall be instructed by a Basic Instructor Pilot (BIP). The initial TN-4201 event shall be instructed by a LATI. The initial TN-4250 event shall be instructed by an NSI.

2.9.2.3 Academic/Ground Training. Review the Formation, Low Level Navigation and LAT Chapters of the KC-130 ANTTP. Review LAT 1, LAT 2, LAT Maneuvering, and KC-130 Stress and Performance Limitations. These courses can be found in the MAWTS-1 KC-130 Specific Academic Support Package.

TN-4200 2.0 365 B,R D A/S 2 KC-130

Goal. Introduce the Pilot to formation low-level procedures.

Requirement. The initial event shall be instructed by a Basic Instructor Pilot (BIP). This sortie shall be flown as a section. Plan and execute a VFR navigation route consisting of at least 6 points. The Pilot shall fly as a wingman. Emphasize terrain clearance and

tactical formation positions and mutual support. The route should terminate in an actual or simulated objective area requiring actions from IP inbound (either to a simulated airdrop or self-contained approach). The initial sortie shall be conducted from the left seat. Initial flight shall be conducted in aircraft.

Performance Standard. Demonstrate ability to fly a tactical formation while maintaining terrain clearance in the low level environment.

Prerequisite. TN-2200, FORM-2300

External Syllabus Support. Approved MTR or training area.

TN-4201 2.0 180 B,R,M D A/S 2 KC-130

Goal. Introduce the Pilot to formation LAT.

Requirement. The initial event shall be instructed by a LATI. This sortie shall be flown as a section. Plan and execute a VFR navigation route consisting of at least 6 points. The Pilot shall fly as a wingman emphasizing terrain clearance and tactical formation positions while providing mutual support in a threat environment. The route should terminate in an actual or simulated objective area requiring actions from the IP inbound (either to a simulated AD or self-contained approach). The initial sortie shall be conducted from the left seat. Initial flight shall be conducted in aircraft.

Performance Standard. Demonstrate the ability to fly in a tactical formation while maintaining terrain clearance in the LAT environment.

Prerequisite. TN-2261, TN-4200

External Syllabus Support. Approved MTR or training area.

TN-4250 2.0 180 B,R,M NS A/S 2 KC-130

Goal. Introduce the Pilot to NS formation low-level procedures.

Requirement. The initial event shall be instructed by an NSI. This sortie shall be flown as a section. Plan and execute a VFR navigation route consisting of at least 6 points while on NVDs. The Pilot shall fly as a wingman. Emphasize terrain clearance and tactical formation positions and mutual support. The route should terminate in an actual or simulated objective area requiring actions from IP inbound (either to a simulated airdrop or self-contained approach). The initial sortie shall be conducted from the left seat. Initial flight shall be conducted in aircraft.

Performance Standard. Demonstrate ability to fly a tactical formation while maintaining terrain clearance in the low level environment.

Prerequisite. FORM-2350, TN-4200.

External Syllabus Support. Approved MTR or training area.

2.9.3 RF Threat Reaction (RF TR)

2.9.3.1 Purpose. To attain and maintain the Core Plus Skill of Threat Reaction (RF TR) in a RADAR threat environment. Upon completion of this phase, the Pilot will be capable of flying in a ground RADAR threat environment during day or night.

2.9.3.2 General. Aircraft must have an operational ASE suite that supports radio frequency (RF) threat reaction. Appropriate chaff shall be

loaded prior to flight. Appropriate ground threat emitters shall be available.

2.9.3.3 Crew Requirements. Shall be instructed by a LATI or WTI.

2.9.3.4 Academic/Ground Training. Review the NFM, KC-130 ANTTP, Classified ANTTP, AFTTP 3-1 Threat Reference Guide. A WTI should administer the KC-130 ASE classes from the MAWTS-1 KC-130 Specific Academic Support Package.

RF TR-4400 2.0 365 B,R,M (NS) A/S 1 KC-130

Goal. Introduce surface RADAR threat during a tactical mission profile.

Requirement. Practice maneuvering the aircraft against surface-based threat emitters utilizing the RWR, and CMDS in conjunction with a tactical mission profile. Conduct multiple passes against simulated RADAR threat systems (from acquisition through target tracking to launch) and initiate appropriate maneuvers and countermeasures. Emphasis should be placed on configuration of the system for operations in a RADAR threat environment and CRM. IR threat reaction should also be practiced during this event.

Performance Standard. The Pilot shall demonstrate the ability to properly configure the CMDS for operations in a RADAR threat environment, and defend against RADAR acquisition, target tracking and launch sequences.

Prerequisite. 2260,2261, (If NS, then NSQ (2150, 2151, 2250, 2251))

Ordnance. 160 chaff, 120 flares.

External Syllabus Support. Approved emitter range or restricted area with mobile emitters available. SUAS authorized for expendables.

2.9.4 Defensive Tactics (DT)

2.9.4.1 Purpose. To attain and maintain the Core Plus Skill of employing Defensive Tactics against an air threat by combining maneuver and use of the ASE suite. Upon completion of this stage, the Pilot will be capable of flying against 1 or 2 adversaries.

2.9.4.2 General. Use of the Rear Vision Device (RVD) and ASE suite is recommended. Non-DT qualified Pilots or non-proficient DT Pilots who are conducting DT training shall be instructed by a DTI occupying the other Pilot seat. The DT qualification requirements consist of DT-4410 and DT-4411. Upon successful completion of qualification requirements, Pilots shall be issued a DT qualification letter from the squadron commanding officer.

2.9.4.3 Crew Requirements. Shall be instructed by a DTI. An additional member to utilize the RVD is recommended.

2.9.4.4 Academic/Ground Training. Review the KC-130 ANTTP, Classified ANTTP, and AFTTP 3-1 Threat Reference Guide concerning air-to-air threats. Review the KC-130 ASE, DT, Stress & Performance Limitations and Threat Counter-tactics classes from the MAWTS-1 KC-130 Specific Academic Support Package.

DT-4410 2.0 365 B,R D A 1 KC-130

Goal. Train in defensive maneuvering in relation to an air-to-air threat. This sortie shall be flown as a 1 vs. 1.

Requirement. The DTI shall brief and introduce DT briefing requirements. Practice defensive maneuvers with emphasis on hard turns, break turns, maneuvering velocity, one-circle/two-circle fights and negating tracking solutions. The flight preparation for this event shall include threat analysis, ASE and expendable integration with regard to the threat, and a detailed aircrew brief on threat reaction throughout all phases of an attack. CRM shall be emphasized to include incorporation of the RVD, aircrew lookout doctrine/scan sectors and threat call template. An event debrief with the aggressor Pilot is recommended.

Performance Standard. The Pilot should demonstrate a working knowledge of A/A RADAR, A/A gun and IR missile defense and one-circle/two-circle considerations.

Prerequisite. 2260,2261,4400

Ordnance. 160 chaff, 120 flares.

External Syllabus Support. Single aggressor aircraft and approved airspace. SUAS authorized for expendables.

DT-4411 2.0 365 B,R,M D A 1 KC-130

Goal. Train in defensive maneuvering in relation to an air-to-air threat. This sortie shall be flown as a 1 vs. 2.

Requirement. Practice defensive maneuvers with emphasis on hard turns, break turns, maneuvering velocity, one-circle/two-circle fights and negating tracking solutions. The flight preparation for this event shall include threat analysis, ASE and expendable integration with regard to the threat, and a detailed aircrew brief on threat reaction throughout all phases of an attack by a bogey section. CRM shall be emphasized to include incorporation of the RVD, aircrew lookout doctrine/scan sectors, threat call template and honoring the nearest threat. An event debrief with the aggressor flight lead is recommended.

Performance Standard. The Pilot should demonstrate knowledge of A/A RADAR, A/A gun and IR missile defense, one-circle/two-circle considerations and honoring the nearest threat.

Prerequisite. DT-4410.

Ordnance. 160 chaff, 120 flares.

External Syllabus Support. Two aggressor aircraft and approved airspace. SUAS authorized for expendables.

2.9.5 Air Delivery (AD)

2.9.5.1 Purpose. To attain and maintain the Core Plus Skill of Air Delivery (AD). Upon completion of this phase, the Pilot will be capable of planning and executing MFF AD.

2.9.5.2 Crew Requirements. Shall be instructed by a BIP or NSI (if NS).

2.9.5.3 Academic/Ground Training. Review KC-130 ANTTP Air Delivery chapter and KC-130 Tactical Pocket Guide. Review MAWTS-1 AD courseware and OPNAV 3710.7_ altitude requirements.

AD-4700 2.0 365 B,R,M (N) A/S 1 KC-130

Goal. Train and evaluate the Pilot in personnel high altitude AD procedures.

Requirement. Plan and execute a Military Free Fall (MFF) AD operation. Perform mission analysis and planning of high altitude air delivery of personnel. Perform at least 1 MFF or 1 MFF AD. Review applicable physiology and oxygen requirements for high altitude AD operations. Emphasize crew and jumpmaster coordination. Initial flight shall be conducted in aircraft.

Performance Standard. Correctly identify the zone and safely perform an AD that lands within the drop zone safety criteria.

Prerequisite. 3700

External Syllabus Support. Military free fall unit, appropriate DZ control and flight surgeon/physiologist if applicable.

2.9.6 Battlefield Illumination (BI)

2.9.6.1 Purpose. To attain and maintain the Mission Plus Skill of Battlefield Illumination (BI). Upon completion of this phase, the Pilot will be capable of planning and executing BI.

2.9.6.2 Crew Requirements. Shall be instructed by a BIP.

2.9.6.3 Academic/Ground Training. Utilize academic courseware as outlined in the MAWTS-1 course catalog and review MAWTS-1 ASPs, NFM, and KC-130 ANTTP.

BI-4710 2.0 730 B,R,M N A/S 1 KC-130

Goal. Train the Pilot Battlefield Illumination (BI) procedures.

Requirement. Introduce BI procedures. Emphasize flare settings, illumination patterns, the conduct of a 9-Line brief, and emergency procedures. An actual expenditure of ordnance is required. Initial flight shall be conducted in aircraft.

Performance Standard. Demonstrate knowledge of immediate action emergency procedures, and accurately fly the correct pattern for the type of illumination requested.

Prerequisite. AD-3700.

Ordnance. 15 LUU-2A/B, B/B or LUU-19 flares as required.

External Syllabus Support. SUAS authorized for aircraft parachute flares and illumination.

2.10 INSTRUCTOR TRAINING PHASE (5000)

2.10.1 General. The purpose of this phase of training is to train qualified Pilots to instruct various levels of instruction.

2.10.1.1 Pilots shall be recommended for instructor training via Aircrew Performance Review Board (APRB). Upon recommendation, the Pilot shall complete appropriate syllabus requirements. Upon completion of syllabus requirements, the commanding officer shall designate the Pilot as an instructor.

2.10.1.2 Standardization will be emphasized throughout instructor training.

2.10.1.3 Due to the lack of a FRS for the KC-130T community, Core Skill Introduction Instruction may occur at the fleet squadrons in accordance with NAVMC 3500.14C. Fleet Replacement Squadron Instructors (FRSI) shall conduct this training.

2.10.2 Basic Instructor Pilot (BIP)

2.10.2.1 Purpose. To develop qualified Basic Instructor Pilots (BIPs) using a standardized instructor training program. This syllabus is designed to prepare aircraft commanders to instruct specific events. This portion of the syllabus shall be used by VMGR squadrons to assist in instructor standardization.

2.10.2.2 General. A prospective BIP shall be a TPC that the APRB and commanding officer determine has the requisite airmanship and maturity to begin Pilot instruction. The TPC shall be Mission Skill phase complete and have a minimum of 100 TPC hours prior to being recommended by the APRB.

2.10.2.3 The events a BIP may instruct are delineated in the individual event descriptions but are generally limited to day AAR, FORM, and TN (non-LAT events).

2.10.2.4 The commanding officer has the authority to designate an APRB approved BIP to instruct the tactical portion of the Core Skill Introduction Syllabus. The BIP will execute all takeoffs and landings required on these events.

2.10.2.5 The BIP designation requires only 1 event. However, the commanding officer may elect to apply more stringent requirements to attain this designation.

2.10.2.6 BIPs shall be designated in writing by the squadron commanding officer.

2.10.2.7 Crew requirements. Shall be instructed by an ANI or WTI.

2.10.2.8 Academic/Ground Training. The IUT shall review all directives pertinent to the safe conduct of flight to include the OPNAV 3710.7_, Instrument Flight Manual, AIM/FAR, NFM, all tactics publications and local SOPs. The IUT shall be familiar with the T&R Program Manual and this NAVMC.

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| BIP-5100 | 3.0 | * | B,R | (N) | E | A | 1 KC-130 |

Goal. Basic Instructor Pilot (BIP) evaluation.

Requirement. This event shall be flown in conjunction with a Core Skill or Mission Skill event with the IUT instructing a Pilot under the supervision of a qualified ANI or WTI. The IUT shall conduct the mission brief and execute the syllabus event in accordance with the event description. Upon completion of this event, the Pilot may be designated a BIP by the commanding officer.

Performance Standard. The IUT shall be evaluated on the ability to correctly brief the flight, demonstrate and introduce maneuvers in accordance with applicable directives, correct student deficiencies, conduct proper debrief and display appropriate subject matter expertise.

Prerequisite. RQD-6118, 100 hours TPC time, APRB recommendation.

External Syllabus Support. See appropriate Core Skill or Mission Skill stage description.

2.10.3 NATOPS Instructor/Assistant NATOPS Instructor (NI/ANI)

2.10.3.1 Purpose. Qualify IUT as a NATOPS Instructor/Assistant NATOPS Instructor (NI/ANI).

2.10.3.2 General. The purpose of this stage is to qualify the IUT as a NATOPS Instructor. The NI/ANI primarily conducts annual NATOPS and

Instrument evaluations as well as administering the TPC Upgrade syllabus. The IUT shall be introduced to and practice compound aircraft emergencies from the right and left seat and shall be proficient in 2-engine emergency operations. The IUT shall be instructed on proper check-ride preparation, in-flight supervision of the aircraft and Pilot post-flight administrative requirements. Upon completion of the NI/ANI syllabus, the Pilot shall be designated an ANI or NI by the squadron commanding officer.

2.10.3.3 Crew Requirements. NI-5140 shall be instructed by an ANI, NI, NE, or Model Manager. NI-5141 shall be instructed by the NI, NE, or Model Manager.

2.10.3.4 Academic/Ground Training. The IUT shall be familiar with all applicable OPNAV and NATOPS directives, with an emphasis on instrument and NATOPS normal and emergency procedures.

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| NI-5140 | 3.0 | * | B | (N) | E | A | 1 KC-130 |

Goal. NI/ANI training.

Requirement. Introduce the IUT to the skills required to correct common student errors from the right seat. Emphasize 3 and 2-engine aircraft approaches and landings, instructional techniques, check-ride preparation, aircraft/Pilot monitoring and post-check administrative duties.

Performance Standards. Demonstrate familiarity with common Pilot errors and instructional techniques. Maintain proper defensive posturing to maintain safe flight. Develop a script for a NATOPS/Instrument checkride sortie including: precision and non-precision instrument approaches, 0%, 50% and 100% flap landings and ground/take-off/in-flight/landing emergencies. The IUT is evaluated on instructional techniques, check-ride preparation, aircraft monitoring and post-check administrative duties.

Prerequisite. BIP-5100, APRB recommended.

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| NI-5141 | 3.0 | * | B,SC,R | (N) | E | A | 1 KC-130 |

Goal. NI/ANI check.

Requirement. Shall be instructed by a NE/NI with the IUT in the right seat administering a NATOPS evaluation to a Pilot in the left seat. The IUT shall be evaluated on instructional technique, check-ride preparation, aircraft/Pilot monitoring and post-check administrative duties. A minimum of one 2-engine, no flap landing from the right seat shall be demonstrated by the IUT. Upon completion of this event, the IUT may be designated a NI/ANI by the commanding officer.

Performance Standard. Demonstrate familiarity with common Pilot errors and instructional techniques. Maintain proper defensive posturing to maintain safe flight. Develop a script for a NATOPS/Instrument checkride sortie including: precision and non-precision instrument approaches, 0%, 50% and 100% flap landings and ground/take-off/in-flight/landing emergencies. The IUT is evaluated on instructional technique, check-ride preparation, aircraft monitoring and post-check administrative duties.

Prerequisite. NI-5140.

2.10.4 Fleet Replacement Squadron Instructor (FRSI)

2.10.4.1 Purpose. Qualify ANI as a FRSI.

2.10.4.2 General. Upon completion of the FRSI syllabus a Pilot shall be designated an FRSI by the squadron commanding officer.

2.10.4.3 Crew Requirements. FRSI-5145 and FRSI-5146 shall be instructed by a FRSI, NI or NE. FRSI-5147 shall be instructed by the NI or NE.

2.10.4.4 Academic/Ground Training. Review NFM and KC-130 ANTTP.

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| FRSI-5145 | 3.0 | * | B | (N) | E | A | 1 KC-130 |

Goal. FRSI training.

Requirement. Instructor shall discuss instructional techniques, aircraft/Pilot monitoring, defensive posture, and common student errors. IUT in the left seat shall demonstrate the ability to maintain a safe training environment while conducting a simulated FAM-1105 and correcting common student errors as simulated by the instructor in the right seat.

Performance Standard. Demonstrate familiarity with common student errors and instructional techniques. Maintain proper defensive posturing to maintain safe flight. Demonstrate instructional proficiency in steep turns, 1-engine inoperative scenarios, 3-engine go-around procedures, takeoff aborts, and asterisked emergency procedures.

Prerequisite. NI-5141, 1000 hours in T/M/S, and APRB recommendation.

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| FRSI-5146 | 3.0 | * | B | (N) | E | A | 1 KC-130 |

Goal. FRSI training.

Requirement. IUT in left seat shall conduct a Core Skill Introduction aircraft sortie with a student in the right seat that includes engine-out operations. The IUT shall maintain a safe training environment while correcting any student errors.

Performance Standard. Demonstrate competencies established in FRSI-5145.

Prerequisite. FRSI-5145.

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| FRSI-5147 | 2.0 | * | B,SC,R | (N) | E | A | 1 KC-130 |

Goal. FRSI check.

Requirement. IUT in left seat shall conduct a Core Skill Introduction tactical sortie with a student in the right seat. The flight shall be supervised by the NE or NI. Upon completion of this event, the Pilot may be designated a Fleet Replacement Squadron Instructor (FRSI) by the squadron commanding officer.

Performance Standard. Demonstrate competencies established in FRSI-5145.

Prerequisite. FRSI-5146.

2.10.5 Flight Leadership Standardization Evaluator (FLSE)

2.10.5.1 Purpose. Certify IUT as a FLSE.

2.10.5.2 General. FLSEs ensure flight leadership standardization across all squadrons.

2.10.5.3 Re-designation. Refer to MAWTS-1 Course Catalog.

2.10.5.4 Crew requirements. Refer to the MAWTS-1 KC-130 Course Catalog.

2.10.5.5 Academic/Ground Training. Refer to the MAWTS-1 KC-130 Course Catalog.

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| FLSE-5320 | 3.0 | * | B,SC,R | (NS) | E | A | 2+ KC-130 |

Goal. Certify the IUT to be designated a FLSE. This flight shall be observed by the KC-130 Program Coordinator. MAG Commanding Officers should designate the Pilot a FLSE at the completion of this flight.

Requirement. Refer to the MAWTS-1 KC-130 Course Catalog.

Performance Standard. Refer to MAWTS-1 KC-130 Course Catalog.

Prerequisite. Refer to MAWTS-1 Course Catalog.

External Syllabus Support. Refer to MAWTS-1 Course Catalog.

2.10.6 Night Systems Instructor (NSI)

2.10.6.1 Purpose. To certify a KC-130T Pilot as an instructor capable of safely conducting ground and airborne instruction of the KC-130 Night Systems syllabus.

2.10.6.2 General. Refer to NAVMC 3500.14, MCO 3500.109 and the MAWTS-1 course catalog. The build-up phase may be developed and supervised by the Squadron NSI. Upon certification by MAWTS-1, the NSI shall be designated by the squadron commanding officer.

2.10.6.3 Crew requirements. Refer to the MAWTS-1 KC-130 Course Catalog.

2.10.6.4 Academic/Ground Training. Refer to the MAWTS-1 KC-130 Course Catalog.

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| NSI-5150 | 2.0 | * | B | NS | E | A | 1 KC-130 |

Requirement. Reference MAWTS-1 KC-130 Course Catalogue for NSI POI.

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| NSI-5151 | 2.0 | * | B,SC | NS | E | A | 1 KC-130 |

Requirement. Reference MAWTS-1 KC-130 Course Catalogue for NSI POI.

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| NSI-5152 | 2.0 | * | B,SC,R | NS | E | A | 1 KC-130 |

Requirement. Reference MAWTS-1 KC-130 Course Catalogue for NSI POI.

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| NSI-5153 | 2.0 | * | B,SC,R | NS | E | A | 1 KC-130 |

Requirement. Reference the MAWTS-1 KC-130 Course Catalogue for NSI POI.

2.10.7 Low Altitude Tactics Instructor (LATI)

2.10.7.1 Purpose. To certify a KC-130T Pilot as an instructor capable of safely conducting ground and airborne instruction of the KC-130 LAT syllabus.

2.10.7.2 General. Completion of the Core Skill and Core Plus LAT syllabus is a prerequisite. Refer to NAVMC 3500.14, MCO 3500.109, and the MAWTS-1 course catalog. The build-up phase may be developed and supervised by the Squadron LATI. Upon certification by the squadron WTI or MAWTS-1, the LATI shall be designated by the squadron commanding officer.

2.10.7.3 Crew requirements. Refer to the MAWTS-1 KC-130 Course Catalog.

2.10.7.4 Ground/Academic Training. Refer to MAWTS-1 KC-130 Course Catalog.

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| LATI-5210 | 2.0 | * | B | D | E | A | 1 KC-130 |

Requirement. Reference MAWTS-1 KC-130 Course Catalog for the LATI POI.

LATI-5211 2.0 * B D E A 1 KC-130

Requirement. Reference MAWTS-1 KC-130 Course Catalog for the LATI POI.

LATI-5212 2.0 * B,SC D E A 2 KC-130

Requirement. Reference MAWTS-1 KC-130 Course Catalog for the LATI POI.

LATI-5213 2.0 * B,SC,R D E A 1 KC-130

Requirement. Reference MAWTS-1 KC-130 Course Catalog for the LATI POI.

2.10.8 Defensive Tactics Instructor (DTI)

2.10.8.1 Purpose. To certify the KC-130T Pilot as an instructor capable of safely conducting ground and airborne instruction of the KC-130 DT syllabus.

2.10.8.2 General. Refer to NAVMC 3500.14, MCO 3500.109 and the MAWTS-1 course catalog. Completion of the DT syllabus and be designated a LATI is a prerequisite. The build-up phase may be developed and supervised by the Squadron DTI. Upon certification by MAWTS-1, the DTI shall be designated by the squadron commanding officer.

2.10.8.3 Crew requirements. Refer to the MAWTS-1 KC-130 Course Catalog.

2.10.8.4 Academic/Ground Training. Refer to the MAWTS-1 KC-130 Course Catalog.

DTI-5410 1.0 * B D E A 1 KC-130

Requirement. Reference MAWTS-1 KC-130 Course Catalogue for DTI POI.

DTI-5411 1.0 * B D E A 1 KC-130

Requirement. Reference MAWTS-1 KC-130 Course Catalogue for DTI POI.

DTI-5412 1.0 * B,SC D E A 2 KC-130

Requirement. Reference MAWTS-1 KC-130 Course Catalogue for DTI POI.

DTI-5413 1.0 * B,SC,R D E A 1 KC-130

Requirement. Reference MAWTS-1 KC-130 Course Catalogue for DTI POI.

2.10.9 Weapons and Tactics Instructor (WTI)

2.10.9.1 Purpose. Develop highly qualified Pilots into effective unit tactics instructors and expose them to current Marine Corps tactical doctrine. Additionally, this stage is designed to increase knowledge and experience of the capabilities and associated tasks of the KC-130.

2.10.9.2 General. Tactics and techniques will be taught per the KC-130 ANTTP and the MAWTS-1 supplements. Only MAWTS-1 instructors shall instruct/qualify flights in this stage. Qualification shall only be achieved as shown in the WTI Course Catalog. Upon certification by MAWTS-1, the WTI shall be designated by the squadron commanding officer.

2.10.9.3 Crew requirements. Refer to the MAWTS-1 WTI Course Catalog.

2.10.9.4 Academic/Ground Training. Refer to MAWTS-1 WTI Course Catalog.

WTI-5999 0.0 * B E A KC-130

Requirement. Reference the MAWTS-1 KC-130 Course Catalog.

2.11 REQUIREMENTS, CERTIFICATIONS, QUALIFICATIONS, and DESIGNATIONS (RCQD) (6000)

2.11.1 General. To provide a vehicle for tracking codes associated with certifications, qualifications and designations. E-coded sorties are evaluation sorties. Once the flight to attain the qualification/designation is complete, a letter from the squadron commanding officer awarding the qualification/designation shall be placed in the NATOPS jacket before that qualification/designation can be utilized.

2.11.2 KC-130T-30 TPC TRACKING CODE

2.11.2.1 Purpose. Introduce the qualified TPC to aircraft landing characteristics of the KC-130T-30.

2.11.2.2 Crew Requirements. Shall be instructed by a current TPC that is qualified in the KC-130T-30.

RQD-6100 2.0 365 B,SC,R D A 1 KC-130T-30

Goal. FAM (Designation).

Requirement. Prior to any TPC signing for a KC-130T-30, that TPC shall complete a familiarization flight with a current TPC who has previously flown the KC-130T-30. This flight shall consist of three (3) landings to include a full-stop. Instruction shall include flight characteristics of the aircraft in the landing configuration.

Performance Standard. Safely taxi the aircraft and discuss taxi characteristics that result with an additional 15 feet of aircraft. Safely land the aircraft in 100% flap configuration.

Prerequisite. TPC Designation.

2.11.3. Functional Check Pilot (FCP)

2.11.3.1 Purpose. Designate the TPC as a FCP.

2.11.3.2 General. FCPs shall be designated by the commanding officer.

2.11.3.3 Crew Requirements. Shall be instructed by a BIP qualified PMCF Pilot.

2.11.3.4 Academic/Ground Training. Functional Check Flight Examination.

FCP-6106 2.0 * B,SC,R D E A/S 1 KC-130

Goal. FCP evaluation/designation.

Requirement. The flight should resemble an "A" profile functional check flight and be instructed by a BIP qualified PMCF Pilot. Initial flight can be conducted in aircraft or simulator.

Performance Standard. Satisfactorily execute procedures per the NFM, OPNAVINST 3710.7_, and OPNNAVINST 4790.2_.

Prerequisite. TPC (6118), APRB recommendation.

2.11.4 KC-130T NATOPS Evaluation POI

2.11.4.1 Purpose. To evaluate the Pilot's knowledge of aircraft systems, performance limitations, emergency procedures, and flight and ground operations.

2.11.4.2 General

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

The NATOPS Instructor shall utilize the NATOPS Model Manager generated NATOPS Aviation Training Form (ATF) and the evaluation metrics required for the accomplishment and performance of the standardized criterion to determine whether the Pilot completed the sortie.

Prior to the oral examination, the NATOPS Instructor shall review the NATOPS monthly emergency procedures examinations and quarterly simulator/cockpit drills for the previous twelve (12) months and previous NATOPS evaluations.

At the discretion of the squadron commanding officer, a letter designating the Pilot as NATOPS qualified shall be placed in the NATOPS jacket.

NATOPS Evaluees shall complete and have a graded open book, closed book, and oral examination prior to the commencement of the actual NATOPS evaluation event.

NTPS-6010 3.0 365 B,SC,R,M E Open Book NATOPS Examination

Goal. The open book examination shall consist of, but not be limited to the question bank. The purpose of the open book examination is to evaluate the Pilot's knowledge of the appropriate publications and the aircraft.

Performance Standard. Achieve a minimum score of 3.5 on the open book examination.

NTPS-6011 1.0 365 B,SC,R,M E Closed Book NATOPS Examination

Goal. The purpose of the closed book examination is to evaluate the Pilot's knowledge of the concerning normal/emergency procedures and aircraft limitations.

Performance Standard. Achieve a minimum score of 3.3 on the closed book examination.

NTPS-6012 3.0 365 B,SC,R,M E Oral NATOPS Examination

Goal. The oral examination shall consist of, but not be limited to the question bank. The instructor may draw upon their experience to propose questions of a direct and positive manner and in no way be opinionated to evaluate the Pilot's knowledge of the concerning normal/emergency procedures, aircraft limitations, and performance.

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

2.11.5 Transport Third Pilot (T3P) Designation

2.11.5.1 Purpose. Designate as a T3P.

2.11.5.2 General. After student Pilots have completed Core Skill Introduction Training and NATOPS check they shall be designated T3P by the squadron commanding officer.

2.11.5.3 Crew Requirements. Shall be instructed by an ANI/NI.

2.11.5.4 Ground Training/Evaluation. Open and closed book NATOPS examinations and the specific requirements for T3P designation per OPNAVINST3710.7_.

NTPS-6110 3.0 365 B,SC,R,M (N) E A 1 KC-130

Goal. Qualify as a Transport Third Pilot (T3P).

Requirement. ANI shall conduct T3P NATOPS evaluation flight. Emphasize right seat copilot duties to include comm/nav management, voice procedures, situational awareness and NATOPS/Instrument procedures. Basic, Transition, Series Conversion, and T3P Refresher Pilots shall be evaluated in the right seat. TPC and T2P Refresher Pilots should be evaluated in the left seat. Pilot should compute TOLD card.

Performance Standard. Per the NFM and OPNAVINST 3710.7_.

Prerequisite. Core Skill Introduction phase complete, NATOPS open, closed and oral exam complete (NTPS-6010, 6011, 6012).

2.11.6 Transport Second Pilot (T2P) Designation

2.11.6.1 Purpose. Designate as a T2P.

2.11.6.2 General. Upon completion of the initial examination and evaluation, this flight will be used as the annual NATOPS evaluation and the Pilot shall be designated T2P by the squadron commanding officer.

2.11.6.3 Crew Requirements. Shall be instructed by an ANI/NI.

2.11.6.4 Ground Training/Evaluation. Open and closed book NATOPS examinations, open book tactics examination and the specific requirements for T2P designation per OPNAVINSTINST 3710.7_. Core Skill Phase complete. The written tactical examination will not be required for subsequent evaluations.

NTPS-6013 1.0 * B,SC E Open Book Tactics Examination

Goal. The purpose of the open book tactics examination is to evaluate the airman's knowledge of the appropriate publications concerning tactics, techniques and procedures of Core and Mission Skills.

Performance Standard. Achieve a minimum grade of 80% on the open book examination.

NTPS-6111 2.0 365 B,SC,R,M (N E A/S 1 KC-130

Goal. Qualify as a Transport Second Pilot (T2P).

Requirement. The T2P check shall be instructed by an ANI and shall be conducted with the Pilot in the right seat. Emphasize right seat copilot duties to include comm/nav management, voice procedures, situational awareness and NATOPS/Instrument procedures. This sortie should be flown in conjunction with a tactical mission. For Pilots who are already designated T2P, this event may be flown in the left seat. Initial flight shall be flown in the aircraft.

Performance Standard. The Pilot shall perform copilot duties per the NFM and KC-130 ANTTP.

Prerequisite. Core Skill phase should be complete, ACPM-82XX Phase complete, NATOPS open, closed and oral exam complete, T2P Tactics exam complete (NTPS-6010, 6011, 6012, 6013), APRB recommendation

2.11.7 Transport Plane Commander (TPC) Designation

2.11.7.1 Purpose. Designate as a TPC.

2.11.7.2 General. The TPC preparation syllabus is designed to prepare the Pilot to command a KC-130 and crew in all aspects of flight. Upon completion of the initial syllabus, NTPS-6118 will be used to track annual NATOPS evaluations and the Pilot shall be designated a TPC by the squadron commanding officer.

2.11.7.3 The TPC preparation simulator syllabus (SNTPS-6112) introduces the Pilot to multiple, compound emergency scenarios and emphasizes landing the aircraft safely under 1 and 2-engine-out situations. It also provides a comprehensive review of crucial aircraft systems and limitations.

2.11.7.4 The Proficiency Review Flights (PRFs) (NTPS-6113 to NTPS-6115) will be flown to screen T2Ps for upgrade. Each flight should be flown with a different ANI/NI.

2.11.7.5 Upon successful completion of the TPC preparation simulator syllabus and PRF syllabus, the TPC shall have met the prerequisites for the TPC Route Check Evaluation (NTPS-6117) and TPC NATOPS Evaluation (RQD-6118).

2.11.7.6 Crew Requirements. Shall be instructed by an ANI/NI.

2.11.7.7 Ground Training/Evaluation. Pilots considered for TPC should be Core Skill and Mission Skill Phase complete, ACPM 83XX Phase complete, currency/flight time per NFM, and the specific requirements for TPC designation per OPNAVINST 3710.7_.

SNTPS-6112 27.0 * B (N) E S OFT/WST

Goal. TPC Upgrade Preparation Simulator Syllabus.

Requirement. This is a tracking code to identify the completion of the TPC Upgrade Preparation Simulator Syllabus. The syllabus includes 9 simulator events. See the TPC Upgrade Preparation Simulator Syllabus Guide for individual event descriptions and requirements.

Performance Standard. Per the NFM.

Prerequisite. APRB recommendation.

NTPS-6113 3.0 * B (N) E A 1 KC-130

Goal. Screen for TPC designation.

Requirement. Review engine start malfunctions, ground, normal and emergency procedures, stall series, GCA and ILS approach procedures, propeller malfunctions and emergency landings in all configurations.

Performance Standard. Per the NFM.

Prerequisite. NTPS-6112.

NTPS-6114 3.0 * B (N) E A 1 KC-130

Goal. Screen for TPC designation.

Requirement. Review ground fires, hydraulic malfunctions,

3-engine circling approaches, no-flap landings, and aircraft limitations. Practice engine start malfunctions, ground normal and emergency procedures, GCA and ILS approach procedures, propeller malfunctions and emergency landings in all configurations. This event should be flown from the right seat.

Performance Standard. Per the NFM.

Prerequisite. NTPS-6113.

NTPS-6115 3.0 * B (N) E A 1 KC-130

Goal. Screen for TPC designation.

Requirement. Review engine and electrical malfunctions, unusual attitude recovery, and partial panel/no gyro approaches. Practice engine start malfunctions, ground, normal and emergency procedures, GCA

and ILS approach procedures, propeller malfunctions and emergency landings in all configurations.

Performance Standard. Per the NFM.

Prerequisite. NTPS-6114.

NTPS-6117 8.0 * B (N) E A 1 KC-130

Goal. TPC NATOPS Route Check evaluation.

Requirement. This event shall be conducted on a long range over water mission requiring the Pilot to review ICAO operations, aircraft cruise and drift-down performance, over water emergency procedures and cargo/passenger coordination. It is recommended the route evaluation be conducted during a multi-day mission to allow evaluation of the Pilot's ground duties and crew handling, to include billeting, aircraft parking and servicing and diplomatic clearance coordination.

Performance Standard. Per the NFM and OPNAVINST 3710.7_.

Prerequisite. NTPS-6115.

NTPS-6118 2.0 365 B,SC,R,M (N) E A/S 1 KC-130

Goal. Complete TPC NATOPS flight evaluation. Conduct an objective evaluation of the Pilot's knowledge of mission planning, normal operating procedures (flight and ground), crew resource management, aircraft systems, performance criteria, emergency procedures, and debriefing. The focus is on normal and emergency procedures, not tactical execution. Emphasis shall be placed on the aforementioned items with the addition of local course rules, squadron SOP, and admin flight procedures. The NATOPS evaluation is intended to evaluate compliance with NATOPS procedures. The NATOPS evaluation is the means to measure the Pilot's efficiency in the execution of normal operating procedures and reaction to emergencies and malfunctions. The NATOPS evaluation process should be as much a learning tool and/or experience as it is an evaluation. A Pilot's initial TPC NATOPS check shall be flown in the aircraft.

Requirement. Conduct NTPS-6118 evaluation flight. Upon successful completion of this event, the instructor shall log the appropriate training code for tracking purposes. Demonstrate comprehensive knowledge and understanding of NATOPS, squadron SOP, and local course rules.

Performance Standard. Executes flight and ground operations safely IAW OPNAV 3710.7 Series, and KC-130T NATOPS. Complies with squadron SOP and local course rules.

Prerequisite. Core Skill and Mission Skill Phase should be complete, ACPM 83XX Phase complete, NATOPS open, closed and oral exam complete (NTPS-6010, 6011, 6012), and SNTPS-6112, NTPS-6113, NTPS-6114, NTPS-6115, NTPS-6117, APRB recommendation.

2.11.8 Emergency Procedure Training

2.11.8.1 Purpose. Maintain quarterly emergency procedure training.

2.11.8.2 General. Emergency procedure training consists of a monthly EP exam and a quarterly EP simulator. In the event the simulator is unavailable, the EP review may be conducted in the cockpit either pre or post flight as a static event.

2.11.8.3 Crew Requirements. Emergency Procedure review events may be instructed by a Current TPC, or CSI.

NTPS-6120 1.0 90 B,SC,R,M (N) E S/A 1 OFT/WST/KC-130

Goal. Emergency Procedure Review.

Requirement. This flight will review KC-130T emergency procedures and fulfills the requirement of quarterly EP simulator training per NAVMC 3500.14.

Performance Standard. Comply with KC-130T NFM Emergency Procedures.

2.11.9 NATOPS Instrument Evaluation POI

2.11.9.1 Purpose. Evaluate the Pilot's knowledge and application of NATOPS instrument procedures and techniques.

2.11.9.2 General. General policy, requirements, and prerequisites concerning NATOPS instrument evaluations are contained in OPNAVINST 3710.7, NFM, and the NIFM.

2.11.9.3 Crew Requirements. Shall be instructed by an ANI/NI.

2.11.9.4 Ground Training/Evaluation. Ground training and evaluation shall be conducted per OPNAVINST 3710.7, NFM, and NIFM.

INST-6030 8.0 365 B,SC,R,M E Instrument Ground School

Goal. The Instrument Ground School shall be an approved Commander Naval Air Forces (CNAF) approved syllabus and at a minimum cover the following topics:

Spatial disorientation.

CNO GPS Policy Statement and GPS fundamentals to include RNAV (GPS) and Required Navigation Performance (RNP).

Reduced Vertical Separation Minimums (RVSM) procedures.

Requirements and denial reports.

Use of non-DoD instrument approach/departure reports, and use of non-DoD GPS NOTAMS systems (Jeppeson GPS NOTAMS and Databases).

Performance Standard. Achieve a minimum grade of qualified for Instrument Ground School which also encompasses the open book examination.

INST-6031 3.0 365 B,SC,R,M E Oral NATOPS Instrument Examination

Goal. The oral NATOPS instrument examination shall consist of, but not be limited to the question bank in addition to any subject listed for coverage in OPNAVINST 3710.7 series. The examination shall include questions on the following topics:

Pertinent Navy or Marine Corps regulations, orders, and instructions.

Pertinent parts of the Federal Aviation Regulations (FAR), other regulations, and/or aeronautical publications which are applicable.

Interpretation of weather information normally used in flight planning. The instructor may draw upon their experience to propose questions of a direct and positive manner and in no way be opinionated to evaluate the airman's knowledge of the NATOPS, NATOPS Instrument Flight Manual, FAR/AIM and/or aeronautical publications which are applicable, normal/emergency instrument ground and flight procedures, weather, aircraft limitations, and performance.

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

INST-6130 2.0 365 B,SC,R,M (N) E A/S 1 KC-130

Goal. Complete standard instrument flight evaluation. Following completion of the ground evaluation events, a standard instrument flight/simulator evaluation event shall be flown and completed with a grade of "Qualified." Conduct an objective evaluation of the airman's knowledge of flight planning, filing, briefing, conduct of flight under normal operating conditions, emergency procedures, closing out flight plans, and debriefing.

Requirement. Conduct INST-6130, and designate Pilot per OPNAVINST 3710.7_, NFM, and the NIFM. Upon successful completion of these events, the evaluator shall log the appropriate training code for tracking purposes.

Performance Standard. Executes flight and ground operations safely IAW OPNAV 3710.7 Series, Platform NATOPS, NATOPS Instrument Flight Manual, and training rules. All areas on the instrument flight evaluation are critical. An "Unsatisfactory" grade in any area shall result in an "Unsatisfactory" grade for the flight.

Prerequisite. INST-6030, INST-6031, and minimum experience per OPNAVINST 3710.7.

INST-6131 2.0 365 B,SC,R,M (N) E A/S 1 KC-130

Goal. Complete special instrument flight evaluation. Following completion of the ground evaluation events, a special instrument flight/simulator evaluation event shall be flown and completed with a grade of "Qualified." Conduct an objective evaluation of the airman's knowledge of flight planning, filing, briefing, conduct of flight under normal operating conditions, emergency procedures, closing out flight plans, and debriefing.

Requirement. Conduct INST-6131, and designate Pilot per OPNAVINST 3710.7_, NFM, and the NIFM. Upon successful completion of these events, the evaluator shall log the appropriate training code for tracking purposes.

Performance Standards. Executes flight and ground operations safely IAW OPNAV 3710.7 Series, Platform NATOPS, NATOPS Instrument Flight Manual, and training rules. All areas on the instrument flight evaluation are critical. An "Unsatisfactory" grade in any area shall result in an "Unsatisfactory" grade for the flight.

Prerequisite. INST-6030, INST-6031, INST-6130, and minimum experience per OPNAVINST 3710.7_.

2.11.10 Section Leader (SL) Designation

2.11.10.1 Purpose. Prepare and certify the Pilot as a Section Leader (SL).

2.11.10.2 General. The Pilot shall review section formations, multi-plane AAR formations, planned and inadvertent weather penetrations and section recovery techniques. One flight should be flown at night under NVD conditions. Upon completion of the evaluation flight, Pilots shall also log the proficiency code in order to track event proficiency. It is recommended that the Tactical RAC Qualification (RAC-6311) be conducted in conjunction with either SL-6300 or SL-6301.

2.11.10.3 Crew Requirements. Shall be instructed by a section or division lead and certified by a FLSE.

2.11.10.4 Academic Training. All requirements delineated in the matrix below shall be completed and tracked prior to the SL evaluation/certification event.

**SECTION LEADER (SL) MATRIX**

| SELF PACED READINGS | | DATE COMP |
|---|---|---|
| NATOPS FLIGHT MANUAL CH 14.2 | | |
| OPNAVINST 3710.7 CH 5.1.12 Formation Flying | | |
| ANTTP 3-22.3-KC-130 CH 2.3.6 FWAAR Formation | | |
| ANTTP 3-22.3-KC-130 CH 2.4.8 HAAR Formation | | |
| ANTTP 3-22.3-KC-130 CH 4 Formation | | |
| ANTTP 3-22.3-KC-130 CH 5.2.7 Formation Air Delivery | | |
| ATP-56B Part 1 Para 406 Loss of Visual Contact | | |
| ATP-56B Part 2 CH 2 Formation Procedures | | |
| ATP-56B Part 3 CH 3 Formation HAAR Procedures | | |
| ATP-56B Part 3 CH 4 Safety Procedures | | |
| BRIEFING/CHALK TALK REQUIREMENTS | DATE COMP | INSTRUCTOR |
| Section Departures | | |
| Section Formations | | |
| Low-Altitude Formation | | |
| Multi-Plane AAR Formations | | |
| Planned Weather Penetration | | |
| Inadvertent Weather Penetration | | |
| Section Recoveries (Approaches/Overhead) | | |
| NORDO Procedures | | |
| SL Brief | | |
| Section Debrief | | |
| ADMINSTRATIVE FLIGHT REQUIREMENTS | | |
| Formation Start, Taxi, Run-Up | | |
| Section Takeoff | | |
| Section Rendezvous | | |
| Cruise/Parade Positions | | |
| Under-run | | |
| Cross-under | | |
| Section Recovery | | |
| TN/AD/AAR * | | |
| Night Aided ** | | |

* One event shall be flown in conjunction with a tactical mission.
** One event should be flown at night.

SL-6300 3.0 * B (NS) E A 2 KC-130

Goal. Section Leader practice.

Requirement. This event shall be instructed by a designated SL. This event should be flown as part of tactical mission (AAR preferred). The SL UT shall conduct the formation leader brief, review formation start, taxi, run-up, takeoff, and recovery procedures under day and NVD conditions. Discuss flight leadership responsibilities, formation instructional techniques and common student error recognition and correction. Review proper management of all comm/nav equipment associated with formation flight and proper formation communications procedures.

Performance Standard

The SL UT shall successfully plan, brief and lead a section of KC-130s.

The SL UT shall successfully conduct a mission brief and debrief IAW the ANTTP KC-130 Tactical Pocket Guide.

The SL UT shall successfully demonstrate thorough knowledge of the self-paced reading in the SL Matrix.

The SL UT shall successfully complete the maneuvers and procedures per the NFM, KC-130 ANTTP, and OPNAVINST 3710.7_.

Prerequisite. 100 flight hours as a TPC, two flights in wingman position as a designated TPC, SL academics complete, ACPM-8630, ACPM-8660, and APRB recommendation.

External Syllabus Support Requirements. Appropriate SUAS scheduled.

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| SL-6301 | 3.0 | * | B,SC,R | (NS) | E | A | 2 KC-130 |

Goal. SL evaluation/certification.

Requirement. This event shall be evaluated by a designated FLSE. If SL-6300 did not include a tactical mission, then SL-6301 shall be flown in conjunction with a tactical mission. The SL UT shall conduct the formation leader brief, review formation start, taxi, run-up, takeoff, and recovery procedures under day and NVD conditions. Discuss flight leadership responsibilities, formation instructional techniques and common student error recognition and correction. Review proper management of all avionics equipment associated with formation flight and proper formation communications procedures. Upon completion, the Pilot may be designated a SL by the squadron commanding officer.

Performance Standard

The SL UT shall successfully plan, brief and lead a section of KC-130s.

The SL UT shall successfully conduct a mission brief and debrief IAW the ANTTP KC-130 Tactical Pocket Guide.

The SL UT shall successfully demonstrate thorough knowledge of the self-paced reading in the SL Matrix.

The SL UT shall successfully complete the maneuvers and procedures per the NATOPS FLIGHT MANUAL, KC-130 ANTTP, and OPNAVINST 3710.7_.

Prerequisite. SL-6300.

External Syllabus Support Requirements. Appropriate SUAS scheduled.

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| SL-6302 | 2.0 | 365 | B,SC,R,M | (NS) | | A | 2 KC-130 |

Goal. SL proficiency.

Requirement. To maintain SL proficiency a Pilot shall brief, lead, and debrief (or evaluate a prospective SL) the designated event in accordance with the mission performance standards for that event.

Prerequisite. SL-6301.

2.11.11 Division Leader (DL) Designation

2.11.11.1 Purpose. Prepare and certify the Pilot for Division Leader (DL).

2.11.11.2 General. During the workup stage for DL, 1 flight should be a multi-plane AAR evolution and one flight should be flown at night under NVD conditions in order to develop the prospective DL's flight leadership. The Pilot shall review multi-plane AAR formations, planned and inadvertent weather penetrations and division recovery techniques. DL-6303 shall be evaluated by a designated DL. DL-6304 shall be evaluated by a FLSE. The DL Matrix will be used to track academic and administrative training. Upon completion of the evaluation flight Pilots shall also log the proficiency code in order to track event proficiency. Upon certification, the DL shall be designated by the squadron commanding officer.

2.11.11.3 Crew Requirements. Shall be instructed by a division lead and certified by a FLSE.

2.11.11.4 Academic Training. All requirements delineated in the DL matrix shall be completed prior to the DL evaluation/certification event.

DIVISION LEADER MATRIX

| SELF PACED READINGS | | DATE COMP |
|---|---|---|
| NATOPS FLIGHT MANUAL CH 14.2 | | |
| OPNAVINST 3710.7 CH 5.1.12 Formation Flying | | |
| ANTTP 3-22.3-KC-130 CH 2.3.6 FWAAR Formation | | |
| ANTTP 3-22.3-KC-130 CH 2.4.8 HAAR Formation | | |
| ANTTP 3-22.3-KC-130 CH 4 Formation | | |
| ANTTP 3-22.3-KC-130 CH 5.2.7 Formation Air Delivery | | |
| ATP-56B Part 1 Para 406 Loss of Visual Contact | | |
| ATP-56B Part 2 CH 2 Formation Procedures | | |
| ATP-56B Part 3 CH 3 Formation HAAR Procedures | | |
| ATP-56B Part 3 CH 4 Safety Procedures | | |
| BRIEFING/CHALK TALK REQUIREMENTS | DATE COMP | INSTRUCTOR |
| Formation Departures | | |
| Division Formations | | |
| Low-Altitude Formations | | |
| Multi-Plane AAR Formations | | |
| Planned Weather Penetration | | |
| Inadvertent Weather Penetration | | |
| Division Recoveries (Approaches/Overhead) | | |
| NORDO Procedures | | |
| Division Leader Brief | | |
| Division Debrief | | |
| ADMINISTRATIVE FLIGHT REQUIREMENTS | | |
| Formation Start, Taxi, Run-Up | | |
| Division Takeoff | | |
| Division Rendezvous | | |
| Cruise/Parade Positions | | |
| Underrun | | |
| Crossunder | | |
| Division Recovery | | |
| TN/AD/AAR * | | |
| Night Aided ** | | |

* One event should be flown in conjunction with a multi-plane AAR mission.
** One event should be flown at night.

DL-6303 3.0 * B (NS) E A 3+ KC-130

Goal. Division Leader practice.

Requirement. This event shall be instructed by a designated DL. This event should be flown as part of a multi-plane AAR mission. The DL UT shall conduct the formation leader brief, review formation start, taxi, run-up, takeoff, and recovery procedures under day, night and NVD conditions. Review proper management of all comm/nav equipment associated with formation flight and proper formation communications procedures.

Performance Standard

The DL UT shall plan, brief, and lead a Division of KC-130s.

The DL UT shall conduct a mission brief and debrief IAW the ANTTP KC-130 Tactical Pocket Guide.

The DL UT shall demonstrate thorough knowledge of the self-paced reading in the DL Matrix.

The DL UT shall satisfactory complete the maneuvers and procedures per the NFM, KC-130 ANTTP, and OPNAVINST 3710.7_.

Prerequisite. Minimum of two flights as a designated SL, 200 flight hours as a TPC, DL academics complete, ACPM-8640, ACPM-8641, ACPM-8620, and APRB recommendation.

External Syllabus Support Requirements. Appropriate SUAS scheduled.

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| DL-6304 | 3.0 | * | B,SC,R | (NS) | E | A | 3+ KC-130 |

Goal. DL evaluation/certification.

Requirement. This event shall be evaluated by a designated FLSE. If DL-6303 did not include a multi-plane AAR mission, then DL-6304 shall be flown in conjunction with a multi-plane AAR mission. The DL UT shall conduct the formation leader brief, review formation start, taxi, run-up, takeoff, and recovery procedures under day, night, and NVD conditions. Review proper management of all comm/nav equipment associated with formation flight and proper formation communications procedures. Upon completion of this event, the Pilot may be designated a DL by the squadron commanding officer.

Prerequisite. DL-6303.

Performance Standard

The DL UT shall plan, brief, and lead a Division of KC-130s.

The DL UT shall conduct a mission brief and debrief IAW the ANTTP KC-130 Tactical Pocket Guide.

The DL UT shall demonstrate thorough knowledge of the self paced reading in the DL Matrix.

The DL UT shall satisfactory complete the maneuvers and procedures per the NFM, KC-130 ANTTP, and OPNAVINST 3710.7_.

External Syllabus Support Requirements. Appropriate SUAS scheduled.

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| DL-6305 | 2.0 | 365 | B,SC,R,M | (N) | | A | 3+ KC-130 |

Goal. DL proficiency.

Requirement. To maintain DL proficiency, a Pilot shall brief, lead, and debrief (or evaluate a prospective DL) the designated event in accordance with the mission performance standards for that event.

Prerequisite. DL-6304.

2.11.12 Tactical Refueling Area Commander (TACRAC) Designation

2.11.12.1 Purpose. To attain and maintain the TACRAC skill for multi-plane, static orbit, air-to-air refueling operations. Upon completion of this phase, the Pilot will be capable of assuming the responsibilities of a Tactical Refueling Area Commander during a FW/TR/Helicopter AAR operation during day or night.

2.11.12.2 General. A designated TACRAC shall be capable of commanding a KC-130 refueling cell on a static-orbit tanker track to include fuel management and control of receivers in and around the tanker cell. The RAC-6311 evaluator shall be a designated a TACRAC and FLSE. Upon completion of the evaluation flight, Pilots shall also log the proficiency code in order to track event proficiency. At the discretion of the squadron commanding officer, a letter designating the Pilot as TACRAC shall be placed in the NATOPS jacket. This designation should be completed during the Pilot's SL training.

2.11.12.3 Crew Requirements. Shall be instructed and certified by a FLSE/TACRAC.

2.11.12.4 Academic Training. All requirements delineated in the TACRAC Matrix shall be completed and tracked prior to the TACRAC evaluation/certification event.

**TACRAC MATRIX**

| SELF-PACED READINGS | | DATE COMP |
|---|---|---|
| NATOPS FLIGHT MANUAL CH 14.1 IFR System | | |
| NATOPS FLIGHT MANUAL CH 14.2 Formation Flight | | |
| OPNAVINST 3710.7 CH 5.1.12 Formation Flying | | |
| ANTTP 3-22.3-KC-130 CH 2.3.6 FWAAR Formation | | |
| ANTTP 3-22.3-KC-130 CH 2.4.8 HAAR Formation | | |
| ANTTP 3-22.3-KC-130 CH 4 Formation | | |
| ATP-56B Part 1 Para 406 Loss of Visual Contact | | |
| ATP-56B Part 2 CH 2 Formation Procedures | | |
| ATP-56B Part 3 CH 3 Formation HAAR Procedures | | |
| ATP-56B Part 4 CH 4 Safety Procedures | | |
| BRIEFING/CHALK TALK REQUIREMENTS | DATE COMP | INSTRUCTOR |
| Air Refueling Limitations | | |
| Multi-Plane AAR Formations | | |
| Rendezvous Procedures | | |
| Weather Considerations | | |
| Planned Weather Penetration | | |
| Inadvertent Weather Penetration | | |
| Receiver Fuel Management | | |
| NORDO Procedures | | |
| Refueling Area Commander Brief | | |
| Tanker Mgmt: TNKR Aborts | | |
| Emergency Air Refueling Procedures | | |
| ADMINISTRATIVE FLIGHT REQUIREMENTS | DATE COMP | INSTRUCTOR |
| OPARS | | |
| ALTRV Procedures | | |
| Rendezvous | | |
| Refueling Formation Positions | | |
| Radio Management/Voice Procedures | | |

TACRAC-6311 3.0 * B,SC,R (NS) E A 2+ KC-130

Goal. TACRAC evaluation/certification.

Requirement. This event shall be evaluated by a designated FLSE/TACRAC. Brief, conduct, and control a multi-tanker AAR mission. Discuss responsibilities of Flight Leader and Refueling Area Commander on a static orbit track. Focus should be on refueling formation integrity, receiver management, and fuel management for the entire flight.

Performance Standard

The TACRAC under instruction shall successfully plan and brief the tanker and receiver force on all applicable procedures of the entire AAR evolution.

The TACRAC under instruction shall successfully conduct a mission brief and debrief IAW the ANTTP KC-130 Tactical Pocket Guide.

The TACRAC under instruction shall successfully demonstrate thorough knowledge of the self-paced reading in the TACRAC Matrix.

The TACRAC under instruction shall successfully complete the maneuvers and procedures per the NFM, KC-130 ANTTP, ATP-56(B) and OPNAVINST 3710.7_.

Prerequisite. Designated SL (SL-6301), TACRAC academics complete, (can be conducted in conjunction with SL-6300 or SL-6301).

External Syllabus Support. Receiver aircraft. Appropriate SUAS scheduled.

TACRAC-6312 2.0 365 B,SC,R,M (NS) A 2+ KC-130

Goal. TACRAC proficiency.

Requirement. To maintain proficiency as a TACRAC, a Pilot shall brief, lead, and debrief the designated event in accordance with the mission performance standards for that event.

Prerequisite. RAC-6311

2.11.13 Strategic Refueling Area Commander (STRATRAC) Designation

2.11.13.1 Purpose. To attain and maintain the long range formation air-to-air refueling skill. Upon completion of this phase, the Pilot will be capable of planning and executing long range over-water (multiple tanker) FW/TR/Helicopter AAR during day or night.

2.11.13.2 General. This designation qualifies the Pilot to act as RAC for extended over-water tanker missions. A detailed knowledge of both tanker and receiver fuel management, ALTRV scheduling facilities outlined in ATP-56(B), long-range navigation techniques, flight lead/rendezvous controller responsibilities and international flight operations is required. The RAC-6314 evaluator shall be a designated FLSE/STRATRAC. Commanders should select only the most skilled and experienced aircraft commanders for this designation. Upon completion of the evaluation flight Pilots shall also log the proficiency code in order to track event proficiency. At the discretion of the squadron commanding officer, a letter designating the Pilot as STRATRAC shall be placed in the NATOPS jacket.

2.11.13.3 Crew Requirements. Shall be instructed and certified by a

FLSE/STRATRAC.

2.11.13.4 Academic Training. All requirements delineated in the STRATRAC Matrix shall be completed prior to the STRATRAC evaluation/certification event.

**STRATRAC MATRIX**

| SELF PACED READINGS | | DATE COMP |
|---|---|---|
| NATOPS FLIGHT MANUAL CH 14.1 IFR System | | |
| NATOPS FLIGHT MANUAL CH 14.2 Formation Flight | | |
| OPNAVINST 3710.7 CH 5.1.12 Formation Flying | | |
| ANTTP 3-22.3-KC-130 CH 2 Air-to-Air Refueling | | |
| ANTTP 3-22.3-KC-130 CH 4 Formation | | |
| ATP-56B Part 1 General Procedures | | |
| ATP-56B Part 2 CH 2 Formation Procedures | | |
| ATP-56B Part 3 CH 3 Formation HAAR Procedures | | |
| Squadron Tactical Systems Operators SOP | | |
| BRIEFING/CHALK TALK REQUIREMENTS | DATE COMP | INSTRUCTOR |
| Air Refueling Limitations | | |
| Weather Considerations | | |
| Tanker/Receiver Performance Data | | |
| Multi-Plane AAR Formations | | |
| Tanker/Receiver Fuel Management | | |
| Control/Management of Receivers/Tankers | | |
| Rendezvous Procedures | | |
| Planned Weather Penetration | | |
| Inadvertent Weather Penetration | | |
| Contingency Planning | | |
| Receiver to Hose Ratio | | |
| Abort/Bingo Criteria | | |
| Divert Planning | | |
| NORDO Procedures | | |
| Flight Lead/RAC/Rendezvous Controller Responsibilities | | |
| Refueling Area Commander Brief | | |
| Night Aided/Unaided | | |
| Emergency Air Refueling Procedures | | |
| ADMINISTRATIVE FLIGHT REQUIREMENTS | DATE COMP | INSTRUCTOR |
| OPARS | | |
| ALTRV Procedures | | |
| Rendezvous | | |
| Radio Management/Voice Procedures | | |
| International Flight Operations | | |

STRATRAC-6314 6.0 * B,SC,R (NS) E A 2+ KC-130

Goal. STRATRAC evaluation/certification.

Requirement. This event shall be evaluated by a designated FLSE/STRATRAC. Brief, conduct, and control a multi-tanker extended AAR mission. Discuss responsibilities of Refueling Area Commander, Flight Leader, and Rendezvous Controller. Explain movement control, ALTRVs, abort criteria, hose factor, contingency planning, RAC functions, rendezvous control, weather recce, and path finding. Review radio procedures, NAVAID/RADAR/TCAS procedures, tanker/receiver management and emergency procedures related to AAR.

Performance Standards

Coordinate overall movement control planning effort to include: ORM analysis, ALTRV scheduling facilities/ALTRV requirements, route, tanker plan, logistics and divert contingencies.

Prepare and distribute flight planning products to all applicable tanker/receiver force participants; include: tanker plan, flight/route planning data and IMC penetration plan.

Conduct a formal movement briefing for all tanker and receiver force participants; include: route, go/no go criteria, tanker and receiver force rendezvous, refueling area, tanker plan, abort/bingo/ETP locations and criteria, communication, IMC penetration plan, bump plan, divert/contingencies, and logistics.

Rendezvous tanker force with receiver force as planned/briefed with due consideration given to changes in forecast weather, fuel planning and safety.

Ensure that all fuel transfer is in progress no later than planned/briefed abort points; otherwise direct receiver(s) to divert as applicable.

Ensure all AAR is conducted within appropriate airspace.

Perform all radio communications between tanker force and receiver force during refueling evolution(s).

Manage fuel offload of tanker aircraft according to mission planning, brief, economy and bingo considerations.

Manage receiver fueling according to mission planning, brief and divert considerations. Ensure receivers have adequate fuel to arrive at destination with required fuel reserve.

Direct planned/inadvertent weather penetration procedures if required for inclement weather.

Prerequisite. Designated DL (6304) and TACRAC (6311), STRATRAC academics complete, APRB recommendation.

External Syllabus Support. Appropriate ALTRV coordinated with ALTRV scheduling facilities and FW/TR/Helicopter receiver force.

STRATRAC-6315 3.0 730 B,SC,R,M (NS) A 2+ KC-130

Goal. STRATRAC proficiency.

Requirement. To maintain proficiency as a STRATRAC a Pilot shall brief, lead, and debrief the designated event in accordance with the mission performance standards.

Prerequisite. RAC-6314

## 2.12 AVIATION CAREER PROGRESSION MODEL (ACPM)

2.12.1 Purpose. To enhance professional understanding of Marine Aviation and the MAGTF and to ensure 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. ACPM academic training requirements will be tracked and managed in M-SHARP. Commanding officers shall ensure the requisite ACPM training requirements have been met prior to designating flight leaders.

2.12.2 ACPM Core Skill Training Events

2.12.2.1 Purpose. To provide and introduce basic integration of the ACE within the MAGTF and ACE Battle Staff planning.

| KC-130T PILOT | | | | | |
|---|---|---|---|---|---|
| 8000 AVIATION CAREER PROGRESSION MODEL PHASE | | | | | |
| STAGE | TRNG CODE | EVENT DESC | ACAD HOURS | PREREQ | POI |
| **ACPM CORE SKILL** | | | | | |
| ACPM | 8200 | CONTROL OF AIRCRAFT AND MISSILES | 0.6 | - | ALL |
| ACPM | 8201 | MWCS BRIEF | 0.4 | - | ALL |
| ACPM | 8202 | ACA AND AIRSPACE | 0.5 | - | ALL |
| ACPM | 8210 | AVIATION GROUND SUPPORT | 0.6 | - | ALL |
| ACPM | 8230 | ACE BATTLE STAFF | 0.6 | - | ALL |
| ACPM | 8231 | BATTLE COMMAND DISPLAY | 0.3 | - | ALL |
| ACPM | 8240 | SIX FUNCTIONS INTEGRATION | 1.3 | - | ALL |
| ACPM | 8241 | ASR/JTAR INTRODUCTION AND PRACTICAL APPLICATION | 0.5 | - | ALL |
| ACPM | 8242 | AVIATION SITE COMMAND | 0.7 | - | ALL |
| ACPM | 8250 | THEATER AIR GROUND SYSTEM (TAGS) | 0.6 | - | ALL |
| ACPM CORE SKILL Total | | | 6.1 | | |
| **ACPM MISSION SKILL** | | | | | |
| ACPM | 8300 | AIR DEFENSE | 0.6 | - | ALL |
| ACPM | 8310 | FORWARD ARMING REFUELING POINT (FARP) OPERATIONS | 0.4 | - | ALL |
| ACPM | 8311 | MARINE CORPS TACTICAL FUEL SYSTEMS | 0.2 | - | ALL |
| ACPM | 8320 | JOINT STRUCTURE AND JOINT AIR OPERATIONS | 1.3 | - | ALL |
| ACPM | 8321-8326 | JOINT AIR PLANNING & JOINT OPERATIONS | 1.3 | 8320 | ALL |
| ACPM | 8340 | INTEGRATING FIRES & AIRSPACE WITHIN MAGTF | 0.5 | - | ALL |
| ACPM | 8350 | PHASING CONTROL ASHORE | 0.5 | - | ALL |
| ACPM | 8351 | TACRON ORGANIZATIONS & FUNCTIONS | 1 | - | ALL |
| ACPM MISSION SKILL Total | | | 5.8 | | |
| **ACPM FLIGHT LEADERSHIP** | | | | | |
| **SECTION LEADER** | | | | | |
| ACPM | 8630 | TACTICAL AIR COMMAND CENTER (TACC) | 0.7 | - | ALL |
| ACPM | 8660 | JOINT OPS INTRO | 0.5 | - | ALL |
| SECTION LEADER Total | | | 1.2 | | |
| **DIVISION LEADER** | | | | | |
| ACPM | 8640 | JOINT DATA NETWORK | 0.4 | - | ALL |
| ACPM | 8641 | MAGTF THEATER AND NATIONAL ISR EMPLOYMENT | 1.5 | - | ALL |
| ACPM | 8620 | ESG / CSG INTEGRATION | TBD | - | ALL |
| DIVISION LEADER Total | | | 1.9 | | |
| **ACPM Total** | | | 15.0 | | |

## 2.13 SYLLABUS MATRICES

2.13.1 General. The following matrices are provided in accordance with NAVMC 3500.14.

2.13.2 T&R Chaining. Event chaining allows for the completion of more complex and/or advanced events using the same skills to update proficiency status of events. Only events in a sequence entailing demonstration of equivalent skills shall be chained.

When a T&R event is logged, the proficiency dates of other T&R events (usually lower in number) may be updated. The T&R code that is logged is known as the "chaining code," and the updated codes are "chained codes." Chained codes are not always updated when a chaining code is logged.

2.13.2.1 Conditional Chaining. The following environmental conditions further specify which T&R codes are chain-updated.

Night Optional. Chained codes annotated with parentheses around them, e.g. (2000), are only chain-updated if the chaining code is flown at night.

Night Systems Optional. Chained codes annotated with parentheses and NS after them, e.g. (2000 NS), are only chain-updated if the chaining code is flown using night systems.

Light Level Optional. Chained codes annotated with parentheses and HLL after them, e.g. (2000 HLL), are only chain-updated if the chaining code is flown using night systems during a high light level period. Chained codes annotated with parentheses and LLL after them, e.g. (2000 LLL), are only chain-updated if the chaining code is flown using night systems during a low light level period.

2.13.3 Syllabus Event Conversion. The syllabus event conversion information is used to convert T&R syllabus event proficiency status of the previous T&R syllabus into event proficiency status of the current T&R for individuals.

## 2.13.4 Pilot T&R Syllabus Matrix

| KC-130T PILOT | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1000 CORE SKILL INTRODUCTION PHASE | | | | | | | | | | | |
| STAGE | TRNG CODE | EVENT DESC | FLIGHT HOURS | SIM HOURS | REFLY | DEVICE | # OF A/C | COND | POI | EVAL | EVENT CONV |
| FAMILIARIZATION (FAM) | | | | | | | | | | | |
| SFAM | 1001 | SIM-EXPANDED CHECKLIST TO AND INCL T/O | | 2.0 | * | S | | D | B,SC | E | 1001 |
| SFAM | 1002 | SIM-EXPANDED CHECKLIST T/O TO SECURE | | 2.0 | * | S | | D | B,SC | E | 1002 |
| SFAM | 1003 | SIM-START MALFUNCTIONS | | 2.0 | * | S | | D | B,SC | E | 1003 |
| SFAM | 1004 | SIM-GROUND EMERGENCIES | | 2.0 | * | S | | D | B,SC | E | 1004 |
| SFAM | 1005 | SIM-STAGE REVIEW; CHECKLISTS,EPs | | 2.0 | * | S | | D | B,SC,R | E | 1005 |
| SFAM | 1006 | SIM-PROPELLER MALFUNCTIONS | | 4.0 | * | S | | D | B,SC | E | 1006 |
| SFAM | 1007 | SIM-STEEP TURNS, STALLS | | 4.0 | * | S | | D | B,SC | E | 1007 |
| SFAM | 1008 | SIM-GCA APP, ELECTRICAL SYSTEMS | | 4.0 | * | S | | D | B | E | 1008 |
| SFAM | 1009 | SIM-PRECISION APP, BLEED AIR SYSTEMS | | 4.0 | * | S | | D | B | E | 1009 |
| SFAM | 1010 | SIM-NONPRECISION APP, FUEL SYSTEMS | | 4.0 | * | S | | D | B | E | 1010 |
| SFAM | 1011 | SIM-HIGH APP, PENETRATION, HYDRAULICS | | 4.0 | * | S | | D | B | E | 1011 |
| SFAM | 1012 | SIM-ENGINE OUT APPROACHES | | 4.0 | * | S | | D | B,SC,R | E | 1012 |
| SFAM | 1013 | SIM-TWO ENGINE APPROACH, PART PANEL | | 4.0 | * | S | | D | B,SC,R | E | 1013 |
| SFAM | 1014 | SIM-STAGE REVIEW; BOLD FACE EPs | | 2.0 | * | S | | D | B,SC,R | E | 1014 |
| FAM | 1100 | VFR PATTERN, STEEP TURNS, STALLS | 3.0 | | * | A | 1 | D | B | E | 1100 |
| FAM | 1101 | INSTRUMENT FLIGHT PROCEDURES, OIL SYS | 3.0 | | * | A | 1 | D | B,SC,R | E | 1101 |
| FAM | 1102 | PRECISION APPROACHES, BLEED AIR SYS | 3.0 | | * | A | 1 | N* | B | E | 1102 |
| FAM | 1103 | NON-PRECISION APPROACHES, HYDRAULICS | 3.0 | | * | A | 1 | (N*) | B,SC,R | E | 1103 |
| FAM | 1104 | HOLDING, CIRCLING APPROACHES | 3.0 | | * | A | 1 | D | B | E | 1104 |
| FAM | 1105 | ENGINE OUT OPS, PREC APP, PROPS | 3.0 | | * | A | 1 | N* | B,SC,R | E | 1105 |
| FAM | 1106 | ENGINE OUT OPS, NON-PREC APP, ELEC | 3.0 | | * | A | 1 | D | B | E | 1106 |
| FAM | 1107 | IN FLIGHT EPs, DEMONSTRATE 2-ENGINE | 3.0 | | * | A | 1 | D | B,SC,R | E | 1107 |
| FAM | 1108 | PARTIAL PANEL, NO GYRO APPROACHES | 3.0 | | * | A | 1 | N* | B | E | 1108 |
| FAM | 1109 | STAGE REVIEW | 3.0 | | * | A | 1 | (N*) | B,SC,R | E | 1109 |
| Total FAM | | | 30.0 | 44.0 | | | | | | | |
| LONG RANGE NAVIGATION (LRN) | | | | | | | | | | | |
| LRN | 1160 | LONG RANGE NAVIGATION PROCEDURES | 16.0 | | * | A | 1 | (N*) | B | E | 1160 |
| Total LRN | | | 16.0 | | | | | | | | |
| TACTICAL NAVIGATION (TN) | | | | | | | | | | | |
| TN | 1200 | TACTICAL NAVIGATION PROCEDURES | 2.0 | | * | A | 1 | D | B | E | 1200 |
| Total TN | | | 2.0 | | | | | | | | |
| FORMATION (FORM) | | | | | | | | | | | |
| FORM | 1300 | BASIC FORMATION | 2.0 | | * | A | 2 | D | B | E | 1300 |
| Total FORM | | | 2.0 | | | | | | | | |
| AIR-TO-AIR REFUELING (AAR) | | | | | | | | | | | |
| AAR | 1600 | FWAAR PROCEDURES | 3.0 | | * | A | 1 | (N*) | B | E | 1600 |
| AAR | 1601 | HAAR PROCEDURES | 3.0 | | * | A | 1 | D | B | E | 1601 |
| Total AAR | | | 6.0 | | | | | | | | |
| TOTAL 1000 PHASE | | | 56.0 | 44.0 | | | | | | | |

| KC-130T PILOT T&R MATRIX | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| STAGE | TRNG CODE | T&R DESCRIPTION | # FLIGHTS | FLT TIME | # SIMS | SIM TIME | REFLY | DEVICE | # A/C | COND | POI | EVAL | EVENT CONV |
| **CORE SKILL (2000 Phase)** | | | | | | | | | | | | | |
| FAMILIARIZATION (FAM) | | | | | | | | | | | | | |
| FAM | 2100 | LS FAM | | 2.0 | | | * | A/S | 1 | (N) | B,SC,R,M | | |
| FAM Total | | | 1 | 2.0 | 0 | 0.0 | | | | | | | |
| NIGHT SYSTEMS (NS) | | | | | | | | | | | | | |
| NS | 2150 | HLL NSFAM | | 2.0 | | | 365 | A/S | 1 | NS | B,SC,R | | 2150 |
| NS | 2151 | LLL NSFAM | | 2.0 | | | 180 | A/S | 1 | NS | B,SC,R,M | | 2151 |
| NS Total | | | 2 | 4.0 | 0 | 0.0 | | | | | | | |
| LONG RANGE NAVIGATION (LRN) | | | | | | | | | | | | | |
| LRN | 2160 | LRNAV | | 8.0 | | | 365 | A/S | 1 | (N) | B,R,M | | 2160 |
| LRN Total | | | 1 | 8.0 | 0 | 0.0 | | | | | | | |
| TACTICAL NAVIGATION (TN) | | | | | | | | | | | | | |
| TN | 2200 | TACNAV | | 2.0 | | | 365 | A/S | 1 | D | B,R | | 2200 |
| TN | 2250 | HLL NSLL | | 2.0 | | | 365 | A/S | 1 | NS | B,R | | 2250 |
| TN | 2251 | LLL NSLL | | 2.0 | | | 180 | A/S | 1 | NS | B,SC,R,M | | 2251 |
| TN Total | | | 3 | 6.0 | 0 | 0.0 | | | | | | | |
| LOW ALTITUDE TACTICS (LAT) | | | | | | | | | | | | | |
| LAT | 2260 | LAT | | 2.0 | | | 180 | A/S | 1 | D | B,R | | 2260 |
| LAT | 2261 | LAT | | 2.0 | | | 180 | A | 1 | D | B,SC,R,M | | 2261 |
| LAT Total | | | 2 | 4.0 | 0 | 0.0 | | | | | | | |
| SECTION FORMATION (SEC FORM) | | | | | | | | | | | | | |
| FORM | 2300 | SECTION FORM | | 2.0 | | | 365 | A/S | 2 | D | B,R | | 2300 |
| FORM | 2350 | NS FORM | | 2.0 | | | 365 | A/S | 2 | NS | B,R,M | | 2350 |
| SEC FORM Total | | | 2 | 4.0 | 0 | 0.0 | | | | | | | |
| DIVISION FORMATION (DIV FORM) | | | | | | | | | | | | | |
| FORM | 2301 | DIVISION FORM | | 2.0 | | | 365 | A/S | 3 | (NS) | B,R,M | | 2301 |
| DIV FORM Total | | | 1 | 2.0 | 0 | 0.0 | | | | | | | |
| THREAT REACTION INFRARED (IRTR) | | | | | | | | | | | | | |
| IRTR | 2400 | IRTR | | 2.0 | | | 365 | A/S | 1 | (NS) | B,R,M | | 2400 |
| IRTR Total | | | 1 | 2.0 | 0 | 0.0 | | | | | | | |
| **CORE SKILL TOTAL** | | | **13** | **32.0** | **0** | **0.0** | | | | | | | |
| **MISSION SKILL (3000 Phase)** | | | | | | | | | | | | | |
| ASSAULT LANDING ZONE (ALZ) | | | | | | | | | | | | | |
| ALZ | 3500 | IMPROVED ALZ | | 2.0 | | | 365 | A/S | 1 | D | B,SC,R | | 3500 |
| ALZ | 3501 | TACTICAL ARRIVALS | | 2.0 | | | 365 | A/S | 1 | (NS) | B,R | | 3501 |
| AALZ | 3502 | UNIMPROVED ALZ | | 2.0 | | | 730 | A/S | 1 | (NS) | B,R,M | | 3502 |
| ALZ | 3550 | NVD ALZ | | 2.0 | | | 180 | A/S | 1 | NS | B,SC,R,M | | 3550 |
| ALZ Total | | | 4 | 8.0 | 0 | 0.0 | | | | | | | |
| AIR-TO-AIR REFUELING (AAR) | | | | | | | | | | | | | |
| AAR | 3600 | FWAAR/TRAAR | | 3.0 | | | 365 | A/S | 1 | (N) | B,R,M | | 3600 |
| AAR | 3601 | DAY HAAR | | 3.0 | | | 365 | A/S | 1 | D | B,SC,R | | 3601 |
| AAR | 3650 | NVD HAAR | | 3.0 | | | 180 | A/S | 1 | NS | B,SC,R,M | | 3650 |
| AAR Total | | | 3 | 9.0 | 0 | 0.0 | | | | | | | |
| AIR DELIVERED GROUND REFUELING (ADGR) | | | | | | | | | | | | | |
| ADGR | 3660 | ADGR | | 0.0 | | | 730 | A/S | 1 | (N) | B,R,M | | 3660 |
| RGR Total | | | 1 | 0.0 | 0 | 0.0 | | | | | | | |
| AIR DELIVERY (AD) | | | | | | | | | | | | | |
| AD | 3700 | AD | | 2.0 | | | 365 | A/S | 1 | D | B,R | | 3700 |
| AD | 3750 | NS AD | | 2.0 | | | 365 | A/S | 1 | NS | B,R,M | | 3750 |
| AD Total | | | 2 | 4.0 | 0 | 0.0 | | | | | | | |
| **MISSION SKILL TOTAL** | | | **10** | **21.0** | **0** | **0.0** | | | | | | | |

| KC-130T PILOT T&R MATRIX | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| STAGE | TRNG CODE | T&R DESCRIPTION | # FLIGHTS | FLT TIME | # SIMS | SIM TIME | REFLY | DEVICE | # A/C | COND | POI | EVAL | EVENT CONV |
| CORE PLUS (4000 Phase) | | | | | | | | | | | | | |
| TACTICAL NAVIGATION (TN) | | | | | | | | | | | | | |
| TN | 4200 | SEC TN | | 2.0 | | | 365 | A/S | 2 | D | B,R | | 4200 |
| TN | 4201 | SEC LAT | | 2.0 | | | 180 | A/S | 2 | D | B,R | | 4201 |
| TN | 4250 | NS SEC TN | | 2.0 | | | 180 | A/S | 2 | NS | B,R,M | | 4250 |
| TN Total | | | 3 | 6.0 | 0 | 0.0 | | | | | | | |
| THREAT REACTION RADAR (RF TR) | | | | | | | | | | | | | |
| RF TR | 4400 | RF TR | | 2.0 | | | 365 | A/S | 1 | (NS) | B,R,M | | 4400 |
| RF TR Total | | | 1 | 2.0 | 0 | 0.0 | | | | | | | |
| DEFENSIVE TACTICS (DT) | | | | | | | | | | | | | |
| DT | 4410 | 1V1 | | 2.0 | | | 365 | A | 1 | D | B,R | | 4410 |
| DT | 4411 | 1V2 | | 2.0 | | | 365 | A | 1 | D | B,R,M | | 4411 |
| DT TOTAL | | | 2 | 4.0 | 0 | 0.0 | | | | | | | |
| AIR DELIVERY (AD) | | | | | | | | | | | | | |
| AD | 4700 | MFF | | 2.0 | | | 365 | A/S | 1 | (N) | B,R,M | | 4700 |
| AD TOTAL | | | 1 | 2.0 | 0 | 0.0 | | | | | | | |
| BATTLEFIELD ILLUMINATION (BI) | | | | | | | | | | | | | |
| BI | 4710 | BI | | 2.0 | | | 730 | A/S | 1 | N | B,R,M | | 4710 |
| BI Total | | | 1 | 2.0 | 0 | 0.0 | | | | | | | |
| **CORE PLUS TOTAL** | | | **8** | **16.0** | **0** | **0.0** | | | | | | | |

## KC-130T PILOT T&R MATRIX (5000 AND 6000 Phase)

| STAGE | TRNG CODE | T&R DESCRIPTION | # FLIGHTS | FLT TIME | # SIMS | SIM TIME | REFLY | DEVICE | # A/C | COND | PREREQUISITE | POI | EVAL | CHAINING | | EVENT CONV |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **INSTRUCTOR TRAINING (5000 Phase)** | | | | | | | | | | | | | | | | |
| **BASIC INSTRUCTOR PILOT (BIP)** | | | | | | | | | | | | | | | | |
| BIP | 5100 | BIP | | 3.0 | | | * | A | 1 | (N) | 6118,100 hours TPC | B,R | E | | | 5100 |
| **BIP Total** | | | **1** | **3.0** | **0** | **0.0** | | | | | | | | | | |
| **NATOPS INSTRUCTOR (ANI/NI/NE)** | | | | | | | | | | | | | | | | |
| NI | 5140 | ANI,NI | | 3.0 | | | * | A | 1 | (N) | 5100 | B | E | | | 5140 |
| NI | 5141 | ANI,NI CK | | 3.0 | | | * | A | 1 | (N) | 5140 | B,SC,R | E | | | 5141 |
| **NI Total** | | | **2** | **6.0** | **0** | **0.0** | | | | | | | | | | |
| **FLEET REPLACEMENT SQUADRON INSTRUCTOR (FRSI)** | | | | | | | | | | | | | | | | |
| FRSI | 5145 | FRSI | | 3.0 | | | * | A | 1 | (N) | 5141,1000 hours TMS | B | E | | | 5145 |
| FRSI | 5146 | FRSI | | 3.0 | | | * | A | 1 | (N) | 5145 | B | E | | | 5146 |
| FRSI | 5147 | FRSI CK | | 2.0 | | | * | A | 1 | (N) | 5146 | B,SC,R | E | | | 5147 |
| **FRSI Total** | | | **3** | **8.0** | **0** | **0.0** | | | | | | | | | | |
| **FLIGHT LEADERSHIP STANDARDIZATION EVALUATOR (FLSE)** | | | | | | | | | | | | | | | | |
| FLSE | 5320 | FLSE | | 3.0 | | | * | A | 2 | (NS) | MAWTS-1 CC | B,SC,R | E | | | 5329 |
| **FLSE Total** | | | **1** | **3.0** | **0** | **0.0** | | | | | | | | | | |
| **NIGHT SYSTEMS INSTRUCTOR (NSI)** | | | | | | | | | | | | | | | | |
| NSI | 5150 | NSI | | 2.0 | | | * | A | 1 | NS | MAWTS-1 CC | B | E | | | 5150 |
| NSI | 5151 | NSI | | 2.0 | | | * | A | 1 | NS | MAWTS-1 CC | B,SC | E | | | 5151 |
| NSI | 5152 | NSI | | 2.0 | | | * | A | 1 | NS | MAWTS-1 CC | B,SC,R | E | | | 5152 |
| NSI | 5153 | NSI | | 2.0 | | | * | A | 1 | NS | MAWTS-1 CC | B,SC,R | E | | | 5153 |
| **NSI Total** | | | **3** | **8.0** | **0** | **0.0** | | | | | | | | | | |
| **LOW ALTITUDE TACTICS INSTRUCTOR (LATI)** | | | | | | | | | | | | | | | | |
| LATI | 5210 | LATI | | 2.0 | | | * | A | 1 | D | MAWTS-1 CC | B | E | | | 5210 |
| LATI | 5211 | LATI | | 2.0 | | | * | A | 1 | D | MAWTS-1 CC | B | E | | | 5211 |
| LATI | 5212 | LATI | | 2.0 | | | * | A | 2 | D | MAWTS-1 CC | B,SC | E | | | 5212 |
| LATI | 5213 | LATI | | 2.0 | | | * | A | 1 | D | MAWTS-1 CC | B,SC,R | E | | | 5213 |
| **LATI Total** | | | **4** | **8.0** | **0** | **0.0** | | | | | | | | | | |
| **DEFENSIVE TACTICS INSTRUCTOR (DTI)** | | | | | | | | | | | | | | | | |
| DTI | 5410 | DTI | | 1.0 | | | * | A | 1 | D | MAWTS-1 CC | B | E | 4410 | | 5410 |
| DTI | 5411 | DTI | | 1.0 | | | * | A | 1 | D | MAWTS-1 CC | B | E | 4410 | | 5413 |
| DTI | 5412 | DTI | | 1.0 | | | * | A | 2 | D | MAWTS-1 CC | B,SC | E | 4411 | | 5412 |
| DTI | 5413 | DTI | | 1.0 | | | * | A | 1 | D | MAWTS-1 CC | B,SC,R | E | 4410 | | 5413 |
| **DTI Total** | | | **4** | **4.0** | **0** | **0.0** | | | | | | | | | | |
| **WEAPONS TACTICS INSTRUCTOR** | | | | | | | | | | | | | | | | |
| WTI | 5999 | WTI | | * | | | * | | | | MAWTS-1 CC | B | E | | | 5999 |
| **WTI Total** | | | **0** | **0.0** | **0** | **0.0** | | | | | | | | | | |

| KC-130T PILOT T&R MATRIX (5000 AND 6000 Phase) | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| STAGE | TRNG CODE | T&R DESCRIPTION | # FLIGHTS | FLT TIME | # SIMS | SIM TIME | REFLY | DEVICE | # A/C | COND | PREREQUISITE | POI | EVAL | CHAINING | | EVENT CONV |
| REQUIREMENTS, CERTIFICATIONS, DESIGNATIONS, AND QUALIFICATION (6000 Phase) | | | | | | | | | | | | | | | | |
| LEFT SEAT FAMILIARIZATION (RQD) | | | | | | | | | | | | | | | | |
| RQD | 6100 | KC-130T FAM | | 2.0 | | | 365 | A | 1 | D | Qualified as TPC | B,SC,R | E | | | |
| | | **LS FAM Total** | **1** | **2.0** | **0** | **0.0** | | | | | | | | | | |
| POST MAINTENANCE CHECK FLIGHT PIOLOT (FCP) | | | | | | | | | | | | | | | | |
| FCP | 6106 | FCF | | 2.0 | | | * | A/S | 1 | D | 6118 | B,SC,R | | | | 6106 |
| **FCP Total** | | | **1** | **2.0** | **0** | **0.0** | | | | | | | | | | |
| NATOPS (NTPS) | | | | | | | | | | | | | | | | |
| NTPS | 6010 | OPEN BOOK | | | | | 365 | | | | | B,SC,R,M | E | | | 6010 |
| NTPS | 6011 | CLOSED BOOK | | | | | 365 | | | | | B,SC,R,M | E | | | 6011 |
| NTPS | 6012 | ORAL EXAM | | | | | 365 | | | | | B,SC,R,M | E | | | 6012 |
| NTPS | 6013 | TACTICS EXAM | | | | | * | | | | | B,SC | E | | | 6013 |
| NTPS | 6110 | T3P | | 3.0 | | | 365 | A | 1 | (N) | 6010,6011,6012 | B,SC,R,M | E | | | 6110 |
| NTPS | 6111 | T2P | | 2.0 | | | 365 | A/S | 1 | (N) | 6010,6012,6013 | B,SC,R,M | E | 6110 | | 6111 |
| SNTPS | 6112 | SIMS | | | | 27.0 | * | S | | (N) | | B | E | | | 6112 |
| NTPS | 6113 | PRF | | 3.0 | | | * | A | 1 | (N) | 6112 | B | E | | | 6113 |
| NTPS | 6114 | PRF | | 3.0 | | | * | A | 1 | (N) | 6113 | B | E | | | 6114 |
| NTPS | 6115 | PRF | | 3.0 | | | * | A | 1 | (N) | 6114 | B | E | | | 6115 |
| NTPS | 6117 | ROUTE CHECK | | 8.0 | | | * | A | 1 | (N) | 6115 | B | E | | | 6117 |
| NTPS | 6118 | TPC | | 2.0 | | | 365 | A/S | 1 | (N) | 6010,6011,6012,6113, 6114,6115,6117 | B,SC,R,M | E | 6110,6111,6100 | | 6118 |
| NTPS | 6120 | EP SIM | | | | 1.0 | 90 | A/S | | (N) | | B,SC,R,M | E | | | 6120 |
| | | **NTPS Total** | **7** | **24.0** | **2** | **28.0** | | | | | | | | | | |
| INSTRUMENT (INST) | | | | | | | | | | | | | | | | |
| INST | 6030 | INST GND SCH | | | | | 365 | | | | | B,SC,R,M | E | | | 6030 |
| INST | 6031 | INST ORAL EXAM | | | | | 365 | | | | | B,SC,R,M | E | | | 6031 |
| INST | 6130 | STANDARD INST | | 2.0 | | | 365 | A/S | 1 | (N) | 6030,6031 | B,SC,R,M | E | | | 6130 |
| INST | 6131 | SPECIAL INST | | 2.0 | | | 365 | A/S | 1 | (N) | 6030,6031,6130 | B,SC,R,M | E | 6130 | | 6131 |
| | | **INST Total** | **2** | **4.0** | **0** | **0.0** | | | | | | | | | | |
| SECTION LEADER (SL) | | | | | | | | | | | | | | | | |
| SL | 6300 | SEC LD PRACT | | 3.0 | | | * | A | 2 | (NS) | 8630,8660 | B | E | | | 6300 |
| SL | 6301 | SEC LD CERT | | 3.0 | | | * | A | 2 | (NS) | 6300 | B,SC,R | E | | 6302 | 6301 |
| SL | 6302 | SEC LD PROF | | 2.0 | | | 365 | A | 2 | (NS) | 6301 | B,SC,R,M | | | | 6302 |
| | | **SL Total** | **3** | **8.0** | **0** | **0.0** | | | | | | | | | | |

| KC-130T PILOT T&R MATRIX (5000 AND 6000 Phase) | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| STAGE | TRNG CODE | T&R DESCRIPTION | # FLIGHTS | FLT TIME | # SIMS | SIM TIME | REFLY | DEVICE | # A/C | COND | PREREQUISITE | POI | EVAL | CHAINING | | EVENT CONV |
| DIVISION LEADER (DL) | | | | | | | | | | | | | | | | |
| DL | 6303 | DIV LD PRACT | | 3.0 | | | * | A | 3 | (NS) | 8640,8641,8620 | B | E | | | 6303 |
| DL | 6304 | DIV LD CERT | | 3.0 | | | * | A | 3 | (NS) | 6303 | B,SC,R | E | | 6305 | 6304 |
| DL | 6305 | DIV LD PROF | | 2.0 | | | 365 | A | 3 | (NS) | 6304 | B,SC,R,M | | | | 6305 |
| DL Total | | | 3 | 8.0 | 0 | 0.0 | | | | | | | | | | |
| TACTICAL REFUELING AREA COMMANDER (TACRAC) | | | | | | | | | | | | | | | | |
| TACRAC | 6311 | TACRAC CERT | | 3.0 | | | * | A | 2 | (NS) | 6301 | B,SC,R | E | | 6312 | 6311 |
| TACRAC | 6312 | TACRAC PROF | | 2.0 | | | 365 | A | 2 | (NS) | 6311 | B,SC,R,M | | | | 6312 |
| TACRAC Total | | | 2 | 5.0 | 0 | 0.0 | | | | | | | | | | |
| STRATEGIC REFUELING AREA COMMANDER (STRATRAC) | | | | | | | | | | | | | | | | |
| STRATRAC | 6314 | STRATRAC CERT | | 6.0 | | | * | A | 2 | (NS) | 6304,6311 | B,SC,R | E | | 6315 | 6314 |
| STRATRAC | 6315 | STRATRAC PROF | | 3.0 | | | 730 | A | 2 | (NS) | 6314 | B,SC,R,M | | | | 6315 |
| STRATRAC Total | | | 2 | 9.0 | 0 | 1.0 | | | | | | | | | | |

## 2.14 T&R ATTAIN AND MAINTAIN TABLES

| KC-130T PILOT ATTAIN AND MAINTAIN TABLE | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| T&R EVENT INFORMATION | | | | ATTAIN PROFICIENCY | | | | | | MAINTAIN PROFICIENCY | | PREREQUISITES | CHAINING |
| | | | | BASIC POI | | SERIES CONV POI | | REFRESHER POI | | MAINTAIN POI | | | |
| T&R DESCRIPTION | STAGE | EVENT # | RE-FLY | STAGE | EVENT # | STAGE | EVENT # | STAGE | EVENT # | STAGE | EVENT # | | |
| CORE SKILLS (2000 PHASE) | | | | | | | | | | | | | |
| LEFT SEAT FAM | FAM | 2100R | * | FAM | 2100R | FAM | 2100R | FAM | 2100R | FAM | 2100R | | |
| HLL NS FAM | NS | 2150R | 365 | NS | 2150R | NS | 2150R | NS | 2150R | NS | | 6110 | |
| LLL NS FAM | NS | 2151R | 180 | | 2151R | | 2151R | | 2151R | | 2151R | 2150 | 2150 |
| LONG RANGE NAV | LRN | 2160R | 365 | LRN | 2160R | LRN | | LRN | 2160R | LRN | 2160R | 6110 | |
| TACNAV | TN | 2200R | 365 | TN | 2200R | TN | | TN | 2200R | TN | | 6110 | |
| HLL | TN | 2250R | 365 | | 2250R | | | | 2250R | | | 2200 | 2200 |
| LLL | TN | 2251R | 180 | | 2251R | | 2251R | | 2251R | | 2251R | 2200,2250 | 2200, 2250 |
| LAT | LAT | 2260R | 180 | LAT | 2260R | LAT | | LAT | 2260R | LAT | | 2200 | 2200 |
| LAT | LAT | 2261R | 180 | | 2261R | | 2261R | | 2261R | | 2261R | 2260 | 2260,2200 |
| SECTION FORM | FORM | 2300R | 365 | SEC FORM | 2300R | SEC FORM | | SEC FORM | 2300R | SEC FORM | | 6110 | |
| NS SEC FORM | FORM | 2350R | 365 | | 2350R | | | | 2350R | | 2350R | 2300 | 2300,2150~NS,2151~LLL |
| DIVISION FORM | FORM | 2301R | 365 | DIV FORM | 2301R | DIV FORM | | DIV FORM | 2301R | DIV FORM | 2301R | 2300,2350~NS,2150~NS, 2151~LLL,2250~NS,2251~LLL | 2300,2350~NS,2150~NS, 2151~LLL |
| IR THREAT REACTION | IR TR | 2400R | 365 | IR TR | 2400R | IR TR | | IR TR | 2400R | IR TR | 2400R | LAT Q,2150~NS,2151~LLL, 2250~NS,2251~LLL | 2261, 2260 |
| MISSION SKILLS (3000 PHASE) | | | | | | | | | | | | | |
| IMPROVED ALZ | ALZ | 3500R | 365 | ALZ | 3500R | ALZ | 3500R | ALZ | 3500R | ALZ | | 6100 | |
| TAC ARRIVALS | ALZ | 3501R | 365 | | 3501R | | | | 3501R | | | 6100 | 3500 |
| UNIMPROVED ALZ | ALZ | 3502R | 730 | | 3502R | | | | 3502R | | 3502R | 3500,3550~NS | 3500 |
| NVD ALZ | ALZ | 3550R | 180 | | 3550R | | 3550R | | 3550R | | 3550R | 2150~NS,2151~LLL,3500 | 3500,3501,2150~HLL,2151~LLL |
| FWAAR/TRAAR | AAR | 3600R | 365 | AAR | 3600R | AAR | | AAR | 3600R | AAR | 3600R | 6110 | |
| DAY HAAR | AAR | 3601R | 365 | | 3601R | | 3601R | | 3601R | | | 6110 | |
| NVD HAAR | AAR | 3650R | 180 | | 3650R | | 3650R | | 3650R | | 3650R | 3601,2150~HLL,2151~LLL | 3601,2150~HLL,2151~LLL |
| ADGR | ADGR | 3660R | 730 | ADGR | 3660R | ADGR | | ADGR | 3660R | ADGR | 3660R | 6110 | |
| AD | AD | 3700R | 365 | AD | 3700R | AD | | AD | 3700R | AD | | 6110 | |
| AD | AD | 3750R | 365 | | 3750R | | | | 3750R | | 3750R | 3700 | 3700,2150~HLL,2151~LLL |
| CORE PLUS (4000 PHASE) | | | | | | | | | | | | | |
| TN | TN | 4200R | 365 | TN | 4200R | TN | | TN | 4200R | TN | | 2200, 2300 | 2200, 2300 |
| TN | TN | 4201R | 180 | | 4201R | | | | 4201R | | 4201R | 2261, 4200 | 2200, 2261, 2300, 4200 |
| TN | TN | 4250R | 180 | | 4250R | | | | 4250R | | 4250R | 2350, 4200 | 2150~HLL,2151~LLL,2350,4200 |
| TR | RF TR | 4400R | 365 | RF TR | 4400R | RF TR | | RF TR | 4400R | RF TR | 4400R | LATQ (2260, 2261 ) | 2400, 2261 |
| DEFTAC | DT | 4410R | 365 | DT | 4410R | DT | | DT | 4410R | DT | | 2260, 2261, 4400 | 2261 |
| DEFTAC | DT | 4411R | 365 | | 4411R | | | | 4411R | | 4411R | 4410 | 2261, 4410 |
| AD | AD | 4700R | 365 | AD | 4700R | AD | | AD | 4700R | AD | 4700R | 3700 | 3700 |
| BI | BI | 4710R | 730 | BI | 4710R | BI | | BI | 4710R | BI | 4710R | 3700 | 3700 |

## 2.15 KC-130J TO KC-130T EQUIVALENCY MATRIX

| KC-130J TO KC-130T EQUIVALENCY MATRIX | | |
|---|---|---|
| **KC-130J** | **→** | **KC-130T** |
| **2000 PHASE** | | |
| LRN 2160 | → | LRN 2160 |
| TN 2201 | → | TN 2200 |
| TN 2250 | → | TN 2250 |
| LAT 2260 | → | LAT 2260 |
| FORM 2300 | → | FORM 2300 |
| FORM 2301 | → | FORM 2301 |
| FORM 2350 | → | FORM 2350 |
| TR 2400 | → | TR 2400 |
| **3000 PHASE** | | |
| ALZ 3501 | → | ALZ 3501 |
| ALZ 3503 | → | ALZ 3502 |
| AAR 3600 | → | AAR 3600 |
| RGR 3660 | → | RGR 3660 |
| AD 3703 | → | AD 3700 |
| AD 3704 | → | AD 3750 |
| **4000 PHASE** | | |
| TN 4200 | → | TN 4200 |
| NS(L) 4250 | → | TN 4250 |
| TR 4401 | → | TR 4400 |
| DT 4410 | → | DT 4410 |
| DT 4411 | → | DT 4411 |
| AD 4701 | → | AD 4700 |
| BI 4710 | → | BI 4710 |
| **5000 PHASE** | | |
| BIP 5110 | → | BIP 5100 |
| NI 5140 | → | NI 5140 |
| FRSI 5145 | → | FRSI 5145 |
| FRSI 5146 | → | FRSI 5146 |
| NS(H) 5150 | → | NSI 5150 |
| NS(H) 5151 | → | NSI 5152 |
| LAT 5210 | → | LAT 5210 |
| LAT 5211 | → | LAT 5211 |
| DT 5410 | → | DTI 5410 |
| DT 5411 | → | DTI 5411 |
| **6000 PHASE** | | |
| RQD 6100 | → | RQD 6100 |
| NTPS 6110 | → | NTPS 6110 |
| SL 6300 | → | SL 6300 |
| DL 6303 | → | DL 6303 |

# CHAPTER 3

## KC-130T TACTICAL SYSTEMS OPERATOR (MOS 7372/7380)

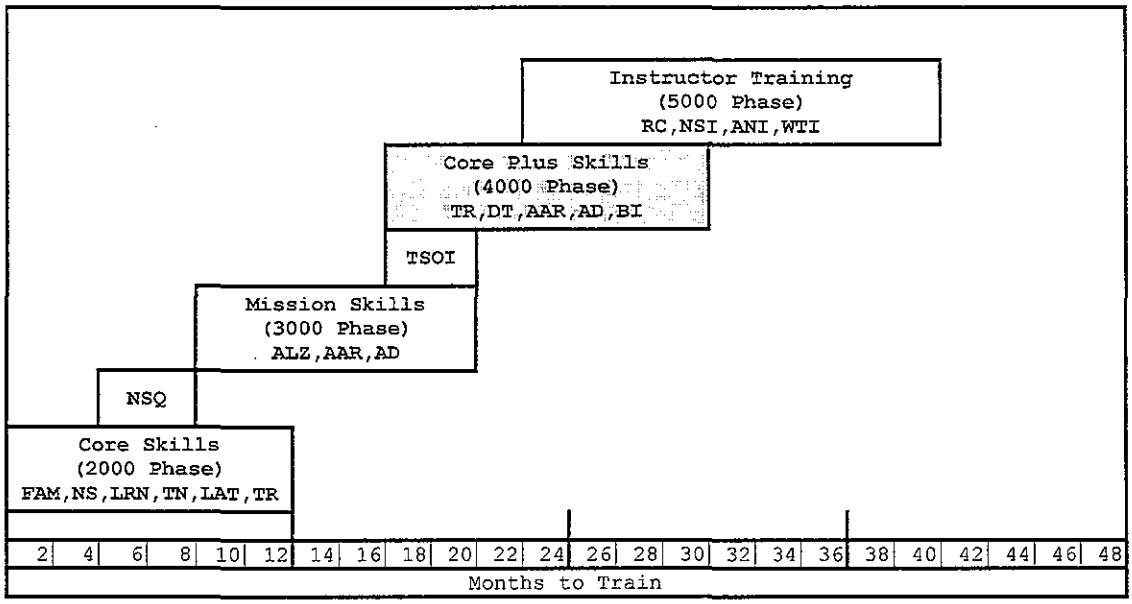
# CHAPTER 3

## TACTICAL SYSTEMS OPERATOR (TSO)/MISSION SPECIALIST

3.0 TACTICAL SYSTEMS OPERATOR (TSO)/MISSION SPECIALIST 7372 / 7380 INDIVIDUAL TRAINING AND READINESS REQUIREMENTS. This T&R Syllabus is based on specific goals and performance standards designed to ensure individual proficiency in Core and Mission Skills. The goal of this chapter is to develop individual and unit warfighting capabilities.

3.1 TACTICAL SYSTEMS OPERATOR (TSO)/MISSION SPECIALIST TRAINING PROGRESSION MODEL. This model represents the recommended training progression for the average TSO crewmember. Units should use the model as a point of departure to generate individual training plans.

3.2 INDIVIDUAL CORE SKILL PROFICIENCY REQUIREMENTS. See Paragraph 3.3.




3.3 INDIVIDUAL CORE/MISSION/CORE PLUS SKILL PROFICIENCY (CSP) REQUIREMENTS

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

3.3.2 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.

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

3.3.4 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.

3.3.5 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.

3.3.6 Attain/Maintain Tables

| ATTAIN PROFICIENCY | | | | | | MAINTAIN PROFICIENCY | |
|---|---|---|---|---|---|---|---|
| BASIC POI | | SER CONV POI | | REFRESHER POI | | MAINTAIN POI | |
| SKILL | EVENT # | SKILL | EVENT # | SKILL | EVENT # | SKILL | EVENT # |
| FAM | 2100R | FAM | | FAM | 2100R | FAM | 2100R |
| NS | 2150R | NS | | NS | 2150R | NS | 2150R |
| | 2151R | | | | 2151R | | 2151R |
| LRN | 2160R | LRN | | LRN | 2160R | LRN | 2160R |
| TN | 2200R | TN | | TN | 2200R | TN | |
| | 2250R | | | | 2250R | | |
| | 2251R | | | | 2251R | | 2251R |
| LAT | 2260R | LAT | | LAT | 2260R | LAT | |
| | 2261R | | | | 2261R | | 2261R |
| TR | 2400R | TR | | TR | 2400R | TR | |
| | 2401R | | | | 2401R | | 2401R |
| ALZ | 3500 | ALZ | | ALZ | | ALZ | |
| | 3501R | | | | 3501R | | 3501R |
| AAR | 3600R | AAR | | AAR | 3600R | AAR | 3600R |
| | 3601R | | | | | | 3601R |
| | 3650R | | | | 3650R | | 3650R |
| AD | 3700 | AD | | AD | | AD | 3700 |
| | 3701 | | | | | | 3701 |
| | 3750R | | | | 3750R | | 3750R |
| TR | 4400R | TR | | TR | 4400R | TR | 4400R |
| DT | 4410R | DT | | DT | 4410R | DT | 4410R |
| AAR | 4600 | AAR | | AAR | | AAR | |
| | 4601R | | | | 4601R | | 4601R |
| AD | 4700R | AD | | AD | 4700R | AD | 4700R |
| | 4701R | | | | 4701R | | 4701R |
| BI | 4710R | BI | | BI | 4710R | BI | 4710R |

3.4 QUALIFICATION AND DESIGNATION TABLES. The tables below delineate T&R events required to be completed to attain proficiency, and initial qualifications and designations. In addition to event requirements, all required stage lectures, briefs, squadron training, prerequisites, and other criteria shall be completed prior to completing final events. Qualification and designation letters signed by the commanding officer shall be placed in the individual's NATOPS jacket. Loss of proficiency in all qualification events causes the associated qualification to be lost. Regaining a qualification requires completing all R-coded syllabus events associated with that qualification.

| INDIVIDUAL QUALIFICATION REQUIREMENTS | |
|---|---|
| **Qualification** | **Event Requirements** |
| NSQ | 2150,2151 |

| INDIVIDUAL DESIGNATION REQUIREMENTS | |
|---|---|
| **Designation** | **Event Requirements** |
| ANNUAL NATOPS | 6118 |
| TSOI | 5100,5101,5102 |
| ANI/NI/GNE | 5140 |
| RENDEZVOUS CONTROLLER | 4600,4601 |
| NSI | 5150,5151,5153 |
| WTI | 5999 |

3.5 PROGRAMS OF INSTRUCTION (POI)

3.5.1 Basic (B) POI

| WEEKS | COURSE | PERFORMING ACTIVITY |
|---|---|---|
| 0-48 | Core Skill Training | Tactical Squadron |
| 32-76 | Mission Skill Training | Tactical Squadron |
| 64-120 | Core Plus Training | Tactical Squadron |

3.5.2 Refresher (R) POI. A TSO returning from a DIFDEN tour exceeding 12 months should complete the Refresher syllabus.

| WEEKS | COURSE | PERFORMING ACTIVITY |
|---|---|---|
| 1 | Squadron Ground Training | Tactical Squadron |
| 2-48 | Core Skill Training | Tactical Squadron |

3.6 ACADEMIC TRAINING

3.6.1 Academic training shall be conducted for each phase/stage of the syllabus. Where indicated, standardized academic training materials exist and may be obtained from the sponsoring activity.

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

| COURSE | ACTIVITY |
|---|---|
| Naval Aircrew Candidate Course | NAS Pensacola, FL |
| Survival, Evasion, Resistance, and Escape (SERE) Course | NAS Brunswick ME<br>NAS North Island CA |
| NITE lab | Tactical Squadron |
| Weapons and Tactics Instructor (WTI) | MAWTS-1 |
| Mobility Electronic Combat Officer Course (MECOC) | St Joseph, MO |
| Advanced Airlift Tactics Training Course (AATTC) | AATTC, St. Joseph MO |

3.7 CORE SKILL INTRODUCTION PHASE (1000). Not applicable.

3.8 CORE SKILL PHASE (2000)

3.8.1 General. The focus of Core Skill Phase is to train the TSO in duties essential to wartime employment. This includes: Familiarization (FAM), Night Systems (NS) operations, Long Range Navigation (LRN), Tactical Navigation (TN), Low Altitude Tactics (LAT), and IR Threat Reaction (TR).

a. The TSO under instruction shall receive the appropriate MAWTS-1 Course Catalog Academic Support Package (ASP) lectures prior to the appropriate stage of training.

b. The trainee is required to occupy the TSO position in the flight station on all syllabus training flights.

c. All instructors must be proficient in the event to instruct.

d. CRM shall be briefed for all flights and/or events.

3.8.2 Familiarization (FAM)

a. Purpose. This stage of training will familiarize the TSO with local squadron procedures.

b. General. Emphasize planning, briefing, pre-flight procedures, and CRM.

c. Crew Requirements. Shall be instructed by a TSOI.

d. Academic/Ground Training. Prior to FAM-2100, the TSO should complete a familiarization training evolution to include cockpit management, aircraft preflight and post flight, emergency evacuation, and use and donning of all emergency equipment.

| | | | | | | |
|---|---|---|---|---|---|---|
| FAM-2100 | 4.0 | 365 | B,R,M | (N) | A | 1 KC-130 |

Goal. Introduce the TSO to local area and squadron operating procedures.

Requirement. Execute a local flight, concentrating on local course rules procedures per station orders, squadron and TSO SOPs.

Performance Standard. Per local and squadron directives, NATOPS, FLIP, and ICAO procedures.

Prerequisite. The TSO will review the squadron and TSO SOPs prior to this flight and shall successfully complete a local course rules examination.

3.8.3 Night Systems (NS)

a. Purpose. To train the TSO in NS. The TSO will be capable of performing crew duties using NVDs during High Light Level (HLL) and Low Light Level (LLL) conditions. Upon completion on this stage of training the TSO should be qualified as NSQ by the squadron commanding officer.

b. General. Emphasize planning, briefing, pre-flight procedures, and CRM.

c. Crew Requirements. Shall be instructed by a NSI.

d. Academic/Ground Training. Must complete NITE Lab and complete NVD I and NVD II MAWTS-1 ASPs.

| | | | | | | |
|---|---|---|---|---|---|---|
| NS-2150 | 3.0 | 365 | B,R,M | NS | A/S | 1 KC-130 |

Goal. Introduce the TSO to the use and wear of NVD's under High Light Level (HLL) conditions with emphasis on NVD pre-flight, in-flight donning, and CRM.

Requirement. The TSO will plan and fly a non-tactical NVD sortie under HLL conditions. The TSO shall be introduced to: NVD emergency procedures, proper NVD scanning techniques, terrain recognition, atmospheric impact on NVD performance, and visual acuities associated with HLL conditions.

Performance Standard. Demonstrate the ability to function as a TSO per NATOPS utilizing NVD's under HLL. The non-motion simulator, 2F176, can

be used to maintain currency in this code for current and proficient TSOs.

Prerequisite. FAM-2100. Must complete NITE Lab and complete NVD I and NVD II MAWTS-1 ASPs.

NS-2151 3.0 365 B,R,M NS A/S 1 KC-130

Goal. Introduce the TSO to the use and wear of NVD's under Low Light Level (LLL) conditions with emphasis on NVD pre-flight, in-flight donning, and CRM. Upon successful completion of this event the TSO should be qualified as NSQ by the squadron commanding officer.

Requirement. The TSO will plan and fly a non-tactical NVD sortie under LLL conditions. The TSO shall refine proper NVD scanning techniques, be introduced to terrain recognition, atmospheric impact on NVD performance, and visual acuities associated with LLL conditions.

Performance Standard. Demonstrate the ability to function as a TSO per NATOPS utilizing NVD's under LLL conditions.

- Prerequisite. NS-2150.

3.8.4 Long Range Navigation (LRN)

a. Purpose. Refine the TSO's proficiency and confidence required for safe extended ICAO/Non-RADAR flight. Specifically, at the end of this stage the TSO will be able to:

Integrate all available navigation aids.

Use the aircraft's RADAR for fixing and/or weather avoidance as necessary.

Correctly determine the required planned ramp, ensuring fuel consumption and corresponding progress toward destination are within safe limits.

b. General. This flight shall be accomplished in an ICAO environment on a multi-national itinerary with a minimum of one 5-hour route.

c. Crew Requirements. Shall be instructed by a TSOI.

d. Academic/Ground Training. The TSO will review procedures for ICAO flight to include the FLIP and FCG.

LRN-2160 5.0 365 B,R,M (N) A 1 KC-130

Goal. Integrate all available navigation aids emphasizing INS and GPS operations in a global environment.

Requirement. The TSO will demonstrate the ability to perform mission planning in an ICAO environment and to determine the aircraft's position within FLIP tolerances.

Performance Standard. Per NATOPS, FLIP, ICAO, and FCG procedures.

Prerequisite. FAM-2100.

3.8.5 Tactical Navigation (TN)

a. Purpose. Develop the TSO's knowledge and proficiency in tactical navigation.

b. General. Emphasize computer-based mission planning systems, RADAR terrain mapping, terrain masking, threat avoidance, time, and course control. Route selection should offer maximum variations in en route conditions.

c. Crew Requirements. TN-2200 shall be instructed by a TSOI. For TN-2250 and TN-2251 a TSO NSI is required only if the initial sortie is conducted using NVD's and the TSO under instruction is not NSQ. A TSOI who is NSQ may instruct an NSQ TSO on initial TN-2250 and TN-2251 events.

d. Academic/Ground Training. The TSO will review the appropriate KC-130 ANTTP chapters and MAWTS-1 ASP's on low-level operations.

TN-2200 2.0 * B,R D A/S 1 KC-130

Goal. Refine skills required to plan, brief, and execute a tactical, low-level sortie.

Requirement

Perform TSO duties on a tactical, low-level sortie.

Review route planning and chart preparation procedures emphasizing checkpoint selection, use of intermediate checkpoints, limiting features, prominent terrain features, and airspace control measures.

Conduct a route brief.

Navigate along a low-level route consisting of a minimum of six (6) pre-selected checkpoints integrating all available navigation aids.

Performance Standard. Maintain aircraft position within route width and arrive at a pre-selected checkpoint within +/- 30 seconds of a pre-determined TOT. The non-motion simulator, 2F176, can be used to maintain currency in this code for current and proficient TSOs.

Prerequisite. FAM-2100.

TN-2250 2.0 * B,R, NS A/S 1 KC-130

Goal. Introduce skills required to plan, brief, and execute a HLL night systems, tactical, low-level sortie.

Requirement

Perform TSO duties under HLL conditions on a tactical, low-level sortie.

Introduce the tactical advantages and administrative restrictions associated with HLL conditions.

Review route planning and chart preparation procedures emphasizing checkpoint selection, intermediate checkpoints, limiting features, prominent terrain features, and airspace control measures during HLL conditions.

Conduct a route brief.

Navigate along a low-level route consisting of a minimum of six (6) pre-selected checkpoints integrating all available navigation aids.

Discuss CRM considerations during tactical operations.

Performance Standard. Maintain aircraft position within route width and arrive at a pre-selected checkpoint within +/- 30 seconds of a pre-determined TOT. The non-motion simulator, 2F176, can be used to maintain currency in this code for current and proficient TSOs.

Prerequisite. TN-2200 and NS-2150.

TN-2251 2.0 180 B,R,M NS A/S 1 KC-130

Goal. Introduce skills required to plan, brief, and execute a tactical, low-level sortie under LLL conditions.

Requirement.

Perform TSO duties on a tactical, low-level sortie under LLL conditions.

Introduce the tactical advantages and administrative restrictions associated with LLL conditions.

Review night route planning and chart preparation procedures emphasizing checkpoint selection, altitude planning, use of intermediate checkpoints, limiting features, prominent terrain features, and airspace control measures during night operations.

Conduct a route brief.

Navigate along a low-level route consisting of a minimum of six (6) pre-selected checkpoints integrating all available navigation aids.

Discuss CRM considerations associated with tactical NS operations.

Performance Standard. Maintain aircraft position within route width and arrive at a pre-selected checkpoint within +/- 30 seconds of a pre-determined TOT. The non-motion simulator, 2F176, can be used to maintain currency in this code for current and proficient TSOs.

Prerequisite. TN-2250, 2151.

3.8.6 Low Altitude Tactics (LAT)

a. Purpose. Develop the TSO's knowledge and proficiency in Low Altitude Tactics.

b. General. General LAT rules of conduct (ROC) are contained in NAVMC 3500.14 and KC-130 specific LAT guidance is contained in the KC-130 ANTTP. Emphasize computer-based mission planning systems, RADAR terrain mapping, terrain masking, threat avoidance, time, and course control. Route selection should offer maximum variations in en route conditions.

c. Crew Requirements. Shall be instructed by a TSOI.

d. Academic/Ground Training. The TSO will review the appropriate KC-130 ANTTP chapters and MAWTS-1 ASP's on low-level and LAT operations.

LAT-2260 1.0 * B,R D A 1 KC-130

Goal. Introduce skills required to plan, brief, and execute a tactical, low-level sortie in a LAT environment.

Requirement

Perform TSO duties on a tactical, low-level sortie in the LAT environment.

Review route planning and chart preparation procedures emphasizing threat assessment and avoidance, terrain masking, checkpoint selection, and airspace control measures.

Conduct a route brief.

Navigate along an approved LAT route consisting of a minimum of six (6) pre-selected checkpoints integrating all available navigation aids and maximizing use of terrain to degrade detection and enhance survivability.

Discuss CRM considerations during operations at or near crew comfort level.

Performance Standard. Maintain awareness of aircraft position within route width/airspace during LAT maneuvering.

Prerequisite. TN-2200.

LAT-2261 1.0 365 B,R,M D A 1 KC-130

Goal. Demonstrate skills required to plan, brief, and execute a tactical, low-level sortie in a LAT environment.

Requirement

Perform TSO duties on a tactical, low-level sortie in the LAT environment.

Demonstrate an understanding of route planning and chart preparation procedures emphasizing threat assessment and avoidance, terrain masking, checkpoint selection, and airspace control measures.

Conduct a route brief.

Navigate along an approved LAT route consisting of a minimum of six (6) pre-selected checkpoints integrating all available navigation aids and maximizing use of terrain to degrade detection and enhance survivability.

Discuss CRM considerations during operations at or near crew comfort level.

Performance Standard. Maintain aircraft position within route width and arrive at a pre-selected checkpoint within +/- 30 seconds of a pre-determined TOT during LAT maneuvering.

Prerequisite. LAT-2260.

3.8.7 Threat Reaction (TR)

a. Purpose. To train the TSO in the skills required to operate the KC-130 Aircraft Survivability Equipment (ASE) suite in a tactical scenario in an IR MANPAD and small arms surface to air threat environment.

b. General

Aircraft should have a fully operational ASE suite.

Appropriate expendables shall be loaded prior to initial events. In order to maximize training opportunities, TSO's who are proficient in TR-2401 may maintain proficiency by utilizing the training mode of the ALE-47 provided training is conducted in conjunction with TN-2210, appropriate threats are briefed, ASE suite is operated IAW ANTTP, and appropriate maneuvers are conducted in conjunction with simulated release of expendables.

Initial events shall be flown in the day.

The use of Smokey SAM pyrotechnics and Missile Warning System stimulators is recommended. Aircrew training officers may have to be creative in gaining the best possible training due to the limited availability of expendables and ranges.

c. Crew Requirements. Shall be instructed by a WTI.

d. Academic/Ground Training. The TSO shall receive instruction on the IR/MANPAD threat, counter-tactics, expendable characteristics and

effectiveness, capabilities and limitations of the AAR-47, ALE-47, and ALQ-157.

TR-2400 2.0 * B,R D A/S 1 KC-130

Goal. Introduce the planning considerations and in-flight operation of the ASE systems with emphasis on setup of the system for automatic and continuous defense against an IR/MANPAD and small arms surface to air threat.

Requirement

Perform TSO duties associated with the operation of the ASE suite in order to counter an IR/MANPAD and small arms surface to air threat.

Plan and configure the ASE suite to counter an IR/MANPAD and small arms surface to air threat.

Introduce the basic concepts of various chaff and flare load-out configurations, and capabilities and limitations of all available expendables. Introduce operation of the ALE-47 CMDS.

Discuss the capabilities and limitations of the ALQ-157 with emphasis on IR jammer codes and power up/power down procedures.

Discuss the AAR-47s capabilities and limitations.

Discuss counter-tactics to include appropriate expendables and maneuvers for a specific threat.

Discuss CRM considerations for operations in a threat environment.

Deploy expendables in response to simulated threat systems.

Multiple passes shall be made against simulated threat systems and appropriate maneuvers and countermeasures initiated.

Performance Standard. Must correctly configure and operate the ASE suite, use appropriate terminology, and initiate appropriate defensive responses to threat indications.

Prerequisite. FAM-2100 and TN-2200.

Ordnance. 120 flare expendables (required for initial event).

External Syllabus Support. SUAS permitting deployment of decoy flares. An EW range with Smokey SAM teams, AAR-47 stimulators and debrief capabilities greatly enhance aircrew training and should be used to the maximum extent possible.

TR-2401 2.0 365 B,R,M (N) A/S 1 KC-130

Goal. Refine the planning considerations and in-flight operation of the ASE systems with emphasis on setup of the system for automatic and continuous defense against an IR/MANPAD and small arms surface to air threat.

Requirement

Perform TSO duties associated with the operation of the ASE suite in order to counter an IR/MANPAD and small arms surface to air threat.

Plan and configure the ASE suite to counter an IR/MANPAD and small arms surface to air threat.

Demonstrate a basic understanding of various flare load-out configurations and decoy flare capabilities and limitations.

Demonstrate the ability to operate the ALE-47 CMDS.

Demonstrate an understanding of the ALQ-157 IR jammer codes and power up/power down procedures.

Demonstrate an understanding of the AAR-47 capabilities and limitations.

Discuss IR/MANPAD and small arms counter-tactics to include appropriate expendables and maneuvers for a specific threat.

Discuss CRM considerations for operations in a threat environment.

Deploy expendables using both the remote dispensing switches and master switch.

Multiple engagements shall be made against a simulated IR/MANPAD threat system and appropriate maneuvers and countermeasures initiated.

Performance Standard. Must correctly configure and operate the ASE suite, use appropriate terminology and initiate appropriate defensive responses to threat indications.

Prerequisite. TR-2400.

Ordnance. 120 flare expendables (required for initial event).

External Syllabus Support. SUAS permitting deployment of decoy flares. An EW range with Smokey SAM teams, AAR-47 stimulators and debrief capabilities greatly enhance aircrew training and should be used to the maximum extent possible.

## 3.9 MISSION SKILL PHASE (3000)

3.9.1 General. The focus of the Mission Skill Phase is to train the TSO in the skills required to meet the Marine Corps Tasks (MCT). These missions include: Assault Landing Zone (ALZ) operations, Air-to-Air Refueling (AAR), and Air Delivery (AD).

a. The TSO under instruction shall receive the appropriate MAWTS-1 ASP lectures prior to the appropriate stage of training.

b. The trainee is required to occupy the TSO position in the flight station on all syllabus training flights.

c. All instructors must be proficient in the events they instruct.

d. To fly an event aided without an instructor, the TSO must be NSQ and proficient in the given event.

e. CRM shall be briefed for all flights and/or events.

### 3.9.2 Assault Landing Zone (ALZ)

a. Purpose. To refine the skills necessary to plan and navigate to airfields emphasizing ingress/egress and approach profiles.

b. General. ALZ-3501 shall be accomplished in day or night VMC conditions.

c. Crew Requirements. For ALZ-3500 and ALZ-3501, a TSO NSI is required only if the initial sortie is conducted using NVD's and the TSO under instruction is not NSQ. A TSOI who is NSQ may instruct an NSQ TSO on initial ALZ-3500 and ALZ-3501 events flown using NVD's. Any TSOI may instruct these events during the day or unaided.

d. Academic/Ground Training. The TSO shall review the KC-130 ANTTP chapters and MAWTS-1 ASP's concerning ALZ operations.

ALZ-3500 1.5 * B (N) A/S 1 KC-130

Goal. To refine the skills necessary to plan and navigate to airfields emphasizing ingress/egress and approach profiles in a threat environment and introduce the planning considerations and the construction of a self-contained approach plate.

Requirement

Demonstrate an understanding of the various ingress and approach options to an airfield in a threat environment including SCA, IR cooled descent, random high, random low/shallow, straight-in, teardrop, and abeam approaches.

Demonstrate an understanding of SCA planning considerations associated with the various threat environments.

Discuss the advantages and disadvantages of various egress profiles.

Plan and execute multiple ingresses to an airfield to include: random high, random low/shallow, straight-in, teardrop, and abeam approaches; compute slowdown and descent points for the various approaches.

Performance Standard. For initial training, execute multiple tactical approaches. The non-motion simulator, 2F176, can be used to maintain currency in this code for current and proficient TSOs.

Prerequisite. FAM-2100.

External Syllabus Support. MMT, STS, EAF and/or CFR as required.

ALZ-3501 1.5 365 B,R,M (N) A/S 1 KC-130

Goal. Refine the planning considerations and execution of a self-contained approach.

Requirement

Demonstrate an understanding of SCA planning criteria, emphasizing ALZ requirements, terrain avoidance considerations, construction of the SCA plate, obstacle clearance criteria, slow down calculation, missed approach planning, the threat, and day/night/NS considerations.

Construct a SCA approach plate.

Conduct a SCA to an ALZ integrating all available navigation aids. The TSO will provide advisories to the pilots throughout the approach phase from initial descent to touchdown.

The TSO will not have access to visual navigation aids during training.

Prerequisite. ALZ-3500.

Performance Standard. For initial training, successfully execute multiple self-contained approaches. The non-motion simulator, 2F176, can be used to maintain currency in this code for current and proficient TSOs.

External Syllabus Support. MMT, STS, EAF and/or CFR as required.

3.9.3 Air-to-Air Refueling (AAR)

a. Purpose. To develop the TSO's knowledge, understanding, and proficiency required for fixed wing, tilt rotor, and helicopter AAR operations in the day or night environment.

b. General. Aircraft should have an operating APX, UHF/DF, A/A TACAN, and weather RADAR.

c. Crew Requirements. For AAR-3600 and AAR-3650, a TSO NSI is required only if the initial sortie is conducted using NVD's and the TSO under instruction is not NSQ. A TSOI who is NSQ may instruct an NSQ TSO on initial AAR-3600 and AAR-3650 events flown using NVD's. Any TSOI may instruct these events during the day or unaided.

d. Academic/Ground Training. The TSO will review air-to-air refueling procedures in the NATOPS, ANTTP and the ATP-56(B).

AAR-3600 2.0 365 B,R,M (N) A 1 KC-130

Goal. Refine skills required to plan, brief, and execute a fixed wing/tilt rotor air-to-air refueling mission.

Requirement. Perform TSO duties on a fixed wing/tilt rotor air-to-air-refueling mission per NATOPS.

Performance Standard. Arrive at an ARCP at ARCT (+/- 1 min) and maintain aircraft position within assigned refueling airspace.

Prerequisite. FAM-2100.

External Syllabus Support. Fixed-wing or tiltrotor receiver aircraft.

AAR-3601 2.0 365 B D A 1 KC-130

Goal. Refine skills required to plan, brief, and execute a day helicopter air-to-air refueling mission.

Requirement. Perform TSO duties on a day helicopter air-to-air refueling mission.

Performance Standard. Locate the receiver using RADAR, APX, UHF/DF, and/or A/A TACAN. Conduct multiple rendezvous.

Prerequisite. FAM-2100.

External Syllabus Support. Helicopter receiver aircraft.

AAR-3650 2.0 365 B,R,M NS A 1 KC-130

Goal. Introduce skills required to plan, brief, and execute a NVD helicopter air-to-air refueling mission.

Requirement. Perform TSO duties on a NVD helicopter air-to-air refueling mission.

Performance Standard. Locate the receiver using RADAR, APX, UHF/DF, and/or A/A TACAN. Conduct multiple rendezvous.

Prerequisite. AAR-3601.

External Syllabus Support. Helicopter receiver aircraft.

3.9.4 Air Delivery (AD)

a. Purpose. Instruct the TSO in air delivery techniques. At the end of this stage the TSO will be able to compute an air delivery release point, understand all checklists and time warnings, and call the airdrop.