

b. General

Initial events shall be flown in the day except for AD-3750.

When conducting AD-3750, the prerequisite code of AD-3700 is required if cargo is to be dropped and AD-3701 is required if personnel (static-line) are to be dropped.

Once complete with the AD-3750, the TSO may conduct either type of drop on NVD's, provided they are proficient in that type of drop.

c. Crew Requirements. Any TSOI may instruct these events during the day. A TSO NSI is required to instruct initial AD-3750.

d. Academic/Ground Training. The TSO shall review the ANTPP chapter pertaining to air delivery and receive instruction on Computed Air Release Point (CARP) computations per Air Force Instruction (AFI) 11-231.

AD-3700 1.5 365 B,R,M (NS) A 1 KC-130

Goal. Refine air delivery techniques and navigation procedures to release points in connection with cargo air delivery.

Requirement

Perform TSO duties on a cargo air delivery sortie.

Review route planning and chart preparation procedures emphasizing release point computation, air delivery limitations, drop zone criteria, air delivery checklists, emergency procedures, slow-down procedures, and ingress/egress options.

Plan a route to a drop zone and compute a CDS and an HE CARP.

Conduct an objective area brief to include planned release point, drop zone hazards, IP inbound, slow-down, and egress.

Navigate to a drop zone, relay all time warnings, call a CDS or HE air delivery, and navigate an egress route.

Performance Standard. Must compute and execute a CDS or HE air delivery that lands within drop zone.

Prerequisite. FAM-2100.

External Syllabus Support. Air Delivery Platoon or equivalent, material handling equipment and support personnel, a DZ team to include a corpsman, and a drop zone survey per MCO 3500.20. A PPN-19/SMP-2000 is recommended but not required.

AD-3701 1.5 365 B,R,M (NS) A 1 KC-130

Goal. Introduce air delivery techniques and navigation procedures to release points in connection with low-altitude static-line personnel air delivery.

Requirement

Perform TSO duties on a static-line personnel air delivery sortie.

Review route planning and chart preparation procedures. Emphasize release point computation, air delivery limitations, drop zone criteria, air delivery checklists, emergency procedures, slow-down procedures, and ingress/egress options.

Plan a route to a drop zone and compute a CARP.

Conduct an objective area brief to include planned release point, drop zone hazards, IP inbound, slow-down, and egress.

Navigate to a drop zone, relay all time warnings, call a static-line personnel air delivery, and navigate an egress route.

Performance Standard. Jumpers must land within drop zone.

Prerequisite. FAM-2100.

External Syllabus Support. Air delivery qualified personnel, a DZ team to include a corpsman, and a drop zone survey per MCO 3500.20. A PPN-19/SMP-2000 is recommended but not required.

AD-3750 1.5 365 B,R,M NS A 1 KC-130

Goal. Refine air delivery techniques and navigation procedures to release points in connection with static-line personnel or cargo air delivery utilizing NVD's.

Requirement

Perform TSO duties on a static-line personnel or cargo air delivery sortie utilizing NVD's.

Review route planning and chart preparation procedures emphasizing NS considerations to release point computation, air delivery limitations, drop zone criteria, air delivery checklists and emergency procedures, slow-down procedures, and ingress/egress options.

Plan a route to a drop zone and compute a CARP.

Conduct an objective area brief to include planned release point, drop zone hazards and markings, IP inbound, slow-down, and egress.

(5) Navigate to a drop zone, relay all time warnings, call an air delivery, and navigate an egress route utilizing NVD's.

Performance Standard. Must compute and execute an air delivery that lands within drop zone.

Prerequisite. AD-3700 (if cargo), AD-3701 (if personnel).

External Syllabus Support. Air Delivery Platoon or equivalent, material handling equipment and support personnel as required, a DZ team to include a corpsman, and a drop zone survey per MCO 3500.20. A PPN-19/SMP-2000 is recommended but not required.

3.10 CORE PLUS SKILL PHASE (4000)

3.10.1 General. Upon completion of this phase of training, the TSO will be qualified to plan and execute RADAR Threat Reaction (TR), Air-to-Air Defensive Tactics (DT), long-range Air-to-Air Refueling (AAR), advanced AD (HALO/HAHO and JPADS GPS guided cargo) and Battlefield Illumination (BI).

a. The TSO under instruction shall receive the MAWTS-1 course catalog ASP lecture 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. 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.

3.10.2 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 a RADAR surface to air threat environment.

b. General

Aircraft must have an operational ASE suite that supports radio frequency (RF) threat reaction.

Appropriate chaff shall be loaded prior to flight.

Initial events shall be flown in the day.

Appropriate ground threat emitters shall be available.

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

d. Academic/Ground Training. Review the NFM, KC-130 ANTPP, Classified ANTPP, 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.

TR-4400 2.0 365 E,R,M (N) A/S 1 KC-130

Goal. Refine the planning considerations and in-flight operation of the ASE systems with emphasis on configuration of the system for operations in a RADAR threat environment.

Requirement

Perform TSO duties associated with the operation of the ASE suite in order to counter a RADAR threat.

Plan and configure the ASE suite to counter a RADAR threat.

Refine the understanding of the basic concepts of various chaff and flare load-out configurations, capabilities and limitations of decoy chaff and flare. Refine programming and operation of the ALE-47 CMDS.

Introduce APR-39 operation emphasizing OFP, EID, and threat symbology.

Discuss the AAR-47 capabilities and limitations as it applies to the RADAR threat.

Discuss RADAR threat 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 a RADAR threat indication.

Conduct multiple passes against simulated RADAR threat systems and initiate appropriate maneuvers and countermeasures.

Performance Standard. Must correctly configure and operate the ASE suite, use appropriate terminology, and initiate correct defensive responses to threat indications.

Prerequisite. TR-2400 and TN-2200.

Ordinance. 160 chaff, 140 flares.

External Syllabus Support. An operable EW range allowing chaff dispensing. An EW range with debrief facilities greatly enhance aircrew training and should be used to the maximum extent possible.

3.10.3 Defensive Tactics (DT)

a. 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.

b. General. The DT requirements consist of DT-4410. The following is recommended but not required:

Emphasize DT maneuvering and CRM considerations during DT.

The aircraft should have an operable ASE suite.

c. Crew Requirements. A Pilot DTI or TSOI may instruct this event.

d. Academic/Ground Training. Review the KC-130 ANTP, Classified ANTP, 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 1.0 1095 B,R,M D A 1 KC-130

Goal. Familiarize the TSO with the skills and crew coordination required while executing DT against aggressor aircraft.

Requirement

Demonstrate an understanding of KC-130 defensive maneuvers.

Demonstrate an understanding of air-to-air threat.

During DT, demonstrate the proper maneuver calls and crew coordination.

Discuss the use of the ASE suite to counter an air-to-air threat.

Performance Standard. Demonstrate proper crew coordination during DT.

Prerequisite. LAT-2261.

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

3.10.4 Air-to-Air Refueling (AAR)

a. Purpose

To develop the necessary skills to perform the tasks required of the lead TSO and rendezvous controller on a long-range air-to-air refueling mission.

Upon successful completion of this stage of training the TSO should be designated as a Rendezvous Controller by the squadron commanding officer.

b. General

Flights shall be conducted in conjunction with a movement of receiver aircraft in either a ferry, deep air strike profile (fixed wing), or long-range insert profile (rotary wing/tilt rotor) requiring a refueling area commander.

The TSO shall have demonstrated an ability to plan and execute long-range air-to-air refueling missions including ALTRV or other airspace coordination measures.

c. Crew Requirements. Shall be instructed by a Rendezvous Controller.

d. Academic/Ground Training. The TSO should have completed the Central Altitude Reservation Indoctrination CBI and shall receive instruction on Rendezvous Control Procedures prior to this stage.

AAR-4600 3.0 * B (N) A 2 KC-130

Goal. To refine the skills required to assist in planning and leading a long-range, air-to-air refueling mission.

Requirement

Assist the rendezvous controller in planning and coordinating a long-range, air-to-air refueling mission.

Introduce the planning and coordination associated with an ALTRV.

Use appropriate navigation aids to arrive at an ARCP and maintain course on a refueling track.

Performance Standard. Direct aircraft to arrive at the ARCP and assist the rendezvous controller in conducting a successful rendezvous with receiver aircraft.

Prerequisite. AAR-3600, AAR-3650, FAM-2100, (2150~HLL), (2151~LLL).

External Syllabus Support. Fixed wing or helicopter receivers required.

AAR-4601 3.0 1095 B,R,M (N) E A 2 KC-130

Goal. To demonstrate the skills required to plan and execute a long-range, air-to-air refueling mission. Upon successful completion of AAR-4601, the TSO should be designated as a Rendezvous Controller by the squadron commanding officer.

Requirement

Plan and conduct a long-range, air-to-air refueling mission to include receiver fuel requirements, tanker requirements, abort criteria, track location and administrative requirements.

Demonstrate a thorough understanding of ALTRV procedures to include message requirements, coordination, and filing procedures.

Conduct the planning and coordination of an ALTRV or other airspace required to facilitate the long-range movement of receiver aircraft.

Performance Standard. Conduct a successful long-range, air-to-air refueling mission.

Prerequisite. AAR-4600.

External Syllabus Support. Fixed wing or helicopter receivers required.

3.10.5 Air Delivery (AD)

a. Purpose. Demonstrate a thorough understanding of advanced air delivery techniques.

b. Crew Requirements. For AD-4700 and AD-4701, 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 a NSQ TSO on initial AD-4700 and AD-4701 events flown using NVD's. Any TSOI may instruct these events during the day or unaided.

c. Academic/Ground Training. The TSO will review the appropriate KC-130 ANTPP chapters for air delivery and battlefield illumination.

AD-4700 1.0 365 B,R,M (N) A 1 KC-130

Goal. Conduct air delivery of personnel/cargo utilizing high altitude release techniques with emphasis on HARP computations and navigation to release points.

Requirement

Perform TSO duties on a high altitude air delivery sortie.

Review route planning and chart preparation procedures emphasizing high altitude release point computation, air delivery limitations, drop zone criteria, air delivery checklists, emergency procedures, slow-down procedures, and ingress/egress options.

Plan a route to a drop zone and compute a high altitude air delivery of personnel or cargo.

Conduct an objective area brief to include a planned release point, drop zone hazards, IP inbound, slow-down, and egress.

Navigate to a release point, relay all time warnings, call a high altitude air delivery of personnel or cargo, and navigate an egress route.

Discuss physiology considerations appropriate to high altitude air delivery operations.

Performance Standard. Compute and execute a high altitude air delivery that lands within drop zone.

Prerequisite. AD-3701.

External Syllabus Support. High altitude certified personnel or cargo, a DZ team to include a corpsman, an aviation physiologist (if required), and a drop zone survey per MCO 3500.20. A PPN-19/SMP-2000 is recommended but not required.

AD-4701 1.0 365 B,R,M (N) A 1 KC-130

Goal. Introduce air delivery techniques and theory in connection with a JPADS GPS guided cargo air delivery.

Requirement

Perform TSO duties on a JPADS GPS guided cargo air delivery sortie.

Review route planning and computer based programming procedures to determine release point computation, air delivery limitations, drop zone criteria, air delivery checklists and emergency procedures, slow-down procedures, and ingress/egress options.

Plan a route to the optimum release point based upon computer software used to program the GPS guided hardware on the cargo.

Conduct an objective area brief to include a planned release point, drop zone hazards, IP inbound, slow-down, and egress.

Navigate to a release point, relay all time warnings, call an air delivery, and navigate an egress route.

Instruction should be conducted by a WTI.

Performance Standard. Must compute and execute an air delivery that is released within safety criteria.

Prerequisite. AD-3700.

External Syllabus Support. Air Delivery Platoon or equivalent, material handling equipment and support personnel as required, a DZ team to include a corpsman, and a drop zone survey per MCO 3500.20.

3.10.6 Battlefield Illumination (BI)

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

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

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

BI-4710 1.0 730 B,R,M N A 1 KC-130

Goal. Instruct the TSO in the skills necessary to perform battlefield illumination.

Requirement

Perform TSO duties on a battlefield illumination sortie.

Review route planning and chart preparation procedures emphasizing release point computation, APF delivery characteristics, orbit and delivery patterns, battlefield illumination checklists, emergency procedures, slow-down procedures, and ingress/egress options.

Direct the aircraft to a target area and compute an APF CARP.

Conduct an objective area brief to include planned release point, illumination patterns, slow-down, and egress.

Navigate to a release point, relay all time warnings, call a release of APFs, and navigate an egress route.

Performance Standard. For initial sortie conduct at least 1 area illumination pattern and 1 point target illumination pattern utilizing a standoff orbit, providing the desired illumination effect on the target.

Prerequisite. FAM-2100.

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

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

3.11 INSTRUCTOR TRAINING PHASE (5000)

3.11.1 General. The TSO IUT shall receive the MAWTS-1 ASP Courseware on Student Briefing and Critique, and Student/Instructor Roles prior to beginning this stage of training.

3.11.2 TSO Instructor (TSOI)

a. Purpose. To standardize TSOI procedures. Upon successful completion of all IUT events in this stage, the TSO should be designated as a TSO Instructor by the squadron commanding officer.

b. General

Emphasize standardization and the ability to instruct TSO procedures.

Ability to instruct all phases of flight training shall be evaluated in which the TSO has previously demonstrated proficiency.

c. Crew Requirements. A TSO Assistant NATOPS Instructor (ANI) shall evaluate these flights.

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

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

TSOI-5100 3.0 * B (N) E A 1 KC-130

Goal. Evaluate and standardize the TSO's instructional techniques on an LRN event.

Requirement. Instruct a TSO on LRN-2160.

Performance Standard. Effectively instruct the skills necessary to complete the appropriate event.

Prerequisite. LRN-2160 and APRB recommendation.

TSOI-5101 3.0 * B (N) E A 1 KC-130

Goal. Evaluate and standardize instructional techniques on an AAR event.

Requirement. Instruct a TSO on an AAR event.

Performance Standard. Effectively instruct the skills necessary to complete the appropriate event.

Prerequisite. AAR-3600, AAR-3650, and APRB recommendation.

External Syllabus Support. Fixed wing, tilt-rotor, or helicopter receivers required.

TSOI-5102 3.0 * B,R (N) E A 1 KC-130

Goal. Evaluate and standardize instructional techniques on a TN, AD, TR, or ALZ event.

Requirement. Instruct a TSO on a TN, AD, TR, or ALZ event.

Performance Standard. Effectively instruct the skills necessary to complete the appropriate event.

Prerequisite. TSOI-5100 and TSOI-5101.

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

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

b. General. The purpose of this stage is to qualify the IUT as a NATOPS Instructor and emphasize standardization of instruction procedures.

c. Crew Requirements. An Assistant NATOPS Instructor will be evaluated by the Squadron NATOPS Instructor (SNI) or Group NATOPS Evaluator (GNE). The Squadron NATOPS Instructor will be evaluated by the Group NATOPS Evaluator.

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d. Ground/Academic Training. The IUT shall be familiar with all applicable OPNAV and NATOPS directives.

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

Goal. NI/ANI check.

Requirement. Evaluate an Assistant NATOPS Instructor using standardized procedures.

Performance Standard. Per NATOPS and all current flight publications. Completion of NI-5140 meets the requirements for the TSO to be designated an Assistant NATOPS Instructor. At the discretion of the squadron commanding officer, a letter designating the TSO as an ANI shall be placed in the NATOPS jacket.

Prerequisite. TSOI-5102.

3.11.4 Night Systems Instructor (NSI)

a. Purpose. To qualify the TSO as an NSI. Upon successful completion of this stage and MAWTS-1 certification, TSO should be designated as an NSI by the squadron commanding officer.

b. General. A MAWTS-1 instructor shall provide certification for this qualification. Refer to MAWTS-1 Course Catalogue for current prerequisites and requirements.

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

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

NSI-5150 1.5 * B NS E A 1 KC-130

Goal. Evaluate and standardize the NSIUT's instructional techniques on an NS FAM event.

Requirement. Instruct a TSO on an NS FAM event.

Prerequisite. NSQ (2150, 2151), TSOI (5102), proficiency in the appropriate event, and APRB recommendation.

Performance Standard. Effectively instruct the skills necessary to complete the appropriate event.

NSI-5151 1.5 * B NS E A 1 KC-130

Goal. Evaluate and standardize the NSI UT instructional techniques on a NS low level event.

Requirement. Instruct a TSO on a NS low level event.

Performance Standard. Effectively instruct the skills necessary to complete the appropriate event.

Prerequisite. NSI-5150 and TN-2251.

NSI-5152 1.5 * B NS E A 1 KC-130

Goal. Evaluate and standardize NSI UT instructional techniques on an NS AD event.

Requirement. Instruct a TSO on an NS AD event.

Performance Standard. Effectively instruct the skills necessary to complete the appropriate event.

Prerequisite. NSI-5150 and AD-3750.

NSI-5153 1.5 * B,R NS E A 1 KC-130

Goal. Certification event for designation as a NSI.

Requirement. Demonstrate the ability to instruct TSO's on standardized procedures during an NS event. Completion of NSI-5153 meets the requirements for the TSO to be qualified as a Night Systems Instructor. At the discretion of the squadron commanding officer, a letter designating the TSO as an NSI shall be placed in the NATOPS jacket.

Performance Standard. Instruct the skills necessary to complete the appropriate event.

Prerequisite. NSI-5150, NSI-5151, and NSI-5152.

3.11.5 Weapons Tactics Instructor (WTI)

a. Purpose. To certify the TSOI as a WTI capable of conducting ground and airborne instruction.

b. General. The KC-130 WTI Course is developed and instructed by MAWTS-1. Upon successful completion and MAWTS-1 certification, TSO should be designated as a WTI by the squadron commanding officer.

c. Ground Training. Refer to the MAWTS-1 KC-130 Course Catalog.

d. Flight Training. Refer to the MAWTS-1 KC-130 Course Catalog.

WTI-5999 * B Per MAWTS-1 Course Catalog

Goal. Evaluate and certify WTIs.

Requirement. Use standard MAWTS-1 instruction techniques as taught at the MAWTS-1 WTI course. Completion of the WTI course meets the requirements for the TSO to be designated as a WTI. At the discretion of the squadron commanding officer, a letter designating the TSO as a WTI shall be placed in the NATOPS jacket.

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

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

3.12 REQUIREMENTS, QUALIFICATIONS, DESIGNATIONS PHASE (RQD) PHASE (6000)

3.12.1 KC-130T NATOPS Evaluation POI

a. NATOPS Evaluators/Instructors shall conduct the NATOPS evaluation in accordance with OPNAVINST 3710.7 Series and other applicable directives, instructions, and orders.

b. The NATOPS Evaluator 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 TSO completed the sortie. Prior to the Oral Examination, the NATOPS Evaluator shall review the Evaluatee's NATOPS Monthly emergency procedures examinations and simulator/cockpit-cabin drills for the previous twelve (12) months and previous NATOPS evaluations. At the discretion of the squadron commanding officer, a letter designating the TSO as NATOPS qualified shall be placed in the NATOPS jacket and APR.

c. NATOPS Evaluatees shall complete and have a graded Open Book, Closed Book, and Oral Examination prior to the commencement of the actual NATOPS evaluation event.

d. Crew Resource Management (CRM). A qualified and designated CRM Instructor or CRM Facilitator shall conduct initial and annual CRM

Training per OPNAVINST 1542.7. CRM shall be briefed for all flights and/or events.

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

Goal. The open book examination shall consist of, but not be limited to the question bank. The purpose of the open book examination portion of the written examination is to evaluate the TSO'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,R,M E Closed Book NATOPS Exam

Goal. The closed book examination shall be limited to the question bank. The purpose of the closed book examination portion of the written examination is to evaluate the TSO'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 1.0 365 B,R,M E Oral NATOPS Examination

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

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

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

Goal. Annual NATOPS check.

Requirement. The TSO will be tested on all previous instruction, knowledge of emergency procedures, and proper operation of all navigation equipment.

Performance Standards. The TSO will perform all duties, emergency procedures, and properly operate all navigation equipment per NATOPS, OPNAVINST 3710.7, all applicable orders and directives, and squadron and TSO SOPs. At the discretion of the squadron commanding officer, a letter designating the TSO shall be placed in the NATOPS jacket and APR. The tracking code of NTPS-6118 shall be logged.

Prerequisite. FAM-2100. Proficiency in appropriate event for which the TSO is being evaluated.

3.13 ATTAIN AND MAINTAIN MATRIX

KC-130T TSO ATTAIN AND MAINTAIN MATRIX										
T&R DESCRIPTION	ATTAIN PROFICIENCY				MAINTAIN PROFICIENCY		PREREQUISITES	PREREQ NOTES	CHAINING	CHAINING NOTES
	BASIC POI		REFRESHER POI		MAINTAIN POI					
	SKILL	EVENT #	SKILL	EVENT #	SKILL	EVENT #				
CORE SKILL (2000 Phase)										
FAM	FAM	2100R	FAM	2100R	FAM	2100R				
HLL NS FAM	NS	2150R	NS	2150R	NS	2150R	2100		2100	
LLL NS FAM		2151R		2151R		2151R	2150		2150, 2100	
LONG RANGE NAV	LRN	2160R	LRN	2160R	LRN	2160R	2100		2100, 2150~NS, 2151~LLL	
TACNAV	TN	2200R	TN	2200R	TN		2100		2100	
HLL		2250R		2250R		2250R	2200, 2150		2100, 2150,	
LLL		2251R		2251R		2251R	2250, 2151		2100, 2150, 2151	
LAT	LAT	2260R	LAT	2260R	LAT		2200		2100	
LAT		2261R		2261R		2261R	2260		2100	
IR THREAT REACTION	TR	2400R	TR	2400R	TR		2100, 2200		2100	
IR THREAT REACTION		2401R		2401R		2401R	2400		2100, 2150~NS, 2151~LLL	
MISSION SKILLS (3000 Phase)										
IMPROVED ALZ	ALZ	3500	ALZ		ALZ		2100		2100, 2150~NS, 2151~LLL	
TACTICAL ARRIVALS		3501R		3501R		3501R	3500		2100, 2150~NS, 2151~LLL	
FW AAR / TR AAR	AAR	3600R	AAR	3600R	AAR	3600R	2100		2100, 2150~NS, 2151~LLL	
DAY RW AAR		3601R		3601R		3601R	2100		2100	
NS RW AAR		3650R		3650R		3650R	3601		3601, 2100, 2150~NS, 2151~LLL	
AD	AD	3700R	AD	3700R	AD	3700R	2100		2100, 2150~NS, 2151~LLL	
AD		3701R		3701R		3701R	2100		2100, 2150~NS, 2151~LLL	
AD		3750R		3750R		3750R	3700, 3701	3700~Cargo 3701~Pers	2100, 2150~NS, 2151~LLL	3700~Cargo 3701~Pers
CORE PLUS (4000 Phase)										
TR	TR	4400R	TR	4400R	TR	4400R	2400, 2200		2100, 2150~NS, 2151~LLL	
DT	DT	4410R	DT	4410R	DT	4410R	2261		2100	
AR	AR	4600	AR		AR		3600, 3650, 2100, 2150~NS, 2151~LLL		3600, 3650, 2100, 2150~NS, 2151~LLL	
AR		4601R		4601R		4601R	4600		4600	
AD	AD	4700R	AD	4700R	AD	4700R	3701		2100, 2150~NS, 2151~LLL	
AD		4701R		4701R		4701R	4701R	3700		3700, 2100, 2150~NS, 2151~LLL
BI	BI	4710R	BI	4710R	BI	4710R	3700		2100, 2150~NS, 2151~LLL	

KC-130T TSO ATTAIN AND MAINTAIN MATRIX										
T&R DESCRIPTION	ATTAIN PROFICIENCY				MAINTAIN PROFICIENCY		PREREQUISITES	PREREQ NOTES	CHAINING	CHAINING NOTES
	BASIC POI		REFRESHER POI		MAINTAIN POI					
	SKILL	EVENT #	SKILL	EVENT #	SKILL	EVENT #				
INSTRUCTOR TRAINING (5000 Phase)										
TSOI		5100					2160	APRB REC	2100, 2150~NS, 2151~LLL	
TSOI	TSOI	5101	TSOI		TSOI		3600, 3650	APRB REC	2100, 2150~NS, 2151~LLL	
TSOI		5102R		5102R			5100, 5101		2100, 2150~NS, 2151~LLL	
NI	NI	5140R	NI	5140R	NI	5140R	5102		2100	
NSI		5150					2150, 2151, 5102	MAWTS-1 CC	2100, 2150~NS, 2151~LLL	
NSI	NSI	5151	NSI		NSI		5150, 2251	MAWTS-1 CC	2100, 2150~NS, 2151~LLL	
NSI		5152				5150, 3750	MAWTS-1 CC	2100, 2150~NS, 2151~LLL		
NSI		5153R		5153R		5150, 5151, 5152	MAWTS-1 CC	2100, 2150~NS, 2151~LLL		
WTI	WTI	5999						MAWTS-1 CC		
REQUIREMENTS, CERTIFICATIONS, QUALIFICATIONS, AND DESIGNATIONS (R,C,Q,D) [6000 Phase]										
NTPS		6010R		6010R			6010R			
NTPS	NTPS	6011R	NTPS	6011R	NTPS		6011R			
NTPS		6012R		6012R		6012R				
NTPS		6118R		6118R		6118R	6010, 6011, 6012, 2100		2100	

3.14 T&R SYLLABUS MATRIX

KC-130T TSO T&R SYLLABUS MATRIX															
T&R EVENT INFORMATION				BASIC	REFRESHER	MAINTAIN	ENV	TYPE	NUM	FLT HRS	EVAL	EXTERNAL SYLLABUS SUPPORT	RANGE	ORD	EVENT CONV
T&R DESCRIPTION	SKILL	EVENT #	RE-FLY												
CORE SKILL (2000 Phase)															
FAM	FAM	2100R	365	X	X	X	(N)	A	1	4.0					2100
HLL NS FAM	NS	2150R	365	X	X	X	NS	A/S	1	3.0					2150
LLL NS FAM	NS	2151R	365	X	X	X	NS	A/S	1	3.0					2151
LONG RANGE NAV	LRN	2160R	365	X	X	X	(N)	A	1	5.0					2160
TACNAV	TN	2200R	*	X	X		D	A/S	1	2.0					2200
HLL	TN	2250R	*	X	X		NS	A/S	1	2.0					2250
LLL	TN	2251R	180	X	X	X	NS	A/S	1	2.0					2251
LAT	LAT	2260R	*	X	X		D	A	1	1.0			LAT		2260
LAT	LAT	2261R	365	X	X	X	D	A	1	1.0			LAT		2261
IR THREAT REACTION	TR	2400R	*	X	X		D	A/S	1	2.0		Smokey SAM team: See event	EXP,EW	120 Flares	2400
IR THREAT REACTION	TR	2401R	365	X	X	X	(N)	A/S	1	2.0		Smokey SAM team: See event	EXP,EW	120 Flares	2401
MISSION SKILLS (3000 Phase)															
IMPROVED ALZ	ALZ	3500	*	X			(N)	A/S	1	1.5		MMT, STS, EAF and/or CFR			3500
TACTICAL ARRIVALS	ALZ	3501R	365	X	X	X	(N)	A/S	1	1.5		MMT, STS, EAF and/or CFR			3501
FW AAR / TR AAR	AAR	3600R	365	X	X	X	(N)	A	1	2.0		FW or TR A/C			3600
DAY RW AAR	AAR	3601R	365	X			D	A	1	2.0		RW Rec A/C			3601
NS RW AAR	AAR	3650R	365	X	X	X	NS	A	1	2.0		RW Rec A/C			3650
AD	AD	3700R	365	X	X	X	(NS)	A	1	1.5		AD Plt: See event			3700
AD	AD	3701R	365	X	X	X	(NS)	A	1	1.5		See event			3701
AD	AD	3750R	365	X	X	X	NS	A	1	1.5		See event			3750
CORE PLUS (4000 Phase)															
TR	TR	4400R	365	X	X	X	(N)	A/S	1	2.0		See event	EXP,EW	160 Chaff 140 Flares	4400
DT	DT	4410R	1095	X	X	X	D	A	1	1.0		Aggressor A/C	EXP,EW	Chaff/Flares	4410
AR	AR	4600	*	X			(N)	A	2	3.0		FW or RW Rec			4600
AR	AR	4601R	1095	X	X	X	(N)	A	2	3.0	X	FW or RW Rec			4601
AD	AD	4700R	365	X	X	X	(N)	A	1	1.0		See event			4700
AD	AD	4701R	365	X	X	X	(N)	A	1	1.0		See event			4701
BI	BI	4710R	730	X	X	X	N	A	1	1.0					4710

KC-130T TSO T&R SYLLABUS MATRIX

T&R EVENT INFORMATION				BASIC	REFRESHER	MAINTAIN	ENV	TYPE	NUM	FLT HRS	EVAL	EXTERNAL SYLLABUS SUPPORT	RANGE	ORD	EVENT CONV
T&R DESCRIPTION	SKILL	EVENT #	RE-FLY												
INSTRUCTOR TRAINING (5000 Phase)															
TSOI	TSOI	5100	*	X			(N)	A	1	3.0	X				5100
TSOI	TSOI	5101	*	X			(N)	A	1	3.0	X				5101
TSOI	TSOI	5102R	*	X	X		(N)	A	1	3.0	X				5102
NI	NI	5140R	365	X	X		(N)	A	1	3.0	X				5140
NSI	NSI	5150	*	X			NS	A	1	1.5	X				5150
NSI		5151	*	X			NS	A	1	1.5	X				5151
NSI		5152	*	X			NS	A	1	1.5	X				5152
NSI		5153R	*	X	X		NS	A	1	1.5	X				5153
WTI	WTI	5999	*												5999
REQUIREMENTS, CERTIFICATIONS, QUALIFICATIONS, AND DESIGNATIONS (R,C,Q,D) [6000 Phase]															
NTPS	NTPS	6010R	365	X	X	X		GRND			X				6010
NTPS	NTPS	6011R	365	X	X	X		GRND			X				6011
NTPS	NTPS	6012R	365	X	X	X		GRND			X				6012
NTPS	NTPS	6118R	365	X	X	X	(N)			2.0	X				6018

3.15 SYLLABUS EVALUATION FORMS. Contact MAWTS-1 to receive TSO T&R syllabus evaluation forms.

CHAPTER 4

KC-130T FLIGHT ENGINEER (MOS 6276/6242)

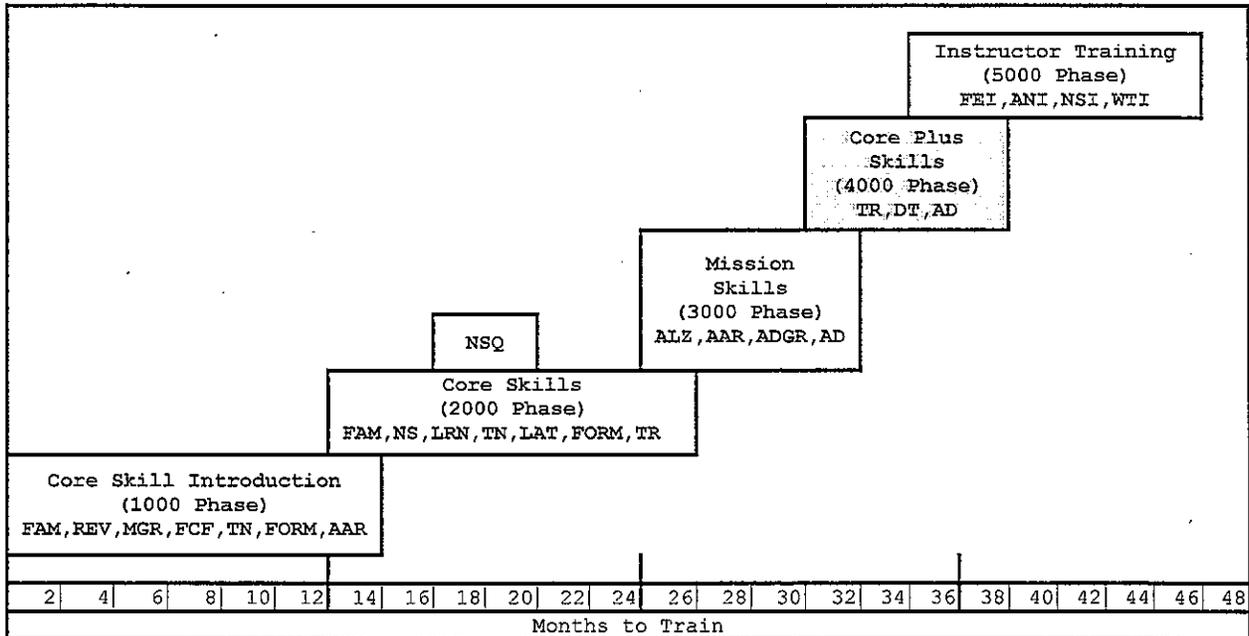
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KC-130T FLIGHT ENGINEER MOS 6242/6242

4.0 KC-130T FLIGHT ENGINEER 6276/6242 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.

4.1 KC-130T FLIGHT ENGINEER TRAINING PROGRESSION MODEL. The training progression model below provides recommended core skill, qualification, and designation attainment timelines for the average Flight Engineer.



4.2 INDIVIDUAL CORE SKILL PROFICIENCY (CSP) 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.

KC-130T Flight Engineer					
ATTAIN AND MAINTAIN CORE/MISSION/CORE PLUS PROFICIENCY MATRIX BY POI					
ATTAIN PROFICIENCY				MAINTAIN PROFICIENCY	
ASIC POI		REFRESHER POI		MAINTAIN POI	
SKILL	EVENT #	SKILL	EVENT #	SKILL	EVENT #
FAM	2000R	FAM	2000R	FAM	2000R
NS	2150R	NS	2150R	NS	2151R
	2151R		2151R		
LRN	2160R	LRN	2160R	LRN	2160R
TN	2200R	TN	2200R	TN	2251R
	2250R		2250R		
	2251R		2251R		
LAT	2260R	LAT	2260R	LAT	2260R
FORM	2300R	FORM	2300R	FORM	2300R
TR	2400R	TR	2400R	TR	2400R
ALZ	3500R	ALZ	3500R	ALZ	3550R
	3550R		3550R		
AAR	3600R	AAR	3600R	AAR	3600R
	3601R		3601R		3601R
	3650R		3650R		3650R
ADGR	3660R	ADGR	3660R	ADGR	3660R
AD	3700R	AD	3700R	AD	3700R
TR	4400R	TR	4400R	TR	4400R
DT	4410R	DT	4410R	DT	4410R
AD	4700R	AD	4700R	AD	4700R

4.3 REQUIREMENTS, QUALIFICATION AND DESIGNATIONS. 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, 2250, 2251
FE-2	6116
ANNUAL NATOPS	6118
INDIVIDUAL DESIGNATION REQUIREMENTS	
Designation	Event Requirements
ENGINE RUN	6100
FCF	6106
FE-1	6117
FEI	5100, 5108
ASSISTANT NATOPS INSTRUCTOR (ANI)	5140
NATOPS INSTRUCTOR/EVALUATOR (NI/GNE)	5141
NSI	5150, 5151, 5152, 5153
WTI	5999

4.4 PROGRAMS OF INSTRUCTION (POI)

4.4.1 Basic (B) POI. The time required to train a KC-130 Flight Engineer to Core Plus will vary depending on the previous Flight Engineer's experience. Basic, Transition, and Series Conversion Flight Engineers shall

fly the entire Basic POI. All initial flying codes will only utilize the aircraft.

WEEKS	COURSE	PERFORMING ACTIVITY
1-12	KC-130 FE Ground Course	HTU NAS/JRB FT WORTH
13-15	KC-130 Flight Simulator	Tactical Squadron
16-52	Core Skill Introduction Training	Tactical Squadron
52-100	Core Skill Training	Tactical Squadron
101-124	Mission Skill Training	Tactical Squadron
125-150	Core Plus Training	Tactical Squadron

4.4.2 Refresher (R) POI. Refresher Flight Engineers represent a varying background and should fly flights coded with an "R". Squadron commanding officers will review the qualifications, previous experience, currency, and demonstrated ability of Refresher Flight Engineers with a view towards waiving and/or combining required flights.

WEEKS	COURSE	PERFORMING ACTIVITY
1-2	KC-130 Flight Simulator	Tactical Squadron
4-6	Core Skill Introduction Training	Tactical Squadron
7-12	Core Skill Training	Tactical Squadron
13-14	Mission Skill Training	Tactical Squadron

4.4.3 Instructor POI

WEEKS	COURSE	PERFORMING ACTIVITY
1-2	Flight Engineer Instructor	Tactical Squadron
1	Night Systems Instructor	MAWTS-1
1-7	Weapons Tactics Instructor	MAWTS-1

4.5 ACADEMIC TRAINING

4.5.1 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.

4.5.2 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 NAS North Island CA
Flight Engineer Organizational Ground* Maintenance Course	HTU NAS JRB FT Worth, TX
NITE lab*	Tactical Squadron
Flight Engineer Initial Qualification*	Tactical Squadron
Flight Engineer Mission Qualification*	Tactical Squadron
Weapons and Tactics Instructor (WTI)*	MAWTS-1 Yuma, AZ
Environmental Survival Courses	Regional/Seasonal Survival Schools
Advanced Airlift Tactics Training Course (AATTC)	AATTC, St. Joseph MO
*External ground training courses of instruction which are required to complete the syllabus.	

4.6 CORE SKILL INTRODUCTION PHASE (1000)

4.6.1 General

a. Upon completion of this phase of training, the Flight Engineer will be NATOPS qualified as a FE-2. The Flight Engineer will be capable of basic aircraft operation to include emergency procedures and crew resource management. The NATOPS check may be conducted any time after completion of the Core Skill Introduction Phase. Commanders shall not designate student Flight Engineers as an FE-2 until satisfactory completion of the entire Core Skill Introduction Phase. Upon the completion of the FE-2 NATOPS check, Flight Engineers shall log the NTPS-6116 tracking code.

b. Crew Resource Management shall be briefed for all flights and events.

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

Par No.	Stage Name
4.6.3	Familiarization (FAM)
4.6.3	Systems Review (REV)
4.6.4	Intermediate Progress Check (CK)
4.6.5	Maintenance Ground Runs (MGR)
4.6.6	Functional Check Flight (FCF)
4.6.7	Tactical Navigation (TN)
4.6.8	Air to Air Refueling (AAR)

4.6.3 Familiarization (FAM)

a. Purpose. Familiarize the student Flight Engineer with his responsibilities and duties in the correct use of aircraft checklists, crew coordination, normal & emergency procedures, remedial actions for system malfunctions, aircraft limitations, and performance data under various flight conditions.

b. General

One hour of formal classroom training is required for 1 hour of flight simulator training. Refresher Flight Engineers need only to complete syllabus periods annotated with an "R". Aircraft utilization is authorized if the OFT is not available.

Upon completion of simulator training, the student Flight Engineer will be proficient and have demonstrated a thorough working knowledge of all aircraft systems, aircraft checklists, crew coordination, diagnosis of airborne malfunctions, and remedial actions that can be accomplished while airborne.

The flight portion of training deals with actual flight operations. The student Flight Engineer must possess and display a thorough working knowledge of all aircraft systems prior to the start of flight training.

c. Crew Requirements. Shall be instructed/evaluated by a Flight Engineer Instructor.

d. Academic/Ground Training. Prior to SFAM-1100, all Basic, Transition, and Series Conversion Flight Engineers shall complete the ground school course consisting of aircraft systems descriptions, normal and emergency procedures, cockpit resource management, basic weight and balance,

aircraft pre-flight and post-flight procedures, emergency evacuation procedures, bailout procedures, donning and use of all emergency equipment. The familiarization flight stage requires a minimum of 2 hours of ground instruction prior to each flight.

SFAM-1000 2.0 * IPT/CPT/OFT/WST S

Goal. Introduce the Flight Engineers responsibilities/duties, crew coordination, aircraft limitations, and use of expanded checklists.

Requirement. Student Flight Engineer shall perform responsibilities/duties associated with the expanded checklist from the cockpit checklist through the engine run-up checklist with assistance as necessary from the Flight Engineer Instructor.

The Student Flight Engineer shall calculate aircraft performance data.

Performance Standard. Student Flight Engineer shall perform responsibilities/duties IAW applicable NATOPS flight manual.

The Student Flight Engineer shall demonstrate knowledge of NATOPS aircraft limitations and calculate aircraft performance data.

Prerequisite. Ground academic training.

SFAM-1001 2.0 * IPT/CPT/OFT/WST S

Goal. Refine the Flight Engineer's responsibilities/duties, crew coordination, and aircraft limitations. Introduce the condensed checklists, referencing the expanded checklists as required.

Requirement. Review previous instructions as necessary. Student Flight Engineer shall perform responsibilities/duties associated with the condensed checklist referencing the expanded checklists as required, from the cockpit checklist to engine run-up with assistance as necessary from the Flight Engineer Instructor.

The Student Flight Engineer shall calculate aircraft performance data.

Performance Standard. Student Flight Engineer shall perform responsibilities/duties IAW applicable NATOPS flight manual.

The Student Flight Engineer shall demonstrate knowledge of NATOPS aircraft limitations and calculate aircraft performance data.

Prerequisite. SFAM-1000.

SFAM-1002 2.0 * IPT/CPT/OFT/WST S

Goal. Refine the Flight Engineer's responsibilities/duties, crew coordination, aircraft limitations, and use of the condensed checklists, referencing the expanded checklists as required.

Requirement. Review previous instructions as necessary. Student Flight Engineer shall perform responsibilities/duties associated with the condensed checklist referencing the expanded checklists as required from the cockpit checklist through the engine run-up checklist.

The Student Flight Engineer shall calculate aircraft performance data.

Performance Standard. Student Flight Engineer shall perform responsibilities/duties IAW applicable NATOPS flight manual.

The Student Flight Engineer shall demonstrate knowledge of NATOPS aircraft limitations and calculate aircraft performance data.

Prerequisite. SFAM-1001.

SFAM-1003 2.0 * IPT/CPT/OFT/WST S

Goal. Introduce start malfunctions.

Requirement. Review previous instructions as necessary. The Student Flight Engineer shall identify start malfunctions with assistance as necessary from the Flight Engineer Instructor and perform remedial actions IAW the SFAM simulator guide.

Student Flight Engineer shall perform responsibilities/duties associated with the condensed checklist from the cockpit checklist through the engine run-up checklist.

The Student Flight Engineer shall calculate aircraft performance data.

Performance Standard. Student Flight Engineer shall perform responsibilities/duties IAW applicable NATOPS flight manual.

The Student Flight Engineer shall demonstrate knowledge of NATOPS aircraft limitations and accurately calculate aircraft performance data.

Prerequisite. SFAM-1002.

SFAM-1004 2.0 * IPT/CPT/OFT/WST S

Goal. Expand start malfunctions.

Requirement. Review previous instructions as necessary. The Student Flight Engineer shall identify engine start malfunctions with assistance as necessary from the Flight Engineer Instructor and perform remedial actions IAW the SFAM simulator guide.

Student Flight Engineer shall perform responsibilities/duties associated with the condensed checklist from the cockpit checklist through the engine run-up checklist.

The Student Flight Engineer shall calculate aircraft performance data.

Introduce ground emergency malfunctions.

Performance Standard. Student Flight Engineer shall perform responsibilities/duties IAW applicable NATOPS flight manual.

The Student Flight Engineer shall demonstrate knowledge of NATOPS aircraft limitations and accurately calculate aircraft performance data.

Prerequisite. SFAM-1003.

SFAM-1005 2.0 * IPT/CPT/OFT/WST S

Goal. Refine start malfunctions, and ground emergency malfunctions. Introduce before takeoff checklist, ABORT procedures and secure checklist.

Requirement. Review previous instructions as necessary. The Student Flight Engineer shall identify start malfunctions, ground emergencies and perform remedial actions IAW the SFAM simulator guide.

Student Flight Engineer shall perform responsibilities/duties associated with the condensed checklist from the cockpit checklist through the before takeoff and secure checklist, referencing the expanded checklists as required.

The Student Flight Engineer shall calculate aircraft performance data.

Performance Standard. Student Flight Engineer shall perform responsibilities/duties IAW applicable NATOPS flight manual.

The Student Flight Engineer shall demonstrate knowledge of NATOPS aircraft limitations and accurately calculate aircraft performance data.

Prerequisite. SFAM-1004.

SFAM-1006 2.0 * IPT/CPT/OFT/WST S

Goal. Review start malfunctions, before takeoff checklist, ABORT procedures and secure checklist.

Requirement. Review previous instruction as necessary. Student Flight Engineer shall identify start malfunctions, perform remedial actions, identify ground emergencies and demonstrate knowledge of applicable NATOPS procedures.

The Student Flight Engineer shall calculate aircraft performance data.

Performance Standard. Student Flight Engineer shall perform responsibilities/duties IAW applicable NATOPS flight manual.

The Student Flight Engineer shall demonstrate knowledge of NATOPS aircraft limitations and accurately calculate aircraft performance data.

Prerequisite. SFAM-1005.

SFAM-1007 2.0 * R IPT/CPT/OFT/WST S

Goal. Review start malfunctions, ground emergencies and systems malfunction. Review all condensed checklists from cockpit checklist to engine run-up, ABORT procedures and secure checklist.

Requirement. Review previous instruction as necessary. The Student Flight Engineer shall identify start malfunctions and perform remedial actions, identify ground emergencies and perform remedial actions, identify takeoff emergencies and demonstrate knowledge of applicable NATOPS procedures.

The Student Flight Engineer shall calculate aircraft performance data.

Performance Standard. Student Flight Engineer shall perform responsibilities/duties IAW applicable NATOPS flight manual.

The Student Flight Engineer shall demonstrate knowledge of NATOPS aircraft limitations and accurately calculate aircraft performance data.

Prerequisite. SFAM-1006.

SFAM-1008 2.0 * R E IPT/CPT/OFT/WST S

Goal. Evaluate the student Flight Engineer's progress in cockpit procedures, start malfunctions, and ground emergency procedures IAW NATOPS and SFAM simulator guide.

Requirement. The Student Flight Engineer shall demonstrate proper execution of responsibilities/duties, and perform all checklists from the cockpit checklist through the secure checklist observing applicable aircraft limitations.

The Student Flight Engineer shall identify start malfunctions, ground emergencies, and takeoff emergencies, perform remedial actions and demonstrate knowledge of applicable NATOPS procedures.

The Student Flight Engineer shall calculate aircraft performance data.

Performance Standard. Student Flight Engineer shall perform responsibilities/duties IAW applicable NATOPS flight manual.

The Student Flight Engineer shall demonstrate knowledge of NATOPS aircraft limitations and accurately calculate aircraft performance data.

Prerequisite. SFAM-1007.

SFAM-1009 2.0 * R IPT/CPT/OFT/WST S

Goal. Introduce basic flight operations including the climb, descent, approach, before landing and after landing checklist utilizing the expanded and condensed checklist.

Introduce Comm/Nav systems operation and instrument displays, radio discipline and voice procedures.

Requirement. Review previous instruction as necessary. Student Flight Engineer shall demonstrate a basic knowledge of aircraft operations and utilization of condensed and expanded checklists. Student Flight Engineer shall demonstrate a knowledge of the Comm/Nav systems, radio discipline and voice procedures and perform remedial actions and emergency procedures related to aircraft Comm/Nav systems IAW the NATOPS.

The Student Flight Engineer shall calculate aircraft performance data.

Performance Standard. Student Flight Engineer shall perform responsibilities/ duties IAW applicable NATOPS flight manual.

The Student Flight Engineer shall demonstrate knowledge of NATOPS aircraft limitations and accurately calculate aircraft performance data.

Prerequisite. SFAM-1008.

SFAM-1010 2.0 * R IPT/CPT/OFT/WST S

Goal. Introduce the student Flight Engineer to the aircraft engine systems, malfunction, and emergency procedures.

Introduce emergency engine shutdown, cleanup checklist, NTS Check, cruise engine shutdown and airstart checklist and procedures.

Requirement. Review previous instruction as necessary. Student Flight Engineer shall demonstrate knowledge of aircraft engine systems and perform remedial actions and emergency procedures related to aircraft engine systems IAW the NATOPS.

The Student Flight Engineer shall calculate aircraft performance data.

Performance Standard. Student Flight Engineer shall perform responsibilities/duties IAW applicable NATOPS flight manual.

The Student Flight Engineer shall demonstrate knowledge of NATOPS aircraft limitations and accurately calculate aircraft performance data.

Prerequisite. SFAM-1009.

SFAM-1011 2.0 * R IPT/CPT/OFT/WST S

Goal. Introduce aircraft propeller systems, malfunctions, and emergency procedures.

Requirement. Review previous instruction as necessary. Student Flight Engineer shall demonstrate knowledge of the aircraft propeller systems and perform remedial actions and emergency procedures related to aircraft propeller systems IAW the NATOPS.

The Student Flight Engineer shall calculate aircraft performance data.

Performance Standard. Student Flight Engineer shall perform responsibilities/duties IAW applicable NATOPS flight manual.

The Student Flight Engineer shall demonstrate knowledge of NATOPS aircraft limitations and accurately calculate aircraft performance data.

Prerequisite. SFAM-1010.

SFAM-1012 2.0 * R IPT/CPT/OFT/WST S

Goal. Introduce aircraft electrical systems, malfunctions, and emergency procedures.

Requirement. Review previous instruction as necessary. Student Flight Engineer shall demonstrate knowledge of aircraft electrical systems and perform remedial actions, emergency procedures related to aircraft electrical systems IAW the NATOPS.

The Student Flight Engineer shall calculate aircraft performance data.

Performance Standard. Student Flight Engineer shall perform responsibilities/duties IAW applicable NATOPS flight manual.

The Student Flight Engineer shall demonstrate knowledge of NATOPS aircraft limitations and accurately calculate aircraft performance data.

Prerequisite. SFAM-1011.

SFAM-1013 2.0 * R IPT/CPT/OFT/WST S

Goal. Introduce aircraft bleed air, air conditioning/pressurization, anti-ice/de-ice systems, malfunctions, and emergency procedures.

Requirement. Review previous instruction as necessary. Student Flight Engineer shall demonstrate knowledge of aircraft bleed air, air conditioning and pressurization, anti-ice/de-ice systems and perform remedial actions, emergency procedures related to aircraft bleed air, air conditioning and pressurization, anti-ice/de-ice systems IAW the NATOPS.

The Student Flight Engineer shall calculate aircraft performance data.

Performance Standard. Student Flight Engineer shall perform responsibilities/duties IAW applicable NATOPS flight manual.

The Student Flight Engineer shall demonstrate knowledge of NATOPS aircraft limitations and accurately calculate aircraft performance data.

Prerequisite. SFAM-1012.

SFAM-1014 2.0 * R IPT/CPT/OFT/WST S

Goal. Introduce aircraft fuel systems, malfunctions, and emergency procedures.

Requirement. Review previous instruction as necessary. Student Flight Engineer shall demonstrate knowledge of aircraft fuel systems and perform remedial actions and emergency procedures related to aircraft fuel systems IAW the NATOPS.

The Student Flight Engineer shall calculate aircraft performance data.

Performance Standard. Student Flight Engineer shall perform responsibilities/duties IAW applicable NATOPS flight manual.

The Student Flight Engineer shall demonstrate knowledge of NATOPS aircraft limitations and accurately calculate aircraft performance data.

Prerequisite. SFAM-1013.

SFAM-1015 2.0 * R IPT/CPT/OFT/WST S

Goal. Introduce aircraft hydraulic systems, malfunctions, and emergency procedures.

Requirement. Review previous instruction as necessary. Student Flight Engineer shall demonstrate knowledge of aircraft hydraulic systems and perform remedial actions and emergency procedures related to aircraft hydraulic systems IAW the NATOPS.

The Student Flight Engineer shall calculate aircraft performance data.

Performance Standard. Student Flight Engineer shall perform responsibilities/duties IAW applicable NATOPS flight manual.

The Student Flight Engineer shall demonstrate knowledge of NATOPS aircraft limitations and accurately calculate aircraft performance data.

Prerequisite. SFAM-1014.

SFAM-1016 2.0 * R IPT/CPT/OFT/WST S

Goal. Introduce aircraft air-to-air refueling systems, malfunctions, and emergency procedures.

Requirement. Review previous instruction as necessary. Student Flight Engineer shall demonstrate knowledge of aircraft air-to-air refueling systems and perform remedial actions and emergency procedures related to aircraft air-to-air refueling systems IAW the NATOPS.

The Student Flight Engineer shall calculate aircraft performance data.

Performance Standard. Student Flight Engineer shall perform responsibilities/duties IAW applicable NATOPS flight manual.

The Student Flight Engineer shall demonstrate knowledge of NATOPS aircraft limitations and accurately calculate aircraft performance data.

Prerequisite. SFAM-1015.

SFAM-1017 2.0 * R IPT/CPT/OFT/WST S

Goal. Refine aircraft air-to-air refueling systems, review aircraft start, ground, and flight malfunctions, remedial actions and emergency procedures.

Requirement. Review previous instruction as necessary. Student Flight Engineer shall demonstrate knowledge of the correct use of aircraft checklists, crew coordination, normal & emergency procedures, remedial actions for system malfunctions, and aircraft performance data.

Student Flight Engineer shall demonstrate knowledge of aircraft air-to-air refueling systems and perform remedial actions and emergency procedures related to aircraft air-to-air refueling systems IAW the NATOPS.

The Student Flight Engineer shall calculate aircraft performance data.

Performance Standard. Student Flight Engineer shall perform responsibilities/duties IAW applicable NATOPS flight manual.

The Student Flight Engineer shall demonstrate knowledge of NATOPS aircraft limitations and accurately calculate aircraft performance data.

Prerequisite. SFAM-1016.

SFAM-1018 2.0 * R E IPT/CPT/OFT/WST S

Goal. Evaluate simulator progress.

Requirement. The student Flight Engineer shall successfully complete a standard evaluation in the correct use of aircraft checklists, crew coordination, normal & emergency procedures, remedial actions for system malfunctions, and aircraft performance data.

The Student Flight Engineer shall calculate aircraft performance data.

Performance Standard. Student Flight Engineer shall perform responsibilities/duties IAW applicable NATOPS flight manual.

The Student Flight Engineer shall demonstrate knowledge of NATOPS aircraft limitations and accurately calculate aircraft performance data.

Prerequisite. SFAM-1017.

FAM-1100 4.0 * B,R (N) A 1 KC-130

Goal. Familiarize the student Flight Engineer with correct turnaround inspection and normal flight operations.

Requirement. The student Flight Engineer shall be familiar with correct turnaround inspection, and normal flight operations IAW NA01-75GAA-6-1 and NFM.

Performance Standard. Student Flight Engineer shall perform responsibilities/duties IAW applicable NATOPS flight manual.

Prerequisite. SFAM-1014.

FAM-1101 4.0 * B,R (N) A 1 KC-130

Goal. Familiarize the student Flight Engineer with time management of turnaround inspection, computation of performance data, and normal flight operations.

Requirement. The student Flight Engineer shall be familiar with time management of turnaround inspections, computation of performance data, and normal flight operations IAW NA01-75GAA-6-1 and NA0175GAA-1.

Performance Standard. Student Flight Engineer shall perform responsibilities/duties IAW applicable NATOPS flight manual.

Prerequisite. FAM-1100.

FAM-1102 4.0 * B,R (N) A 1 KC-130

Goal. Refine time management of turnaround inspection responsibilities and duties to include performance data computation, Weight and Balance Form 365-4 completion, and normal flight operations during night time conditions.

Requirement. The student Flight Engineer shall be able to coordinate and perform aircraft turnaround inspection per current instructions utilizing proper time management to accomplish all required tasks, including correct performance data computation, accurate Weight and Balance Form 365-4 completion, and normal flight operations during night time conditions.

Performance Standard. Student Flight Engineer shall perform responsibilities/duties IAW applicable NATOPS flight manual.

Prerequisite. FAM-1101.

FAM-1103 4.0 * B,R (N) A 1 KC-130

Goal. Familiarize the student Flight Engineer in all weather operations and procedures per NFM.

Requirement. The student Flight Engineer shall be able to perform his duties in all weather conditions.

Performance Standard. Student Flight Engineer shall perform responsibilities/duties IAW applicable NATOPS flight manual.

Prerequisite. FAM-1102.

FAM-1104 4.0 * B,R (N) A 1 KC-130

Goal. Familiarize student Flight Engineer with simulated engine out approach, landing and go around procedures.

Requirement. The student Flight Engineer shall be familiar with all normal and emergency procedures related to engine out flight conditions.

Performance Standard. Student Flight Engineer shall perform responsibilities/duties IAW applicable NATOPS flight manual.

Prerequisite. FAM-1103.

FAM-1105 4.0 * B,R (N) A 1 KC-130

Goal. Familiarize the student Flight Engineer on extended over water flight operations to include mission planning, range prediction, range control, endurance, and use of engine/fuel logs.

Requirement. The student Flight Engineer shall be able to perform normal procedures and mission planning; and use aircraft performance data (range prediction, range control, & endurance), and engine/fuel logs associated with extended over water flights.

Performance Standard. Student Flight Engineer shall perform responsibilities/duties IAW applicable NATOPS flight manual.

Prerequisite. FAM-1104.

4.6.3 Systems Review (REV)

a. Purpose. Review aircraft systems, systems operation, system malfunctions, corrective actions, and troubleshooting per current instructions.

b. General. This portion of training deals with actual flight operations. The student Flight Engineer must possess and display a thorough working knowledge of all aircraft systems prior to the start of the flight training review syllabus. The Flight Engineer Instructor may induce malfunctions and simulated emergencies as practical.

c. Crew Requirements. Shall be instructed/evaluated by a Flight Engineer Instructor.

d. Academic/Ground Training. The systems review stage requires a minimum of 2 hours of ground instruction prior to each flight.

REV-1130 4.0 * B D A 1 KC-130

Goal. Review aircraft engines and APU.

Requirement. The student Flight Engineer shall be knowledgeable on aircraft engine operation and related systems as it pertains to interoperability of the aircraft during flight operations, possible malfunctions, troubleshooting, and corrective actions IAW FRS student guide.

Performance Standard. Student Flight Engineer shall perform responsibilities/duties IAW applicable NATOPS flight manual.

Prerequisite. FAM-1105.

REV-1131 4.0 * B D A 1 KC-130

Goal. Review aircraft propeller system.

Requirement. The student Flight Engineer shall be knowledgeable on aircraft propeller system operation as it pertains to interoperability of the aircraft during flight operations, possible malfunctions, troubleshooting, and corrective actions including the blade assemblies, barrel assembly, dome assembly, spinner assembly, anti-icing/deicing assemblies, control assembly, governing system, synchrophasing system, and propeller controls IAW FRS student guide.

Performance Standard. Student Flight Engineer shall perform responsibilities/duties IAW applicable NATOPS flight manual.

Prerequisite. REV-1130.

REV-1132 4.0 * B D A 1 KC-130

Goal. Review the aircraft AC/DC electrical systems.

Requirement. The student Flight Engineer shall be knowledgeable on AC/DC electrical systems operation as it pertains to interoperability of the aircraft during flight operations, possible malfunctions, troubleshooting, and corrective actions including the primary and secondary systems, TR units, the battery system, indicators, and system warning lights IAW FRS student guide.

Performance Standard. Student Flight Engineer shall perform responsibilities/duties IAW applicable NATOPS flight manual.

Prerequisite. REV-1131.

REV-1133 4.0 * B D A 1 KC-130

Goal. Review bleed air systems, anti-icing and deicing, air conditioning, pressurization, and oxygen systems.

Requirement. The student Flight Engineer shall be knowledgeable on the aircraft bleed air systems as it pertains to interoperability of the aircraft during flight operations to include the air turbine motor, associated bleed air valves & ducting, nacelle preheat, bleed air system controls, and isolation valves, wing and empennage anti-icing, propeller anti-icing/de-icing, and NESA system, possible malfunctions, troubleshooting, and corrective actions IAW FRS student guide.

Performance Standard. Student Flight Engineer shall perform responsibilities/duties IAW applicable NATOPS flight manual.

Prerequisite. REV-1132.

REV-1134 4.0 * B D A 1 KC-130

Goal. Review the aircraft fuel systems.

Requirement. The student Flight Engineer shall be knowledgeable on aircraft fuel systems as it pertains to interoperability of the aircraft during flight operations including the refueling/de-fueling system & procedures, tank configuration, water removal, cross feed, fuel transfer & jettison, IFR, single-point refueling systems, fuel system controls, and the fuel indicating systems operation, possible malfunctions, troubleshooting, and corrective actions IAW FRS student guide.

Performance Standard. Student Flight Engineer shall perform responsibilities/duties IAW applicable NATOPS flight manual.

Prerequisite. REV-1133.

REV-1135 4.0 * B D A 1 KC-130

Goal. Review the aircraft utility, booster, and auxiliary hydraulic systems.

Requirement. The student Flight Engineer shall be knowledgeable on the utility, booster, and auxiliary hydraulic systems as it pertains to interoperability of the aircraft during flight operations to include the basic hydraulic system and sub systems possible malfunctions, troubleshooting, and corrective actions IAW FRS student guide.

Performance Standard. Student Flight Engineer shall perform responsibilities/duties IAW applicable NATOPS flight manual.

Prerequisite. REV-1134.

REV-1136 4.0 * B D A 1 KC-130

Goal. Review the aircraft communications, navigation, and flight instrument systems.

Requirement. The student Flight Engineer shall be knowledgeable on communication and aircraft navigation systems operation as it pertains to interoperability of the aircraft during flight operations, voice procedures, possible malfunctions, troubleshooting, and corrective actions IAW FRS student guide.

Performance Standard. Student Flight Engineer shall perform responsibilities/duties IAW applicable NATOPS flight manual.

Prerequisite. REV-1135.

REV-1137 4.0 * B D A 1 KC-130

Goal. Review aircraft air-to-air refueling systems.

Requirement. The student Flight Engineer shall be knowledgeable on aircraft air-to-air refueling systems operation as it pertains to interoperability of the aircraft during flight operations, possible malfunctions, troubleshooting, and corrective actions IAW FRS student guide.

Performance Standard. Student Flight Engineer shall perform responsibilities/duties IAW applicable NATOPS flight manual.

Prerequisite. REV-1136.

4.6.4 Intermediate Progress Evaluation (CK)

a. Purpose. Evaluate the student Flight Engineer's overall progress.

b. General. The student Flight Engineer shall complete all familiarization and review codes prior to CK-1150. Flight portion of the progress evaluation should be conducted on an extended over water flight or an extended overland flight to include a Remain Overnight (RON).

c. Crew requirements. Shall be instructed/evaluated by a Flight Engineer Instructor.

SCK-1150 4.0 * B (N) E S

Goal. Evaluate the student Flight Engineer's overall progress.

Requirement. The student Flight Engineer shall have demonstrated his knowledge of normal and emergency procedures, all aircraft systems operations, possible malfunctions, troubleshooting, and corrective actions IAW FRS student guide and NFM.

Performance Standard. Student Flight Engineer shall perform responsibilities/duties IAW applicable NATOPS flight manual.

Prerequisite. REV-1137.

4.6.5 Maintenance Ground Runs (MGR)

a. Purpose. Familiarize the student Flight Engineer on post maintenance run-up procedures.

b. General. All required FCF's will be conducted upon completion of post maintenance run-ups.

c. Crew Requirements. Shall be instructed/evaluated by a Flight Engineer Instructor.

d. Academic/Ground Training. Each event requires 1 hour of classroom instruction.

SMGR-1160 3.0 * B D S/A IPT/CPT/OFT/WST

Goal. Introduce ground maintenance run-up procedures.

Requirement. The student Flight Engineer shall be familiar with ground maintenance run-up procedures IAW FRS Maintenance Ground run-up and Functional check-flight student guide.

Performance Standard. Student Flight Engineer shall perform responsibilities/duties IAW applicable maintenance ground run-up and NATOPS flight manuals.

Prerequisite. CK-1150.

SMGR-1161 3.0 * B D S/A IPT/CPT/OFT/WST

Goal. Refine ground maintenance run-up procedures.

Requirement. The student Flight Engineer shall be proficient on ground maintenance run-up procedures IAW FRS Maintenance Ground run-up and Functional check-flight student guide.

Performance Standard. Student Flight Engineer shall perform responsibilities/duties IAW applicable maintenance ground run-up and NATOPS flight manuals.

Prerequisite. SMGR-1160.

MGR-1162 4.0 * B,R D A 1 KC-130

Goal. Refine ground maintenance run-up procedures.

Requirement. The student Flight Engineer shall perform a phase ground maintenance run-up from the left seat IAW FRS Maintenance Ground run-up and Functional check-flight student guide.

Performance Standard. Student Flight Engineer shall perform responsibilities/duties IAW applicable maintenance ground run-up and NATOPS flight manuals.

Prerequisite. SMGR-1161.

MGR-1163 4.0 * B D A 1 KC-130

Goal. Refine ground maintenance run-up procedures.

Requirement. The student Flight Engineer shall perform a phase ground maintenance run-up from the left seat IAW FRS Maintenance Ground run-up and Functional check-flight student guide.

Performance Standard. Student Flight Engineer shall perform responsibilities/duties IAW applicable ground run-up and NATOPS flight manuals.

Prerequisite. MGR-1162.

MGR-1164 4.0 * B D A 1 KC-130

Goal. Maintenance ground run-up check.

Requirement. The student Flight Engineer shall be proficient on phase maintenance ground run-up procedures IAW FRS Maintenance Ground run-up and Functional check-flight student guide.

Performance Standard. Student Flight Engineer shall perform responsibilities/duties IAW applicable ground run-up and NATOPS flight manuals.

Prerequisite. MGR-1163.

4.4.6 Functional Check Flights (FCF)

a. Purpose. Familiarize the student Flight Engineer on FCF procedures.

b. General. All required FCF's will be conducted upon completion of post maintenance run-ups.

c. Crew Requirements. Shall be instructed/evaluated by a Flight Engineer Instructor.

d. Academic/Ground Training. Each flight requires 1 hour of classroom instruction.

c. Crew Requirements. Shall be instructed/evaluated by a Flight Engineer Instructor. The minimum crew as defined by the NFM and ANTPP is required for flight events to include 1 observer per operated refueling pod.

d. Academic/Ground Training. Each flight requires 1 hour of classroom instruction.

ATP-56B NATO Air-to-Air Refueling Manual

In-flight refueling system

KC-130 ANTPP

AAR briefing using the Tactical Pocket Guide (TPG)

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

Goal. Train the student Flight Engineer in Fixed-Wing AAR/ Tilt Rotor AAR (FWAAR/TRAAR) procedures.

Requirement. The student Flight Engineer shall be familiar with fixed-wing/tilt rotor air-to-air refueling procedures including the transfer of fuel to receiver aircraft.

Performance Standard. Student Flight Engineer shall perform responsibilities/duties IAW applicable NATOPS flight manual.

Prerequisite. CK-1150.

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

AAR-1601 3.0 * B (N*) A 1 KC-130

Goal. Train the student Flight Engineer in Helicopter AAR (HAAR) procedures.

Requirement. The student Flight Engineer shall be familiar with helicopter refueling procedures including the transfer of fuel to receiver aircraft.

Performance Standard. Student Flight Engineer shall perform responsibilities/duties IAW applicable NATOPS flight manual.

Prerequisite. CK-1150.

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

4.7 CORE SKILL PHASE (2000)

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

a. Additional focus will be on crew resource management, aircraft preflight preparation, location and use of emergency equipment, ground and in-flight emergency procedures, aircraft post flight procedures, systems operation, system malfunctions, corrective actions, fault isolation and in-flight fault isolation.

b. Non-NSQ Flight Engineers under instruction shall be instructed by a Flight Engineer NSI when conducting NS Training. Non-NSQ syllabus initial events may be flown with an FEI/ANI/NI provided the instructor is proficient in the event being conducted.

c. 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. Flight Engineers successfully completing these requirements may be issued a Night Systems Qualified letter by the squadron commanding officer.

d. Upon completion of each event, the FE-2 will be able to fly subsequent events in this phase without instruction with the exception of NSQ syllabus events.

e. Crew Resource Management shall be briefed for all flights and events.

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

Par No.	Stage Name
4.7.2	Familiarization (FAM)
4.7.3	Night Systems (NS)
4.7.4	Long Range Navigation (LRN)
4.7.5	Tactical Navigation (TN)
4.7.6	Low Altitude Tactics (LAT)
4.7.7	Formation (FORM)
4.7.8	Threat Reaction (TR)

4.7.2 Familiarization (FAM)

a. Purpose. Maintain Flight Engineer proficiency on administrative flights.

b. General. The Flight Engineer under instruction shall fly initial codes with a qualified FEI. Subsequent events may be flown with a qualified crew provided the Flight Engineer meets the pre-requisites.

c. Crew Requirements. Shall be instructed/evaluated by a Flight Engineer Instructor.

d. Academic/Ground Training. Each flight requires 1 hour of classroom instruction.

FAM-2000 2.0 90 B,R,M (N) A/S 1 KC-130

Goal. Maintain proficiency in normal and emergency procedures during day or night flight operations.

Requirement. Review normal and emergency procedures during day flight operations per current instructions.

Performance Standard. Student Flight Engineer shall perform responsibilities/duties IAW applicable NATOPS flight manual.

Prerequisite. NTPS-6116.

4.7.3 Night Systems (NS)

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

b. 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. Flight Engineers successfully completing these requirements may be issued a Night Systems Qualified letter by the squadron commanding officer.

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

d. 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,R,M NS A 1 KC-130

Goal. Introduce the Flight Engineer to NVD operations under HLL conditions.

Requirement. Preflight shall include a flight station, cargo compartment and exterior lighting demonstration with NVDs.

Instruct the Flight Engineer in the use of NVDs to include normal and emergency procedures at altitude and in the terminal environment. Emphasize NVD considerations, calibration, preflight, and in-flight normal and emergency procedures.

Performance Standard. 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.

Prerequisite. FAM-2000.

NS-2151 2.0 180 B,R,M NS A 1 KC-130

Goal. Introduce Flight Engineer to NVD operations under LLL conditions.

Requirement. Instruct the Flight Engineer in the use of NVDs during LLL conditions to include normal and emergency procedures at altitude and in the terminal environment. Focus on the capabilities and limitations of the NVDs under LLL conditions, preflight, emergency procedures, calibration, preparation and in-flight use. The Flight Engineer will demonstrate knowledge of normal and emergency procedures outlined in the KC-130 ANTP and NVD specific items in the MAWTS-1 NVD Fixed-Wing manual.

Performance Standard. The Flight Engineer 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.

Prerequisite. NS-2150.

4.7.4 Long Range Navigation (LRN)

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

b. General. Fly an extended over water flight and review over water procedures placing emphasis on mission planning, use of aircraft performance data, and engine/fuel logs.

c. Crew Requirements. Shall be instructed by a Flight Engineer Instructor.

d. Academic/Ground Training. Specific fuel panel procedures and NATOPS long range cruise considerations.

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

Goal. Refine extended over water procedures.

Requirement. Fly an extended over water flight and review over-water procedures placing emphasis on mission planning, use of aircraft performance data, and engine/fuel logs.

Performance Standard. Flight Engineer shall perform responsibilities/duties IAW applicable NATOPS flight manual.

Prerequisite. FAM-2000.

4.7.5 Tactical Navigation (TN)

a. Purpose. Train the Flight Engineer in low level procedures.

b. Crew Requirements. Non-NSQ Flight Engineers under instruction shall be instructed by a Flight Engineer NSI when conducting NS Training. Non-NSQ syllabus initial events shall be flown with an FEI provided the instructor is proficient in the event being conducted.

c. 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 * B,R D A 1 KC-130

Goal. Introduce the Flight Engineer to day low-level navigation procedures.

Requirement. Fly a low level route per KC-130 ANTTP procedures.

Performance Standard. Student Flight Engineer shall perform responsibilities/duties IAW applicable NATOPS flight manual.

Prerequisite. FAM-2000.

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

TN-2250 2.0 * B,R NS A 1 KC-130

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

Requirement. Fly a night low level route per KC-130 ANTTP procedures.

Performance Standard. Student Flight Engineer shall perform responsibilities/duties IAW applicable NATOPS flight manual.

Prerequisite. NS-2150, TN-2200.

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

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

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

Requirement. Fly a night low level route per KC-130 ANTTP procedures.

Performance Standard. Student Flight Engineer shall perform responsibilities/duties IAW applicable NATOPS flight manual.

Prerequisite. NS-2151, TN-2250.

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

4.7.6 Low Altitude Tactics (LAT)

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

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 ANTP.

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

d. Academic/Ground Training. Review the low level navigation and LAT chapters of the KC-130 ANTP.

LAT-2260 2.0 180 B,R,M D A 1 KC-130

Goal. Introduce and qualify the Flight Engineer, or to maintain proficiency for LAT in the duties associated with low altitude tactics flights in a low to medium ground threat environment.

Requirement. Emphasize cargo compartment preparation, crew briefing, lookout doctrine, scan for threats, crew coordination and FENCEC. This event may include air-to-air refueling, air delivery or any type of air/land delivery.

Performance Standard. Per the applicable NATOPS flight manual and KC-130 ANTP.

Prerequisite. TN-2200.

External Syllabus Support. LAT approved MTR or restricted area.

4.7.7 Formation (FORM)

a. Purpose. Train the Flight Engineer in formation procedures.

b. Crew Requirements. Non-NSQ Flight Engineers under instruction shall be instructed by a Flight Engineer NSI when conducting NS Training. Non-NSQ syllabus initial events may be flown with a FEI provided the instructor is proficient in the event being conducted.

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

FORM-2300 2.0 365 B,R,M (NS) A 2 KC-130

Goal. Proficiency training in formation procedures.

Requirement. Fly a two plane formation flight per the NATOPS and KC-130 ANTP.

Performance Standard. Student Flight Engineer shall perform responsibilities/duties IAW NATOPS flight manual and KC-130 ANTP.

Prerequisite. FAM-2000.

4.7.8 Threat Reaction (TR)

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

b. General

The Flight Engineer 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.

c. Crew Requirements. The Flight Engineer under instruction will be instructed by a FEI for all initial codes provided the instructor is proficient in the event.

d. Academic/Ground Training. Review the NFM, KC-130 ANTPP, Classified ANTPP, 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.

TR-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 Flight Engineer 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 Flight Engineer should be able to correctly operate the aircraft's ASE suite in an IR SAM environment, and react timely and correctly to threat calls. Proper aircrew coordination shall be performed in threat reaction.

Prerequisite. TN-2260.

Ordnance. 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.

4.8 MISSION SKILL PHASE (3000)

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

a. The FE under instruction shall receive the appropriate MAWTS-1 ASP lectures prior to the appropriate stage of training.

b. All instructors must be proficient in the events they instruct.

c. A Flight Engineer NSI is required only if the initial sortie is conducted using NVD's and the FE under instruction is not NSQ. A FEI who is NSQ may instruct a NSQ FE on initial events flown using NVD's. Any FEI may instruct these events during the day or unaided.

d. On completion of the required events contained in this phase, the Flight Engineer shall receive a Flight Engineer 1 NATOPS evaluation. The NATOPS check may be conducted any time after completion of the Mission Skill phase. Commanders shall not designate student Flight Engineers as an FE-1 until satisfactory completion of the entire 2000 and 3000 phases. Upon NATOPS FE-1 check completion, Flight Engineers shall log the NTPS-6117 tracking code and NTPS-6118 annual NATOPS check flight. All NATOPS checks shall be administered by a designated ANI/NI.

e. Crew Resource Management shall be briefed for all flights and events.

4.8.1.1 Stages. The following stages are included in the Mission Skill Phase of training.

Par No.	Stage Name
4.8.2	Assault Landing Zone (ALZ)
4.8.3	Air-to-Air Refueling (AAR)
4.8.4	Aviation Delivered Ground Refueling (ADGR)
4.8.5	Air Delivery (AD)
4.8.6	Low Altitude Tactics (LAT)
4.8.7	Formation (FORM)
4.8.8	Threat Reaction (TR)

4.8.2 Assault Landing Zone (ALZ)

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

b. General. 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 ANTP. Ideally, MMT will be utilized for terminal control with tactical NAVAIDS available.

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.

c. Crew Requirements. A Flight Engineer NSI is required only if the initial sortie is conducted using NVD's and the FE under instruction is not NSQ. A FEI who is NSQ may instruct a NSQ FE on initial events flown using NVD's. Any FEI may instruct these events during the day or unaided.

d. Academic/Ground Training. Review Assault Landing Zone operations in the KC-130 ANTP. Review MAWTS-1 ASP ALZ courseware. Familiarize the Flight Engineer with ground emergencies in an austere environment and performance data for specific circumstances applicable pubs for unimproved runway operation.

ALZ-3500 2.0 * B,R D A 1 KC-130

Goal. Introduce Day ALZ procedures at improved/unimproved fields.

Requirement. Introduce maximum effort takeoffs and landings at improved/unimproved field IAW KC-130 ANTP. Review all appropriate performance data.

Performance Standard. The Flight Engineer shall perform responsibilities/duties IAW the NATOPS flight manual.

Prerequisite. FAM-2000.

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-3550 2.0 365 B,R,M NS A 1 KC-130

Goal. Introduce NVD ALZ procedures.

Requirement. Introduce maximum effort takeoffs and landings in a night time environment IAW KC-130 ANTTP. Review all appropriate performance data.

Performance Standard. The Flight Engineer shall perform responsibilities/duties IAW applicable NATOPS flight manual.

Prerequisite. NS-2151 and ALZ-3500.

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

4.8.3 Air-to-Air Refueling (AAR)

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

b. General. The FE shall conduct normal and emergency procedures associated with air-to-air refueling in addition to crew responsibilities in day, night and NVD procedures.

c. Crew Requirements. A Flight Engineer NSI is required only if the initial sortie is conducted using NVD's and the FE under instruction is not NSQ. A FEI who is NSQ may instruct a NSQ FE on initial events flown using NVD's. Any FEI may instruct these events during the day or unaided.

d. Academic/Ground Training. Review NATOPS Flight Manual, NATOPS flight manual supplements, ATP-56(B), KC-130 ANTTP, and MAWTS-1 Tactical AAR Courseware relating to fixed-wing AR procedures.

AAR-3600 3.0 365 B,R,M (N) A 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. EMCON procedures should be introduced for the completion of the initial syllabus event.

Performance Standard. Satisfactorily demonstrate the ability to 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. FAM-2000.

External Syllabus Support. Fixed-wing or tilt rotor receiver aircraft.

AAR-3601 3.0 365 B,R,M D A 1 KC-130

Goal. Day Helicopter AAR (HAAR) procedures.

Requirement. This event shall be flown during the day. Fly a helicopter AAR mission and review normal and emergency helicopter refueling procedures per KC-130 ANTTP and ATP-56(B). Use of EMCON procedures is optional.

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

Prerequisite. FAM-2000.

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

AAR-3650 3.0 365 B,R,M NS A 1 KC-130

Goal. NVD HAAR procedures.

Requirement. Conduct single tanker rendezvous procedures and receiver management. Fly a helicopter AAR mission and review normal and emergency helicopter refueling procedures at night per KC-130 ANTP and ATP-56(B). Use of EMCON procedures is optional.

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

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

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

4.8.4 Aviation Delivered Ground Refueling (ADGR)

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

b. Crew Requirements. A Flight Engineer NSI is required only if the initial sortie is conducted using NVD's and the FE under instruction is not NSQ. A FEI who is NSQ may instruct a NSQ FE on initial events flown using NVD's. Any FEI may instruct these events during the day or unaided.

c. Academic/Ground Training. The Flight Engineer should review the KC-130 ANTP 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 1 KC-130

Goal. Train the FE in Aviation Delivered Ground Refueling 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.

Performance Standard. Flight Engineer shall perform responsibilities/duties IAW applicable NATOPS flight manual.

Prerequisite. FAM-2000.

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

4.8.5. Air Delivery (AD)

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

b. 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.

c. Crew Requirements. A Flight Engineer NSI is required only if the initial sortie is conducted using NVDs and the FE under instruction is not NSQ. A FEI who is NSQ may instruct a NSQ FE on initial events flown using NVDs. Any FEI may instruct these events during the day.

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

AD-3700 2.0 365 B,R,M (NS) A 1 KC-130

Goal. Train and evaluate the Flight Engineer in day or night air delivery procedures.

Requirement. Review personnel, CDS, combination and HE air delivery procedures. The FE shall demonstrate the ability to ingress to an objective area and manage checklists for AD procedures. Emphasis should be placed on CRM and AD procedures.

Performance Standard. Flight Engineer shall perform responsibilities/duties IAW the NATOPS flight manual and KC-130 ANTPP.

Prerequisite. FAM-2000. NS-2150 (HLL) or 2151 (LLL)

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

4.9 CORE PLUS SKILL PHASE (4000)

4.9.1 General. Upon completion of this phase of training, the Flight Engineer will be proficient in day and night RADAR Threat Reaction (TR), Air-to-Air Defensive Tactics (DT), advanced AD (combination, MFF).

a. Upon completion of each stage in this phase, the FE-1 shall be able to fly subsequent events in the stage without instruction. For example: Once an FE-1 has completed DT-4411 he is now considered DT complete. The FE-1 is now qualified to fly all events in the DT stage without the aid of an instructor.

b. Crew Resource Management shall be briefed for all flights and events.

4.9.1.1 Stages. The following stages are included in the Mission Skill Phase of training.

Par No.	Stage Name
4.9.2	Threat Reaction (TR)
4.9.3	Defensive Tactics (DT)
4.9.4	Air Delivery (AD)

4.9.2 Threat Reaction (TR)

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

b. 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.

c. Crew Requirements. Flight Engineer conducting training will be instructed by a FEI for all initial codes provided the Instructor is proficient in the event.

d. Academic/Ground Training. Review the NFM, KC-130 ANTP, Classified ANTP, 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.

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. Conduct and train in RF Counter tactics. Introduce FE to pertinent ground loading procedures, system setup and operation of ASE systems in flight, emphasis on evasive flight techniques in coordination with ASE employment. Conduct defensive maneuvering against ground RF threat. Emphasize briefing, conduct of flight, and lookout doctrine. IR threat reaction should also be practiced during this event.

Performance Standard. The FE shall demonstrate the ability to properly operate the ASE systems in flight, with an emphasis on evasive flight techniques in coordination with ASE employment. Conduct defensive maneuvering against RADAR acquisition, target tracking and launch sequences.

The FE shall perform responsibilities/duties IAW the NATOPS flight manual and KC-130 ANTP.

Prerequisite. LAT-2260.

Ordnance. Expendables.

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

4.9.3 Defensive Tactics (DT)

a. 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.

b. General. The DT requirements consist of DT-4410. The following is recommended but not required:

Use of the Rear Vision Device (RVD) and ASE suite.

Appropriate chaff and decoy flares loaded prior to flight if available.

c. Crew Requirements. Flight Engineers receiving initial DT training shall be instructed by a DTI.

d. Academic/Ground Training. Review the KC-130 ANTP, Classified ANTP, 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,M D A 1 KC-130

Goal. Train in defensive maneuvering in relation to an air-to-air threat.

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

Prerequisite. LAT-2260, TR-4400.

Ordnance. Expendables.

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

4.9.4 Air Delivery (AD)

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

b. Crew Requirements. Shall be instructed by a FEI or NSI (if NS).

c. Academic/Ground Training. Review KC-130 ANTPP 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 1 KC-130

Goal. Introduce and qualify the Flight Engineer, or to maintain proficiency for the qualified Flight Engineer in the duties associated with high altitude environment air delivery.

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 AD. Review applicable physiology and oxygen requirements for high altitude AD operations. Emphasize crew and jumpmaster coordination.

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

Prerequisite. AD-3700.

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

4.10 INSTRUCTOR TRAINING PHASE (5000)

4.10.1 General. The purpose of this phase of training is to train qualified Flight Engineers to instruct various levels of instruction.

a. Flight Engineers shall be recommended for instructor training via Aircrew Performance Review Board (APRB). Upon recommendation, the Flight Engineer shall complete appropriate syllabus requirements. Upon completion of syllabus requirements, the commanding officer may designate the Flight Engineer as an instructor.

b. Standardization will be emphasized throughout instructor training.

c. Crew Resource Management shall be briefed for all flights and events.

4.10.1.1 Stages. The following stages are included in the Instructor Training Phase.

Par No.	Stage Name
4.10.2	Flight Engineer Instructor (FEI)
4.10.3	NATOPS Instructor/Assistant NATOPS Instructor (NI/ANI)
4.10.4	Night Systems Instructor (NSI)
4.10.5	Weapons and Tactics Instructor (WTI)

4.10.2 Flight Engineer Instructor (FEI)

a. Purpose. To develop qualified Flight Engineer Instructors (FEI) using a standardized instructor training program. This syllabus is designed to prepare Flight Engineer to instruct the majority of events within the Core Skill Introduction, Core Skill, Mission Skill, and Mission Plus Skill Phases. This portion of the syllabus shall be used by VMGR squadrons to assist in instructor standardization.

b. General

Emphasize standardization and the ability of the Flight Engineer to instruct normal and emergency procedures per the NATOPS Flight Manual.

1000 flight hours are required as a qualified Flight Engineer to begin this instructor stage.

Upon successful completion of FEI-5107, the Flight Engineer shall be evaluated in flight for qualification (FEI-5108) to receive the designation as an FEI.

c. Crew Requirements. Shall be instructed by an ANI.

SFEI-5100 4.0 * B D E S CPT/OFT

Goal. Familiarize the Instructor Under Training (IUT) in the proper operation of the device trainers.

Requirement. Instruct IUT on proper set-up and safe operation of device trainer.

Performance Standard. IUT Flight Engineer shall perform responsibilities/duties IAW the NATOPS flight manual.

Prerequisite. NTPS-6117 and NTPS-6118.

SFEI-5101 4.0 * B D E S CPT/OFT

Goal. Refine device operation.

Requirement. Review SFEI-5100; IUT will demonstrate proper device operation per current instruction.

Performance Standard. IUT Flight Engineer shall perform responsibilities/duties IAW the NATOPS flight manual.

Prerequisite. SFEI-5100.

SFEI-5102 4.0 * B D E S CPT/OFT

Goal. Refine device operation and instructional techniques.

Requirement. Review SFEI-5101; combine device operations with instructional techniques. The IUT shall demonstrate the ability to correct student deficiencies and display appropriate subject matter expertise.

Performance Standard. IUT Flight Engineer shall perform responsibilities/duties IAW the NATOPS flight manual.

Prerequisite. SFEI-5101.

SFEI-5103 4.0 * B D E S CPT/OFT

Goal. Refine device operation and instructional techniques.

Requirement. Review SFEI-5102. The IUT shall demonstrate the ability to correct student deficiencies and display appropriate subject matter expertise.

Performance Standard. IUT Flight Engineer shall perform responsibilities/duties IAW the NATOPS flight manual.

Prerequisite. SFEI-5102

SFEI-5104 4.0 * B D E S CPT/OFT

Goal. Qualification to operate the device trainer effectively.

Requirement. IUT must demonstrate proper device operation combining instructional technique.

Performance Standard. IUT Flight Engineer shall perform responsibilities/duties IAW the NATOPS flight manual.

Prerequisite. SFEI-5103.

FEI-5105 4.0 * B (N) E A 1 KC-130

Goal. Refinement of IUT aircraft instructional techniques.

Requirement. IUT must demonstrate proper instructional technique. The IUT shall demonstrate the ability to correct student deficiencies and display appropriate subject matter expertise.

Performance Standard. IUT Flight Engineer shall perform responsibilities/duties IAW the NATOPS flight manual.

Prerequisite. SFEI-5104.

FEI-5106 4.0 * B (N) E A 1 KC-130

Goal. Refinement of IUT aircraft instructional techniques.

Requirement. IUT must demonstrate proper instructional technique. The IUT shall demonstrate the ability to correct student deficiencies and display appropriate subject matter expertise.

Performance Standard. IUT Flight Engineer shall perform responsibilities/duties IAW the NATOPS flight manual.

Prerequisite. FEI-5105.

FEI-5107 4.0 * B (N) E A 1 KC-130

Goal. Refinement of IUT aircraft instructional techniques.

Requirement. IUT must demonstrate proper instructional technique. The IUT shall demonstrate the ability to correct student deficiencies and display appropriate subject matter expertise.

Performance Standard. IUT Flight Engineer shall perform responsibilities/duties IAW applicable NATOPS flight manual.

Prerequisite. FEI-5106.

FEI-5108 4.0 * B,R (N) E A 1 KC-130

Goal. Flight Engineer Instructor Designation.

Requirement. This event shall be flown in conjunction with either an AAR, AD, TN, ALZ, ADGR, or combination mission event with the IUT

instructing a Flight Engineer under the supervision of a NATOPS Instructor. The IUT shall demonstrate the ability to correct student deficiencies and display appropriate subject matter expertise. Upon completion of this event, the IUT may be designated a FEI by the squadron commanding officer.

Performance Standard. The IUT shall demonstrate the ability to correct student deficiencies and display appropriate subject matter expertise. Flight Engineer under instruction shall perform responsibilities/duties IAW NFM, KC-130 ANTPP, 3710.7_, 4790.2_ and associated MIMS.

Prerequisite. FEI-5107.

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

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

b. General. The purpose of this stage is to qualify the IUT as a NATOPS Instructor. The Flight Engineer IUT shall have 1500 flight hours as a qualified Flight Engineer. The NE/NI/ANI primarily conducts annual NATOPS evaluations. The NE/NI/ANI IUT shall be instructed on proper check-ride preparation, in-flight supervision of the aircraft, and post-flight administrative requirements. Upon completion of the ANI syllabus, the Flight Engineer may be designated an ANI or NI by the squadron commanding officer or designated the NATOPS Evaluator (GNE) by the group commanding officer.

c. Crew Requirements. An ANI IUT (NI-5140) shall be instructed by the NI, NE, or Model Manager. A NI IUT (NI-5140) shall be instructed by the NE or Model Manager. A NE IUT (NI-5141) shall be instructed by the Model Manager.

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

NI-5140 3.0 365 B,R,M (N) E A 1 KC-130

Goal. NI/ANI training and designation.

Requirement. The NATOPS Instructor/Evaluator will evaluate Flight Engineer per NATOPS procedures. RON flight is preferred. Should be either AAR, AD, TN, ALZ, ADGR, or combination mission.

Performance Standard. The Flight Engineer IUT shall perform responsibilities/duties IAW the NATOPS flight manual, KC-130 ANTPP, 3710.7_, 4790.2_ and associated MIMS.

Prerequisite. NSQ (NS-2150, NS-2151) and FEI-5108, 1500 flight hours as a qualified Flight Engineer.

NI-5141 3.0 365 B,R,M (N) E A 1 KC-130

Goal. NATOPS Evaluator designation.

Requirement. The Model Manager will evaluate Flight Engineer per NATOPS procedures. RON flight is preferred. Should be either AAR, AD, TN, ALZ, ADGR, or combination mission.

Performance Standard. Flight Engineer IUT shall perform responsibilities/duties IAW the NATOPS flight manual, KC-130 ANTPP, 3710.7_, 4790.2_ and associated MIMS.

Prerequisite. NI-5140.

4.10.4 Night Systems Instructor (NSI)

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

b. 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 may be designated by the squadron commanding officer.

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

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

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

Requirement. Reference the MAWTS-1 CC, KC-130 NSI POI.

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

Requirement. Reference the MAWTS-1 CC, KC-130 NSI POI.

NSI-5152 2.0 * B,R NS E A 2 KC-130

Requirement. Reference the MAWTS-1 CC, KC-130 NSI POI.

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

Requirement. Reference the MAWTS-1 CC, KC-130 NSI POI.

4.10.5 Weapons and Tactics Instructor (WTI)

a. Purpose. Develop highly qualified Flight Engineers 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.

b. General. Tactics and techniques will be taught per the KC-130 ANTPP 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 may be designated by the squadron commanding officer.

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

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

WTI-5999 E A KC-130

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

4.11 REQUIREMENTS, QUALIFICATIONS, DESIGNATIONS (RQD) PHASE (6000)

4.11.1 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.

4.11.2 Engine Run Designation

a. Purpose. Engine Run designation.

b. General. Designate the Flight Engineer in engine run procedures. This stage does not require flight time, but does require the use of a KC-130 aircraft for the indicated time.

c. Crew Requirements. RQD-6100 shall be instructed/evaluated by a Flight Engineer ANI.

d. Academic/Ground Training. IAW NATOPS flight manual, 3710.7_ and local course rules.

RQD-6100 1.0 * B,R (N) E A 1 KC-130

Goal. Evaluate Flight Engineer on engine run procedures.

Requirement. A Flight Engineer ANI will evaluate the Flight Engineer IUT high/low power engine run procedures.

Performance Standard. Qualified per MIMS, NATOPS flight manual, and local course rules.

Prerequisite. NTPS-6116.

4.11.3 Post Maintenance Functional Check Flight (FCF)

a. Purpose. Functional Check Flight designation.

b. General. Within this stage of training the Flight Engineer will fly a functional check flight on applicable flight profiles and associated checks IAW check flight conditions, to include a review of normal and emergency procedures during an A, B, C, or D FCF profile. Ensure proficiency in functional check flight procedures.

c. Crew Requirements. RQD-6100 shall be instructed/evaluated by a Flight Engineer ANI.

d. Academic/Ground Training. NFM FCF Procedures.

FCF-6106 2.0 365 B,R,M D A 1 KC-130

Goal. Qualify and maintain proficiency for Flight Engineers in functional check flight procedures.

Requirement. Conduct an engine run and flight phase inspection upon completion of post maintenance discrepancies. The flight shall include the shutdown and air-start of at least one engine.

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

Prerequisite. NTPS-6116.

4.11.4 KC-130T NATOPS Evaluation POI

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

b. 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 Flight Engineer completed the sortie. Prior to the oral examination, the NATOPS Instructor shall review the NATOPS monthly emergency procedures examinations for the previous twelve (12) months and previous NATOPS evaluations. At the discretion of the squadron commanding

officer, a letter designating the Flight Engineer as NATOPS qualified shall be placed in the NATOPS jacket.

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

The Flight Engineer under instruction shall be designated the appropriate level of qualification. A FE-2 is considered systems qualified but requires supervision by a Flight Engineer Instructor until successful completion of applicable phase of training.

Once the FE-1 has successfully completed NTPS-6117, he should also log the NTPS-6118 code. Annual FE-1 NATOPS evaluations thereafter only require the logging of the NTPS-6118 code.

c. Crew Requirements. Shall be instructed/evaluated by a Flight Engineer Assistant NATOPS Instructor.

NTPS-6010 3.0 365 B,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 Flight Engineer'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,R,M E Closed Book NATOPS Examination

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

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

NTPS-6116 4.0 365 B,R,M (N) E A 1 KC-130

Goal. FE-2 NATOPS evaluation.

Requirement. A NATOPS Instructor will evaluate the student Flight Engineer per NATOPS. Remain overnight (RON) flight is preferred.

Performance Standard. Student Flight Engineer shall perform responsibilities/duties IAW the NATOPS flight manual, 3710.7_, 4790.2_ and associated MIMS.

Prerequisite. NTPS-6010, NTPS-6011, NTPS-6012, Core Skill Introduction Phase complete.

NTPS-6117 4.0 * B,R (N) E A 1 KC-130

Goal. FE-1 NATOPS initial evaluation.

Requirement. A NATOPS Instructor will evaluate the Flight Engineer per NATOPS. Remain overnight (RON) flight is preferred. The NATOPS evaluation should be either an AAR, AD, TN, ALZ, ADGR, or combination mission. RON flight is preferred.

Performance Standard. Flight Engineer under instruction shall perform responsibilities/duties IAW the NATOPS flight manual, KC-130 ANTPP, 3710.7_, 4790.2_ and associated MIMS.

Prerequisite. NTPS-6010, NTPS-6011, NTPS-6012, NTPS-6116, Core Skill and Mission Skill Phase complete.

NTPS-6118 4.0 365 B,R,M (N) E A 1 KC-130

Goal. Annual FE-1 NATOPS evaluation.

Requirement. A NATOPS Instructor will evaluate the Flight Engineer per NATOPS. RON flight is preferred. The NATOPS evaluation should be either an AAR, AD, TN, ALZ, ADGR, or combination mission.

Performance Standard. Flight Engineer under evaluation shall perform responsibilities/duties IAW the NATOPS flight manual, KC-130 ANTPP, 3710.7_, 4790.2_ and associated MIMS.

Prerequisite. NTPS-6010, NTPS-6011, NTPS-6012, NTPS-6116, NTPS-6117.

4.12 ATTAIN AND MAINTAIN MATRIX (2000-6000 PHASE)

KC-130T FLIGHT ENGINEER ATTAIN AND MAINTAIN MATRIX (2000-6000)													
SKILL	T&R EVENT INFORMATION				ATTAIN PROFICIENCY				MAINTAIN PROFICIENCY		PREREQUISITES	CHAINING	
	T&R DESCRIPTION	STAGE	EVENT #	RE-FLY	BASIC POI		REF POI		MAINTAIN POI				
					STAGE	EVENT #	STAGE	EVENT #	STAGE	EVENT #			
CORE SKILLS (2000 Phase)													
FAM	FAM	FAM	2000R	90	FAM	2000R	FAM	2000R	FAM	2000R	6116		
NS	HLL NS FAM	NS	2150R	365	NS	2150R	NS	2150R	NS	2000	2000		
	LLL NS FAM	NS	2151R	180		2151R		2151R		2151R	2150,2000		
LRN	LONG RANGE NAV	LRN	2160R	365	LRN	2160R	LRN	2160R	LRN	2160R	2000	2000	
TN	TACNAV	TN	2200R	*	TN	2200R	TN	2200R	TN	2000	2000		
	HLL TACNAV	TN	2250R	*		2250R		2250R		2150,2200	2000,2150		
	LLL TACNAV	TN	2251R	180		2251R		2251R		2251R	2151,2250	2200,2250,2151,2150,2000	
LAT	LAT	LAT	2260R	180	LAT	2260R	LAT	2260R	LAT	2260R	2200	2000	
FORM	FORM	FORM	2300R	365	FORM	2300R	FORM	2300R	FORM	2300R	2000	2000	
TR	IR THREAT REACTION	TR	2400R	365	TR	2400R	TR	2400R	TR	2400R	2260	2000	
MISSION SKILLS (3000 Phase)													
ALZ	DAY ALZ	ALZ	3500R	*	ALZ	3500R	ALZ	3500R	ALZ	2000	2000		
	NS ALZ	ALZ	3550R	365		3550R		3550R		3550R	2151,3500	2000,2150,2151,3500	
AAR	FWAAR	AAR	3600R	365	AAR	3600R	AAR	3600R	AAR	3600R	2000	2000	
	DAY HAAR	AAR	3601R	365		3601R		3601R		3601R	2000	2000	
	NVD HAAR	AAR	3650R	365		3650R		3650R		3650R	3601,2150~NS,2151~LLL	2000,2150~NS,2151~LLL,3601	
ADGR	ADGR	ADGR	3660R	730	ADGR	3660R	ADGR	3660R	ADGR	3660R	2000	2000,2150~NS,2151~LLL	
AD	AD	AD	3700R	365	AD	3700R	AD	3700R	AD	3700R	2000,2150~NS,2151~LLL	2000,2150~HLL,2151~LLL	
CORE PLUS (4000 Phase)													
TR	IR THREAT REACTION	TR	4400R	365	TR	4400R	TR	4400R	TR	4400R	2260	2000	
DEFTAC	DEFTAC	DT	4410R	365	DT	4410R	DT	4410R	DT	4410R	2260,4400	2000,2260	
AD	AD MFF	AD	4700R	365	AD	4700R	AD	4700R	AD	4700R	3700	2000,2150~NS,2151~LLL	

KC-130T FLIGHT ENGINEER ATTAIN AND MAINTAIN MATRIX (2000-6000)												
SKILL	T&R EVENT INFORMATION				ATTAIN PROFICIENCY				MAINTAIN PROFICIENCY		PREREQUISITES	CHAINING
	T&R DESCRIPTION	STAGE	EVENT #	RE-FLY	BASIC POI		REF POI		MAINTAIN POI			
					STAGE	EVENT #	STAGE	EVENT #	STAGE	EVENT #		
INSTRUCTOR TRAINING (5000 Phase)												
FEI	INTRO SIM OPS	SFEI	5100	*	FEI	5100	FEI	FEI	FEI	6117, 6118		
	PRACTICE SIM OPS	SFEI	5101	*		5101				5100		
	PRACTICE SIM OPS	SFEI	5102	*		5102				5101		
	REVIEW SIM OPS	SFEI	5103	*		5103				5102		
	SIM EVAL	SFEI	5104	*		5104				5103		
	INTRO IUT	FEI	5105	*		5105				5104		
	PRACTICE IUT	FEI	5106	*		5106				5105		
	REVIEW IUT	FEI	5107	*		5107				5106		
FEI EVAL	FEI	5108R		5108R	5107							
NI	ANI	NI	5140R	365	NI	5140R	NI	5140R	NI	5140R	2150-NS, 2151~LLL, 5108	2000
	NI	NI	5141R	365		5141R				5141R	5141R	5140
NSI	NS FAM	NSI	5150R	*	NSI	5150R	NSI	5150R	NSI	5150R	MAWTS-1 CC	2000, 2150~NS, 2151~LLL
	NS LLL	NSI	5151R	*		5151R				5151R	MAWTS-1 CC	2000, 2150~NS, 2151~LLL
	NS AD	NSI	5152R	*		5152R				5152R	MAWTS-1 CC	2000, 2150~NS, 2151~LLL
	NSI EVAL	NSI	5153R	*		5153R				5153R	MAWTS-1 CC	2000, 2150~NS, 2151~LLL
WTI	WTI	WTI	5999	*	WTI	5900	WTI	WTI	WTI	MAWTS-1 CC		
REQUIREMENTS, CERTIFICATIONS, QUALIFICATIONS, AND DESIGNATIONS (R,C,Q,D) [6000 Phase]												
RQD	HIGH/LOW PWR R/U	RQD	6100	*	RQD	6100	RQD		RQD		6116	
FCF	FCF CK	FCF	6106R	365	FCF	6106R	FCF	6106R	FCF	6106R	6116	2000
NTPS	NATOPS OPEN BOOK	NTPS	6010R	365	NTPS	6010R	NTPS	6010R	NTPS	6010R		
	NATOPS CLOSED BOOK	NTPS	6011R	365		6011R		6011R		6011R		
	NATOPS ORAL EXAM	NTPS	6012R	365		6012R		6012R		6012R		
	FE-2 EVAL	NTPS	6116R	365		6116R		6116R		6116R	6010, 6011, 6012	
	FE-1 EVAL	NTPS	6117R	*		6117R		6117R		6117R	6010, 6011 6012, 6116	2000, 6116
	ANNUAL NATOPS EVAL	NTPS	6118R	365		6118R		6118R		6118R	6118R	6010, 6011, 6012, 6116, 6117

4.13 T&R SYLLABUS MATRIX (1000 PHASE)

KC-130T FLIGHT ENGINEER CORE SKILL INTRODUCTION (1000 PHASE)														
STAGE	EVENT NUMBER	T&R DESCRIPTION	# FLTS	FLT TIME	# SIMS	SIM TIME	REFLY	POI	EVAL	TYPE	NUM A/C	COND	PREREQ	EVENT CONV
FAMILIARIZATION (FAM)														
SFAM	1000	INTRO				2.0	*	B		S				
SFAM	1001	INTRO				2.0	*	B		S			1000	1000
SFAM	1002	INTRO				2.0	*	B		S			1001	1001
SFAM	1003	START MALF				2.0	*	B		S			1002	1002
SFAM	1004	START MALF				2.0	*	B	E	S			1003	1002
SFAM	1005	START MALF/ABORT				2.0	*	B		S			1004	1003
SFAM	1006	START MALF/ABORT				2.0	*	B		S			1005	1003
SFAM	1007	REV				2.0	*	B,R		S			1006	
SFAM	1008	PERF CHECK				2.0	*	B,R		S			1007	1004
SFAM	1009	COMM/NAV				2.0	*	B,R		S			1008	1012
SFAM	1010	ENG SYS				2.0	*	B,R		S			1009	1005
SFAM	1011	PROP SYS				2.0	*	B,R		S			1010	1006
SFAM	1012	ELEC SYS				2.0	*	B,R		S			1011	1007
SFAM	1013	BLEED AIR COND SYS				2.0	*	B,R		S			1012	1008
SFAM	1014	FUEL SYS				2.0	*	B,R		S			1013	1009
SFAM	1015	HYD SYS				2.0	*	B,R		S			1014	1010
SFAM	1016	AAR SYS				2.0	*	B,R		S			1015	1013
SFAM	1017	REFINE AAR				2.0	*	B,R		S			1016	
SFAM	1018	SIM EVAL				2.0	*	B,R	E	S			1017	1014
FAM	1100	TURN AROUND		4.0			*	B,R		A	1	(N)	1014	1100
FAM	1101	TOLD		4.0			*	B,R		A	1	(N)	1100	1101
FAM	1102	W&B		4.0			*	B,R		A	1	(N)	1101	1102
FAM	1103	AW OPS		4.0			*	B,R		A	1	(N)	1102	1103
FAM	1104	ENG OUT		4.0			*	B,R		A	1	(N)	1103	1104
FAM	1105	OW OPS		4.0			*	B,R		A	1	(N)	1104	1105
FAM TOTAL			6	24.0	19	38.0								
SYSTEMS REVIEW (REV)														
REV	1130	ENG APU		4.0			*	B		A	1	D	1105	1130/31
REV	1131	PROPS		4.0			*	B		A	1	D	1130	1132
REV	1132	AC/DC ELEC		4.0			*	B		A	1	D	1131	1133/34
REV	1133	PNEUMATICS A/C PRESS		4.0			*	B		A	1	D	1132	1135
REV	1134	FUEL		4.0			*	B		A	1	D	1133	1137
REV	1135	UTIL/BOOST AUX HYD		4.0			*	B		A	1	D	1134	1138/39
REV	1136	COMM NAV FLT SYS		4.0			*	B		A	1	D	1135	1140/41
REV	1137	AAR SYS		4.0			*	B		A	1	D	1136	1142
REV TOTAL			8	32.0	0	0.0								
INTERMEDIATE PROGRESS EVALUATION (CK)														
SMCK	1150	INTERMED CK				4.0	*	B	E	S		(N)	1137	1150
CK TOTAL			0	0.0	0	4.0								
MAINTENANCE GROUND RUNS (MGR)														
SMGR	1160	INTRO GROUND RUN-UP				3.0	*	B		S/A		D	1150	1160
SMGR	1161	REV GROUND RUN-UP				4.0	*	B		S/A		D	1160	1161
MGR	1162	REV GROUND RUN-UP		4.0			*	B,R		A	1	D	1161	1162
MGR	1163	REV GROUND RUN-UP		4.0			*	B		A	1	D	1162	1163
MGR	1164	MAINT GROUND RUN-UP		4.0			*	B		A	1	D	1163	1164
MGR TOTAL			3	12.0	2	7.0								
FUNCTIONAL CHECK FLIGHTS (FCF)														
SFCF	1165	INTRO FCF				4.0	*	B		S/A		D	1164	1165
SFCF	1166	PRACTICE FCF				4.0	*	B		S/A		D	1165	1166
FCF	1167	REV FCF		4.0			*	B,R		A	1	D	1166	1167
FCF TOTAL			1	4.0	2	8.0								
TACTICAL NAVIGATION														
TN	1200	LOW LEVEL FAM		2.0			*	B		A	1	D	1150	1200
TN TOTAL			1	2.0	0	0.0								
AIR-TO-AIR REFUELING (AAR)														
AAR	1600	FW/TR AAR		3.0			*	B		A	1	(N*)	1150	1600/01
AAR	1601	RW AAR		3.0			*	B		A	1	(N*)	1150	1602
AAR TOTAL			2	6.00	0	0.0								
1000 PHASE TOTAL			21	80.0	23	57.0								

KC-130T FLIGHT ENGINEER T&R SYLLABUS MATRIX (2000-6000 PHASE)															
SKILL	T&R EVENT INFORMATION				DEVICE	NUMBER	COND	BASIC	REF	MAINT	ACAD HOURS	SIM TIME	FLIGHT TIME	EVAL	EVENT CONV
	T&R DESCRIPTION	STAGE	EVENT #	RE-FLY											
CORE SKILLS (2000 PHASE)															
FAMILIARIZATION (FAM)															
FAM	FAM	FAM	2000R	90	A/S	1	(N)	X	X	X			2.0		2000
NIGHT SYSTEMS (NS)															
NS	HLL NS FAM	NS	2150R	365	A	1	NS	X	X	X			2.0		2150
	LLL NS FAM	NS	2151R	180	A	1	NS	X	X	X			2.0		2151
LONG RANGE NAVIGATION (LRN)															
LRN	LONG RANGE NAV	LRN	2160R	365	A/S	1	(N)	X	X	X			8.0		2160
TACTICAL NAVIGATION (TN)															
TN	TACNAV	TN	2200R	*	A	1	D	X	X				2.0		2200
	HLL TACNAV	TN	2250R	*	A	1	NS	X	X				2.0		2250
	LLL TACNAV	TN	2251R	180	A	1	NS	X	X	X			2.0		2251
LOW ALTITUDE TACTICS (LAT)															
LAT	LAT	LAT	2260R	180	A	1	D	X	X	X			2.0		2260
FORMATION (FORM)															
FORM	FORM	FORM	2300R	365	A	2	(NS)	X	X	X			2.0		2300
THREAT REACTION (TR)															
TR	IR THREAT REACTION	TR	2400R	365	A/S	1	(NS)	X	X	X			2.0		2400
MISSION SKILLS (3000 Phase)															
ASSAULT LANDING ZONE (ALZ)															
ALZ	DAY ALZ	ALZ	3500R	*	A	1	D	X	X				2.0		3500
	NS ALZ	ALZ	3550R	365	A	1	NS	X	X	X			2.0		3550/5 1
AIR-TO-AIR REFUELING (AAR)															
AAR	FWAAR	AAR	3600R	365	A	1	(N)	X	X	X			3.0		3600
	DAY HAAR	AAR	3601R	365	A	1	D	X	X	X			3.0		3601
	NVD HAAR	AAR	3650R	365	A	1	NS	X	X	X			3.0		3650
AVIATION DELIVERED GROUND REFUELING (ADGR)															
ADGR	ADGR	ADGR	3660R	730	A	1	(N)	X	X	X			0.0		3660
AIR DELIVERY (AD)															
AD	AD	AD	3700R	365	A	1	(NS)	X	X	X			2.0		3700/5 0
CORE PLUS (4000 Phase)															
THREAT REACTION (TR)															
TR	IR THREAT REACTION	TR	4400R	365	A/S	1	(NS)	X	X	X			2.0		4400
DEFENSIVE TACTICS (DT)															
DT	DT	DT	4410R	365	A	1	D	X	X	X			2.0		4410
AIR DELIVERY (AD)															
AD	AD MFF	AD	4700R	365	A	1	(N)	X	X	X			2.0		4700

KC-130T FLIGHT ENGINEER T&R SYLLABUS MATRIX (2000-6000 PHASE)															
SKILL	T&R EVENT INFORMATION				DEVICE	NUMBER	COND	BASIC	REF	MAINT	ACAD HOURS	SIM TIME	FLIGHT TIME	EVAL	EVENT CONV
	T&R DESCRIPTION	STAGE	EVENT #	RE-FLY											
INSTRUCTOR TRAINING (5000 Phase)															
FLIGHT ENGINEER INSTRUCTOR (FEI)															
FEI	INTRO SIM OPS	SFEI	5100	*	S		D	X				4.0		X	5100
	PRACTICE SIM OPS	SFEI	5101	*	S		D	X				4.0		X	5101
	PRACTICE SIM OPS	SFEI	5102	*	S		D	X				4.0		X	5102
	REVIEW SIM OPS	SFEI	5103	*	S		D	X				4.0		X	5103
	SIM EVAL	SFEI	5104	*	S		D	X				4.0		X	5104
	INTRO IUT	FEI	5105	*	A	1			X				4.0	X	5105
	PRACTICE IUT	FEI	5106	*	A	1			X				4.0	X	5106
	REVIEW IUT	FEI	5107	*	A	1			X				4.0	X	5107
FEI EVAL	FEI	5108R	*	A	1			X	X			4.0	X	5108	
NATOPS INSTRUCTOR (ANI/NI)															
NI	ANI	NI	5140R	365	A	1	(N)	X	X	X			3.0	X	5140
	NI	NI	5141R	365	A	1	(N)	X	X	X			3.0	X	5141
NIGHT SYSTEMS INSTRUCTOR (NSI)															
NSI	NS FAM	NSI	5150R	*	A	1	NS	X	X				2.0	X	5150
	NS LLL	NSI	5151R	*	A	1	NS	X	X				2.0	X	5151
	NS AD	NSI	5152R	*	A	1	NS	X	X				2.0	X	5152
	NSI EVAL	NSI	5153R	*	A	1	NS	X	X				2.0	X	5153
WEAPONS AND TACTICS INSTRUCTOR (WTI)															
WTI	WTI	WTI	5999	*				X						X	5999
REQUIREMENTS, CERTIFICATIONS, DESIGNATIONS AND QUALIFICATIONS (6000 Phase)															
HIGH/LOW POWER (RQD)															
RQD	HIGH/LOW PWR R/U	RQD	6100R	*	A	1	(N)	X	X				1.0		6100
FUNCTIONAL CHECK FLIGHT (FCF)															
FCF	FCF CK	FCF	6106R	365	A	1	D	X	X	X			2.0		6106
NATOPS (NTPS)															
NTPS	NATOPS OPEN BOOK	NTPS	6010R	365	GRND			X	X	X	3.0			X	6010
	NATOPS CLOSED BOOK	NTPS	6011R	365	GRND			X	X	X	1.0			X	6011
	NATOPS ORAL EXAM	NTPS	6012R	365	GRND			X	X	X	3.0			X	6012
	FE-2 EVAL	NTPS	6116R	365	A	1	(N)	X	X	X			4.0	X	6016
	FE-1 EVAL	NTPS	6117R	*	A	1	(N)	X	X	X			4.0	X	6117
	ANNUAL NATOPS EVAL	NTPS	6118R	365	A	1	(N)	X	X	X			4.0	X	6118

4.15 SYLLABUS EVALUATION FORMS. Contact MAWTS-1 to receive FE T&R syllabus evaluation forms.

CHAPTER 5

KC-130T CREWMASTER (MOS 6276)

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5.2 ABBREVIATIONS

CREWMASTER	
CM1	CREWMASTER 1
CM2	CREWMASTER 2
CM3	CREWMASTER 3
CMUI	CREWMASTER UNDER INSTRUCTION
FRS ACADEMIC (0000 Phase)	
NACCS	NAVAL AIRCREW CANDIDATE SCHOOL
SERE	SURVIVAL, EVASION, RESISTANCE, AND ESCAPE
BLM	BASIC LOADMASTER COURSE
LIQ	LOADMASTER INITIAL QUALIFICATION COURSE
LMQ	LOADMASTER MISSION QUALIFICATION COURSE
CCOGM	KC-130J CREW CHIEF ORGANIZATION GROUND MAINTENANCE COURSE
EMOGM	KC-130T FLIGHT MECHANIC ORGANIZATION GROUND MAINTENANCE COURSE
CORE SKILLS INTRODUCTION (1000 Phase)	
FAM	FAMILIARIZATION
SYS	SYSTEMS
NS	NIGHT SYSTEMS
TN	TACTICAL NAVIGATION
CPL	CARGO AND PASSENGER LOADING
CORE/MISSION/CORE PLUS SKILL ABBREVIATIONS	
CORE SKILLS (2000 Phase)	
NS	NIGHT SYSTEMS
LRN	LONG RANGE NAVIGATION
TN	TACTICAL NAVIGATION
LAT	LOW ALTITUDE TACTICS
TR	THREAT REACTION
MISSION SKILLS (3000 Phase)	
ALZ	ASSAULT LANDING ZONE
CPL	CARGO AND PASSENGER LOADING
AAR	AIR-TO-AIR REFUELING
ADGR	AVIATION DELIVERED GROUND REFUELING
AD	AIR DELIVERY
CORE PLUS (4000 Phase)	
MISSION PLUS SKILLS	
AD	AIR DELIVERY
BI	BATTLEFIELD ILLUMINATION
INSTRUCTOR (5000 Phase)	
IUT	INSTRUCTOR UNDER TRAINING
CPLI	CARGO AND PASSENGER LOADING INSTRUCTOR
ADI	AIR DELIVERY INSTRUCTOR
CMI	CREWMASTER INSTRUCTOR
FEI	FLIGHT ENGINEER INSTRUCTOR
SI	SYSTEMS INSTRUCTOR
NI/ANI	NATOPS INSTRUCTOR/ASSISTANT NATOPS INSTRUCTOR
NSI	NIGHT SYSTEMS INSTRUCTOR
WTI	WEAPONS AND TACTICS INSTRUCTOR
QUALIFICATIONS AND DESIGNATIONS (6000 Phase)	
NTPS	NAVAL AVIATION TRAINING AND OPERATIONS STANDARDIZATION (NATOPS)
FCF	FUNCTIONAL CHECK FLIGHT
RS	REFUELING SUPERVISOR
QASO	QUALITY ASSURANCE SAFETY OBSERVER
CORE SKILL INTRODUCTION / FRS (1000, 5000, & 6000 Phase)	
CMUI	CREWMASTER UNDER INSTRUCTOR
FAM	FAMILIARIZATION
SYS	SYSTEMS
NS	NIGHT SYSTEMS
TN	TACTICAL NAVIGATION
CPL	CARGO AND PASSENGER LOADING
AAR	AIR-TO-AIR REFUELING

5.3 INDIVIDUAL CORE/MISSION/CORE PLUS SKILL PROFICIENCY REQUIREMENTS

CREWMASTER								
ATTAIN AND MAINTAIN CORE/MISSION/CORE PLUS PROFICIENCY MATRIX BY POI								
ATTAIN PROFICIENCY						MAINTAIN		
BASIC POI		SERIES CONVERSION POI		REFRESHER POI		POI		
CORE SKILL (2000 Phase)								
STAGE	CODE	STAGE	CODE	STAGE	CODE	STAGE	CODE	
NS	2150R	NS	2150R	NS	2150R	NS	2150R	
LRN	2160R	LRN	2160R	LRN	2160R	LRN	2160R	
TN	2201	TN		TN		TN		
	2250R				2250R			2250R
TR	2400R	TR		TR	2400R	TR	2400R	
MISSION SKILL (3000 Phase)								
ALZ	3502R	ALZ		ALZ	3502R	ALZ	3502R	
	3504R				3504R			3504R
AT	3510R	AT		AT	3510R	AT	3510R	
	3511R				3511R			3511R
	3512R				3512R			3512R
	3513R				3513R			3513R
AAR	3600R	AAR		AAR	3600R	AAR	3600R	
	3601R				3601R			3601R
	3650R				3650R			3650R
ADGR	3661R	ADGR		ADGR	3661R	ADGR	3661R	
AD	3703R	AD		AD	3703R	AD	3703R	
	3705R				3705R			3705R
CORE PLUS (4000 Phase)								
AD	4700R	AD		AD	4700R	AD	4700R	
	4701R				4701R			4701R
	4703R				4703R			4703R
BI	4710R	BI		BI	4710R	BI	4710R	

R-coded "Refresher" event

5.4 REQUIREMENT, QUALIFICATION AND DESIGNATION TABLES

5.4.1 Instructor Designations

CREWMASTER	
INSTRUCTOR DESIGNATIONS (5000 Phase)	
INSTRUCTOR DESIGNATION	EVENTS
CPLI	5100,5101
CMI	5100,5101;CPLI
SI	5100,5101
ADI	5100,5101
NI/ANI	5140,5141
NSI	2150,5150,5151
WTI	IAW the MAWTS-1 Course Catalog (Manual entry in M-SHARP)

5.4.1.1 Admin Notes. CMIs and SIs shall instruct the CMUI from the observer position during TN, TR, and AAR stages. NSIs are required on initial NS condition coded events. FEIs will be designated per Chapter 4 requirements.

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5.4.2 Requirements, Certifications, Qualifications, and Designations

CREWMASTER REQUIREMENTS, QUALIFICATIONS, AND DESIGNATIONS (R,Q, & D) (6000 Phase)	
R,Q, & D	EVENTS
NATOPS CM1	6118
NATOPS CM2	6119
NATOPS CM3	6120
Night Systems	2150
Refueling Supervisor	2150,3661,6652
Quality Assurance Safety Observer	4710,6710

5.5 CREWMASTER PROGRAMS OF INSTRUCTION (POI). These tables reflect average time-to-train versus the minimum to maximum time-to-train parameters in the Training Progression Model.

5.5.1 Basic POI

CREWMASTER // Basic POI		
Months	Phase of Instruction	Unit
1-8	Core Skill Introduction (1000 Phase)	Tactical Unit
6-12	Core Skill (2000 Phase)	Tactical Unit
9-60	Mission Skill (3000 Phase)	Tactical Unit
36-60	Core Plus (4000 Phase)	Tactical Unit

5.5.2 Refresher POI

CREWMASTER // Refresher POI		
Months	Phase of Instruction	Unit
1-2	Core Skill Introduction (1000 Phase)	Tactical Unit
3-8	Core Skill (2000 Phase)	Tactical Unit
5-17	Mission Skill (3000 Phase)	Tactical Unit
8-24	Core Plus (4000 Phase)	Tactical Unit

5.5.3 Series Conversion POI

a. KC-130T qualified Flight Mechanics will be trained in Loadmaster BLM and LIQ course. Once complete they will be assigned the series conversion POI and only conduct Core Skill Introduction Phase CPL stage events and NATOPS evaluation to qualify as a CM. Previously qualified KC-130T Flight Mechanics should attend the Loadmaster LMQ (Air Delivery) course at Little Rock AFB.

b. KC-130T qualified Loadmasters will be assigned the series conversion POI and only conduct Core Skill Introduction Phase FAM and SYS stage events and NATOPS evaluation to qualify as a CM.

c. KC-130J qualified Crewmasters who have not previously attended, should attend the Loadmaster LMQ (Air Delivery) course at Little Rock AFB, AR prior to assignment at a KC-130T squadron.

CREWMASTER // Series Conversion POI		
Months	Phase of Instruction	Unit
1-4	Core Skill Introduction (1000 Phase)	Tactical Unit
*	Core Skill (2000 Phase)	Tactical Unit
*	Mission Skill (3000 Phase)	Tactical Unit
*	Core Plus (4000 Phase)	Tactical Unit

*Average time to train will depend on level of qualification in previous series

5.6 SYLLABUS NOTES

5.6.1 Environmental Conditions Matrix

Environmental Conditions	
Code	Meaning
D	Shall be flown during hours of daylight: (by exception - there is no use of a symbol)
N	Shall be flown during hours of darkness, may be aided or unaided
(N)	May be flown during darkness - If flown during hours of darkness; may be flown aided or unaided
NS	Shall be flown during hours of darkness - Mandatory use of Night Vision Devices
(NS)	May be flown during darkness - If flown during hours of darkness; must be flown with Night Vision Devices

5.6.1.1 Admin Notes. Initial NS condition coded events require a NSI.

5.6.2 Device Matrix

DEVICE	
Symbol	Meaning
A	Aircraft
A/S	Aircraft preferred may be flown in Simulator
S	Simulator
S/A	Simulator preferred may be flown in Aircraft
G	Ground/academic training. Equipment as required.
CBT	Computer Based Training

5.6.3 Program of Instruction Matrix

PROGRAM OF INSTRUCTION MATRIX			
Program of Instruction (POI)	Symbol	Aviation Flying	Aviation Ground
Basic	B	Initial MOS/Skill Training	Initial MOS Training
Series Conversion	SC	Moving from one Series to another (KC-130J to KC-130T)	Flight Mechanic Organization Ground Maintenance Course
Refresher	R	DIFDEN to DIFOPS in same T/M/S	Return to community from non (MOS/Skill) associated tour
Maintain	M	All individuals who have attained CSP/MSP/CPD by initial POI assignment are re-assigned to the M POI to maintain proficiency.	

5.6.4 Event Terms

EVENT TERMS	
TERM	DESCRIPTION
Discuss	An explanation of systems, procedures, or maneuvers during the brief, in flight, or post flight. Student is responsible for knowledge of procedures.
Demonstrate	The description and performance of a particular maneuver/event by the instructor, observed by the CMUI/student. The CMUI/student is responsible for knowledge of the procedures prior to the demonstration of a required maneuver/student.
Introduce	The instructor may demonstrate a procedure or maneuver to a student, or may coach the CMUI through the maneuver without demonstration. The CMUI performs the procedures or maneuver with coaching as necessary. The CMUI is responsible for knowledge of the procedures.
Practice	The performance of a maneuver or procedure by the PUI/student that may have been previously introduced in order to attain a specified level of performance.
Review	Demonstrated proficiency of a maneuver by the PUI/student.
Evaluate	Any flight designed to evaluate aircrew standardization that does not fit another category such as SARCK, HACCK, T2PCK, etc.
E-Coded	This term means an event evaluation form is required each time the event is logged. Requires evaluation by a certified standardization instructor (NATOPS I, WTI, INST Evaluator etc.)

5.7 CORE SKILL INTRODUCTION FRS ACADEMIC PHASE (0000 Phase)

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

5.7.2 General. Each RAC assigned to the FRS Academic Phase should receive all of the academic classes listed in the matrix below prior to beginning the Core Skill Introduction Phase (1000).

5.7.3 Ground/Academic Training. The following matrix will be used to track academic and administrative training:

T&R CODE	EVENT
NACCS	NAVAL AIRCREW CANDIDATE SCHOOL
NATSP	NAVAL AVIATION SURVIVAL TRAINING PROGRAM
SERE	SURVIVAL, EVASION, RESISTANCE, AND ESCAPE (LEVEL B OR C)
BLM	BASIC LOADMASTER COURSE
LIQ	LOADMASTER INITIAL QUALIFICATION COURSE
LMQ	LOADMASTER MISSION QUALIFICATION COURSE
CCOGM	KC-130J CREW CHIEF ORGANIZATION GROUND MAINTENANCE COURSE
*FMOGM	KC-130T FLIGHT MECHANIC ORGANIZATIONAL GROUND MAINTENANCE COURSE
*FMOGM may substitute or replace CCOGM	

5.8 CORE SKILL INTRODUCTION PHASE (1000)

5.8.1 Purpose. To instruct the Crewmaster in KC-130T fundamentals and introduce mission elements. At the completion of this phase the CMUI will be a NATOPS qualified CM and rate the 6276 MOS as specified in RQD-6118, RQD-6119, or RQD-6120.

5.8.2 General

5.8.2.1 Prerequisite. CMUI shall complete a TECOM approved 0000 level POI.

5.8.2.2 Admin Notes. All ground and flight events require an Aviation Training Form (ATF).

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

Par No.	Stage Name
5.9.3	Familiarization (FAM)/Systems (SYS)
5.9.4	Night Systems (NS)
5.9.5	Tactical Navigation (TN)
5.9.6	Cargo and Passenger Loading (CPL)
5.9.7	Air-to-Air Refueling (AAR)

5.8.3 Familiarization/System (FAM/SYS) Stage

5.8.3.1 Purpose. Train the CMUI to perform the basic NATOPS flight crew requirements, conduct an aircraft preflight, systems operation, system malfunctions, corrective actions, fault isolation, location and use of emergency equipment, ground and in-flight emergency procedures, and aircraft post flight procedures.

5.8.3.2 General. Upon completion of this phase of training the Crewmaster under instruction (CMUI) will possess a general understanding of squadron and aircraft operations to include emergency procedures. The familiarization flight stage requires a minimum of 1 hour of ground instruction prior to each flight.

5.8.3.3 Crew Requirements. FEI or SI, CMI.

Note

BLM, LIQ, and CCOGM/FMOGM may be substituted with a CNATT or TECOM approved POI.

FAM-1000 4.0 * B,R,SC D G 1 KC-130T

Goal. Introduce CMUI to the aircraft, flight line, and squadron operations.

Requirement. The CMUI, under the direct supervision of a CMI, SI, or FEI, will receive an introduction to the squadron operational environment to include maintenance control, quality assurance, tool room, work centers, hangar area, and the flight line. The CMUI will receive an introduction to the aircraft to include general information concerning the mission and capabilities of the aircraft. The CMUI will be shown the exterior, interior, and the flight station with power applied. The CMUI will also be given detailed instruction on hazard areas, emergency signals, ground evacuation, and personal protective equipment (PPE).

Performance Standard. Satisfactory completion per NFM, SOP

Prerequisites. Squadron and Work Center Indoctrination Training to include Active, Standing, and Safety Required Reading Boards and the Squadron SOP.

FAM-1100 4.0 * B,SC D G 1 KC-130T

Goal. Pre-Flight Introduction.

Requirement. The CMUI, under the direct supervision of a CMI, SI or FEI, will be introduced to an aircraft preflight, and post-flight inspection. The CMUI will receive instruction on flight preparation and operation. The instructor will introduce normal and emergency procedures, ICS/Radio procedures, checklist challenge and response calls, engine start procedures and malfunctions, walk around checks, and in-flight responsibilities.

Performance Standard. Satisfactory completion per NFM.

Prerequisites. FAM-1000

FAM-1101 4.0 * B,R,SC (N) A 1 KC-130T

Goal. Pre-Flight.

Requirement. The CMUI, under the direct supervision of a CMI, SI or FEI, will conduct an aircraft preflight, and post-flight inspection with minimal assistance. The CMUI will demonstrate normal and emergency procedures, ICS/Radio procedures, checklist challenge and response calls, engine start procedures and malfunctions, walk around checks, and in-flight responsibilities.

Performance Standard. Satisfactory completion per NFM.

Prerequisites. FAM-1100

SYS-1102 4.0 * B,SC (N) A 1 KC-130T

Goal. Engine Systems.

Requirement. The CMUI, under the direct supervision of a SI or FEI, will conduct an aircraft preflight and post-flight inspection, will perform, discuss, and demonstrate normal and emergency procedures as it pertains to the engine system.

Performance Standard. Satisfactory completion per NFM.

Prerequisites. FAM-1101

SYS-1103 4.0 * B,SC (N) A 1 KC-130T

Goal. Propeller Systems.

Requirement. The CMUI, under the direct supervision of a SI or FEI, will conduct an aircraft preflight and post-flight inspection, will perform, discuss, and demonstrate normal and emergency procedures as it pertains to the propeller System.

Performance Standard. Satisfactory completion per NFM.

Prerequisites. FAM-1101

SYS-1104 4.0 * B,SC (N) A 1 KC-130T

Goal. Electrical Systems.

Requirement. The CMUI, under the direct supervision of a SI or FEI, will conduct an aircraft preflight and post-flight inspection, will perform, discuss, and demonstrate normal and emergency procedures as it pertains to the AC/DC control systems.

Performance Standard. Satisfactory completion per NFM.

Prerequisites. FAM-1101

SYS-1105 4.0 * B,SC (N) A 1 KC-130T

Goal. Air Conditioner, Oxygen, and Bleed Air Systems.

Requirement. The CMUI, under the direct supervision of a SI or FEI, will conduct an aircraft preflight and post-flight inspection, will perform, discuss, and demonstrate normal and emergency procedures as it pertains to the air conditioner, oxygen, and bleed air and ice detection/anti-ice systems.

Performance Standard. Satisfactory completion per NFM.

Prerequisites. FAM-1101

SYS-1106 4.0 * B,SC (N) A 1 KC-130T

Goal. Fuel Systems.

Requirement. The CMUI, under the direct supervision of a SI or FEI, will conduct an aircraft preflight and post-flight inspection, will perform, discuss, and demonstrate normal and emergency procedures as it pertains to the Fuel Systems.

Performance Standard. Satisfactory completion per NFM.

Prerequisites. FAM-1101

SYS-1107 4.0 * B,SC (N) A 1 KC-130T

Goal. Hydraulic Systems.

Requirement. The CMUI, under the direct supervision of a SI or FEI, will conduct an aircraft preflight and post-flight inspection, will perform, discuss, and demonstrate normal and emergency procedures as it pertains to the hydraulic systems.

Performance Standard. Satisfactory completion per NFM.

Prerequisites. FAM-1101

SYS-1108 4.0 * B,SC (N) A 1 KC-130T

Goal. Communication and Navigation Systems; High Frequency Radio Operations.

Requirement. The CMUI, under the direct supervision of a SI or FEI and CMI, will conduct an aircraft preflight and post-flight inspection, will perform, discuss, and demonstrate normal and emergency procedures as it pertains to the Communication, Navigation, and High frequency radio systems, and will be introduced to HF radio communication, bailout and ditching procedures as pertains to the Radio Operator.

Performance Standard. Satisfactory completion per NATOPS Flight Manual (NFM), Standard Operating Procedures (SOP), Flight Information Handbook (FIH), and Enroute Supplement.

Prerequisites. FAM-1101

5.8.4 Night Systems (NS) Stage

5.8.4.1 Purpose. Introduce the use of night vision devices (NVD).

5.8.4.2 General. Crewmasters conducting NS training shall be instructed by a Night Systems Instructor (NSI) for this stage.

Admin Notes. MAWTS-1 NVD ASP ground instruction and NITE Laboratory.

NS-1150 2.0 * B NS A 1 KC-130T

Goal. Introduce the CMUI in the use of NVDs in the High Light Level (HLL) environment.

Requirement. The NSI will discuss NVD features and characteristics, followed by inspection/adjustment. The CMUI will be given an exterior lighting demonstration with NVDs. Emphasize aircraft lighting in normal, NVIS, covert modes, and variations that occur with different terrain/water, cultural lighting and contrast under high light conditions.

Performance Standard. Satisfactory completion per NFM, ANTPP, SOP, NVD Manual, and OPNAVINST 3710.7.

Prerequisite. MAWTS-1 NVD I and II ASPs, as well as the Night Imaging and Threat Evaluation (NITE) Laboratory.

NS-1151 2.0 * B NS A 1 KC-130T

Goal. Introduce the CMUI the use of NVDs in the Low Light Level (LLL) environment.

Requirement. Conduct all operations included in NS-1150 under LLL conditions.

Performance Standard. Satisfactory completion per NFM, ANTPP, SOP, NVD Manual, and OPNAVINST 3710.7.

Prerequisite. NS-1150.

5.8.5 Tactical Navigation (TN) Stage

5.8.5.1 Purpose. Introduce the CMUI to the skills and duties of aft lookout doctrine in the tactical navigation environment.

5.8.5.2 General. The CMUI will be introduced to the hazards associated with the low level environment.

Crew Requirements. CMI or SI

Admin Notes. Utilize academic courseware as outlined in the appropriate chapter of the MAWTS-1 KC-130T Course Catalog.

TN-1200 2.0 * B D A 1 KC-130T

Goal. Introduce the duties of an aft lookout observer during a day tactical navigation mission.

Requirement. The CMUI will perform the duties of an aft lookout observer during a day tactical navigation mission, perform cargo compartment preparation, attend crew briefing, discuss lookout doctrine, scan for threats and terrain clearance, crew coordination and FENCE Checks.

Performance Standard. Satisfactory completion per NFM, ANTP, SOP, and OPNAVINST 3710.7.

Prerequisite. FAM-1101

5.8.6 Cargo And Passenger Loading (CPL) Stage

5.8.6.1 Purpose. Refresh the CMUI in cargo and passenger loading. A load simulator is the preferred training device for this stage. A KC-130T aircraft may be used as a substitute. At the end of this phase of instruction the CMUI will be familiar with cargo and passenger loading techniques, such as:

Preflight and configure an aircraft per mission requirements for flights involving passengers and/or cargo.

Determine available seating and/or cargo space for load planning purposes.

Utilize all KC-130 loading aids conforming to the limitations, installations, and usage of each per NAVAIR 01-75GAA-9 or NAVAIR 01-75GAH-9.

Safely load and off-load cargo per NAVAIR 01-75GAA-9 or NAVAIR 01-75GAH-9.

Compute weight and balance for a flight transporting a passenger or cargo payload.

Hazardous Cargo considerations will be discussed throughout this stage with emphasis on compatibility and cargo jettison.

Post-flight cargo compartment.

5.8.6.2 General. The CMUI, under the direct supervision of a CPLI or CMI, will demonstrate a general understanding of basic cargo and passenger loading.

Crew Requirements. CPLI or CMI

Admin Notes. BLM and LIQ may be substituted with a TECOM approved POI.

CPL-1510 4.0 * B,R D G 1 KC-130T

Goal. Discuss and demonstrate loading passengers and baggage.

Requirement. Discuss and demonstrate aircraft configuration for a flight transporting the maximum load allowable with passengers and baggage, passenger brief and accurate passenger manifesting. The CMUI will demonstrate the installation of centerline and sidewall seats, seat spacing configurations, as well as aeromedical considerations. The CMUI will prepare a weight and balance. Tanker frame considerations will be discussed.

Performance Standard. Satisfactory completion per NFM, NAVAIR 01-75GAA-9/NAVAIR 01-75GAH-9, ANTPP, SOP, and OPNAVINST 3710.7.

Prerequisite. FAM-1000.

CPL-1511 4.0 * B,R D G 1 KC-130T

Goal. Discuss and demonstrate procedures for rolling stock cargo.

Requirement. Discuss and demonstrate aircraft configuration for a flight transporting rolling stock, winching procedures, limitations, loading, and tie down procedures. The CMUI will prepare a Form F. In-flight cargo jettison procedures will be thoroughly discussed.

Performance Standard. Satisfactory completion per NFM, NAVAIR 01-75GAA-9/NAVAIR 01-75GAH-9, SOP, and OPNAVINST 3710.7.

Prerequisite. FAM-1000.

External Syllabus Support. Material Handling Equipment (MHE).

CPL-1512 4.0 * B,R D G 1 KC-130T

Goal. Discuss and demonstrate loading procedures for palletized cargo.

Requirement. Perform aircraft configurations for a simulated flight transporting palletized cargo. Discuss tanker considerations, conduct preflight, post flight, and operation of the dual rail system. A forklift should be used as the primary loading vehicle. The CMUI will prepare a Form F. In-flight cargo jettison procedures will be thoroughly explained by the CMUI.

Performance Standard. Satisfactory completion per NFM, NAVAIR 01-75GAA-9, SOP, and OPNAVINST 3710.7.

Prerequisite. FAM-1000.

External Syllabus Support. Material Handling Equipment (MHE).

CPL-1513 4.0 * B (N) A 1 KC-130T

Goal. Perform loading procedures for passengers and cargo.

Requirement. Perform aircraft configurations for a flight transporting passengers with baggage. Explain tanker considerations, limitations, and loading and tie down procedures. Perform preflight, post flight, and operation of the dual rail system. The CMUI will prepare a Form F. In-flight cargo jettison procedures will be thoroughly explained by the CMUI.

Performance Standard. Satisfactory completion per NFM, NAVAIR 01-75GAA-9, SOP, and OPNAVINST 3710.7.

External Syllabus Support. Material Handling Equipment (MHE).

Prerequisite. FAM-1101, CPL-1510.

CPL-1514 4.0 * B (N) A 1 KC-130T

Goal. Perform rolling stock loading procedures.

Requirement. Perform aircraft configurations for a flight transporting rolling stock cargo, winching procedures, limitations, and loading and tie down procedures. Discuss tanker considerations. The CMUI will prepare a Form F. In-flight cargo jettison procedures will be thoroughly explained by the CMUI.

Performance Standard. Satisfactory completion per NFM, NAVAIR 01-75GAA-9, SOP, and OPNAVINST 3710.7.

External Syllabus Support.

Prerequisite. FAM-1101, CPL-1511

CPL-1515 4.0 * B (N) A 1 KC-130T

Goal. Perform palletized cargo loading procedures.

Requirement. Perform aircraft configurations for a flight transporting palletized cargo. Discuss tanker considerations, demonstrate preflight, post flight, and operation of the dual rail system. A forklift should be used as the primary loading vehicle. The CMUI will prepare a Form F. In-flight cargo jettison procedures will be thoroughly explained by the CMUI.

Performance Standard. Satisfactory completion per NFM, NAVAIR 01-75GAA-9, SOP, and OPNAVINST 3710.7.

External Syllabus Support. Material Handling Equipment (MHE).

Prerequisite. FAM-1101, CPL-1512

5.8.7 Air-To-Air Refueling (AAR) Stage

5.8.7.1 Purpose. Familiarize Crewmasters with basic Air-to-Air refueling procedures and terminology.

5.8.7.2 General. Train the CMUI to perform the duties of an in-flight refueling observer. At the end of this phase of training the CMUI will be able to:

Preflight the aircraft per specific mission requirements.

Compute and file an accurate DD Form 365-4 (Weight and Balance Clearance Form F - Transport) and DD Form 791 (In-flight Issue Log) for the aircraft.

Perform duties as an in-flight refueling observer during hose operation, informing the Aircraft Commander of the status of the refueling system and position of receiver aircraft.

Correctly perform all related emergency procedures.

Crew Requirement. CMI or SI

Admin Notes. The CMUI shall be familiar with the NFM,

ANFTP, ATP-56, associated MAWTS-1 courseware that relates to the air-to-air refueling environment, and CBTs.

AAR-1600 2.0 * B D A 1 KC-130T

Goal. Introduce and review the duties of an in-flight refueling observer during a day fixed-wing or tilt rotor AAR mission.

Requirement. The CMUI will perform refueling observer duties during a day AAR mission. The observer should respond to all ICS and radio

transmissions during the entire evolution. The CMUI will demonstrate a thorough understanding of air-to-air refueling terminology and the use of EMCON procedures.

Performance Standard. Satisfactory completion of procedures per the NFM, ANTP, and ATP-56B.

Prerequisite. FAM-1101

External Syllabus Support. Fixed Wing or Tilt/Rotor receiver.

AAR-1601 2.0 * B D A 1 KC-130T

Goal. Introduce and review the duties of an in-flight refueling observer during a day helicopter air-to-air refueling mission.

Requirement. The CMUI will perform refueling observer duties during a day air-to-air refueling mission. The observer should respond to all ICS and radio transmissions during the entire evolution. The CMUI will demonstrate a thorough understanding of all air-to-air refueling terminology and the use of EMCON procedures.

Performance Standard. Satisfactory completion of procedures per the NFM, ANTP, and ATP-56B.

Prerequisite. FAM-1101

External Syllabus Support. Helicopter Receiver.

5.9 CORE SKILL PHASE (2000)

5.9.1 Purpose. Upon completion of this phase of training, the Crewmaster will be qualified in Core Skills. These skills include Night Systems (NS), Long Range Navigation (LRN), Tactical Navigation (TN), day low altitude Tactics (LAT), and ground based Threat Reaction (TR). When the Crewmaster has completed the RQD-6118, or RQD-6119, or RQD-6120 and subsequent initial events have been successfully accomplished the Crewmaster is qualified in that event.

5.9.2 General

5.9.7.1 Prerequisite. Completion of the Core Skill Introduction equivalent.

5.9.7.2 Admin Notes. All ground and flight events require an ATF.

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

Par No.	Stage Name
5.10.3	Night Systems (NS)
5.10.4	Long Range Navigation (LRN)
5.10.5	Tactical Navigation (TN)
5.10.6	Threat Reaction (TR)

5.9.3 Night Systems (NS) Stage

5.9.3.1 Purpose. To qualify and maintain proficiency utilizing night vision devices (NVDs).

5.9.3.2 General. Crewmasters undergoing NS training shall be instructed by a Night Systems Instructor (NSI) for this stage.

Crew Requirements. NSI

NS-2150 2.0 365 B,R,SC,M NS A 1 KC-130T

Goal. To qualify or maintain proficiency in NS operations.

Requirement. The CMUI will demonstrate NVD features and characteristics, followed by inspection/adjustment. Emphasize aircraft lighting in normal, NVIS, covert modes, and variations that occur with different terrain/water, cultural lighting and contrast under high or low light conditions.

Performance Standard. Satisfactory completion per the NVD Manual, NFM, ANTP, and OPNAVINST 3710.7.

Prerequisite. NS-1150, NS-1151 and 10 hours of NVD time (5 shall be in low-light conditions).

5.9.4 Long Range Navigation (LRN) Stage

5.9.4.1 Purpose. Train the Crewmaster in requirements for OCONUS operations.

5.9.4.2 General. This stage should have, at least, one mission that remains overnight outside the continental United States and requires clearing customs in a foreign country.

Admin Notes. CMUI will receive instruction in the use of the Foreign Clearance Guide (FCG), Flight Information Handbook (FIH), and International Civil Aviation Organization (ICAO) procedures.

LRN-2160 6.0 * B,R,SC,M (N) A 1 KC-130T

Goal. Introduce, qualify, or maintain proficiency for long range navigation.

Requirement. The CMUI, under the direct supervision of a CMI, will perform all duties as a Crewmaster for LRNAV operations. The CMUI will demonstrate a thorough understanding of HF radio communications, phone patches; as well as bailout and ditching procedures as it pertains to a Radio Operator. Discuss emergency equipment as well as customs and agriculture planning.

Prerequisite. FAM-1108

Performance Standard. Per the NFM and pertinent ICAO publications.

5.9.5 Tactical Navigation (TN) Stage

5.9.5.1 Purpose. To qualify or maintain proficiency for the Low Level qualified Crewmaster in the tasks and requirements associated with low level flights.

5.9.5.2 General. Review NATOPS Flight Manual, ANTP, CBTs, and MAWTS-1 ASP Low Level Navigation Courseware.

Crew Requirement. CMI or SI; NSI

TN-2201 2.0 365 B D A 1 KC-130T

Goal. Qualify or maintain proficiency in TN/LAT aft lookout duties.

Requirement. The CMUI will perform the duties of an aft lookout during a day TN mission. Conduct cargo compartment preparation, lookout doctrine, scan for threats and terrain clearance, crew coordination and FENCE checklists. The instructor shall review and discuss LAT terminology and maneuvers during initial event training as they apply to crew coordination and cargo restraint.

Performance Standard. Satisfactory completion of the procedures per the NFM and ANTP.

Prerequisite. TN-1200

TN-2250 2.0 365 B,R,M NS A 1 KC-130T

Goal. Qualify or maintain proficiency in TN/LAT aft lookout duties using NVDs.

Requirement. The CMUI will perform the duties of an aft lookout during a TN mission using NVDs. Conduct cargo compartment preparation, lookout doctrine, scan for threat, crew coordination and FENCE checklists. The instructor shall review and discuss LAT terminology and maneuvers during initial event training as they apply to crew coordination and cargo restraint.

Performance Standard. Satisfactory completion of the procedures per the NFM and ANTTP standards.

Prerequisite. Applicable MAWTS-1 ASP, NS-2150, TN-2200.

5.9.6 Threat Reaction (TR) Stage

5.9.6.1 Purpose. Introduce, qualify, or maintain proficiency in the use of defensive maneuvering coordinated with Aircraft Survivability Equipment (ASE) suite against surface-to-air threat systems.

5.9.6.2 General. Aircraft must have fully operational ASE suite. Appropriate decoy flares must be loaded prior to flight. Threat emitters should be available.

Crew Requirements. CMI or SI

Admin Notes. The Crewmaster shall review pertinent chapters in the ANTTP, receive the appropriate MAWTS-1 ASPs, and CBTs.

TR-2400 2.0 365 B,R,M (N) A 1 KC-130T

Goal. Introduce, qualify, or maintain proficiency in the aft lookout duties as they pertain to surface to air threats.

Requirement. The CMUI will demonstrate the use of the ASE in combination with tactical maneuvering to defeat a ground-based threat.

Performance Standard. Satisfactory execution of procedures per the MAWTS-1 ASP, NFM, and ANTTP.

Prerequisite. Applicable MAWTS-1 ASP, (NS-2150), TN-2201

External Syllabus Support. ASE range.

5.10 MISSION SKILL PHASE (3000)

5.10.1 Purpose. Upon completion of this phase of training, the Crewmaster will be qualified in Mission Skills. These skills include Assault Landing Zone (ALZ), Cargo and Passenger Loading (CPL), Air-to-Air Refueling (AAR), Aviation Delivered Ground Refueling (ADGR), and Air Delivery (AD).

5.10.2 General

5.10.2.1 Prerequisite. Completion of the Core Skill Introduction Phase (1000) CPL and AAR Stages.

5.10.2.2 Admin Notes. All ground and flight events require an ATF.

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

1 Nov 13

Par No.	Stage Name
5.11.3	Assault Landing Zone (ALZ)
5.11.4	Cargo and Passenger Loading (CPL)
5.11.5	Air-to-Air Refueling (AAR)
5.11.6	Aviation Delivered Ground Refueling (ADGR)
5.11.7	Air Delivery (AD)

5.10.3 Assault Landing Zone (ALZ) Stage

5.10.3.1 Purpose. Introduce ALZ operations, culminating in aircraft preparation, combat offload (COL), and engine running offload (ERO) in an ALZ environment.

5.10.3.2 General. This stage of training shall be taught per the ANTP and associated MAWTS-1 ASPs.

Admin Notes. All ground and flight events require an ATF.

ALZ-3502 1.0 365 B,R,M (N) A 1 KC-130T

Goal. Qualify or maintain proficiency in COL operations.

Requirement. The CMUI, under the direct supervision of a WTI, CPLI, or CMI, will demonstrate the ability to prepare the cargo compartment and aircraft exterior for unimproved ALZ operations, conduct a COL, and direct the pilot in reverse taxi procedures.

Performance Standard. Satisfactory completion of the procedures per the NFM, ANTP.

Prerequisite. (NS-2150), CPL-3512, (CPL-3513)

External Syllabus Support. Material Handling Equipment (MHE).

ALZ-3504 1.0 365 B,R,M (N) A 1 KC-130T

Goal. Qualify or maintain proficiency in ERO Operations.

Requirement. The CMUI, under the direct supervision of a WTI, CMI, or CPLI, will demonstrate procedures for preparation of the cargo compartment and aircraft exterior for unimproved ALZ operations.

Performance Standard. Satisfactory completion of the procedures per the NFM, ANTP.

Prerequisite. (NS-2150), CPL-3510/CPL-3511/CPL-3512, (CPL-3513)

External Syllabus Support. USMC MMT, MWSS, EAF or USAF Combat Control Team with appropriate expeditionary airfield ALZ marking/lighting and ARFF support.

5.10.4 Assault Transport (AT) // Cargo and Passenger Loading (CPL) Stage

5.10.4.1 Purpose. Continue the Crewmaster's CPL instruction.

5.10.4.2 General. Requirements of the stage include:

Preflight and configure an aircraft per mission requirements for flights involving passengers and/or cargo.

Determine available seating and/or cargo space for load planning purposes.

Utilize all KC-130 loading aids conforming to the limitations, installations, and usage of each per NAVAIR 01-75GAA-9 or NAVAIR 01-75GAH-9.

Safely load and off-load cargo per NAVAIR 01-75GAA-9 or NAVAIR 01-75GAH-9.

Compute weight and balance for a flight transporting a passenger/cargo payload.

Post flight of the cargo compartment.

Crew Requirements. CPLI or CMI

CPL-3510 3.0 365 B,R,M (N) A 1 KC-130T

Goal. Qualify or maintain proficiency in loading passengers with bags.

Requirement. Discuss and demonstrate aircraft configuration for a flight transporting the maximum load allowable with passengers and baggage, passenger brief and accurate passenger manifesting. The CMUI will demonstrate the installation of centerline & sidewall seats, seat spacing configurations, and aeromedical considerations. The CMUI will prepare a weight and balance. Tanker frame considerations will be discussed.

Performance Standard. Per the NFM, NAVAIR 01-75GAA-9/NAVAIR 01-75GAH-9, and OPNAVINST 3710.7.

Prerequisite. (NS-2150), CPL-1513

CPL-3511 3.0 365 B,R,M (N) A 1 KC-130T

Goal. Qualify or maintain proficiency in rolling stock and winching procedures.

Requirement. Discuss and demonstrate aircraft configuration for a flight transporting rolling stock, winching procedures, limitations, and loading & tie down procedures. The CMUI will prepare a Form F. In-flight cargo jettison procedures will be thoroughly discussed.

Performance Standard. Per the NFM, NAVAIR 01-75GAA-9/NAVAIR 01-75GAH-9, and OPNAVINST 3710.7.

Prerequisite. (NS-2150), CPL-1514

CPL-3512 3.0 365 B,R,M (N) A 1 KC-130T

Goal. Qualify or maintain proficiency in loading palletized cargo.

Requirement. Perform aircraft configurations for a flight transporting palletized cargo. Discuss tanker considerations, conduct preflight, post flight & operation of the dual rail system. A forklift should be used as the primary loading vehicle. The CMUI will prepare a Form F. In-flight cargo jettison procedures will be thoroughly explained by the CMUI.

Performance Standard. Per the NFM, NAVAIR 01-75GAA-9/NAVAIR 01-75GAH-9, and OPNAVINST 3710.7.

Prerequisite. (NS-2150), CPL-1515

CPL-3513 1.0 365 B,R,M (N) A 1 KC-130T

Goal. Qualify or maintain proficiency in loading hazardous cargo.

Requirement. The Crewmaster will configure an aircraft for a flight transporting hazardous cargo. CMUI will discuss guidelines set in MCO P4030.19 for transporting hazardous cargo. CMUI will complete a weight and balance and discuss potential emergencies associated with hazardous cargo.

Performance Standard. Per the NFM, NAVAIR 01-75GAA-9/NAVAIR 01-75GAH-9, and OPNAVINST 3710.7, and MCO P4030.19.

Prerequisite. (NS-2150), CPL-1514/CPL-1515

5.10.5 Air-To-Air Refueling (AAR) Stage

5.10.5.1 Purpose. Continue instruction in AAR observer duties, or to maintain proficiency during day and night tactical refueling missions.

5.10.5.2 General. Emission control procedures may be used for any of the events in this stage.

Crew Requirements. CMI or SI; NSI

Admin Notes. Review NFM, ATP-56(B), ANTTP, and MAWTS-1 AAR ASP.

AAR-3600 2.0 365 B,M D A 1 KC-130T

Goal. Qualify or maintain proficiency in AAR observer duties for Fixed Wing (FW) or Tilt Rotor (TR) AAR.

Requirement. The CMUI will perform refueling observer duties during a day AAR mission. The observer should respond to all ICS and radio transmissions during the entire evolution. The CMUI will demonstrate a thorough understanding of all air-to-air refueling terminology and the use of EMCON procedures.

Performance Standard. Satisfactory completion of the procedures per the NFM, ATP-56(B), and ANTTP.

Prerequisite. AAR-1600

External Syllabus Support. Fixed-wing or tilt-rotor receiver.

AAR-3601 2.0 365 B,M D A 1 KC-130T

Goal. Qualify or maintain proficiency in AAR observer duties for Helicopter AAR.

Requirement. The CMUI will perform refueling observer duties during a day air to air refueling mission. The observer should respond to all ICS and radio transmissions during the entire evolution. The CMUI will demonstrate a thorough understanding of all air-to-air refueling terminology and the use of EMCON procedures.

Performance Standard. Satisfactory completion of the procedures per the NFM, ATP-56(B), and ANTTP.

Prerequisite. AAR-1601

External Syllabus Support. Helicopter receiver.

AAR-3650 2.0 365 B,R,M NS A 1 KC-130T

Goal. Qualify or maintain proficiency in AAR observer duties using NVDs during AAR.

Requirement. The CMUI, under the direct supervision of a CMI, shall perform AAR observer duties using NVDs.

Performance Standard. Satisfactory completion of the procedures per the NFM, ATP-56B, and ANTTP.

Prerequisite. NS-2150, AAR-3600/AAR-3601

External Syllabus Support. Receiver aircraft.

5.10.6 Aviation Delivered Ground Refueling (ADGR) Stage

5.10.6.1 Purpose. Qualify or maintain proficiency in ADGR missions.

5.10.6.2 General. Upon completion of this stage of training the CM will be qualified in ADGR as a point man.

Crew Requirements. RS qualified CMI

Admin notes. Review ANTPP ADGR procedures and MAWTS-1 ADGR ASP.

ADGR-3661 2.0 365 B,M (N) A 1 KC-130T

Goal. Qualify or maintain currency in ADGR point man duties during ADGR operations.

Requirement. Under the direct supervision of a RS, the CMUI will assist in the conduct of an ADGR, minimum 2-point setup, including the actual transfer of fuel to aircraft or tactical ground vehicles (TGV). The CMUI will man and perform all duties associated with a refueling point during an ADGR mission.

Performance Standard. Satisfactorily complete the procedures per NFM and ANTPP.

Prerequisite. Applicable MAWTS-1 ASP.

External Syllabus Support. ARFF; aircraft or TGV.

5.10.7 Air Delivery (AD) Stage

5.10.7.1 Purpose. Qualify or maintain proficiency in Container Delivery System (CDS) and Personnel (PERS) AD missions.

5.10.7.2 Crew Requirements. ADI.

Admin notes. Review the NFM, NAVAIR 01-75GAA-9, ANTPP, MAWTS-1 AD ASP.

AD-3703 4.0 365 B,M (N) A 1 KC-130T

Goal. Qualify or maintain proficiency in CDS AD.

Requirement. Under the direct supervision of an ADI, the CMUI will conduct a CDS AD. The CMUI will perform preflight, rigging, briefing, loading, and execution. Emergency procedures will be thoroughly explained by the CMUI.

Performance Standard. Satisfactory completion of the procedures per the NFM, NAVAIR 01-75GAA-9, ANTPP.

Prerequisite. Applicable MAWTS-1 ASPs, CPL-3512.

External syllabus. AD platoon, MHE, and DZ control

AD-3705 4.0 365 B,M (N) A 1 KC-130T

Goal. Introduce, qualify, or maintain proficiency in static line PERS AD.

Requirement. Under the direct supervision of an ADI, the CMUI will perform a static PERS AD. The CMUI will perform preflight, rigging, briefing, loading, and execution. Emergency procedures will be thoroughly explained by the CMUI

Performance Standard. Satisfactory completion of the procedures per the NFM, NAVAIR 01-75GAA-9, ANTPP.

Prerequisite. Applicable MAWTS-1 ASPs, CPL-3510.

External Syllabus Support. Parachutists, DZ control, and Flight Physiologist (as required).

5.11 CORE PLUS PHASE (4000)

5.12 MISSION PLUS PHASE (4000)

5.12.1 Purpose. Upon completion of this phase of training, the Crewmaster will be qualified in Mission Plus Skills. These skills include Air Delivery (AD) and Battlefield Illumination (BI).

5.12.2 General

5.12.2.1 Admin Notes. All ground and flight events require an ATF.

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

Par No.	Stage Name
5.13.3	Air Delivery (AD)
5.13.4	Battlefield Illumination (BI)

5.12.3 Air Delivery (AD) Stage

5.12.3.1 Purpose. To qualify or maintain proficiency in combination, military free-fall (MFF), and Heavy Equipment (HE) AD missions.

5.12.3.2 General. Upon completion of this stage CMUI will be Mission Plus AD qualified.

Academic Training. Review the NATOPS Flight Manual, NAVAIR 01-75GAA-9, ANTP, MAWTS-1 Air Delivery courseware.

Crew Requirements. ADI or WTI.

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

Goal. Introduce, qualify, or maintain proficiency in personnel and cargo combination airdrop.

Requirement. Under the direct supervision of an ADI, the CMUI will perform the duties as primary during a combination airdrop. The CMUI will conduct preflight, rigging, briefing, loading, and execution. Emergency procedures will be thoroughly explained by the CMUI.

Performance Standard. Satisfactory completion of the procedures per the NFM, NAVAIR 01-75GAA-9, ANTP.

Prerequisite. CPL-3512, AD-3703/AD-4703, AD-3705/AD-4701

External support. Parachutists, AD Platoon, MHE, and DZ control.

AD-4701 2.0 365 B,R,M (N) A 1 KC-130T

Goal. Introduce, qualify, or to maintain proficiency in airdrop of MFF/high altitude airdrop personnel.

Requirement. Under the direct supervision of an ADI, the CMUI will conduct MFF. The CMUI will preflight, rig, brief, load, and execute a free fall airdrop. The initial event should utilize the oxygen system and pre-breathing procedures.

Performance Standard. Satisfactory completion of the procedures per the NFM, ANTP.

Prerequisite. CPL-3510

External Support. MFF parachutists, DZ control, and Flight Physiologist (as required).

AD-4703 4.0 365 B,R,M (N) A 1 KC-130T

Goal. Qualify or maintain proficiency in HE AD.

Requirement. Under the direct supervision of an ADI, the CMUI will conduct a HE AD. The CMUI will perform preflight, rigging, briefing, loading, and execution. Emergency procedures will be thoroughly explained by the CMUI.

Performance Standard. Satisfactory completion of the procedures per the NFM, NAVAIR 01-75GAA-9, ANTP.

Prerequisite. Applicable MAWTS-1 ASPs, CPL-3512.

External Syllabus Support. AD platoon, MHE, DZ control.

5.12.4 Battlefield Illumination (BI) Stage

5.12.4.1 Purpose. Introduce, qualify, or maintain proficiency in flare delivery procedures.

5.12.4.2 General. Upon completion of this stage the CMUI will be Mission Plus BI qualified.

Academic Training. MAWTS-1 Battlefield Illumination ASP.

Crew Requirements. QASO qualified CMI

BI-4710 3.0 365 B,R,M (N) A 1 KC-130T

Goal. Introduce, qualify, or maintain proficiency in battlefield illumination as a Team Member/Team Leader.

Requirement. Under the direct supervision of a QASO, the CMUI will demonstrate the loading and operation of the flare dispenser (preferred); or utilizing hand-launching operations. The CMUI will adhere to crew coordination, safety precautions and emergency procedures.

Performance Standard. Per the NFM, NAVAIR 01-75GAA-9, and ANTP.

Prerequisite. CPL-3512, (CPL-3513)

Ordnance Requirement.

ORDNANCE				
POI	ORDNANCE	QUANTITY	ALLOWABLE SUBSTITUTES	NOTES
Basic	LUU-2 Series	6	LUU-19 Series	
Refresher	LUU-2 Series	2	LUU-19 Series	

5.13 INSTRUCTOR TRAINING PHASE (5000)

5.13.1 Purpose. To qualify an instructor under training (IUT) as a Cargo Passenger Loading Instructor (CPLI), or Airdrop Instructor (ADI); as well as further progression to NATOPS/Assistant NATOPS Instructor (NI/ANI), Night Systems Instructor (NSI), or Weapons and Tactics Instructor (WTI)

5.13.2 General

5.13.7.1 Prerequisite. MAWTS-1 Instructor Roles ASP. The Basic Instructor Training Course should be attended if available.

5.13.7.2 Admin Notes. Standardization will be emphasized throughout instructor training. All ground and flight events require an ATF.

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

Par No.	Stage Name
5.14.3	Instructor Under Training (IUT)
5.14.4	NATOPS/Asst NATOPS Instructor (NI/ANI)
5.14.5	Night Systems Instructor (NSI)
5.14.6	Weapons and Tactics Instructor (WTI)

5.13.3 Instructor Under Training (IUT) Stage

5.13.3.1 Purpose. To qualify an IUT as a Cargo and Passenger Loading, Systems, Crewmaster, or Air Drop Instructor.

5.13.3.2 General. Standardization will be emphasized throughout instructor training.

IUT-5100 3.0 * B (N) E A 1 KC-130T

Goal. Initial Instructor training.

Requirement. The IUT will demonstrate the ability to instruct a CMUI on the KC130T. The IUT will demonstrate the ability to correct common CMUI errors. The IUT will apply standardized instructional techniques and be instructed by an ANI.

Performance Standard. IAW NFM, COMNAVIARFORINST 1542.7, OPNAVINST 3710.7, and applicable publications.

Prerequisite. APRB Recommended.

IUT-5101 3.0 * B (N) E A 1 KC-130T

Goal. Continued Instructor training.

Requirement. The IUT will demonstrate the ability to instruct a CMUI on the KC130T. The IUT will demonstrate the ability to correct common CMUI errors. The IUT will apply standardized instructional techniques and be instructed by an ANI.

Performance Standard. IAW NFM, COMNAVIARFORINST 1542.7, OPNAVINST 3710.7, and applicable publications.

Prerequisite. IUT-5100

CPLI-5102 3.0 * B,R (N) E A 1 KC-130T

Goal. Cargo and Passenger Loading Instructor.

Requirement. The IUT will demonstrate the ability to instruct a CMUI on CPL and ALZ stages. The IUT will demonstrate the ability to correct common CMUI errors. The IUT will apply standardized instructional techniques and be evaluated by a CM ANI. At the completion of this sortie, the Crewmaster may be designated by the squadron commanding officer (CO) as a CPLI.

Performance Standard. The IUT shall be evaluated on the ability to correct common student errors as simulated by a CM ANI and apply standardized instructional techniques.

Prerequisite. APRB recommended, IUT-5101, all CPL and ALZ events completed.

CMI-5103 3.0 * B,R (N) E A 1 KC-130T

Goal. Crewmaster Instructor.

Requirement. The IUT will demonstrate the ability to instruct a Crewmaster in a Core Skill Introduction (minus SYS stages), Core Skill, Mission Skill (minus AD stages), or Core Plus Skill (minus AD stages)

T&R event. The IUT will demonstrate the ability to correct common student errors. The IUT will apply standardized instructional techniques. At the completion of this sortie, the Crewmaster may be designated by the squadron CO as a CMI.

Performance Standard. The IUT shall be evaluated on the ability to correct common student errors as simulated by a CM ANI and apply standardized instructional techniques.

Prerequisite. Core Skill (2000), Mission Skill (3000), and Core Plus Skill (4000) phase complete (minus AD stages), CPLI-5102, and recommended by the APRB.

SI-5104 3.0 * B,SC,R (N) E A 1 KC-130T

Goal. Systems Instructor.

Requirement. The IUT will demonstrate the ability to instruct a CMUI in Core Skill Introduction Phase (minus CPL stages), Core Skill Phase, AAR stages, and FCF-6105 T&R events. The IUT will demonstrate the ability to correct common student errors. The IUT will apply standardized instructional techniques. At the completion of this sortie, the Crewmaster may be designated by the squadron CO as a SI.

Performance Standard. The IUT shall be evaluated on the ability to correct common student errors as simulated by a Crewmaster ANI or Flight Engineer ANI and apply standardized instructional techniques.

Prerequisite. IUT-5101, Core Skill (2000) complete, AAR-3600, AAR-3601, FCF-6105, recommended by the APRB.

*Flight engineers who have completed an annual NATOPS evaluation and IUT-5101 may be designated by the commanding officer as a SI per this chapter.

ADI-5700 3.0 * B,R (N) E A 1 KC-130T

Goal. Air Drop Instructor.

Requirement. The IUT will demonstrate the ability to instruct a CMUI on ADs, and correct common CMUI errors. The IUT will apply standardized instructional techniques and be evaluated by a WTI. At the completion of this sortie, the Crewmaster may be designated by the squadron CO as an ADI.

Performance Standard. IAW NATOPS and applicable publications.

Prerequisite. APRB recommended, CPLI-5102, and all AD events complete.

5.13.4 Natops/Assistant Natops Instructor (NI) Stage

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

5.13.4.2 General. Standardization will be emphasized throughout instructor training.

Prerequisite. IUT-5101, APRB recommended.

Admin Notes. Utilize academic courseware as outlined in the NFM and OPNAV 3710.7.

NI-5140 3.0 * B,R,SC (N) E A 1 KC-130T

Goal. ANI/NI Training Flight.

Requirement. The IUT will evaluate a Crewmaster in NATOPS procedures under supervision of a NI/NE.

Performance Standard. IAW NFM, COMNAVIARFORINST 1542.7, and OPNAVINST 3710.7.

Prerequisite. CPLI-5103

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

Goal. ANI/NI Evaluation Flight.

Requirement. IUT will evaluate a Crewmaster in NATOPS procedures under supervision of a NI/NE. At the completion of this sortie, the Crewmaster may be designated by the Commanding Officer.

Performance Standard. IAW NFM, COMNAVIARFORINST 1542.7, and OPNAVINST 3710.7.

Prerequisite. NI-5140

5.13.5 Night Systems Instructor (NSI) Stage

5.13.5.1 Purpose. To qualify as a Night Systems Instructor (NSI).

5.13.5.2 General. Standardization will be emphasized throughout Instructor training. MAWTS-1 Instructor shall evaluate this event and workups may be conducted by squadron NSIs. Upon completion, the candidate will be certified by MAWTS-1 as a NSI.

Academic Training. The perspective NSI shall teach NVD I and II IAW the MAWTS-1 KC-130T Course Catalog.

Admin Notes. NSI designation can only be made by the squadron commanding officer.

NSI-5150 3.0 * B NS A 1 KC-130T

Goal. Begin Night Systems Instructor syllabus.

Requirement. IUT will demonstrate the ability to instruct a crewmember in NS Core Skill T&R events and correct common CMUI errors. The IUT will apply standardized instructional techniques.

Performance Standard. IAW MAWTS-1 KC-130T Course Catalog.

Prerequisite. IAW MAWTS-1 KC-130T Course Catalog, NS-2150

NSI-5151 3.0 * B,R NS A 1 KC-130T

Goal. Continue Night Systems Instructor syllabus.

Requirement. IUT will demonstrate the ability to instruct a crewmember in NS Mission Skill T&R events and demonstrate the ability to correct common CMUI errors. The IUT will apply standardized instructional techniques

Performance Standard. IAW MAWTS-1 KC-130T Course Catalog.

Prerequisite. NS-5150

NSI-5152 3.0 * B,R NS E A 1 KC-130T

Goal. NSI Certification.

Requirement. Per MAWTS-1 KC-130T Course Catalog. Upon certification by MAWTS-1, the NSI designation shall be assigned by the squadron CO.

Performance Standard. Satisfactorily execute the procedures per NFM, ANTPP, and MAWTS-1 ASP for NSI.

Prerequisite. NS-5151

External Syllabus Support. MAWTS-1 Instructor

5.13.6 Weapons And Tactics Instructor (WTI) Stage

5.13.6.1 Purpose. Certify the KC-130 Crewmaster Instructor as a WTI capable of safely conducting ground and airborne instruction in the KC-130 Crewmaster Core Skill Advanced and Core Skill Plus flight syllabus as outlined in MCO 3500.19 and the MAWTS-1 WTI Course Catalog.

5.13.6.2 General. The KC-130 WTI Syllabus is developed by MAWTS-1 and is conducted in conjunction with the WTI Course. Upon graduation, the candidate will be certified by MAWTS-1 as a WTI Crewmaster.

Academic Training. Per the MAWTS-1 WTI Course Catalog.

Flight Training. Per the MAWTS-1 WTI Course Catalog.

Admin Notes. WTI designation can only be made by the squadron CO.

5.14 REQUIREMENTS, QUALIFICATIONS, DESIGNATIONS (RQD) PHASE (6000)

5.14.1 Purpose. Track Qualifications and Designations.

5.14.2 General. "E"-coded sorties in the 6000-level phase may be logged in conjunction with any sortie that completes its stage. CSP is not awarded for these 6000 level sorties; however, CSP credit may be obtained by logging the appropriate training code(s) in the 2000-4000 level syllabi. 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 and APR before that qualification/designation can be used.

5.14.2.1 Prerequisite. As applicable.

5.14.2.2 Admin Notes. All ground and flight events require an ATF except NTPS-6010, NTPS-6011, NTPS-6012, and NTPS-6118.

5.14.2.3 Stages. The following stages are included in the RQD Phase of training.

Par No.	Stage Name
5.15.3	NATOPS Academic Evaluation (NTPS)
5.15.4	Functional Check Flight (FCF)
5.15.5	NATOPS Flight Evaluation (NTPS)
5.15.6	Aviation Delivered Ground Refueling (ADGR)
5.15.7	Battlefield Illumination (BI)

5.14.3 NATOPS Academic Evaluation (NTPS) Stage

5.14.3.1 Purpose. Track NATOPS academic evaluations.

5.14.3.2 General. CM will successfully complete a NATOPS open, closed and oral examination.

Prerequisite. Appropriate Core Skill Introduction Phase (1000) complete for the specific requirements of a CM1, CM2, or CM3.

Admin Notes. Ensure adherence to OPNAVINST 3710.7 and MCO 3710.8 are strictly enforced. Open and closed book examinations shall be administered by the Department of Safety and Standardization (DOSS) representative or any NE/NI/ANI.

NTPS-6010 3.0 365 B,R,SC,M (N) E G

Goal. Complete a CM NATOPS open book exam.

Requirement. Crewmaster will complete a NATOPS open book examination. A maximum of 60 days may elapse between the commencement of the initial ground evaluation and the date the evaluation flight is satisfactorily completed.

Performance Standard. Achieve a passing score of 3.5

Instructor. DOSS representative, NE, NI, or ANI

NTPS-6011 1.0 365 B,R,SC,M (N) E G

Goal. Complete a CM NATOPS closed book exam.

Requirement. Crewmaster will complete a NATOPS closed book exam within 60 minutes from receipt of examination.

Performance Standard. Achieve a passing score of 3.3

Instructor. DOSS representative, NE, NI, or ANI

NTPS-6012 3.0 365 B,R,SC,M (N) E G

Goal. Complete a CM NATOPS oral exam.

Requirement. Crewmaster will complete a NATOPS oral examination that shall not exceed 3 hours. The oral examination should be completed prior to but may be completed in conjunction with the flight evaluation.

Performance Standard. Per the NFM, OPNAVINST 3710.7, MCO 3710.8, NAVMC 3500.14, COMNAVAIRFORINST 1542.7.

Instructor. NE, NI, or ANI

Prerequisite. NTPS-6010, and NTPS-6011

5.14.4 Functional Check Flight (FCF) Stage

5.14.4.1 Purpose. To qualify and maintain proficiency in FCF procedures. Perform all FCF procedures IAW NATOPS, OPNAVINST 3710.7, COMNAVAIRFORINST 1542.7, and COMNAVAIRFORINST 4790.2.

5.14.4.2 General

Prerequisite. 1000 Phase complete.

FCF-6105 2.0 365 B,R,SC,M D E A 1 KC-130T

Goal. To introduce, qualify, and maintain currency for the CMUI in a FCF Flight Profile A (preferred); or partial FCF Flight Profile B, C, D, E, or F.

Requirement. To conduct an FCF coordinating and documenting all the requirements of the MIMs, NATOPS, SOP, and COMNAVAIRFORINST 4790.2.

Performance Standard. Per the NFM, OPNAVINST 3710.7 and OPNAV 4790.2

Instructor. FEI, SI, or CMI

Prerequisite. 1000 Phase complete.

5.14.5 NATOPS Flight Evaluation (NTPS) Stage

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

5.14.5.2 General

Prerequisite. NTPS-6010, NTPS-6011, and NTPS-6012.

Admin Notes. The NATOPS oral examination (NTPS-6012) may be conducted in conjunction with the NATOPS flight evaluation. NATOPS evaluatees shall complete and have a graded open and closed book examination prior to the commencement of the actual NATOPS evaluation flight. A maximum of 60 days may elapse between the commencement of the initial ground evaluation and the date the evaluation flight is satisfactorily completed. The NATOPS evaluation flight shall not exceed 3 hours. Remain overnight (RON) flight is preferred.

NTPS-6118 3.0 365 B,R,SC,M (N) E A 1 KC-130T

Goal. Crewmaster 1 NATOPS evaluation flight.

Requirement. The CM1 will be evaluated per the NFM, OPNVINST 3710.7, MCO 3710.8, NAVMC 3500.14, COMNAVAIRFORINST 1542.7 and all applicable manuals.

Performance Standard. Per NFM

Instructor. SI designated Crewmaster ANI; or a combination of Flight Engineer ANI and Crewmaster ANI.

Prerequisite. Approved KC-130T Ground Maintenance Course, Approved Ground Loadmaster Course, 1000 Phase complete, NTPS-6010, NTPS-6011, and NTPS-6012.

NTPS-6119 3.0 365 B,R,SC (N) E A 1 KC-130T

Goal. Crewmaster 2 NATOPS flight evaluation.

Requirement. The CM2 will be evaluated per the NFM, OPNVINST 3710.7, MCO 3710.8, NAVMC 3500.14, COMNAVAIRFORINST 1542.7 and all applicable manuals.

Performance Standard. Per NFM

Instructor. SI designated Crewmaster ANI; or Flight Engineer ANI.

Prerequisite. Approved KC-130T Ground Maintenance Course, 1000 Phase complete (minus CPL stages), NTPS-6010, NTPS-6011, and NTPS-6012.

NTPS-6120 3.0 365 B,R,SC,M (N) E A 1 KC-130T

Goal. Crewmaster 3 NATOPS flight evaluation.

Requirement. The CM3 will be evaluated per the NFM, OPNVINST 3710.7, MCO 3710.8, NAVMC 3500.14, COMNAVAIRFORINST 1542.7 and all applicable manuals.

Performance Standard. Per NFM

Instructor. Crewmaster ANI.

Prerequisite. Approved Ground Loadmaster Course, 1000 Phase complete (minus SYS stages), NTPS-6010, NTPS-6011, and NTPS-6012.

5.14.6 Aviation Delivered Ground Refueling (ADGR) Stage

5.14.6.1 Purpose. Qualify or maintain proficiency as a Refueling Supervisor (RS) on ADGR missions.

5.14.6.2 General. Upon completion of these events the Crewmaster will be designated by the Commanding Officer as a Refueling Supervisor.

Admin Notes. All ground and flight events require an ATF.

ADGR-6652 2.0 365 B,SC,R,M (N) E A 1 KC-130T

Goal. Introduce and qualify, or maintain proficiency for ADGR RS.

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Requirement. The Crewmaster will plan, brief, and execute a NS ADGR, minimum 2 point setup, including an actual transfer of fuel to aircraft or TGV. Subsequent events may be conducted as day, night, or NS ADGR.

Performance Standard. Satisfactory completion of the procedures per the NFM, ANTP.

Instructor. WTI

Prerequisites. NS-2150, ADGR-3661, and taxi director training.

5.14.7 Battlefield Illumination (BI) Stage

5.14.7.1 Purpose. Introduce, qualify, or maintain proficiency in flare delivery procedures as the Quality Assurance Safety Observer (QASO).

5.14.7.2 General. Initial qualification should utilize the Flare Delivery dispenser.

BI-6710 3.0 365 B,SC,R,M (N) E A 1 KC-130T

Goal. Introduce, qualify, or maintain proficiency in battlefield illumination as a QASO.

Requirement. The CM will supervise the loading and operation of the flare dispenser (preferred); or utilizing hand-launching operations. The CM will adhere to crew coordination and safety precautions while performing duties of a QASO, as defined in the ANTP.

Performance Standard. Per the NFM, NAVAIR 01-75GAA-9, and ANTP

Instructor. WTI

Prerequisites. (NS-2150), BI-4710

ORDNANCE				
POI	ORDNANCE	QUANTITY	ALLOWABLE SUBSTITUTES	NOTES
Basic	LUU-2 Series	6	LUU-19 Series	
Refresher	LUU-2 Series	2	LUU-19 Series	

5.15 T&R SYLLABUS MATRIX 1000 PHASE

KC-130T CREW MASTER CORE SKILL INTRODUCTION (1000 Phase)															
SKILL	STAGE	T&R DESCRIPTION	EVENT NUMBER	ATTAIN			FLIGHT		COND	TYPE	# A/C	REFLY	PREREQUISITE	NOTES	EVENT CONVY
				B	R	SC	#	TIME							
FAMILIARIZATION (FAM)															
FAM	FAM	Intro to A/C	1000R	X	X	X		4.0	D	A	1	*		Static A/C	1000
	FAM	Intro Pre-Flight	1100	X		X		4.0	D	A	1	*	1000	Static A/C	1100
	FAM	Rev Pre-Flight	1101R	X	X	X		4.0	(N)	A	1	*	1100	Static A/C	1101
	SYS	Engine System	1102	X		X		4.0	(N)	A	1	*	1101	Static A/C	1102
	SYS	Propeller System	1103	X		X		4.0	(N)	A	1	*	1101	Static A/C	1103
	SYS	Electrical Sys	1104	X		X		4.0	(N)	A	1	*	1101	Static A/C	1104
	SYS	Air Cond, O ²	1105	X		X		4.0	(N)	A	1	*	1101	Static A/C	1105
	SYS	Fuel Sys	1106	X		X		4.0	(N)	A	1	*	1101	Static A/C	1106
	SYS	Hydraulic Sys	1107	X		X		4.0	(N)	A	1	*	1101	Static A/C	1107
SYS	Comm Nav Sys	1108	X		X		4.0	(N)	A	1	*	1101	Static A/C	1108	
FAM TOTAL							10	40.0							
NIGHT SYSTEMS (NS)															
NS	NS	Intro HLL	1150	X				2.0	NS	A	1	*		MAWTS-1 ASP (NVD I & II) NITE Lab	1150
	NS	INTRO LLL	1151	X				2.0	NS	A	1	*	1150		1151
NS TOTAL							2	4.0							
TACTICAL NAVIGATION (TN)															
TN	TN	DAY Tac Nav	1200	X				2.0	D	A	1	*	1101		1200
TN TOTAL							1	2.0							
CARGO AND PASSENGER LOADING (CPL)															
CPL	CPL	Pax & Baggage	1510R	X	X			4.0	D	A	1	*	1000	Static A/C	1510
	CPL	Rolling Stock	1511R	X	X			4.0	D	A	1	*	1000	Static A/C	1511
	CPL	Palletized Cargo	1512R	X	X			4.0	D	A	1	*	1000	Static A/C	1512
	CPL	Pax & Cargo	1513	X				4.0	D	A	1	*	1101,1510	Static A/C	1513
	CPL	Rolling Stock	1514	X				4.0	D	A	1	*	1101,1511	Static A/C	1514
	CPL	Palletized Cargo	1515	X				4.0	D	A	1	*	1101,1512	Static A/C	1515
CPL TOTAL							6	24.0							
AIR-TO-AIR REFUELING (AAR)															
AAR	AAR	DAY FW/TR	1600	X				2.0	D	A	1	*	1101		1600
	AAR	DAY RW	1601	X				2.0	D	A	1	*			1602
AAR TOTAL							2	4.0							
CORE SKILL INTRODUCTION TOTAL (1000 Phase)							21	74.0							

5.16 T&R SYLLABUS MATRIX (2000-6000 PHASE)

RC-130T CREWMASTER T&R SYLLABUS MATRIX																							
SKILL	STAGE	T&R DESCRIPTION	EVENT NUMBER BASIC	ATTAIN			MAINTAIN	ACAD/GRND		SIM		FLIGHT		COND	TYPE	# A/C	REFLY	ORDNANCE QUANTITY	RANGE	EXTERNAL SYLLABUS SUPPORT	EVAL	EOM	EVENT CONV
				B	R	SC		#	TIME	#	TIME	#	TIME										
CORE SKILLS (2000 Phase)																							
NIGHT SYSTEMS (NS)																							
NS	NS	NS Ops	2150R	X	X	X	X					2.0	NS	A	1	365						2150	
NS TOTAL								0	0.0	0	0.0	1	2.0										
LONG RANGE NAVIGATION (LRN)																							
LRN	LRN	Long Range Nav	2160R	X	X	X	X					6.0	(N)	A	1	*						2160	
LRN TOTAL								0	0.0	0	0.0	1	6.0										
TACTICAL NAVIGATION (TN)																							
TN	TN	TN/LAT	2201	X								2.0	D	A	1	365						2201	
	TN	NS TN/LAT	2250R	X	X		X					2.0	NS	A	1	365						2250	
TN TOTAL								0	0.0	0	0.0	2	4.0										
THREAT REACTION (TR)																							
TR	TR	Threat Reaction	2400R	X	X		X					2.0	(N)	A	1	365			ASE Range			2400	
TR TOTAL								0	0.0	0	0.0	1	2.0										
MISSION SKILLS (3000 Phase)																							
ASSAULT LANDING ZONE (ALZ)																							
ALZ	ALZ	COL Operations	3502R	X	X		X					1.0	(N)	A	1	365						3502	
	ALZ	ERO Operations	3504R	X	X		X					1.0	(N)	A	1	365						3504	
ALZ TOTAL								0	0.0	0	0.0	2	2.0										
ASSAULT TRANSPORT (AT) // CARGO AND PASSENGER LOADING (CPL)																							
AT	CPL	PAX and Baggage	3510R	X	X		X					3.0	(N)	A	1	365						3510	
	CPL	Rolling & Winch	3511R	X	X		X					3.0	(N)	A	1	365						3511	
	CPL	Palletized Cargo	3512R	X	X		X					3.0	(N)	A	1	365						3512	
	CPL	Haz Cargo	3513R	X	X		X					1.0	(N)	A	1	365						3513	
AT TOTAL								0	0.0	0	0.0	4	10.0										
AIR-TO-AIR REFUELING (AR)																							
AAR	AAR	FW/TR AAR	3600R	X	X		X					2.0	D	A	1	365						FW/TR A/C	3600
	AAR	RW AAR	3601R	X	X		X					2.0	D	A	1	365						RW A/C	3601
	AAR	NS AAR	3650R	X	X		X					2.0	NS	A	1	365						REC A/C	3650
AR TOTAL								0	0.0	0	0.0	3	6.0										
AVIATION DELIVERED GROUND REFUELING (ADGR)																							
ADGR	ADGR	ADGR Point Man	3661R	X	X		X					2.0	(N)	A	1	365						3651, 3661	
ADGR TOTAL								0	0.0	0	0.0	1	2.0										
AIR DELIVERY (AD)																							
AD	AD	CDS AD	3703R	X	X		X					4.0	(N)	A	1	365						3702	
	AD	Static Line Pers	3705R	X	X		X					4.0	(N)	A	1	365						3704	
AD TOTAL								0	0.0	0	0.0	2	8.0										

KC-130T CREWMASTER T&R SYLLABUS MATRIX																													
SKILL	STAGE	T&R DESCRIPTION	EVENT NUMBER BASIC	ATTAIN			MAINTAIN	ACAD/GRND		SIM		FLIGHT		COND	TYPE	# A/C	REFLY	ORDNANCE QUANTITY	RANGE	EXTERNAL SYLLABUS SUPPORT	EVAL	EOM	EVENT CONV						
				B	R	SC		#	TIME	#	TIME	#	TIME																
CORE PLUS (4000 Phase)																													
AIR DELIVERY																													
AD	AD	Cargo & Pers Drop	4700R	X	X		X					2.0	(N)	A	1	365			Para, AD Plt, MHE, DZ Ctrl			4700							
	AD	Airdrop MFF/H Alt	4701R	X	X		X					2.0	(N)	A	1	365			MFF, DZ CTRL, FLT PHY			4701							
	AD	HE AD	4703R	X	X		X					4.0	(N)	A	1	365			AD PLT, MHE, DZ CNTRL			3703							
AD TOTAL								0	0.0	0	0.0	3	8.0																
BATTLEFIELD ILLUMINATION (BI)																													
BI	BI	BI	4710R	X	X		X					3.0	(N)	A	1	365	LUU-2 /6	Restricted				4710							
BI TOTAL								0	0.0	0	0.0	1	3.0																
INSTRUCTOR TRAINING (5000 Phase)																													
INSTRUCTOR UNDERR TRAINING (IUT)																													
IUT	IUT	Intro Inst Trng	5100	X								3.0	(N)	A	1	*				X		5100							
	IUT	Rev Inst Trng	5101	X								3.0	(N)	A	1	*				X		5101							
	CPLI	CPLI	5102R	X	X							3.0	(N)	A	1	*				X	5102								
	CM I	CM I	5103R	X	X							3.0	(N)	A	1	*				X									
	SI	Systems Inst	5104R	X	X	X						3.0	(N)	A	1	*				X			5103						
	ADI	Air Drop Inst	5700R	X	X							3.0	(N)	A	1	*				X			5700						
IUT TOTAL								0	0.0	0	0.0	5	15.0																
NATOPS INSTRUCTOR (NI)																													
NI	NI	ANI/NI	5140R	X	X	X						3.0	(N)	A	1	*				X		5140							
	NI	ANI/NI Eval	5141R	X	X	X						3.0	(N)	A	1	*				X		5141							
NI TOTAL								0	0.0	0	0.0	2	6.0																
NIGHT SYSTEMS INSTRUCTOR (NSI)																													
NSI	NSI	Intro NSI	5150									3.0	NS	A	1	*						5150							
	NSI	Rev NSI	5151R	X	X							3.0	NS	A	1	*						5151							
	NSI	NSI Certification	5152R	X	X							3.0	NS	A	1	*						5152							
NSI TOTAL								0	0.0	0	0.0	3	9.0																
REQUIREMENTS, CERTIFICATIONS, QUALIFICATIONS, AND DESIGNATIONS (R,C,Q,D) (6000 Phase)																													
NATOPS (NTPS)																													
NTPS	NTPS	Open Book Exam	6010R	X	X	X	X		3.0				(N)	G		365				X	X	6012							
	NTPS	Closed Book Exam	6011R	X	X	X	X		1.0				(N)	G		365				X	X	6013							
	NTPS	Oral Exam	6012R	X	X	X	X		3.0				(N)	G		365				X	X	6014							
	NTPS	NATOPS Eval CM 1	6118R	X	X	X	X					3.0	(N)	A	1	365				X	X	6118							
	NTPS	NATOPS Eval CM 2	6119R	X	X	X	X					3.0	(N)	A	1	365				X	X								
	NTPS	NATOPS Eval CM 3	6120R	X	X	X	X					3.0	(N)	A	1	365				X	X								
NTPS TOTAL								3	7.0	0	0.0	3	9.0																
FUNCTIONAL CHECK FLIGHT (FCF)																													
FCF	FCF	FCF	6105R	X	X	X	X					2.0	D	A	1	365				X									
FCF TOTAL								0	0.0	0	0.0	1	2.0																
AVIATION DELIVERED GROUND REFUELING SUPERVISOR (ADGR)																													

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KC-130T CREWMASTER T&R SYLLABUS MATRIX																							
SKILL	STAGE	T&R DESCRIPTION	EVENT NUMBER BASIC	ATTAIN			MAINTAIN	ACAD/GRND		SIM		FLIGHT		COND	TYPE	# A/C	REFLY	ORDNANCE QUANTITY	RANGE	EXTERNAL SYLLABUS SUPPORT	EVAL	EOM	EVENT CONV
				B	R	SC		#	TIME	#	TIME	#	TIME										
ADGR	ADGR	ADGR RS	6652R	X	X	X	X	0	0.0	0	0.0	1	2.0	(N)	A	1	365				X		6652
								0	0.0	0	0.0	1	2.0										
BATTLEFIELD ILLUMINATION QUALITY ASSURANCE SAFETY OBSERVER (QASO)																							
BI	BI	QASO	6710R	X	X	X	X	0	0.0	0	0.0	1	3.0	(N)	A	1	365	LUU-2 /6	Restricted		X		6653
								0	0.0	0	0.0	1	3.0										

5.17 T&R ATTAIN AND MAINTAIN TABLE (2000-6000 Phase)

KC-130T CREWMASTER ATTAIN / MAINTAIN AND CHAINING AND PREREQUISITES																				
SKILL	STAGE	T&R DESCRIPTION	BASIC POI	REFRESHER POI	SER CONV POI	MAINTAIN POI	ACAD/GRND		FLIGHT		COND	TYPE	# A/C	REFLY	PREREQUISITE	PREREQUISITE NOTES	CHAINING	CHAINING NOTES		
							#	TIME	#	TIME										
CORE SKILLS (2000 Phase)																				
NIGHT SYSTEMS (NS)																				
NS	NS	NS Ops	2150R	2150R	2150R	2150R			2.0	NS	A	1	365	1150,1151		10 Hrs NVD, 5 Hrs LLL				
NS TOTAL							0	0.0	1	2.0										
LONG RANGE NAVIGATION (LRN)																				
LRN	LRN	Long Range Nav	2160R	2160R	2160R	2160R			6.0	(N)	A	1	*	1108						
LRN TOTAL							0	0.0	1	6.0										
TACTICAL NAVIGATION																				
TN	TN	TN/LAT	2201						2.0	D	A	1	365	1200						
	TN	NS TN/LAT	2250R	2250R		2250R			2.0	NS	A	1	365	2201, 2150			2201, 2150			
TN TOTAL							0	0.0	2	4.0										
THREAT REACTION (TR)																				
TR	TR	Threat Reaction	2400R	2400R		2400R			2.0	(N)	A	1	365	2201, 2150~NS			2201, 2150~NS, 2250~NS			
TR TOTAL							0	0.0	1	2.0										
CORE SKILL TOTAL							0	0.0	5	14.0										
MISSION SKILLS (3000 Phase)																				
ASSAULT LANDING ZONE (ALZ)																				
ALZ	ALZ	COL Operations	3502R	3502R		3502R			1.0	(N)	A	1	365	3512, 2150~NS		3513~HAZ	3512, 2150~NS	3513~HAZ		
	ALZ	ERO Operations	3504R	3504R		3504R			1.0	(N)	A	1	365	3510, 3511, 3512, 2150~NS		3513~HAZ	3510, 3511, 3512, 2150~NS	3513~HAZ		
ALZ TOTAL							0	0.0	2	2.0										
ASSAULT TRANSPORT (AT) // CARGO AND PASSENGER LOADING (CPL)																				
AT	CPL	PAX and Baggage	3510R	3510R		3510R			3.0	(N)	A	1	365	1513, 2150~NS			2150~NS			
	CPL	Rolling & Winch	3511R	3511R		3511R			3.0	(N)	A	1	365	1514, 2150~NS			2150~NS			
	CPL	Palletized Cargo	3512R	3512R		3512R			3.0	(N)	A	1	365	1515, 2150~NS			2150~NS			
	CPL	Haz Cargo	3513R	3513R		3513R			1.0	(N)	A	1	365	1514, 1515, 2150~NS			2150~NS			
AT TOTAL							0	0.0	4	10.0										
AIR-TO-AIR REFUELING																				
AAR	AAR	FW/TR AAR	3600R	3600R		3600R			2.0	D	A	1	365	1600						
	AAR	RW AAR	3601R	3601R		3601R			2.0	D	A	1	365	1601						
	AAR	NS AAR	3650R	3650R		3650R			2.0	NS	A	1	365	2150, 3600, 3601			2150, 3600, 3601			
AAR TOTAL							0	0.0	3	6.0										
AVIATION DELIVERY GROUND REFUELING (ADGR)																				
ADGR	ADGR	ADGR Point Man	3661R	3661R		3661R			2.0	(N)	A	1	365	2150~NS			2150~NS			
ADGR TOTAL							0	0.0	1	2.0										
AIR DELIVERY (AD)																				
AD	AD	CDS AD	3703R	3703R		3703R			4.0	(N)	A	1	365	3512		MAWTS-1 ASP	3512			
	AD	Static Line Pers	3705R	3705R		3705R			4.0	(N)	A	1	365	3510		MAWTS-1 ASP	3510			
AD TOTAL							0	0.0	2	8.0										
MISSION SKILL TOTAL							0	0.0	12	28.0										
CORE PLUS (4000 Phase)																				
AIR DELIVERY																				
AD	AD	Cargo & Pers Drop	4700R	4700R		4700R			2.0	(N)	A	1	365	3512, 3703, 4703, 3705,			3512, 3703, 4703, 3705,			

KC-130T CREWMASTER ATTAIN / MAINTAIN AND CHAINING AND PREREQUISITES																			
SKILL	STAGE	T&R DESCRIPTION	BASIC POI	REFRESHER POI	SER CONV POI	MAINTAIN POI	ACAD/GRND		FLIGHT		COND	TYPE	# A/C	REFLY	PREREQUISITE	PREREQUISITE NOTES	CHAINING	CHAINING NOTES	
							#	TIME	#	TIME									
	AD	Airdrop MFF/H Alt	4701R	4701R		4701R			2.0	(N)	A	1	365	4701 3510			4701 3510		
	AD	HE AD	4703R	4703R		4703R			4.0	(N)	A	1	365	3512	MAWTS-1 ASP		3512	3513-HAZ	
							0	0.0	3	8.0									
BATTLEFIELD ILLUMINATION (BI)																			
BI	BI	BI	4710R	4710R		4710R			3.0	(N)	A	1	365	3512, 3513					
							0	0.0	1	3.0									
INSTRUCTOR TRAINING (5000 Phase)																			
INSTRUCTOR UNDER TRAINING (IUT)																			
IUT	IUT	Intro Inst Trng	5100						3.0	(N)	A	1	*		APRB Rec				
	IUT	Rev Inst Trng	5101						3.0	(N)	A	1	*	5100					
	CPLI	CPLI	5102R	5102R					3.0	(N)	A	1	*	5101	APRB Rec, CPL/ALZ Comp				
										3.0		A	1		5101	APRB Rec, 2000, 3000, 4000 Comp (Minus AD Stages, CPLI- 5102, CPL/ALZ Comp			
	CMI	CM Inst	5103R	5103R						3.0	(N)			*					
	SI	Systems Inst	5104R	5104R		5104R				3.0	(N)	A	1	*	5101, 6105, 3600, 3601	APRB Rec, 2000 Comp			
ADI	Air Drop Inst	5700R	5700R						3.0	(N)	A	1	*	5102, 3703, 3705, 4700, 4701, 4703	APRB Rec				
							0	0.0	5	15.0									
NATOIS INSTRUCTOR (NI)																			
NI	NI	ANI/NI	5140R	5140R	5140R				3.0	(N)	A	1	*	5103					
	NI	ANI/NI Eval	5141R	5141R	5141R				3.0	(N)	A	1	*	5140					
							0	0.0	2	6.0									
NIGHT SYSTEMS INSTRUCTOR (NSI)																			
NSI	NSI	Intro NSI	5150						3.0	NS	A	1	*	2150					
	NSI	Rev NSI	5151R	5151R					3.0	NS	A	1	*	5150					
	NSI	NSI Certification	5152R	5152R					3.0	NS	A	1	*	5151					
							0	0.0	3	9.0									

KC-130T CREWMASTER ATTAIN / MAINTAIN AND CHAINING AND PREREQUISITES																		
SKILL	STAGE	T&R DESCRIPTION	BASIC POI	REFRESHER POI	SER CONV POI	MAINTAIN POI	ACAD/GRND		FLIGHT		COND	TYPE	# A/C	REFLY	PREREQUISITE	PREREQUISITE NOTES	CHAINING	CHAINING NOTES
							#	TIME	#	TIME								
REQUIREMENTS, CERTIFICATIONS, QUALIFICATIONS, AND DESIGNATIONS (R,C,Q,D) (6000 Phase)																		
NATOPS (NTPS)																		
NTPS	NTPS	Open Book Exam	6010R	6010R	6010R	6010R		3.0			(N)	G		365		1000 Comp		
	NTPS	Closed Book Exam	6011R	6011R	6011R	6011R		1.0			(N)	G		365		1000 Comp		
	NTPS	Oral Exam	6012R	6012R	6012R	6012R		3.0			(N)	G		365	6010, 6011			
	NTPS	NATOPS Eval CM 1	6118R	6118R	6118R	6118R			3.0		(N)	A	1	365	6012, 6011, 6010	See Event		
	NTPS	NATOPS Eval CM 2	6119R	6119R	6119R	6119R			3.0		(N)	A	1	365	6012, 6011, 6010	See Event		
	NTPS	NATOPS Eval CM 3	6120R	6120R	6120R	6120R			3.0		(N)	A	1	365	6012, 6011, 6010	See Event		
							3	7.0	3	9.0								
FUNCTIONAL CHECK FLIGHT (FCF)																		
FCF	FCF	FCF	6105R	6105R	6105R	6105R			2.0		D	A	1	365		1000 Phase		
							0	0.0	1	2.0								
AVIATION DELIVERED GROUND REFUELING (ADGR)																		
ADGR	ADGR	ADGR RS	6652R	6652R	6652R	6652R			2.0		(N)	A	1	365	2150, 3661	Taxi Dir		
							0	0.0	1	2.0								
BI QUALITY ASSURANCE SAFETY OBSERVER (QASO)																		
BI	BI	QASO	6710R	6710R	6710R	6710R			3.0		(N)	A	1	365	4710, 2150-NS			
							0	0.0	1	3.0								

5.18 EQUIVALENCY MATRIX

CREWMASTER EQUIVALENCY MATRIX			
KC-130T FLIGHT MECHANIC T&R EVENT (PREVIOUS CH. 5)		KO 130T CREWMASTER T&R EVENT	KC-130T LOADMASTER T&R EVENT (PREVIOUS CH. 6)
1000 PHASE			
FAM-1000	--	FAM-1000	FAM-1100
FAM-1000	--	FAM-1100	FAM-1101
FAM-1100	--	FAM-1101	--
FAM-1101	--	FAM-1102	--
FAM-1102	--	FAM-1103	--
FAM-1103	--	FAM-1104	--
FAM-1104/1107	--	FAM-1105	--
FAM-1105	--	FAM-1106	--
FAM-1106	--	FAM-1107	--
FAM-1108	--	FAM-1108	--
NS(H)-1150	--	NS(H)-1150	NS(H)-1150
NS(H)-1151	--	NS(H)-1151	NS(H)-1151
TH-1200	--	TH-1200	TH-1200
--	--	CPL-1510	CPL-1500
--	--	CPL-1511	CPL-1500
--	--	CPL-1512	CPL-1501
--	--	CPL-1513	CPL-1503
--	--	CPL-1514	CPL-1503
--	--	CPL-1515	CPL-1504
FAM-1109/FAM-1111	--	AF-1600	AAP-1600
FAM-1110/FAM-1111	--	AF-1601	AP-1601
2000 PHASE			
NS(H)-2150/ NS(H)-2151	--	NS(H)-2150	NS(H)-2150
LRN-2160	--	LRN-2160	LRN-2160
TH-2200/LAT-2260	--	TH-2201	TH-2200/LAT-2260
TH-2250/TH-2251	--	TH-2250	TH-2250
TR-2400/TP-4100	--	TP-2400	TR-2400
3000 PHASE			
--	--	ALC-3502	ALC-3500
--	--	ALC-3504	ALC-3501
--	--	CPL-3510	CPL-3510
--	--	CPL-3511	CPL-3510
--	--	CPL-3512	CPL-3511
--	--	CPL-3513	CPL-3512
AAR-3600	--	AAR-3600	AAR-3600
AAR-3601	--	AAR-3601	AAR-3601
AAR-3650	--	AAR-3650	AAR-3650
RGR-3660	--	ADGR-3661	RGR-3660/RGR-3661
--	--	AD-3702	AD-3700
--	--	AD-3705	AD-3702
4000 PHASE			
--	--	AD-4700	AD-4701
--	--	AD-4701	AD-4700
--	--	AD-4703	AD-3701
--	--	BI-4710	BI-4710
5000 PHASE			
--	--	IUT-5100	IUT-5100
--	--	IUT-5101	IUT-5101
--	--	CPLI-5102	LMI-5102
--	--	CMI-5103	LMI-5102
--	--	SI-5104	--
--	--	ADI-5700	LMI-5102
--	--	NI-5140	NI-5140
--	--	NI-5141	NI-5141
--	--	NS-5150	NSI-5150
--	--	NS-5151	NSI-5151
--	--	NS-5152	NSI-5152
6000 PHASE			
NTPS-6010	--	NTPS-6010	NTPS-6010
NTPS-6011	--	NTPS-6011	NTPS-6011
NTPS-6012	--	NTPS-6012	NTPS-6012
FCF-6106	--	FCF-6105	--
--	--	NTPS-6118	--
NTPS-6118	--	NTPS-6118	--
--	--	NTPS-6120	NTPS-6118
--	--	ADGR-6652	RGR-6650/RGR-6660
--	--	BI-6710	OASO-6710

* These codes are equivalent as long as all other requirements, laid out in the appropriate POI are met.

CREWMASTER EQUIVALENCY MATRIX			
KC-130T CREWMASTER T&R EVENT (Previous CH.X)	--		KC-130T CREWMASTER T&R EVENT
1000 PHASE			
FAM-1000	--		FAM-1000
FAM-1100	--		FAM-1100
FAM-1101	--		FAM-1101
FAM-1102	--		FAM-1102
FAM-1103	--		FAM-1103
FAM-1104	--		FAM-1104
FAM-1105	--		FAM-1105
FAM-1106	--		FAM-1106
FAM-1107	--		FAM-1107
FAM-1108	--		FAM-1108
NS (H)-1150	--		NS (H)-1150
NS (H)-1151	--		NS (H)-1151
TN-1200	--		TN-1200
CPL-1510	--		CPL-1510
CPL-1511	--		CPL-1511
CPL-1512	--		CPL-1512
CPL-1515	--		CPL-1513
CPL-1513	--		CPL-1514
CPL-1514	--		CPL-1515
AR-1600/AR-1602	--		AR-1600
AR-1601/AR-1602	--		AR-1601
2000 PHASE			
NS (H)-2150	--		NS (H)-2150
LRN-2160	--		LRN-2160
TN-2201/LAT-2261	--		TN-2201
TN-2250	--		TN-2250
TR-2400	--		TR-2400
3000 PHASE			
ALZ-3502	--		ALZ-3502
ALZ-3504	--		ALZ-3504
CPL-3510	--		CPL-3510
CPL-3511	--		CPL-3511
CPL-3512	--		CPL-3512
CPL-3513	--		CPL-3513
AAR-3600	--		AAR-3600
AAR-3601	--		AAR-3601
AAR-3650	--		AAR-3650
RGR-3651/RGR-3661	--		ADGR-3661
AD-3702	--		AD-3703
AD-3704	--		AD-3705
4000 PHASE			
AD-4700	--		AD-4700
AD-4701	--		AD-4701
AD-4703	--		AD-4703
BI-4710	--		BI-4710
5000 PHASE			
IUT-5100	--		IUT-5100
IUT-5101	--		IUT-5101
CPLI-5102	--		CPLI-5102
-	--		CMI-5103
FAMI-5103	--		SI-5104
ADI-5700	--		ADI-5700
NI-5140	--		NI-5140
NI-5141	--		NI-5141
NS-5150	--		NS-5150
NS-5151	--		NS-5151
NS-5152	--		NS-5152
6000 PHASE			
NTPS-6012	--		NTPS-6010
NTPS-6013	--		NTPS-6011
NTPS-6014	--		NTPS-6012
FCF-6106	--		FCF-6105
NTPS-6118	--		NTPS-6118
-	--		NTPS-6119
-	--		NTPS-6120
RS-6652/RS-6662	--		ADGR-6652
QASO-6653	--		BI-6710

* These codes are equivalent as long as all other requirements, laid out in the appropriate POI are met.

5.19 AVIATION TRAINING FORMS (ATF). Maintained on the MAWTS-1 website.

APPENDIX A
REFERENCES

MCO 1200.17	Military Occupational Specialty (MOS) Manual
OPNAVINST 1542.7	Crew Resource Management (CRM) Program Manual
COMNAVAIRFORINST 1542.7	Navy and Marine Corps Crew Resource Management (CRM) Program Manual
MCO 3500.14	Aviation Training & Readiness (T&R) Program Manual
OPNAVINST 3710.7	Naval Air Training and Operating Procedures Standardization (NATOPS) General Flight and Operating Instructions
MCO 3710.8	USMC NATOPS Program
NAVAIR 01-75GAH-1	KC-130T and KC-130T-30 NATOPS Flight Manual (NFM)
NAVAIR 01-75GAA-9	KC/C-130 Cargo Loading Manual
NAVAIR 01-75GAH-9	KC/C-130-30 Cargo Loading Manual
NAVAIR 00-80T-113	Aircraft Signals NATOPS Manual
Air NTPP 3-22.3-KC130	Combat Aircraft Fundamentals - KC-130 Air Naval Tactics, Techniques, and Procedures (ANTTP)
NTRP 3-22.4-KC130FRT	Naval Aviation Technical Information Product (NATIP)
Air NTPP 3-22.5-KC130	Tactical Pocket Guide (TPG)
Course Catalog	MAWTS-1 KC-130T Course Catalog
NVD Manual	MAWTS-1 9th Edition Night Vision Device (NVD) Manual
ATP-56(B)	Allied Tactical Publication-56(B) Air-to-Air Refueling Manual
COMNAVAIRFORINST 4790.2	Naval Aviation Maintenance Program (NAMP)
MCO P4030.19	Preparing Hazardous Materials for Military Air Shipment
MCWP 3-15.6	Special Forces Military Free Fall Operations
MCWP 3-15.7	Static Line Parachuting Tactics, Techniques, and Procedures
FM 4.20-108	Airdrop of Supplies and Equipment Rigging Military Utility Vehicles
MCRP 4-11.3C	Rigging Containers
MCRP 4-11.3J	Rigging Airdrop Platforms
MCRP 4-11.3P	Rigging Loads for Special Operations
TM 70244A-OA	USMC Military Free Fall Operations and Techniques
Flight Clearances (FC)	Individually issued by NAVAIR