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Subj: KC-130FRT T&R MANUAL

Ref: (a) NAVMC 3500.14 Ch 2

Encl: (1) KC-130FRT T&R MANUAL

1. Purpose. To publish standards and regulations regarding the training of KC-130FRT aircrew per the reference.

2. Information. Per reference (a), the Flight Leadership Standardization program has been added to Chapter 1 of this Manual. This program affects the Designation Tables and Instructor Requirements Tables on page 1-12. The Flight Leadership Standardization Evaluator Plan of Instruction (POI) has been added to paragraph 112, starting on page 1-79. Flight Leadership POIs, beginning with Section Leader, are contained in paragraph 113, starting on page 1-82.

3. Recommendations. Recommended changes to this publication are invited, and may be submitted via the syllabus sponsor (MAWTS-1) and the appropriate chain of command to: Commanding General, Training and Education Command, Aviation Training Branch via e-mail (refer to http://www.tecom.usmc.mil/atb/contacts .htm) or the Defense Message System using the following plain language address: CG TECOM QUANTICO VA ATB.

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

5. Certification. Reviewed and approved this date.

M. G. SPIESE
By direction

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CHAPTER 1

KC-130FRT PILOT

*** * NOTE * ***

Crew Resource Management Shall Be Briefed Before All Flights And/Or Events.

CHAPTER 1

KC-130FRT PILOT

100. MARINE AERIAL REFUELING SQUADRON (KC-130FRT) UNIT CORE COMPETENCY

1. Background. Marine Aviation plays a crucial role in the MAGTF's ability to conduct Maneuver Warfare. The ultimate goal of Marine Aviation is to attain the highest possible combat readiness to support Expeditionary Maneuver Warfare while at the same time preserving and conserving our Marines and equipment. Embedded within our combat readiness is the ability to rapidly, effectively, and efficiently deploy on short notice and the ability to quickly and effectively plan for crises and/or contingency operations thereby ensuring Marine Aviation remains ready for combat when and where the need arises. The KC-130FRT T&R Manual represents the collaborative effort of KC-130FRT Subject Matter Experts who designed training standards to maximize the full combat capabilities of the KC-130FRT and its crew. These standards, intrinsic in the core competency section, describe and define unit capabilities and requirements necessary to maintain like-squadron proficiency in core skills and combat leadership. Training events are based on specific requirements and performance standards to ensure aircrew maintain a common base of training and depth of combat capabilities. Together, the T&R comprises a building block approach to ensure that trained aircrews remain ready, relevant, and fully capable of supporting the MAGTF commander.

2. VMGR Mission. Support the MAGTF Commander by providing aerial refueling and assault support, day or night under all weather conditions during expeditionary, joint, or combined operations.

3. Mission Essential Task List (METL)

a. (UJTL TA 1.1.1) Conduct Tactical Airlift
- Conduct assault support transport.

b. (UJTL TA 1.1.4) Conduct Sea and Air Deployment Operations
- Maintain the capability to deploy and operate from advanced bases, expeditionary airfields and forward operating bases.
- Perform organizational maintenance on assigned aircraft.

c. (UJTL TA 1.2.2) Conduct Airborne Operations
- Provide air delivered assault support transport of combat troops, equipment and supplies.
- Provide support for casualty evacuation operations.
- Maintain self-defense capability from ground-to-air and air-to-air threats.

d. (UJTL TA 4.2) Distribute Supplies and Provide Transport Services
- Conduct aerial re-supply.
- Provide support for mobile Forward Arming and Refueling Points (FARPS).
- Provide support for Rapid Ground Refueling (RGR) of aircraft and vehicles.

e. (UJTL TA 4.2.3) Conduct Air Refueling
- Provide Tactical and Long Range Aerial Refueling.

f. (UJTL TA 5) Exercise Command and Control
- Provide Airborne Platform for the Airborne DASC Command Post.

g. (UJTL TA 6.2) Conduct Joint Personnel Recovery
- Conduct Tactical Recovery of Aircraft and Personnel (TRAP) operations.
- Augment local Search and Rescue (SAR) assets.

h. (UJTL TA 6.4) Conduct Noncombatant Evacuation
- Provide support for evacuation operations.

4. Table of Organization. Refer to Table of Organization 8820 and 8821 managed by Total Force Structure, MCCDC, for current authorized organizational structure and personnel strength for KC-130FRT units. As of this publication date, KC-130F/R/T units are authorized:

Squadron
12 Aircraft
42 Pilots [26 TPC/16 CP (T2P or T3P)]
23 TSOs
25 Flight Engineers
24 Loadmasters
24 Flight Mechanics

Detachment
6 Aircraft
19 Pilots [11 TPC/8 CP (T2P or T3P)]
11 TSOs
12 Flight Engineers
12 Loadmasters
12 Flight Mechanics

5. Core Capability. A core capable squadron is able to sustain 9 sorties on a daily basis during contingency/combat operations. The above sortie rates are based on 3.0 hour average sortie duration and assumes $\geq$ 70 percent FMC aircraft and $\geq$ 90 percent T/O aircrew on hand. If unit FMC aircraft < 70 percent or T/O aircrew < 90 percent, core capability will be degraded by a like percentage. A core capable squadron is able to accomplish all tasks designated in the unit METL from a main or expeditionary base.

6. METL/Core Skill Matrix. KC-130FRT core skills directly support the METL as follows:

KC-130FRT CORE SKILLS													
METL	FAI	NSQ	AR	TACNAV	FORM	MULTI PLANE AR	AD	LRNAV	THRX (I)	THRX (R)	ALZ	CPL	RGR
A. Conduct Tactical Airlift	X	X		X	X			X	X	X	X	X	
B. Conduct Sea and Air Deployment Operations	X	X			X			X	X	X	X	X	
C. Conduct Airborne Operations	X	X		X	X		X	X	X	X		X	
D. Distribute Supplies and Provide Transport Services	X	X		X			X	X	X	X	X	X	X
E. Conduct Air Refueling	X	X	X	X	X	X		X	X	X			
F. Exercise Command and Control	X	X						X	X	X		X	
G. Conduct Joint Personnel Recovery	X	X	X	X	X	X	X	X	X	X	X	X	X
H. Conduct Noncombatant Evacuation	X	X	X	X	X	X		X	X	X	X	X	X

KC-130FRT CORE PLUS SKILLS					
METL	TACNAV	FORM	AD	DEPTAC	AR
A. Conduct Tactical Airlift	X	X		X	
B. Conduct Sea and Air Deployment Operations		X		X	X
C. Conduct Airborne Operations	X	X	X	X	
D. Distribute Supplies and Provide Transport Services	X		X	X	X
E. Conduct Air Refueling	X	X		X	X
F. Exercise Command and Control				X	
G. Conduct Joint Personnel Recovery	X	X	X	X	X
H. Conduct Noncombatant Evacuation	X	X		X	X

7. KC-130FRT Core Model Minimum Requirements (CMMR). Squadron core competency reflects the minimum level of competency a squadron must achieve to perform its core capability. Squadron core competency is measured in terms of minimum Core Skill Proficiency (CSP) and minimum numbers of flight leaders per paragraphs a. and b. below:

a. Minimum Unit CSP Requirements. As a minimum, in order to be considered Core Competent, a unit must possess the following numbers of crews who are proficient in each core skill (Unit CSP). In order to be considered proficient in a core skill (individual CSP), a crewmember must attain and maintain proficiency in core skill events, as delineated in paragraphs (1) and (2) below.

KC-130FRT CSP Requirements Unit							
CORE SKILL CORE PLUS	Pilot	Copilot	TSO	FE	LM	FM	Crews
FAI	14	14	14	14	14	14	14
NS	9	9	9	9	9	9	9
AR	14	14	14	14	14	14	14
TACNAV	9	9	9	9	9	9	9
FORM	8	8		8			8
MULTI-PLANE AR	4	4					4
AD	4	4	4	4	8	4	4
LRNAV	12	12	12	12	12	12	12
THRX(I)	6	6	6	6	6	6	6
THRX(R)	4	4	4	4			4
ALZ	9	9	9	9	9	9	9
CPL					18		18
RGR				8	8	8	8
TACNAV	2	2					2
FORM	2	2					2
AD	4	4	4	4	8	4	4
DEFTAC	2	2	2	2	2	2	2
AR	2		2				2

KC-130FRT CSP Requirements 6 Plane Detachment							
CORE SKILL CORE PLUS	Pilot	Copilot	TSO	FE	LM	FM	Crews
FAI	7	7	7	7	7	7	7
NS	5	5	5	5	5	5	5
AR	7	7	7	7	7	7	7
TACNAV	5	5	5	5	5	5	5
FORM	4	4		4			4
MULTI-PLANE AR	2	2					2
AD	2	2	2	2	4	2	2
LRNAV	6	6	6	6	6	6	6
THRX(I)	3	3	3	3	3	3	3
THRX(R)	2	2	2	2			2
ALZ	5	5	5	5	5	5	5
CPL					9		9
RGR				4	4	4	4
TACNAV	2	2					2
FORM	2	2					2
AD	2	2	2	2	4	2	2
DEFTAC	1	1	1	1	1	1	1
AR	2		2				2

(1) Events Required to Attain Individual CSP. To initially attain CSP, a crewmember must successfully complete all of the T&R events listed in the chart below for that core skill:

KC-130 Copilot Attain	FAI	AR	ALZ	AD	FORM	LRNAV	TACNAV	THRX(I)	NS
T&R event requirements to attain CSP	S200 201 202R	210 211R 212 213R	S270 271 272R 274R	S240 241 242R	S230 231 232R	250R	220 221R S222 223 224R	S260 261R	S203 204R 205 S222 223 224R
Notes: 1. Some events are duplicated in more than one category, but not in the overall total.									

KC-130 Pilot Attain	FAI	AR	ALZ	AD	FORM	MULTI PLANE AR	LRNAV	TACNAV	THRX (I)	THRX (R)	NS
T&R event requirements to attain CSP	S300 301 302R	311R 312R 313R	274R 370R 371 372R 373R	340 341R	330 331R 332R	333R 334R	250R	320 321 322R 323 324R	S260 261R	S360 361R	303R 323 324R
Notes: 1. Some events are duplicated in more than one category, but not in the overall total.											

KC-130 Pilot/Copilot Core Plus Attain	AR	TACNAV	FORM	AD	DEPTAC
T&R event requirements to attain CSP	413R 419R	420 421R 423R	430R	440R 441R 442R 444	462 463 464R

KC-130FRT FLIGHT ENGINEER - ATTAIN - Core Skill Proficiency											
KC-130FRT FE Core Skills	FAM	NS	RW/FW AR	TAC NAV	AD	LONG RANGE NAV	ALZ	RGR	THRX (R)	THRX (I)	FORM
Events required to Attain CSP	200R	204 205R	210 211R 212 213R	220R 223 224R 321R	241 242R	250R	271R 272 273R	274R	360R	361R	331R

KC-130FRT FLIGHT ENGINEER - ATTAIN - Core + Skill Proficiency		
KC-130FRT FE Core + Skills	AD	DEPTAC
Events required to Attain Core + Proficiency	442R 444R	461 462R

KC-130FRT TSO Core Skills	FAM	NS	RW/FW AR	TAC NAV	AD	LONG RANGE NAV	THRX (I)	ALZ	THRX (R)
Events required to Attain CSP	201R	204R 205R	210R 212 213R	S220 221 S222 323 321 322R 324R	S240 241 242 341R	250R	S260 261R	S270 271R 370R	S360 361R

KC-130FRT TSO Core + Skills	AR	AD	DEPTAC
Events required to Attain Core + Proficiency	410 411R	441 442R 444R	462R

KC-130FRT LOADMASTER Core Skills	NS	RW/FW AR	CPL	TAC NAV	AD	LONG RANGE NAV	THRX (I)	ALZ	RGR
Events required to Attain CSP	204R	210 211 213R	215R 216R 217R	220 223R 322R	241R 340R	250R	261R	271R 370R	273 274R

KC-130FRT LOADMASTER Core + Skills	AD	DEPTAC
Events required to Attain Core + Proficiency	441R 442R 443R 444R	462R

KC-130 FLIGHT MECHANIC Core Skills	FAM	NS	RW/FW AR	TAC NAV	FORM	AD	LONG RANGE NAV	ALZ EAF	RGR	THRX (R)	THRX (I)
Events required to Attain CSP	200R	204R 205R	210R 211R 212R 213R	220R 223R 224R 321R	231R	241R 242R	250R	271R 272R	274R	360R	361R

KC-130 FLIGHT MECHANIC Core + Skills	AD	DEFTAC
Events required to Attain Core + Proficiency	442R 444R	461R 462R

(2) Events Required to Maintain Individual CSP. To maintain CSP, a crewmember must maintain proficiency in all of the T&R events listed in the chart below for that core skill.

KC-130 Copilot Maintain	FAI	AR	ALZ	AD	FORM	LRNAV	TACNAV	THRX(I)	NS
T&R event requirements to Maintain CSP	202R	211R 213R	272R 274R	242R	232R	250R	221R 224R	261R	224R
Notes: 1. Some events are duplicated in more than one category, but not in the overall total.									

KC-130 Pilot Maintain	FAI	AR	ALZ	AD	FORM	MULTI PLANE AR	LRNAV	TACNAV	THRX(I)	THRX(R)	NS
T&R event requirements to maintain CSP	302R	311R 313R	274R 372R 373R	341R	331R 332R	333R 334R	250R	322R 324R	261R	361R	324R
Notes: 1. Some events are duplicated in more than one category, but not in the overall total.											

KC-130 Pilot/Copilot Core Plus Maintain	AR	TACNAV	FORM	AD	DEFTAC
T&R event requirements to maintain proficiency	413R 419R	421R 423R	430R	440R 441R 442R	464R

KC-130FRT FLIGHT ENGINEER - MAINTAIN - Core Skill Proficiency											
KC-130FRT FE Core Skills	FAM	NS	RW/FW AR	TAC NAV	AD	LONG RANGE NAV	ALZ	RGR	THRX (R)	THRX (I)	FORM
Events required to Maintain CSP	200R	205R	211R 213R	224R 321R	242R	250R	273R	274R	360R	361R	331R

KC-130FRT FLIGHT ENGINEER - MAINTAIN - Core + Skill Proficiency		
KC-130FRT FE Core + Skills	AD	DEFTAC
Events required to Maintain Core + Proficiency	442R 444R	462R

KC-130FRT TSO Core Skills	FAM	NS	RW/FW AR	TAC NAV	AD	LONG RANGE NAV	THRX (I)	ALZ	THRX (R)
Events required to Maintain CSP	201R	204R 205R	210R 213R	322R 324R	341R	250R	261R	271R 370R	361R

KC-130FRT TSO Core + Skills	AR	AD	DEFTAC
Events required to Maintain Core + Proficiency	411R	442R 444R	462R

KC-130FRT LOADMASTER Core Skills	NS	RW/FW AR	CPL	TAC NAV	AD	LONG RANGE NAV	THRX (I)	ALZ	RGR
Events required to Maintain CSP	204R	213R	215R 216R 217R	223R 322R	241R 340R	250R	261R	271R 370R	274R

KC-130FRT LOADMASTER Core + Skills	AD	DEFTAC
Events required to Maintain Core + Proficiency	441R 442R 443R 444R	462R

KC-130 FLIGHT MECHANIC	FAM	NS	RW/FW AR	TAC NAV	FORM	AD	LONG RANGE NAV	ALZ EAF	RGR	THRX (R)	THRX (I)
Events required to Maintain CSP	200R	204R 205R	211R 213R	224R 321R	231R	242R	250R	272R	274R	360R	361R

KC-130 FLIGHT MECHANIC Core + Skills	AD	DEFTAC
Events required to Maintain Core + Proficiency	442R 444R	462R

b. Minimum Combat Leader Requirements. As a minimum, in order to be considered Core Competent, a unit must possess the following numbers of aircrew with the listed flight leadership designations.

Squadron		
DESIGNATION	Pilot	Tactical Systems Operator
TPC	18	
SEC LDR	8	
DIV LDR	4	
TAC RAC	8	
RC		2
STRAT RAC	2	

Detachment		
DESIGNATION	Pilots	Tactical Systems Operator
TPC	9	
SEC LDR	4	
DIV LDR	2	
TAC RAC	4	
RC		1
STRAT RAC	1	

8. Qualifications And Designations Table. The table below delineates T&R events required to be completed to attain initial qualifications, re-qualifications, and designations. All stage lectures, briefs, squadron training and prerequisites shall be complete prior to completing final events. Qualification and designation letters signed by the commanding officer shall be placed in individual NATOPS and APR/MPR jackets. Loss of proficiency in all qualification events of a core skill causes the associated qualification to be lost. Regaining a qualification requires completing all R coded syllabus events associated with that qualification.

Qualification (TRACKING CODE)	Initial Event Qualification Requirements.
NSQ (686)	SNS-203, NS-204, NS-205, TACNAV-223, TACNAV-224
Instrument (681)	IAW OPNAVINST 3710.7_ and an annual qualification letter signed by the commanding officer.
Special Instrument(682)	IAW OPNAVINST 3710.7_ and an annual qualification letter signed by the commanding officer.
Right Seat LAT (620)	TACNAV-221.
LAT (621)	TACNAV-322.
DEFTAC (661)	DEFTAC-462 DEFTAC-463 DEFTAC-464.
T3P NATOPS Check (683)	Core Introduction Phase Complete.
T2P NATOPS Check (684)	RQD-683, Core Basic Phase Complete.
TPC NATOPS Check (685)	RQD-600 to 602 TPC Proficiency Review, RQD-603 TPC Simulator Upgrade Syllabus, RQD-604 TPC Route Check, Core Basic and Advanced Phases complete.

Designation (TRACKING CODE)	Designation Requirements.
Core Skill Introduction Instructor (CSII)(688)	SFAI-500, FAI-501, FAI-502 and a designation letter signed by the commanding officer.
Section Leader (SL)	300 level complete, 100 hours TPC, APRB recommendation, SL-630, 631, CO approval.
Division Leader (DL)	Designated SL, 200 hours TPC, APRB recommendation, CO approval, DL-633, 634.
Tactical Refueling Area Commander (TACRAC)	RAC-636. Evaluation flight normally flown in conjunction with 630 or 631, the commanding officer should designate the pilot a Tactical RAC after or in conjunction with designation as SL.
Strategic Refueling Area Commander (STRATRAC)	Designated DL and TACRAC, RAC-638, AR-419, APRB recommendation, CO approval.
Flight Leadership Standardization Evaluator (FLSE)	Designated DL, FLSE-593 and a designation letter signed by the commanding officer. FLSE requires certification by the program coordinator.
PMCFP (687)	RQD-685 and a designation letter signed by the commanding officer.
T&R I (694)	TR-520 and a designation letter signed by the commanding officer.
NI/ANI (695)	SNI-590, NI-591, NI-592 and a designation letter signed by the commanding officer. NE requires certification by the model manager.
LATI (696)	See MAWTS-1 Course Catalog
DEFTACI (697)	See MAWTS-1 Course Catalog
NSI (698)	See MAWTS-1 Course Catalog
WTI (699)	See MAWTS-1 Course Catalog

9. Instructor Requirements. A squadron should possess the following numbers of aircrew with the listed instructor designations per the KC-130 T&R and MCO 3500.12C (WTTP).

KC-130 Squadron				
INSTRUCTOR DESIGNATION	Pilots	TSOs	Flight Engineers	Loadmasters
CSII	4			
LATI	4			
ANI	6	4	6	4
WTI	2	2	2	2
DEFTACI	1			
NSI	3	3	3	3
FLSE	2			
T&RI	5	3	5	4
KC-130 Detachment				
INSTRUCTOR DESIGNATION	Pilots	TSOs	Flight Engineers	Loadmasters
LATI	2			
ANI	3	2	3	2
WTI	1	1	1	1
DEFTACI	1			
NSI	1	1	1	1
FLSE	1			
T&RI	3	2	3	2

10. Definitions

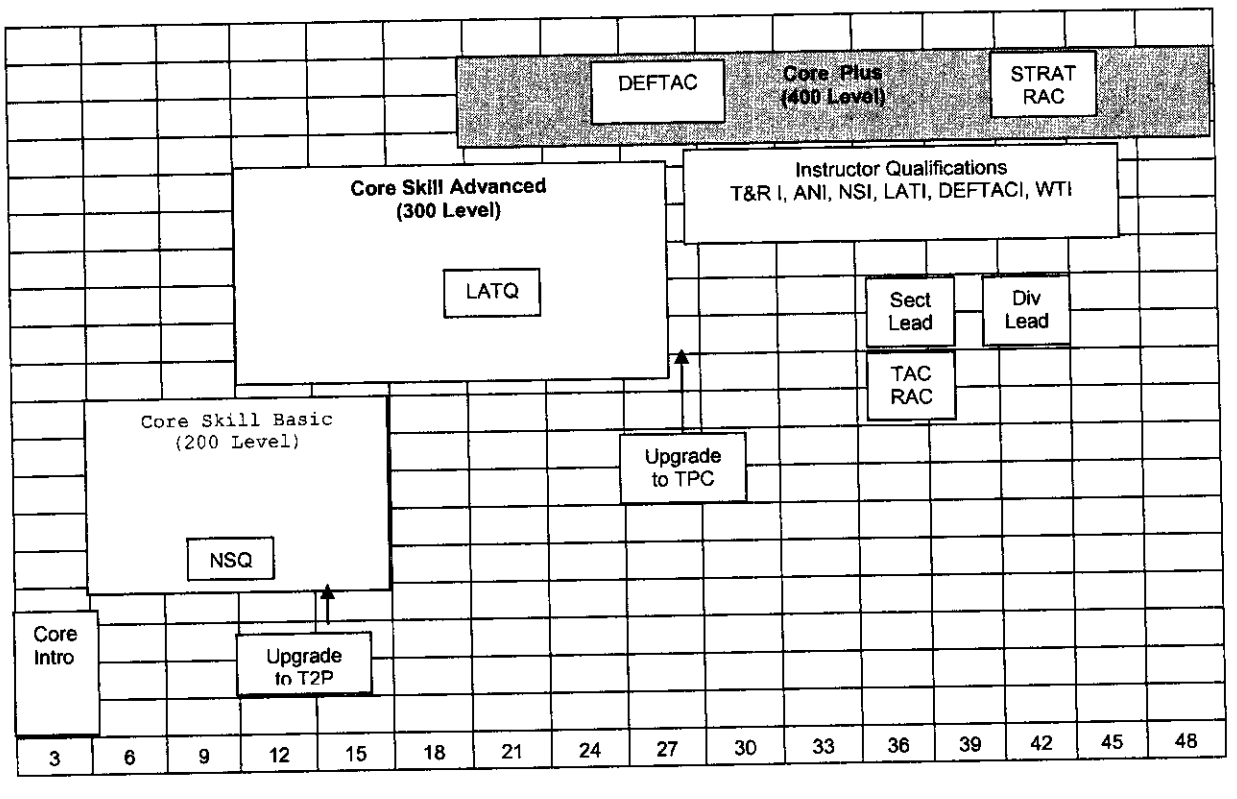
a. Currency. A control measure used to provide an additional margin of safety based on exposure frequency to a particular skill. It is a measure of time since the last event demanding that specific skill. Loss of currency does not affect a loss of Core Skill Proficiency (CSP). For example, currency determines minimum altitudes in rules of conduct based upon the most recent low altitude fly date. Specific currency requirements for individual type mission profiles can be found in the Aviation T&R Program Manual.

b. Proficiency. Proficiency is a measure of achievement of a specific skill. Re-fly factors establish the maximum time between demonstration of those particular skills. CSP is a measurement of "demonstrated proficiency." If an aircrew exceeds the re-fly factor for a particular event, the individual loses CSP for that particular event. To regain proficiency, an individual shall complete the delinquent event with a proficient crewman. If an entire unit loses proficiency, unit instructors shall regain proficiency by completing an event with instructors from a like unit. If not feasible, the instructor shall regain proficiency by completing the event with another instructor. If a unit has only one instructor and cannot complete the event with an instructor from another unit, he shall regain proficiency with another aircraft commander or as designated by his commanding officer.

c. Qualification. A qualification is a status assigned to personnel based on demonstration of proficiency in a specific skill. Specific criteria to achieve qualifications shall be delineated in individual T&R chapters. Upon successful completion of qualification criteria, commanding officers shall issue an appropriate qualification letter for inclusion in the NATOPS jacket and APR/MPR. Aircrew do not lose a qualification as a function of re-fly factor for individual events. Loss of proficiency (delinquent re-fly factor) for all associated qualification core skill events constitutes loss of that qualification. Re-qualification requires demonstration of proficiency. Specific re-qualification criteria shall be delineated in individual T&R chapters.

d. Designation. A designation is a status assigned to an individual based on leadership ability. A designation is a command specific, one-time occurrence and remains in effect until removed for cause. Specific designation requirements shall be delineated in individual T&R chapters. Commanders shall issue a designation letter to the individual upon the occasion of original designation, with appropriate copies for inclusion in the NATOPS jacket and APR.

11. KC-130FRT Pilot Progression Model. The training progression model below provides recommended core skill, qualification, and designation attainment timelines for the average pilot.



101. POI FOR BASIC, TRANSITION, CONVERSION AND SERIES CONVERSION PILOT

	WEEKS	COURSE	PERFORMING ACTIVITY
Track 1	1-7	USAF C-130 Copilot Initial Qualification (CIQ)	314th AW, LRAFB
	8-9	Core Skill Introduction Simulator Training	VMGR-152/234
	10-12	Core Skill Introduction Training	Tactical Squadron
	13-69	Core Basic Training	Tactical Squadron
	70-124	Core Advanced Training	Tactical Squadron
	125-208	Core Plus Training	Tactical Squadron

	WEEKS	COURSE	PERFORMING ACTIVITY
Track 2	1-3	USMC C-130 Co-Pilot Initial Qualification (CIQ)	VMGR-152/234
	4-5	Core Skill Introduction Simulator Training	VMGR-152/234
	6-8	Core Skill Introduction Training	Tactical Squadron
	9-65	Core Basic Training	Tactical Squadron
	66-120	Core Advanced Training	Tactical Squadron
	121-205	Core Plus Training	Tactical Squadron

102. POI FOR REFRESHER AND MODIFIED REFRESHER PILOT

WEEKS	COURSE	PERFORMING ACTIVITY
1	Core Skill Introduction Simulator Training	VMGR-152/234
2-3	Core Skill Introduction Training	Tactical Squadron
3-12	Core Basic Training	Tactical Squadron
13-16	Core Advanced Training	Tactical Squadron
17-24	Core Plus Training	Tactical Squadron

1. The Refresher and Modified Refresher Syllabus shall consist of two phases. Phase One (Core Skills Introduction Training) will consist of FAI/INSTR proficiency to complete a NATOPS Check (minimum of 15 flight hours).

2. The pilot shall fly as a T2P until Phase Two (300 series "R" coded events) is complete or designated a TPC by the commanding officer.

103. POI FOR SQUADRON INSTRUCTOR PILOT

WEEKS	COURSE	PERFORMING ACTIVITY
1	Core Skill Introduction Instructor	Tactical Squadron (GNE)
1	T&R Instructor	Tactical Squadron
1	NATOPS Instructor	Tactical Squadron
2	Low Altitude Tactics Instructor	MAWTS-1/Tactical Squadron
1	Defensive Tactics Instructor	MAWTS-1
2	Night Systems Instructor	MAWTS-1
7	Weapons and Tactics Instructor	MAWTS-1
1	Flight Leadership Standardization Evaluator (FLSE)	Tactical Squadron (Program Coordinator)

104. GROUND TRAINING COURSES OF INSTRUCTION

1. Ground training shall be conducted for each syllabus level.

2. Squadron level ground training required to complete the syllabus is listed in each syllabus level.

3. The following external ground training courses of instruction are required to complete the syllabus.

COURSE	ACTIVITY
Survival, Evasion, Resistance, and Escape	NAS Brunswick ME, NAS North Island CA
NITE lab	Tactical Squadron

4. The following external training courses are recommended to complete the syllabus:

COURSE	ACTIVITY
Advanced Airlift Tactics Training Course	AATTC, St. Joseph, MO
Environmental Survival Courses	Regional/Seasonal Survival Schools

105. AIRCREW TRAINING REFERENCES. The following references shall be utilized to ensure safe and standardized training procedures, grading criteria, and aircraft operation:

NATOPS General Flight and Operating Instructions (OPNAVINST 3710.7)
NATOPS Flight Manuals (NFM)
NATOPS Instrument Flight Manual (NIFM)
NATOPS Air-to-Air Refueling Manual (AAR Manual)
KC-130 ANTTP 3.22-1/3.22-3
KC-130 Tactical Pocket Guide (TPG)
T&R Program Manual
MAWTS-1 Course Catalog
Allied Tactical Publication - 56 (ATP-56) Air to Air Refueling
Flight Clearance (FC) - issued by NAVAIR
AFTTP 3-1 Threat Reference Guide
DOD Flight Information Publications (FLIPs)

106. GRADUATE LEVEL COURSES. There are 4 graduate level courses (LATI, DEFTACI, NSI, WTI) that qualify instructors for specific portions of the T&R syllabus. The requirements for these instructor certifications are contained in the MAWTS-1 Course Catalog. Squadron T&R Instructors shall complete the required syllabus and be designated by commanding officers to instruct specific T&R events as delineated in the individual event descriptions.

107. EVENT PERFORMANCE REQUIREMENTS

1. General

a. The time required to train a KC-130 pilot to completion of the Core Plus phase will vary depending on previous pilot experience. Basic, transition, conversion and series conversion pilots shall fly the entire syllabus. Refresher pilots represent a varying background and should fly flights coded with an R. **When a crewmember completes a stage of training, that crewmember need only maintain proficiency in the R coded events for that stage to remain proficient.** Commanding officers will review the qualifications, previous experience, currency, and demonstrated ability of Refresher pilots with a view towards waiving and/or combining required flights.

b. All flights annotated with an E shall be evaluated per the Aviation T&R Program Manual.

c. Minimum required Refresher flights are indicated with an R. Additional guidance concerning Refresher pilots is contained in the Aviation T&R Program Manual.

d. Flight Conditions

(N) = May be flown day or night; if flown at night, available night vision devices may be used or flown unaided.
NS = Shall be flown at night using available night vision devices.
(NS) = May be flown day or night; if flown at night, available night vision devices shall be used.
N* = Event shall be flown at night un-aided.
(N*) = Event may be flown at night; if flown at night, shall be flown unaided.

e. The intent of NS events is to conduct the events with use of NVDs. This should not restrict aircrews from executing events between sunset and end of nautical twilight or beginning of nautical twilight and sunrise when NVDs are less effective. Use of NVDs during these periods shall be at the discretion of the aircraft commander with safety and the NS intent in mind.

f. For NS operations, the fixed-wing minimum altitudes delineated in the Aviation T&R Program Manual shall be adhered to in all phases of flight except for ALZ operations and airdrops from IP inbound, at which point a descent to airdrop altitude or final approach procedure may be conducted. Minimum altitudes for Aerial Delivery shall be as per KC-130 ANTTP 3.22-1/3.22-3.

g. Non-LAT qualified pilots conducting LAT training in the left or right seat shall be instructed by a proficient LATI occupying the other pilot seat. Pilots who lose proficiency in LAT lose their LAT qualification.

h. Non-DEFTAC qualified pilots who are conducting DEFTAC training shall be instructed by a DEFTACI occupying the other pilot seat.

i. The following terms shall be used in the event descriptions to identify instructor and student responsibilities and standardize instruction:

(1) Discuss. Discuss denotes that the instructor will quiz the aircrew under instruction on the applicable procedures, systems, or maneuvers. The aircrew under instruction is responsible for knowledge of the procedures prior to the event brief.

(2) Demonstrate. Demonstrate denotes that the instructor should perform the maneuver with precision and an accompanying description. The aircrew under instruction is responsible for knowledge of the procedures prior to the event brief and should observe the demonstration of the maneuver. The aircrew under instruction may perform the maneuver/procedure with coaching from the instructor.

(3) Introduce. Introduce denotes that the instructor should coach the aircrew under instruction through the maneuver as necessary. The aircrew under instruction is responsible for knowledge of the procedures prior to the event brief and should perform the maneuver with coaching as necessary. The instructor may demonstrate the maneuver if necessary.

(4) Practice. Practice denotes that the instructor observes the aircrew under instruction performing the maneuver. The aircrew should perform the maneuver/procedure with minimal coaching.

108. CORE SKILL INTRODUCTION TRAINING

1. General

a. VMGR-234 shall be responsible for KC-130FRT Core Skill Introduction standardization. Legacy squadrons shall maintain a qualified Group NATOPS Evaluator(GNE) responsible for training and qualifying squadron Core Skill Introduction Instructors (CSII) and Contract Simulator Instructors (CSI). In order to maintain community standardization, the squadron GNEs shall receive a standardization checkride from the VMGR-234 Model Manager every 18 months.

b. All events in the Core Skill Introduction phase shall be instructed/evaluated by a CSI/CSII via appropriate aircrew training form.

c. Approved simulators are listed in OPNAVINST 3710.7.

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

2. Syllabus Assignment

a. Basic, Transition, Conversion, and Series Conversion. B/T/C/SC pilots shall be assigned to the Basic POI consisting of the USAF C-130E CIQ course at LRAFB, the Core Skill Introduction Simulator syllabus and the flight phase of the Core Skill Introduction syllabus (flown at the respective tactical squadron). B/T/C/SC pilots shall be trained and evaluated in the right seat. Upon completion of Core Skill Introduction training the pilot will be a designated a NATOPS Transport Third Pilot (T3P), MOS 7556, by the squadron commanding officer. The pilot will be capable of basic aircraft co-pilot duties from the right seat to include normal and emergency procedures, crew resource management, and mission planning.

b. Refresher. Refresher and Modified Refresher pilots shall be assigned to the Refresher POI consisting of the Refresher Simulator syllabus and the flight phase of the Core Skill Introduction syllabus (flown at the respective tactical squadron). TPC/T2P in the Refresher syllabus shall be trained and evaluated in the left and right seat. A minimum of one flight event shall be flown at night.

3. Familiarization/Instruments

a. Purpose. Introduce pilots to fundamental KC-130 NATOPS, instrument, and CRM procedures.

b. General

(1) Basic, Transition, Conversion, Series Conversion, and Refresher third pilots (T3P) shall be trained and evaluated in the right seat. A minimum of two (N) coded flights shall be flown at night. TPC and T2P refresher pilots shall be trained and evaluated in the left and right seat with one of the (N) coded flights shall be flown at night.

(2) Basic, Transition, and Conversion pilots should complete the USAF C-130 CIQ course prior to this stage.

c. Crew Requirements. Two pilots are required for simulator events. The minimum crew as defined by the NFM or ANTTP is required for flight events.

d. Ground/Academic Training

(1) Prior to FAI-100, all Basic, Transition and Series Conversion pilots should complete a familiarization training evolution to include cockpit management, aircraft preflight and post flight, TFOA inspections, emergency evacuation, and use and donning of all emergency equipment to include bailout training.

(2) Core Skill Introduction Syllabus Overview.

(3) NATOPS Flight Manual overview.

(4) VMGR Squadron Mission Statement and METLs.

(5) Six Functions of Marine Aviation.

(6) KC-130 Capabilities Review.

(7) NATOPS Briefing Techniques.

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

e. Flight and Simulator Event Training (33 Events, 108.0 Hours)

SFAI-001 2.0 E CPT/OFT/WST S

Goal. Introduce expanded checklists up to and including engine run-up, CRM, aircraft limitations, and performance computations.

Requirement. CSI shall introduce expanded cockpit checklists up to and including the run-up checklist. The pilot under instruction (pilot) shall practice the expanded cockpit checklists up to and including the run-up checklist.

Performance Standard. Per the NFM and Pilot 100 Syllabus Student Guide. The pilot shall be able to recall aircraft limitations with associated checklists.

External Syllabus Support. CSI.

SFAI-002 2.0 E CPT/OFT/WST S

Goal. Introduce expanded checklists from before take-off to secure; introduce take-off, descent, and approach brief.

Requirement. CSI shall introduce expanded cockpit checklists from before take-off to secure. The pilot shall practice the expanded cockpit checklists up to and including the secure checklist. The pilot shall practice previously introduced checklists.

Performance Standard. Per the NFM and Pilot 100 Syllabus Student Guide. Pilot shall be able to recall aircraft limitations.

Prerequisite. SFAI-001.

External Syllabus Support. CSI.

SFAI-003 2.0 E CPT/OFT/WST S

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

Requirement. CSI shall introduce start malfunctions. The pilot shall practice normal checklists and aircraft limitations associated with the checklists. The pilot should compute Take-off and Landing Data (TOLD) card.

Performance Standard. Per the NFM and Pilot 100 Syllabus Student Guide. The pilot shall diagnose and handle all start malfunctions per NFM.

Prerequisite. SFAI-002.

External Syllabus Support. CSI.

SFAI-004 2.0 E CPT/OFT/WST S

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

Requirement. CSI shall introduce ground emergencies. The pilot shall practice normal checklists and start malfunctions. The pilot should compute TOLD card.

Performance Standard. Per the NFM and Pilot 100 Syllabus Student Guide. Pilot shall diagnose and handle all ground emergencies per NFM.

Prerequisite. SFAI-003.

External Syllabus Support. CSI.

SFAI-005 2.0 R E CPT/OFT/WST S

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

Requirement. CSI and pilot shall review normal checklists and start malfunctions. The pilot shall practice ground emergencies and compute Landing data.

Performance Standard. Per the NFM and Pilot 100 Syllabus Student Guide.

Prerequisite. SFAI-004.

External Syllabus Support. CSI.

SFAI-006 4.0 E OFT/WST S

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

Requirement. CSI shall introduce VFR departure and climb, basic airwork, VFR approach, landings, and abort procedures. The pilot shall practice VFR approach and landings with coaching from the CSI as necessary. The pilot should compute TOLD card.

Performance Standard. Per the NFM and Pilot 100 Syllabus Student Guide. Pilot shall diagnose and handle all aborts and propeller malfunctions per NFM.

Prerequisite. SFAI-005.

External Syllabus Support. CSI.

SFAI-007 4.0 E OFT/WST S

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

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

Performance Standard. Per the NFM and Pilot 100 Syllabus Student Guide. The pilot shall diagnose and handle all engine systems malfunctions per NFM.

Prerequisite. SFAI-006.

External Syllabus Support. CSI.

SFAI-008 4.0 E OFT/WST S

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

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

Performance Standard. Per the NFM and Pilot 100 Syllabus Student Guide. The pilot shall diagnose and handle all electrical malfunctions per NFM.

Prerequisite. SFAI-007.

External Syllabus Support. CSI.

SFAI-009 4.0 OFT/WST S

Goal. Train the pilot in normal and instrument flight procedures, system malfunctions, and emergency procedures. Introduce ILS procedures.

Requirement. CSI shall introduce ILS procedures, and bleed air and anti-icing system malfunctions.

Performance Standard. Per the NFM and Pilot 100 Syllabus Student Guide. Pilot shall diagnose and handle bleed air and anti-icing emergencies per NFM.

Prerequisite. SFAI-008.

External Syllabus Support. CSI.

SFAI-010 4.0 E OFT/WST S

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

Requirement. CSI shall introduce TACAN, VOR, ADF approaches, and holding procedures. CSI shall introduce fuel system malfunctions. The pilot should compute performance computations per Pilot 100 Syllabus Student Guide.

Performance Standard. Per the NFM and Pilot 100 Syllabus Student Guide. Pilot shall diagnose and handle fuel system malfunctions per NFM.

Prerequisite. SFAI-009.

External Syllabus Support. CSI.

SFAI-011 4.0 E OFT/WST S

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

Requirement. CSI shall introduce circling approaches, and penetrations/high approaches. CSI shall introduce hydraulic malfunctions, trim, flaps, and landing gear failures. The pilot shall practice circling approaches and penetration/high approaches. The pilot should compute driftdown performance per Pilot 100 Syllabus Student Guide.

Performance Standard. Per the NFM and Pilot 100 Syllabus Student Guide. The pilot shall diagnose and handle hydraulic malfunctions and trim, flaps and landing gear failures per NFM.

Prerequisite. SFAI-010.

External Syllabus Support. CSI.

SFAI-012 4.0 E R OFT/WST S

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

Requirement. CSI shall introduce engine-out approaches, landings, and missed approach/go-around procedures. CSI shall introduce takeoff continued after engine failure. The pilot

should compute certain performance computations per Pilot 100 Syllabus Student Guide.

Performance Standard. Per the NFM and Pilot 100 Syllabus Student Guide. Pilot shall practice takeoff continued after engine failure procedures per NFM.

Prerequisite. SFAI-011.

External Syllabus Support. CSI.

SFAI-013 4.0 E R OFT/WST S

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

Requirement. CSI shall introduce two engine approach, landing, go-around, and partial panel/no gyro approaches. CSI shall introduce fuel/cargo jettison and NAVAID/radio failure. Pilot shall practice two engine approaches, landings, and go-around with coaching from the CSI as necessary. Pilot should compute descent performance per Pilot 100 Syllabus Student Guide.

Performance Standard. Per the NFM and Pilot 100 Syllabus Student Guide. The pilot shall conduct fuel/cargo jettison procedures and handle NAVAID/radio failure per NFM.

Prerequisite. SFAI-012.

External Syllabus Support. CSI.

SFAI-014 2.0 E R OFT/WST S

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

Requirement. CSI and Pilot shall review all previously introduced procedures and system malfunctions. The pilot should compute critical field length per Pilot 100 Syllabus Student Guide.

Performance Standard. Per the NFM and Pilot 100 Syllabus Student Guide. Pilot shall practice all procedures and handle all emergencies per NFM.

Prerequisite. SFAI-013.

External Syllabus Support. CSI.

FAI-100 3.0 E 1 KC-130 A

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

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

Performance Standard. Per the NFM and Pilot 100 Syllabus Student Guide. Pilot should diagnose and handle all start malfunctions per NFM.

Prerequisite. SFAI-014.

FAI-101 3.0 E R 1 KC-130 A

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

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

Performance Standard. Per the NFM, IFM, and Pilot 100 Syllabus Student Guide. The pilot shall diagnose and handle all oil system malfunctions per NFM.

Prerequisite. FAI-100.

FAI-102 3.0 1 KC-130 A N*

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

Requirement. Instructor shall introduce ILS/Localizer procedures, the bleed air system, and ground emergencies. The pilot shall practice 100 percent and 50 percent flap landings. The pilot should compute VMC, takeoff speed, refusal speed, driftdown (3 engines, maximum continuous power, flaps and gear up), approach speed, threshold speed, and touchdown speed.

Performance Standard. Per the NFM, IFM, and Pilot 100 Syllabus Student Guide. Pilot shall demonstrate an operational knowledge of the bleed air system. The pilot shall diagnose and handle ground emergencies per NFM.

Prerequisite. FAI-101.

FAI-103 3.0 R E 1 KC-130 A (N*)

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

Requirement. Instructor shall introduce TACAN, VOR, and ADF approaches. Instructor shall introduce hydraulics system. The pilot should practice TACAN, VOR, and ADF approaches to 100 percent and 50 percent flap landings. The pilot should compute VMC, takeoff speed, refusal speed, service ceiling (3 engines with pods), approach speed, threshold speed, and touchdown speed. Refreshers should complete requirements for FAI-102 concurrently with this event.

Performance Standard. Per the NFM, IFM, and Pilot 100 Syllabus Student Guide. Pilot shall demonstrate an operational knowledge of the hydraulics system.

Prerequisite. FAI-102.

FAI-104 3.0 E 1 KC-130 A

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

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

Performance Standard. Per the NFM, IFM, and Pilot 100 Syllabus Student Guide. Pilot shall diagnose and handle aborts and in-flight emergencies per NFM.

Prerequisite. FAI-103.

FAI-105 3.0 R E 1 KC-130 A (N*)

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

Requirement. Instructor shall introduce propeller and engine malfunctions. Instructor shall introduce engine-out operations, 3 engine precision approaches, landings, missed approaches and go-arounds. Pilot should compute VMC, takeoff speed, refusal speed, cruise ceiling (3 engines with pods), approach, threshold, and touchdown speeds. Refreshers should complete requirements for FAI-104 concurrently with this event.

Performance Standard. Per the NFM, IFM, and Pilot 100 Syllabus Student Guide. Pilot shall diagnose and handle propeller and engine malfunctions per NFM.

Prerequisite. FAI-104.

FAI-106 3.0 E 1 KC-130 A

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

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

Performance Standard. Per the NFM, IFM, and Pilot 100 Syllabus Student Guide. Pilot shall demonstrate an operational knowledge of the electrical system and procedures for nacelle overheat warning.

Prerequisite. FAI-105.

FAI-107 3.0 R E 1 KC-130 A

Goal. Train the pilot in normal procedures, instrument flight procedures, fuel and oxygen system malfunctions, and in-flight emergency procedures to include fuselage fire and smoke and fume elimination. Introduce take-off continued after engine failure and demonstrate 2 engine approach.

Requirement. Instructor shall introduce 3 engine circling approach and take-off continued after engine failure. Instructor shall introduce fuel and oxygen systems and associated malfunctions. Instructor shall demonstrate 2 engine and no-flap approaches and landings. Flight will be conducted in daylight VFR conditions. Pilot should compute 2 Engine VMC (air), takeoff speed, refusal speed, 2 engine downwind, base, approach, threshold, and touchdown speeds. Refreshers should complete requirements for FAI-106 concurrently with this event.

Performance Standard. Per the NFM, IFM, and Pilot 100 Syllabus Student Guide. Pilot shall demonstrate an operational knowledge of the fuel and oxygen systems and associated malfunctions.

Prerequisite. FAI-106.

FAI-108 3.0 E 1 KC-130 A (N*)

Goal. Train the pilot in normal procedures, instrument flight procedures to include partial-panel/no gyro approaches. Introduce Gas Turbine Compressor and Air Turbine Motor systems. Introduce pressurization, air conditioning, and

anti-icing/de-icing system malfunctions, and in-flight emergency procedures.

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

Performance Standard. Per the NFM, IFM, and Pilot 100 Syllabus Student Guide. Pilot shall diagnose and handle all system malfunctions per NFM.

Prerequisite. FAI-107.

FAI-109 3.0 R E 1 KC-130 A (N*)

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

Requirement. Instructor and pilot shall review NATOPS normal, emergency, and instrument flight procedures. The pilot shall perform all maneuvers required for a standard instrument rating. The pilot should compute TOLD card. Refreshers should complete requirements for FAI-108 concurrently with this event.

Performance Standard. Per the NFM, IFM, Pilot 100 Syllabus Student Guide, and OPNAVINST 3710.7_.

Prerequisite. FAI-108.

3. Air Refueling

a. Purpose. To introduce pilots to basic air refueling procedures.

b. Crew Requirements. Two pilots are required for simulator events. The minimum crew as defined by the NFM or NTTP is required for flight events to include 1 observer per operated aerial refueling pod.

c. Ground/Academic Training

(1) Air Refueling Procedures Lecture.

(2) Introduction to Air Refueling.

(3) In-flight Refueling System.

(4) Air Refueling Procedures.

(5) Voice Procedures.

(6) Tactical Briefing Guide.

d. Flight and Simulator Event Training (3 Events, 10.0 Hours)

SAR-015 4.0 E OFT/WST S

Goal. Train the pilot in fixed-wing and rotary-wing air refueling procedures.

Requirement. CSI shall introduce radio procedures, tanker/receiver management, rotary-wing rendezvous procedures and emergency procedures related to AAR. The pilot should be exposed to duties in both the left and right seats during simulated AAR operations. The pilot should compute fuel calculations per Pilot 100 Syllabus Student Guide.

Performance Standard. Per the NFM, KC-130 ANTTP, NATOPS AAR Manual, ATP-56B, and Pilot 100 Syllabus Student Guide.

Prerequisite. SFAI-014.

External Syllabus Support. CSI.

AR-110 3.0 E 1 KC-130 A (N*)

Goal. Train the pilot in fixed-wing AAR procedures. Introduce radio procedures, tanker/receiver management, and emergency procedures related to AAR.

Requirement. Instructor shall introduce radio procedures, tanker/receiver management, and emergency procedures related to fixed-wing AAR. Instructor shall introduce pilot responsibilities during air refueling. Instructor shall introduce emergencies associated AAR to include hose jettison, landing with hose extended, and breakaway procedures. Pilot should compute air refueling performance calculations per Pilot 100 Syllabus Student Guide.

Performance Standard. Per the NFM, KC-130 ANTTP, NATOPS AAR Manual, ATP-56B, and Pilot 100 Syllabus Student Guide.

Prerequisite. FAI-105, SAR-015.

External Syllabus Support. Fixed-wing receivers, Special Use Airspace.

AR-111 3.0 E 1 KC-130 A

Goal. Train the pilot in rotary-wing AAR procedures. Introduce rendezvous procedures, rotary-wing refueling procedures, and emergency procedures related to rotary-wing air refueling.

Requirement. Instructor shall introduce rendezvous procedures, rotary-wing refueling procedures, and emergency procedures related to rotary-wing air refueling. Pilot should compute air refueling performance calculations per Pilot 100 Syllabus Student Guide. Flight will be conducted in day VMC conditions. Two (2) rendezvous' are required for completion.

Performance Standard. Per the NFM, KC-130 ANTTP, NATOPS AAR Manual, ATP-56B, and Pilot 100 Syllabus Student Guide.

Prerequisite. FAI-105, SAR-015.

External Syllabus Support. Rotary-wing receivers, Special Use Airspace.

4. Tactical Navigation

a. Purpose. To introduce pilots to low level navigation and air delivery operations.

b. Crew Requirements. The minimum crew as defined by the NFM or NTTP is required for flight events.

c. Ground/Academic Training

(1) Military Interpretation of Terrain.

(2) Chart Preparation.

(3) Low Level Flight Planning.

(4) Low Level Procedures and Navigation Techniques.

(5) Basic Cargo Air Delivery Procedures.

(6) Basic Troop Air Delivery Procedures.

d. Flight and Simulator Event Training (1 Flight, 2.0 Hours)

TACNAV-120 2.0 E 1 KC-130 A

Goal. Introduce the pilot to low-level navigation to a simulated air delivery.

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

Performance Standard. Per the NFM, KC-130 TACMAN/NTTP, and Pilot 100 Syllabus Student Guide. Arrive at the target within 90 seconds.

Prerequisite. FAI-105.

External Syllabus Support. Military training route.

5. Formation

a. Purpose. Introduce pilots to basic section formation procedures.

b. Crew Requirements. The minimum crew as defined by the NFM or NTTP is required for flight events.

c. Ground/Academic Training. Formation techniques and procedures.

d. Flight and Simulator Event Training (2 Flights, 4.0 Hours)

FORM-130 2.0 E 2 KC-130 A

Goal. Introduce the pilot to section formation procedures.

Requirement. Instructor shall introduce ground formation procedures, takeoff, climb, and a minimum of 3 join-ups. Instructor shall introduce parade, trail, free cruise positions, and VFR section recovery. Pilot should perform a minimum of 3 join-ups. Pilot should compute VMC, refusal speed, take-off speed, climb speed, approach, threshold, and touchdown speed.

Performance Standard. Per the NFM and KC-130 TACMAN/NTTP, and Pilot 100 Syllabus Student Guide.

Prerequisite. FAI-105.

External Syllabus Support. Special Use Airspace.

6. Post Maintenance Check Flight (PMCF)

a. Purpose. Familiarize the pilot with PMCF procedures.

b. Crew Requirement. Two pilots are required for simulator events.

c. Ground/Academic Training. N/A.

d. Flight and Simulator Event Training (1 Period, 2.0 Hours)

SPMCF 016 2.0 E OFT/WST S

Goal. Introduce profile A, B, C, D and E functional checkflight procedures.

Requirement. CSI shall introduce profile A, B, C, D and E functional checkflight procedures. CSI shall introduce crew qualification and weather criteria for functional checkflights. Pilot shall compute VMC, take-off speed, refusal speed, 3 engine climb speed, approach, threshold, and touchdown speeds.

Performance Standard. Per the NFM.

Prerequisite. SFAI-014.

External Syllabus Support. CSI.

7. Long Range Navigation

a. Purpose. Introduce the pilot to long-range overwater navigation and ICAO procedures.

b. Crew Requirement. The minimum crew as defined by the NFM is required for flight events.

c. Ground/Academic Training. ICAO procedures, FLIP APs, and foreign clearance guide Familiarization.

d. Flight and Simulator Event Training (2 Events, 16.0 Hours)

LRNAV-150 8.0 E 1 KC-130 A (N*)

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

Requirement. Instructor shall introduce overwater navigation, CRM, flight publications, fuel management, types of cruise schedules, factors affecting range, and operation in an ICAO environment. Flight will be conducted in an ICAO environment. Pilot shall compute performance data via cruise summary chart.

Performance Standard. Per the NFM and Pilot 100 Syllabus Student Guide.

Prerequisite. FAI-105.

LRNAV-151 8.0 E 1 KC-130 A (N*)

Goal. Train the pilot in long range overwater and ICAO procedures.

Requirement. Instructor and pilot shall review overwater navigation, CRM, flight publications, fuel management, types of cruise schedules, factors affecting range, and operation in an ICAO environment. Flight will be conducted in an ICAO environment. Pilot shall compute performance data via cruise summary chart.

Performance Standard. Per the NFM and Pilot 100 Syllabus Student Guide.

Prerequisite. LRNAV-150.

8. NATOPS Check

a. Purpose. Conduct a NATOPS evaluation.

b. General. An annual NATOPS check may be conducted any time after completion of the Core Skill Introduction FAI/INST stage. Commanders shall not designate replacement pilots as a T3P and assign MOS 7556 until satisfactory completion of the entire Core Skill Introduction phase. The provisions of the NFM and OPNAVINST 3710.7_apply. Refresher pilots shall log the appropriate RQD code.

c. Crew Requirements. The minimum crew as defined by the NFM is required for flight events.

d. Ground/Academic Training. N/A.

e. Flight Training (1 Flight, 3.0 Hours)

CK-190 3.0 R E 1 KC-130 A (N*)

Goal. NATOPS evaluation flight.

Requirement. ANI shall conduct NATOPS evaluation flight. Basic, Transition, Series Conversion, and T3P Refresher pilots shall be evaluated in the right seat. TPC and T2P Refresher pilots should be evaluated in the left seat. Pilot should compute TOLD card.

Performance Standard. Per the NFM and OPNAVINST 3710.7_.

Prerequisite. FAI-109.

109. CORE BASIC TRAINING

1. General. The focus of Core Basic Training is to train the copilot in right seat (pilot-not-flying) duties. Upon completion of this phase of training, the pilot will be qualified to operate as a copilot, day or night in the basic Core Skill mission areas. This includes Air-To-Air Refueling (AAR), Tactical Navigation (TACNAV), formation, Aerial Delivery (AD), long range navigation, DASC(A), Assault Landing Zone/Expeditionary Airfield (ALZ/EAF) operations, and threat reaction in an IR threat environment. T3Ps may assist in mission planning. However, the TPC shall conduct the mission brief for each initial event.

a. Transition pilots shall follow the Basic POI. Series Conversion (SC) and Refresher (R) syllabus pilots entering Core Basic training must have completed the appropriate Core Skill Introduction training. Refresher pilots shall follow the Refresher POI and Series Conversion pilots shall follow the Series Conversion POI.

b. Pilots shall receive initial training by the appropriate instructor as delineated in the respective T&R event.

c. Pilots conducting Night Systems (NS) training shall be instructed by an NSI for all NVD events until they are NS qualified (NSQ). After NS qualification, subsequent initial NVD events may be flown with a designated instructor.

d. In the event of WST non-availability, simulator events should be conducted in the aircraft. Appropriate Operational Risk Management (ORM) should be used to reduce risk associated with not using a WST.

e. At the completion of this phase, the copilot may be recommended for upgrade to T2P by the APRB, complete the T2P NATOPS check (RQD-684) check-ride, and be designated T2P by the commanding officer. While T2P designation is not a requirement to begin Core Advanced training, it should be obtained as soon as possible to provide the commander a measure of Core Basic skill progression.

2. Familiarization

a. Purpose. Train the pilot in NATOPS procedures to include pre-flight and in-flight normal, emergency and instrument procedures.

b. General. The familiarization stage in the Core Basic syllabus is designed to refresh the T3P on basic procedures, introduce individual squadron Standing Operating Procedures (SOP) and evaluate the pilot's ability to perform basic copilot duties in the right seat.

(1) Transition and Series Conversion (SC) pilots shall complete the entire Core Skills Introduction stage. Refresher (R) pilots are only required to complete the appropriate "R" coded Core Skills Introduction events listed prior to continuing Core Basic training.

(2) This stage shall be instructed by a squadron ANI and must be completed prior to continuing Core Basic Training.

c. Crew Requirements. Two pilots are required for simulator events. The minimum crew as defined by the NFM or ANTTP is required for flight events.

d. Ground/Academic Training. Pilot shall be prepared to discuss squadron and station local SOPs. Instructor shall ensure pilot has access to all required reference material to continue Core Basic Training.

e. Flight and Simulator Event Training. (3 Events, 8.0 Hours).

SFAI-200 3.0 SC OFT/WST S

Goal. Train the pilot in right seat normal, emergency, and instrument procedures, with an emphasis on checklist execution, terminal area procedures, basic air work, and approaches/landings.

Requirement. Practice right seat normal, emergency, and instrument procedures under day and night conditions. Demonstrate an ability to diagnose basic system malfunctions and apply the appropriate NATOPS corrective actions, and the ability to complete an instrument approach under emergency conditions.

Performance Standard. Safely fly instrument approaches with emergency procedures per NATOPS and the IFM.

Prerequisite. Completion of Core Skill Introduction training.

External Syllabus Support Required. CSI.

FAI-201 2.0 SC 1 KC-130 A

Goal. Introduce squadron and station local SOPs to pilot. Introduce right seat day NATOPS and instrument procedures to the pilot, and allow sufficient practice of this code for the pilot to be able to pass a T3P check ride if required.

Requirement. This event shall be instructed by an ANI. The instructor shall introduce squadron and local area SOPs, course rules and SIDs/STARs for the home field. The intent of FAI-201 is to fly it the minimum number of times necessary to ensure standardization and competency. If the pilot has not completed a KC-130 T3P NATOPS check, the FAI-201 should be re-flown until the pilot has T3P recommendations from 2 separate FAI instructors before flying the T3P check ride. Emphasize ability to diagnose basic system malfunctions and apply the appropriate NATOPS corrective actions, the ability to complete an instrument approach under emergency conditions, instrument procedures knowledge, systems and limitations knowledge, CRM, and radio/checklist procedures.

Performance Standard. Safely fly instrument approaches with emergency procedures per NATOPS and the IFM.

Prerequisite. SFAI-200.

FAI-202 3.0 SC,R 1 KC-130 A N*

Goal. Introduce night right seat NATOPS and instrument procedures to the pilot.

Requirement. This event shall be instructed by an ANI. Emphasis shall be on ability to diagnose basic system malfunctions and apply the appropriate NATOPS corrective actions, the ability to complete an instrument approach under emergency conditions, instrument procedures, systems and limitations knowledge, CRM, and radio/checklist procedures, aircraft lighting, and other night-specific considerations.

Performance Standard. Safely fly instrument approaches with emergency procedures at night per NATOPS and the IFM.

Prerequisite. FAI-201.

3. Night Systems (NS)

a. Purpose. To train the pilot in NS. The pilot will be capable of performing crew duties using NVDs during HLL or LLL conditions.

b. General

(1) The NS qualification syllabus consists of SNS-203, NS-204, NS-205, STACNAV-222, TACNAV-223 and TACNAV-224. In the event of WST nonavailability, simulator events should be conducted in the aircraft. Pilots successfully completing these requirements may be issued an appropriate qualification letter by the squadron commander and log RQD-686.

(2) Series Conversion pilots that were previously designated NSQ may be issued the NSQ qualification letter and log RQD-686 upon successful completion of NS-204 and NS-205.

(3) Pilots conducting NS training shall be instructed by an NSI for all NVD events until they are NS qualified (NSQ). After NS qualification, subsequent initial NVD events may be flown with the appropriate instructor as delineated in the respective T&R event description.

c. Crew Requirements. Two pilots are required for simulator events. The minimum crew as defined by the NFM or ANTTP is required for flight events.

d. Ground/Academic Training. MAWTS-1 KC-130 NVD 1 and 2 ASP courses and NITE lab.

e. Flight and Simulator Event Training. (3 Events, 7.0 hours).

SNS-203 3.0 SC,R (OFT/WST) S NS

Goal. Introduce the pilot to the use and wear of NVDs. Emphasize cockpit pre-flight, in-flight donning, and CRM. The

pilot should be exposed to various light levels throughout the training period.

Requirements. Discuss NVG flight equipment requirements, astronomical data, mission planning requirements and software (Solar Lunar Almanac Program [SLAP]). Introduce NVG setup and calibration using the Hoffman 20/20 box and discuss the use of eye lanes. Introduce ground procedures to include cockpit pre-flight, taxi, takeoff, and aborts. Introduce flight procedures to include terminal area operations under different airfield lighting configurations, NVG and aircraft emergencies, CRM, and high altitude and low altitude flight orientation.

Performance Standard. Properly pre-flight and don NVGs. Diagnose NVG emergencies and apply corrective action. Understand capabilities and limitations of NVGs under HLL and LLL conditions.

Prerequisite. Completion of NSQ ground syllabus.

External Syllabus Support. CSI.

NS-204 2.0 SC,R 1 KC-130 A NS

Goal. Introduce the pilot to NVG operations under HLL conditions.

Requirements. The initial event shall be flown from the right seat and instructed by an NSI. Instruct the T3P in the use of NVGs to include normal and emergency procedures at altitude and in the terminal environment. The instructor shall demonstrate and introduce NVG touch and go's to the student. A minimum of 5 touch and go's and 1 full stop should be completed by the pilot under instruction. Emphasize NVG considerations, calibration, preflight, and in-flight normal and emergency procedures. Additionally, the pilot shall be introduced to mission planning software.

Performance Standard. The pilot shall demonstrate the ability to properly pre-flight and don NVGs, diagnose NVG emergencies and apply corrective action, understand capabilities and limitations of NVGs under HLL conditions, and demonstrate the ability to land the aircraft from the right seat on NVGs.

Prerequisite. FAI-202, SNS-203.

NS-205 2.0 SC 1 KC-130 A NS

Goal. Introduce pilot to NVG operations under LLL conditions.

Requirements. The initial event shall be flown from the right seat and instructed by an NSI under LLL conditions. Instruct the T3P in the use of NVGs during LLL conditions to include normal and emergency procedures at altitude and in the terminal environment. The instructor shall demonstrate and

introduce NVG touch and go's to the student. A minimum of 5 touch and go's and 1 full stop shall be completed by the pilot under instruction. Focus on the capabilities and limitations of the NVGs under LLL conditions, preflight, emergency procedures, calibration, preparation and in-flight use. The pilot will review NVG mission planning software, and demonstrate a knowledge of normal and emergency procedures outlined in the NFM and NVG specific items in the MAWTS-1 NVD fixed-wing manual.

Performance Standard. The pilot shall demonstrate the ability to properly pre-flight and don NVGs, diagnose NVG emergencies and apply corrective action, understand capabilities and limitations of NVGs under LLL conditions and demonstrate the ability to land the aircraft from the right seat on NVGs.

Prerequisite. NS-204.

4. Air-to-Air Refueling (AAR)

a. Purpose. Train pilot in AAR procedures. The Core Basic AAR stage shall be flown by the T3P in the right seat and instructed by a T&R instructor.

b. General

(1) Upon completion of this stage the T3P shall be capable of functioning as a right seat copilot on fixed and rotary-wing AAR missions.

(2) The applicable Core Basic FAI sortie shall be complete prior to commencing the AAR stage. For instance, before a T3P completes the initial day FWAR (AR-210), the day FAI sortie must be complete (FAI-201).

c. Crew Requirements. The minimum crew as defined by the NFM or ANTTP is required for flight events to include one observer per operated aerial refueling pod.

d. Ground/Academic Training. The T3P shall be familiar with documents governing AAR procedures to include the KC-130 NATOPS, KC-130 TACMAN/ANTTP, NATOPS AAR Manual and ATP-56M NATO AAR Manual. Complete the Tactical Aerial Refueling lecture from the MAWTS-1 Academic Support Package (ASP).

e. Flight and Simulator Event Training. (4 Events, 14.0 Hours).

AR-210 4.0 1 KC-130 A

Goal. Introduce pilot to day single tanker, fixed-wing or tilt-rotor AAR procedures.

Requirement. The initial event shall be instructed by a T&R instructor. Focus on receiver management, communications, checklist execution and copilot duties from initial check-in through completion of AAR. Introduce and practice copilot duties and CRM. Use of EMCON procedures is not recommended.

Performance Standard. Demonstrate the ability to control receiver aircraft from rendezvous to completion of AAR. Train in receiver management and communication from initial

check-in through completion of AAR. Additionally, demonstrate knowledge of normal and emergency procedures outlined in the NFM, AAR Manual, ATP-56B and the ANTTP.

Prerequisite. FAI-201.

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

AR-211 4.0 SC,R 1 KC-130 A (NS)

Goal. Introduce pilot to night single tanker, fixed-wing or tilt-rotor AAR procedures.

Requirement. The initial event shall be instructed by a T&R instructor. This sortie may be flown in either aided or unaided conditions since there is no appreciable difference in procedures or level of difficulty between the two. However, for a T3P to fly this event on NVGs, the T3P must be either NSQ or must fly with an NSI. Focus on receiver management, communications, checklist execution and copilot duties from initial check-in through completion of AAR. Practice copilot duties and CRM. Use of EMCON procedures is not recommended.

Prerequisite. FAI-202, AR-210.

Performance Standard. Demonstrate the ability to control receiver aircraft from rendezvous to completion of AAR. Perform accurate KC-130 fuel computations. Additionally, demonstrate knowledge of normal and emergency procedures outlined in the NFM, AAR Manual, ATP-56B, and the ANTTP.

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

AR-212 3.0 SC 1 KC-130 A

Goal. Introduce pilot to day single tanker, rotary-wing AAR procedures.

Requirement. The initial event shall be instructed by a T&R instructor. A minimum of two (2) rendezvous' shall be demonstrated by the instructor. Focus on receiver management, communications, checklist execution and copilot duties from initial check-in through completion of AAR. Practice copilot duties and CRM. Use of EMCON procedures is not recommended.

Prerequisite. FAI-201.
Performance Standard. Demonstrate the ability to control receiver aircraft from rendezvous to completion of AAR. Perform accurate KC-130 fuel computations. Additionally, demonstrate knowledge of normal and emergency procedures outlined in the NFM, AAR Manual and KC-130 TACMAN.

External Syllabus Support. Rotary-wing receiver aircraft.

AR-213 3.0 SC,R 1 KC-130 A NS

Goal. Introduce the T3P to night single tanker, rotary-wing AAR procedures while utilizing NVGs.

Requirement. The initial event shall be instructed by an NSI under HLL or LLL conditions. A minimum of two (2) rendezvous shall be demonstrated by the instructor. Focus on receiver management, communications, checklist execution and copilot duties from initial check-in through completion of AAR. Introduce and practice copilot duties and CRM. Use of EMCON procedures is not recommended.

Prerequisite. FAI-202, AR-212, (NS-204 or NS-205 depending on light level).

Performance Standard. Demonstrate the ability to control receiver aircraft from rendezvous to completion of AAR. Perform accurate KC-130 fuel computations. Understand and apply the proper controls for operations under HLL or LLL conditions. Additionally, demonstrate knowledge of normal and emergency procedures outlined in the NFM, AAR Manual, ATP-56B, and the ANTTP.

External Syllabus Support. Rotary-wing receiver aircraft.

5. Tactical Navigation

a. Purpose. Train the pilot in low altitude navigation to and from an objective area requiring detection or threat avoidance. The syllabus introduces low altitude navigation and Low Altitude Tactics (LAT).

b. General

(1) Upon successful completion of TACNAV-221, the T3P shall be considered Right Seat LAT Qualified and should log RQD-620. The T3P may fly as the right seat copilot on missions requiring LAT.

(2) Non-LAT sorties shall be flown at low-level minimums as defined in the T&R Program Manual.

(3) LAT minimum altitudes and rules of conduct are defined in the T&R Program Manual.

(4) It is recommended that during this stage of instruction, IR SAM Threat Reaction (THRXI-261) be completed. THRXI-261 shall be instructed by a squadron LATI. Refer to the THXRI event description for specific sortie and ordnance requirements.

c. Crew Requirements. Two pilots, a navigator and TSO are recommended for simulator events. The minimum crew as defined by the NFM or ANTTP is required for flight events.

d. Ground/Academic Training. Review the Low Level Navigation and LAT Chapters of the KC-130 ANTTP. A squadron LATI or WTI shall administer KC-130 LAT 1, KC-130 LAT 2, LAT Maneuvering, and KC-130 Stress and Performance Limitations. These courses may be found in the MAWTS-1 KC-130 Specific Academic Support Package.

e. Flight and Simulator Event Training. (5 Events, 10 Hours).

TACNAV-220 2.0 1 KC-130 A

Goal. Introduce the pilot to day low level navigation procedures.

Requirements. The initial event shall be instructed by a T&R instructor. Plan and execute a VFR navigation route consisting of at least 6 points on a published MTR. Emphasize chart-to-ground interpretation and tactical pilotage. The route should terminate in an actual or simulated objective area requiring actions from IP inbound (either to a simulated airdrop, self-contained approach or RWAAR track). The TSO shall be the primary navigator. The T3P will conduct this sortie from the right seat.

Prerequisite. FAI-201.

Performance Standard. Demonstrate an understanding of terrain masking, CRM, timing corrections, chart to ground interpretation, and low level considerations/hazards.

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

TACNAV-221 2.0 SC,R 1 KC-130 A

Goal. Demonstrate to the pilot day right seat LAT procedures.

Requirements. The initial event shall be instructed by a LAT I. The LAT I shall introduce flying at comfort level, terrain masking, ridgeline crossing, lookout doctrine, hard turns, break turns, bunts, jinks and IR threat reaction maneuvers. The route flown should afford the opportunity to perform LAT maneuvering, e.g. ridges, valleys, open areas and easily identifiable terrain features. The T3P will focus on right seat copilot duties during this sortie and upon successful completion, will be qualified for Right Seat LAT. The T3P should log the RQD-620 tracking code.

Performance Standard. The T3P must be capable of performing copilot duties in the LAT environment to include tactical pilotage, secondary navigator, and CRM.

Prerequisite. FAI-201, TACNAV-220.

External Syllabus Support. LAT approved MTR or restricted area.

STACNAV-222 2.0 SC OFT/WST S NS

Goal. Introduce the pilot to NVG low level procedures.

Requirement. Pilot will plan and navigate a low level route of at least 6 points at night. Emphasize chart-to-ground interpretation and tactical pilotage while utilizing NVGs.

This event may be waived if an NVG compatible simulator is not available.

Performance Standard. Demonstrate an understanding of terrain masking, CRM, timing corrections, chart-to-ground interpretation, and NVG considerations/hazards.

Prerequisite. FAI-201.

External Syllabus Support. CSI.

TACNAV-223 2.0 1 KC-130 A NS

Goal. Introduce the pilot to right seat, NVG low level navigation under HLL.

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

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

Prerequisite. NS-204, TACNAV-220, STACNAV-222.

External Syllabus Support. Approved MTR or restricted area.

TACNAV-224 2.0 SC,R 1 KC-130 A NS

Goal. Introduce the pilot to right seat, NVG low level navigation under LLL.

Requirement. The initial event shall be instructed by an NSI. Plan and execute a low level navigation route consisting of at least 6 points on a published MTR. The route should terminate in an actual or simulated objective area requiring actions from IP inbound (either to a simulated airdrop or self-contained approach). The NSI shall discuss and introduce procedures and CRM required under LLL. Emphasize chart-to-ground interpretation and tactical pilotage while utilizing NVGs. Upon successful completion of this sortie, the pilot will be NSQ, and the pilot should log the RQD-695 tracking code.

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

Prerequisite. NS-205, TACNAV-223.

External Syllabus Support. Approved MTR or restricted area.

6. Formation

a. Purpose. To train the T3P in KC-130 formation wingman duties and procedures.

b. General

(1) The Core Basic Formation syllabus is designed to introduce the T3P to copilot duties as a wingman in a flight of 2 or more KC-130s.

(2) Upon completion of this stage, the T3P will be capable of flying formation as a qualified copilot.

(3) The focus of formation training should be on operational employment and maintaining formation as part of a tanker cell. This includes mission/fuel planning, inter-flight communications, departure and recovery procedures, and planned and inadvertent weather penetrations.

(4) For initial NS formation training, an NSI is required if the T3P is not NSQ.

c. Crew Requirements. Two pilots are required for simulator events. The minimum crew as defined by the NFM or ANTTP is required for flight events.

d. Ground/Academic Training. The instructor and T3P shall review the KC-130 ANTTP Formation chapter and the KC-130 formation AAR procedures as defined in the NATOPS AAR Manual and ATP-56B.

e. Flight and Simulator Event Training. (3 Events, 6.0 Hours).

SFORM-230 2.0 WST S

Goal. Introduce T3P to pilot and copilot duties and procedures as a KC-130 formation wingman.

Requirement. This sortie should be completed with the pilot alternating between the left and right seats. The instructor shall introduce day/night section formation procedures, proper start, taxi, run-up, and takeoff procedures in a formation. Introduce management of all comm/nav equipment as associated with formation flight and proper formation communications procedures. Demonstrate day section and division formation positions and procedures, break-up/rendezvous and lead changes.

Performance Standard. The T3P shall accurately describe formation positions.

Prerequisite. FAI-201.

External Syllabus Support. CSI.

FORM-231 2.0 2 KC-130 A

Goal. Introduce T3P to copilot duties and procedures as a KC-130 formation wingman.

Requirement. Initial event shall be instructed by T&R instructor. T3P shall fly in the right seat. The instructor shall introduce formation mission briefing requirements and demonstrate day section formation positions and procedures, break-up and rendezvous, and lead changes. Introduce proper start, taxi, run-up, takeoff, recovery, and landing procedures in a formation. Introduce proper management of all comm/nav equipment as associated with formation flight and proper formation communications procedures.

Performance Standard. The T3P shall accurately describe formation positions and be familiar with references stated in paragraph 6.d. above.

Prerequisite. FAI-201.

External Syllabus Support. Military Operating Area (MOA) warning area or appropriately reserved airspace.

FORM-232 2.0 SC,R 2 KC-130 A NS

Goal. Introduce T3P to copilot duties and procedures involved in flying KC-130 NVG formation.

Requirement. Initial event shall be instructed by T&R instructor. The T3P shall fly in the right seat. The instructor shall review formation mission briefing requirements and demonstrate NVG formation positions and procedures, break-up and rendezvous and lead change. Introduce proper start, taxi, run-up, takeoff, recovery, and landing procedures in an NVG formation, review proper management of all comm/nav equipment as associated with formation flight and proper formation communications procedures.

Performance Standard. The T3P shall accurately describe NVG formation positions, NVG considerations and be familiar with references stated in paragraph 6.c. above.

Prerequisite. FORM-231, RQD-686.

External Syllabus Support. MOA warning area or appropriately reserved airspace.

7. Air Delivery (AD)

a. Purpose. Introduce the T3P to copilot duties and procedures involved in KC-130 AD operations.

b. General

(1) The Core Basic AD syllabus is designed to introduce the T3P to copilot duties involved in basic cargo or personnel AD operations.

(2) Upon completion of this stage of instruction, the T3P shall be capable of flying as a qualified copilot when conducting Heavy Equipment (HE), Container Delivery System (CDS), personnel static line and combination airdrops.

(3) When conducting an AD in conjunction with a low level ingress, the T3P shall be qualified to fly that particular profile or must fly with the appropriate instructor for that event. Initial AD sorties flown in conjunction with initial TACNAV sorties are permitted, provided all instructor requirements are met.

(4) For initial NS AD training, an NSI is required if the T3P is not NSQ.

c. Crew Requirements. Two pilots, a TSO and Flight Engineer are recommended for simulator events. The minimum crew as defined by the NFM or ANTTP is required for flight events.

d. Ground/Academic Training. Review KC-130 ANTTP Air Delivery chapter and KC-130 TPG. Review MAWTS-1 AD courseware.

e. Flight and Simulator Event Training. (3 Events, 6.0 Hours).

SAD-240 2.0 OFT/WST S

Goal. Introduce T3P to pilot and copilot duties involved in cargo and troop AD operations.

Requirement. The instructor shall introduce basic AD profiles from IP inbound and focus on time warnings, checklist procedures, modified slowdown/shortlook procedures, emergency procedures and aircraft configuration techniques/CRM. The instructor shall introduce the T3P to CDS and HE profiles and discuss in detail LZ marking and identification techniques.

Performance Standard. The T3P shall be familiar with reference material stated in paragraph 7.d. above.

Prerequisite. FAI-201.

External Syllabus Support. CSI.

AD-241 2.0 1 KC-130 A

Goal. Introduce T3P to copilot duties involved in day cargo or troop AD operations.

Requirement. The initial event shall be instructed by a T&R instructor. Review personnel, HE and CDS AD checklists and procedures. The instructor shall introduce basic AD profiles from IP inbound and focus on time warnings, checklist procedures, modified slowdown/shortlook procedures, emergency

procedures and aircraft configuration techniques/ CRM. An actual personnel or cargo AD is required for initial qualification.

Performance Standard. The T3P shall demonstrate the ability to navigate to the DZ, communicate with the DZ and perform appropriate checklist items for AD procedures. Additionally, demonstrate knowledge of normal and emergency procedures outlined in the NFM and KC-130 TACMAN.

Prerequisite. FAI-201, SAD-240.

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

AD-242 2.0 SC,R 1 KC-130 A NS

Goal. Introduce T3P to copilot duties involved in night cargo or troop AD operations while utilizing NVGs.

Requirement. The initial event shall be instructed by an NSI or WTI and conducted under HLL or LLL conditions. Review personnel/cargo AD procedures. Emphasize LZ identification, CRM and AD procedures. An actual personnel or cargo AD is required for initial qualification.

Prerequisite. AD-241, NS-204 if HLL, NS-205 if LLL.

Performance Standard. The T3P shall demonstrate the ability to navigate to the DZ, communicate with the DZ and perform appropriate checklist items for AD procedures while utilizing NVGs. Additionally, demonstrate knowledge of normal and emergency procedures outlined in the NFM and KC-130 ANTTP.

External Syllabus Support. AD platoon for cargo rigging/DZ control.

8. Long Range Navigation

a. Purpose. Review long-range, over water navigation procedures and introduce T3P to squadron SOPs concerning deployment operations.

b. General

(1) This stage shall train the T3P in long-range over water navigation to include performance computations, fuel planning, ICAO procedures, and copilot duties associated with aircraft deployment operations.

(2) Upon completion of this stage the T3P shall be capable of deploying as a qualified copilot on long-range over water operations.

(3) This sortie may be instructed by a proficient TPC.

c. Crew Requirements. The minimum crew as defined by the NFM.

d. Ground/Academic Training. The TPC shall introduce applicable SOPs, Foreign Clearance Guide, FLIPs, and review performance computations referencing the KC-130 NFM.

e. Flight and Simulator Event Training. (1 Event, 8.0 Hours).

LRNAV-250	8.0	SC,R 1 KC-130 A (N*)

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

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

Prerequisite. FAI-202.

Performance Standard. The T3P shall be familiar with references identified in paragraph 8.d. above, understand the different cruise profiles and appropriate application, and be proficient in the use of DOD FLIPs.

9. Threat Reaction

a. Purpose. Train the pilot in the use of ASE and threat counter-tactics in a small arms, AAA, and infrared (IR) SAM threat environment.

b. General

(1) Pilots shall be introduced to the KC-130FRT 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.

(2) Upon completion of this phase, the pilot will be familiar with the mission planning and operational considerations associated with the ASE suite, expendable requirements, and tactical CRM.

(3) The use of Smokey SAM pyrotechnics and Missile Warning System stimulators is recommended. Aircrew training officers may have to be creative in gaining the best possible training due to the limited availability of expendables and ranges.

(4) Simulator events may be waived in the absence of a suitable device.

c. Crew Requirements. Two pilots are required for simulator events. The minimum crew as defined by the NFM or ANTTP is required for flight events.

d. Academic/Ground Training. Review the NFM, KC-130 ANTTP, Classified ANTTP, AFTTP 3-1 Threat Reference Guide. A WTI should administer the KC-130 ASE, DEFTAC/ACCT, and Threat Counter-tactics classes from the MAWTS-1 KC-130 Specific ASP.

e. Flight and Simulator Training. (2 Events, 4.0 Hours).

STHRX(I)-260 2.0 SC WST S

Goal. Introduce threat reaction drills and tactical CRM against small arms, AAA and IR SAM threat systems.

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

External Syllabus Support. CSI.

THRX(I)-261 2.0 SC,R E KC-130 A/S (N)

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

Requirement. This event shall be instructed by a LATI. If conducted at night, the LATI must also be an NSI unless the crew is NSQ. Introduce the ASE counter measures dispensing system setup, missile warning system setup, jamming system, and threat reaction. The pilot should be exposed to a variety of threat situations of increasing intensity using both the Automatic and Manual modes of the dispensing system. Threat reaction maneuvering should include the take-off, cruise and approach phases of flight.

Performance Standard. The pilot should be able to correctly operate the aircraft's ASE suite in an IR SAM environment, and react timely and correctly to threat calls. Proper aircrew coordination shall be performed in threat reaction.

Prerequisite. TACNAV-220, STHRX(I)-260, TACNAV-223 if HLL, TACNAV-224 if LLL.

Ordnance. 300 flare expendables.

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

8. Assault Landing Zone (ALZ)

a. Purpose. Introduce the T3P to copilot duties associated with ALZ and rapid ground refueling operations.

b. General

(1) The T3P shall be introduced to day, night and NVG ALZ operations to include visual and self-contained approach procedures, precision landings to short fields, and ground operating procedures.

(2) Upon completion of this phase the T3P will be qualified to fly as a copilot during day, night and NVG ALZ operations.

(3) Initial ALZ events shall be instructed by either a WTI or NSI.

(4) For the purposes of this training syllabus, ALZ operations are defined as terminal area operations from an airfield prepared with either day or night EAF markings as defined in the KC-130 ANTTP. Ideally, the MMT will be utilized for terminal control with tactical NAVAIDS available. A KC-130 capable unimproved ALZ is recommended, but not required.

(5) It is recommended that RGR-274 be conducted at an EAF, however it is not required. The RGR should include transferring fuel to receiver aircraft under tactical conditions.

c. Crew Requirements. Two pilots and a TSO are required for simulator events. The minimum crew as defined by the NFM or ANTTP is required for flight events.

d. Academic/Ground Training. T3Ps should review the KC-130 ANTTP ALZ and RGR chapters, maximum effort performance calculations in the KC-130 NFM, and the ALZ class in the MAWTS-1 KC-130 Specific ASP.

e. Flight and Simulator Events. (4 Events, 11.0 Hours).

SALZ-270 3.0 SC OFT/WST S NS

Goal. Introduce the T3P to right and left seat duties and procedures during expeditionary airfield operations.

Requirement. The T3P should have an opportunity to occupy both the left and right seats during the course of this event. This event requires a TSO for SCA procedures. This event shall be conducted under day and night aided conditions. The instructor shall discuss briefing requirements for expeditionary airfield operations, introduce max effort performance computations, discuss NVG CRM requirements and introduce max effort takeoff and landing procedures and CRM. Introduce ALZ approaches, unimproved EAF ground operating procedures, and COL procedures. NVGs should be used for a portion of this event if able.

Performance Standard. Prepare a TOLD card per data provided on the ATF.

Prerequisite. SFAI-200.

External Syllabus Support. CSI.

ALZ-271 3.0 SC 1 KC-130 A

Goal. Introduce the T3P to right seat duties and procedures during day expeditionary airfield operations.

Requirement. Initial event shall be instructed by ANI, WTI. T3P shall fly in the right seat. Instructor shall demonstrate briefing requirements for expeditionary airfield operations,

introduce max effort performance computations, max effort takeoff and landing procedures and CRM. Introduce visual and self-contained ALZ approaches, unimproved EAF ground operating procedures, and COL procedures.

Performance Standard. Prepare an accurate TOLD card for the mission per NATOPS Performance Manual. Demonstrate the ability to satisfactorily complete copilot duties in an ALZ environment to include ATC communication, performance computations, tactical checklists, and aircraft performance monitoring.

Prerequisite. FAI-201, SALZ-270.

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

ALZ-272 3.0 SC,R 1 KC-130 A NS

Goal. Introduce the T3P to right seat duties and procedures during NVG expeditionary airfield operations.

Requirement. Initial event shall be instructed by an ANI, WTI or NSI. The T3P shall fly in the right seat. This event shall be conducted on NVGs under any light level. COL is optional. Instructor shall demonstrate briefing requirements for NVG expeditionary airfield operations, discuss NVG CRM requirements, discuss unaided ALZ considerations, demonstrate NVG max effort takeoff and landing procedures and CRM, and NVG ALZ approach procedures. Review max effort performance computations.

Performance Standard. Prepare a TOLD card for the mission per NATOPS Performance Manual. Demonstrate the capability to satisfactorily complete copilot duties in an ALZ environment to include ATC communication, performance computations, tactical checklists, and aircraft performance monitoring.

Prerequisite. NS-204 if HLL, NS-205 if LLL, ALZ-271.

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

ALZ-274 2.0 SC,R 1 KC-130 A (N)

Goal. Introduce the T3P to co-pilot duties during RGR operations.

Requirement. Initial event shall be instructed by T&R Instructor. If aircraft cockpit lighting is NVG compatible, (NS) applies. Instructor shall demonstrate briefing requirements for RGR operations. Introduce personnel qualifications, duties, responsibilities and RGR crew coordination. Introduce RGR equipment, site weapons and passenger considerations, site configurations and threat

considerations. Introduce RGR fuel planning, site setup, operation, and breakdown procedures, and NVG considerations during RGR operations (optional).

Performance Standard. Pilot shall control receivers per KC-130 TACMAN/ANTTP and be familiar with the references described in paragraph 8.d. above.

Prerequisite. FAI-201, FAI-202 if night, if aided NS-204 for HLL or NS-205 for LLL.

External Syllabus Support. Receiver aircraft. MMT or MWSS EAF personnel for terminal control, or USAF Special Tactics Team (SST).

110. CORE ADVANCED TRAINING

1. General. The focus of Core Advanced Training is to train the copilot in left-seat (pilot-flying) duties. Upon completion of this phase of training, the pilot will be qualified to perform both left seat (pilot-flying) and right seat (pilot-not-flying) duties in all core skill areas. RADAR Threat counter-tactics and multi-plane AAR shall be introduced in this phase. To maintain proficiency in a particular skill, completion of the Core Advanced event will automatically update the Core Basic event.

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

b. Transition (T) pilots shall follow the Basic POI. Series Conversion (SC) and Refresher (R) syllabus Pilots entering Core Advanced training should have completed the appropriate Core Basic training. Refresher (R) Pilots shall follow the Refresher POI and Series Conversion (SC) Pilots shall follow the Series Conversion POI.

c. Prior to commencing the Core Advanced syllabus, Pilots in the Transition or Basic POI shall have at least 50 flight hours in the Core Basic syllabus and be proficient in the applicable Core Advanced pre-requisites.

d. Pilots shall receive initial training by the appropriate instructor as delineated in the respective T&R event. Once a pilot has completed the initial event, subsequent events may be flown with proficient aircrew. Pilots shall have completed the equivalent Core Basic event prior to completing the Core Advanced event. For instance, a pilot must have completed a TACNAV-220 (day, right seat low level) prior to completing TACNAV-320 (day, left seat low level).

e. Pilots conducting Night Systems (NS) training shall be instructed by the appropriate instructor as delineated in the respective T&R event. Pilots shall have completed the equivalent Core Basic NVG event prior to completing the Core Advanced NVG event.

f. Evaluated simulator events shall be conducted with either an appropriate instructor or an appropriately qualified Contract Simulator Instructor (CSI).

g. In the event of WST non-availability, simulator events should be conducted in the aircraft. Appropriate Operational Risk Management (ORM) policies should be used to reduce risk associated with not using a WST.

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

2. Familiarization

a. Purpose. Train the pilot in NATOPS procedures to include pre-flight and in-flight normal, emergency and instrument procedures.

b. General. The familiarization stage in the Core Advanced syllabus is designed to train the pilot in flying the aircraft, managing the aircraft and crew, and conducting NATOPS and instrument procedures from the left seat.

(1) Transition (T) and Series Conversion (SC) pilots shall complete the entire familiarization stage. Refresher (R) pilots are required to complete the FAI-301/302 prior to continuing Core Advanced training.

(2) This stage shall be instructed by a squadron ANI and must be completed prior to continuing Core Advanced Training.

c. Crew Requirements. Two pilots are required for simulator events. The minimum crew as defined by the NFM or ANTTP is required for flight events.

d. Ground/Academic Training. Pilot shall review the NFM and be prepared to discuss taxi procedures, emergency procedures and cockpit management under normal and emergency situations.

e. Flight and Simulator Event Training. (3 Events, 7.0 Hours).

SFAI-300 3.0 SC OFT/WST S

Goal. Introduce the pilot to left seat ground and flight procedures.

Requirement. Introduce left seat normal, emergency, and instrument procedures under day and night conditions. Emphasize taxi procedures, basic airwork, emergencies and approaches/landings. Demonstrate an ability to diagnose basic system malfunctions and apply the appropriate NATOPS corrective actions, and the ability to complete an instrument approach under emergency conditions.

Performance Standard. Safely fly instrument approaches with emergency procedures per NFM and IFM.

Prerequisite. FAI-202.

External Syllabus Support Required. CSI/ANI.

FAI-301 2.0 SC 1 KC-130 A

Goal. Introduce day left seat ground and flight procedures to the pilot.

Requirement. This event shall be instructed by an ANI. The instructor shall introduce left seat ground, taxi and flight procedures to include engine starts, taxi and braking techniques, aircraft backing, takeoff brief, and departure procedures. In-flight, the pilot shall practice approaches and landings in the 50 and 100 percent configurations. The ANI shall introduce emergency procedures to include systems malfunctions and engine out approaches and landings. A minimum of 5 touch and go's and 2 full-stop landings shall be completed.

Performance Standard. Safely fly instrument approaches under simulated emergency conditions per NATOPS and the IFM.

Prerequisite. SFAI-300.

FAI-302 2.0 SC,R 1 KC-130 A N*

Goal. Introduce night left seat NATOPS and instrument procedures to the pilot.

Requirement. This event shall be instructed by an ANI. Emphasis shall be on taxi and braking procedures, and basic airwork. The instructor should evaluate the pilot's ability to diagnose basic system malfunctions and apply the appropriate NATOPS corrective actions while flying an instrument approach. A minimum of 5 touch and go's and 2 full-stop landings shall be completed. Upon completion of this event, RQD-680 shall be logged and the pilot shall be left seat qualified to continue progression through the Core Advanced Phase.

Performance Standard. Safely fly instrument approaches under simulated emergency conditions per NATOPS and the IFM.

Prerequisite. FAI-301.

3. Night Systems

a. Purpose. To train the pilot in left seat night systems operations.

b. General. The pilot shall be NS qualified in the Core Basic phase; however, left seat familiarization flights are required to ensure the pilot is prepared to conduct ground and flight operations from the left seat with the use of NVGs.

(1) Transition and Series Conversion pilots shall complete this stage.

(2) This stage shall be instructed by an NSI.

c. Crew Requirements. The minimum crew as defined by the NFM or ANTTP is required for flight events.

d. Ground/Academic Training. MAWTS-1 KC-130 NVD 1 and 2 ASP courses and NITE lab.

e. Flight and Simulator Event Training. (1 Event, 2.0 Hours).

NS-303 2.0 SC,R 1 KC-130 A NS

Goal. Train pilot in left seat NVG operations.

Requirements. The initial event shall be instructed by an NSI under any light level condition. The instructor shall introduce left seat ground and flight operations using NVGs, to include normal and emergency procedures at altitude and in the terminal environment. The instructor shall demonstrate and introduce NVG touch and go's to the student. A minimum of 5 touch and go's and 1 full stop shall be completed by the pilot under instruction. Focus on the capabilities and limitations of the NVGs, normal and emergency procedures, and CRM.

Performance Standard. The pilot will review NVG mission planning software, and demonstrate knowledge of normal and emergency NVG procedures outlined in the NFM and NVG specific items in the MAWTS-1 NVD fixed-wing manual.

Prerequisite. NS-204 if HLL, NS-205 if LLL, FAI-302.

4. Aerial Refueling

a. Purpose. Train pilot in Air-To-Air Refueling (AAR) procedures. The Core Advanced AAR stage shall be flown by the pilot in the left seat and instructed by a T&R instructor.

b. General

(1) Upon completion of this stage the pilot shall be capable of functioning in the left (pilot-flying) seat on fixed, tilt-rotor and rotary-wing AAR missions.

(2) The applicable Core Basic AAR sortie shall be complete prior to commencing the Core Advanced AAR stage. For instance, before a pilot completes the initial day FWAR (AR-310), the day right seat FWAR sortie (AR-210) must be complete. The Core Advanced day and night FAIs may be completed in conjunction with the equivalent Core Advanced AAR events. However, instructor requirements shall be adhered to. For instance, the initial left seat FWAR sortie (AR-311) may be completed at night on NVGs in conjunction with the pilot's initial NVG left seat FAI (NS-303) provided an NSI is instructing the flight and all prerequisites are complete.

c. Crew Requirements. The minimum crew as defined by the NFM or ANTTP is required for flight events to include one observer per operated aerial refueling pod.

d. Ground/Academic Training. The pilot shall review the documents governing AAR procedures to include the KC-130 NATOPS, KC-130 ANTTP, NATOPS AAR Manual and ATP-56B NATO AAR Manual.

e. Flight and Simulator Training. (3 Events, 9.0 Hours).

AR-311 3.0 SC,R 1 KC-130 A (N)

Goal. Introduce the pilot to left seat day/night single tanker, fixed-wing/tilt-rotor AAR procedures.

Requirement. This event can be flown in either day or night conditions with NVGs optional. The initial day and night (unaided or aided) event shall be instructed by a T&R instructor. Conduct single tanker rendezvous procedures and receiver management. Discuss emergency procedures related with air-to-air refueling. Focus on basic airwork and navigation/coordination to and from the refueling area. Use of EMCON procedures is recommended.

Performance Standard. Satisfactorily demonstrate the ability to maintain a stable platform, maintain fuel state awareness and receiver management. Additionally, demonstrate knowledge of normal and emergency procedures, and CRM outlined in the NFM, AAR Manual and KC-130 TACMAN.

Prerequisite. AR-210, FAI-301, (AR-211, FAI-302, if night), (NS-303 if utilizing NVGs).

External Syllabus Support. Fixed-wing or tilt rotor receivers.

AR-312 3.0 SC,R 1 KC-130 A

Goal. Introduce the pilot to left seat day single tanker, rotary-wing AAR procedures.

Requirement. Conduct single tanker rendezvous procedures and receiver management. Fly a rotary-wing AAR mission from the left seat, conducting a minimum of three (3) rendezvous'. The initial event shall be instructed by a T&R instructor. Discuss emergency procedures related to air refueling. Focus on basic airwork and navigation/coordination to and from the refueling area. If flown in conjunction with a low level route, plan for an ARCP, ARCT and ENDAR.

Performance Standard. Satisfactorily demonstrate the ability to effect the rendezvous, maintain a stable platform, maintain fuel planning awareness and receiver management. Additionally, demonstrate knowledge of normal and emergency procedures outlined in the NFM, AAR Manual, ATP-56B and KC-130 ANTTP.

Prerequisite. AR-212, FAI-301.

External Syllabus Support. Rotary-wing receivers.

AR-313 3.0 SC,R 1 KC-130 A NS

Goal. Introduce the pilot to left seat NVG single tanker, rotary-wing AAR procedures.

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

Performance Standard. Satisfactorily demonstrate the ability to effect the rendezvous, maintain a stable platform, maintain fuel planning awareness and receiver management. Additionally, demonstrate knowledge of normal and emergency procedures outlined in the NFM, AAR Manual and KC-130 TACMAN.

Prerequisite. AR-213, FAI-301, NS-303, AR-312.

External Syllabus Support. Rotary-wing receivers.

5. Tactical Navigation

a. Purpose. Train the pilot in left seat (pilot-flying) low altitude navigation to and from an objective area requiring detection or threat avoidance. The syllabus introduces low altitude flight, LAT, piloting techniques, and CRM.

b. General

(1) Upon successful completion of TACNAV-322, the pilot will have fulfilled the requirements for the LAT Qualification and log RQD-621. The pilot will be qualified to fly in the left seat (pilot-flying) or right (non-pilot-flying) seat on missions requiring LAT.

(2) Non-LAT sorties shall be flown at low-level minimums as defined in the T&R Program Manual.

(3) LAT minimum altitudes and rules of conduct are defined in the T&R Program Manual.

(4) It is recommended that during this stage of instruction, RADAR SAM Threat Reaction [THRX(R)-361] be completed. THRX(R)-361 shall be instructed by a squadron LATI. Refer to The THRX(R) event description for specific sortie and ordnance requirements.

c. Crew Requirements. The minimum crew as defined by the NFM or ANTTP is required for flight events.

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

e. Flight and Simulator Events Training. (5 Events, 10.0 Hours).

TACNAV-320 2.0 SC 1 KC-130 A

Goal. Introduce day left seat low altitude navigation procedures.

Requirements. The initial event shall be instructed by a T&R Instructor. Plan and execute a VFR navigation route, consisting of at least 6 points, on a published MTR. Emphasize aircraft vector control, terrain clearance, CRM and tactical piloting. The route should terminate in an actual or simulated objective area requiring actions from IP inbound (either to a simulated airdrop, self-contained approach or RWAAR). The TSO shall be the primary navigator. The pilot shall conduct this sortie from the left seat.

Performance Standard. Arrive over the objective plus or minus30 seconds, properly configured, and demonstrate an ability to control ground track as well as knowledge of timing corrections and chart-to-ground interpretation.

Prerequisite. TACNAV-220, FAI-301.

External Syllabus Support. Approved MTR or training area.

TACNAV-321 2.0 SC 1 KC-130 A

Goal. Introduce day left seat LAT procedures.

Requirements. The initial event shall be instructed by a LAT I. Minimum altitude per T&R Program manual. Introduce flying at comfort level, terrain masking, ridgeline crossing, lookout doctrine, hard turns, break turns, bunts, jinks and practice IR threat reaction maneuvers. The route flown should afford the opportunity to perform LAT maneuvering, e.g. ridges, valleys, open areas and easily identifiable terrain features. The pilot shall conduct this sortie from the left seat.

Performance Standard. Proper performance of all LAT and threat reaction maneuvers to include proper CRM.

Prerequisite. TACNAV-221, THRX(I)-261, TACNAV-320, RQD-620.

External Syllabus Support. LAT approved MTR or training area.

TACNAV-322 2.0 SC,R 1 KC-130 A

Goal. Review ability to perform all LAT procedures.

Requirements. This is the LAT Qualification checkride, and shall be administered by a squadron WTI or a MAWTS-1 IP. Upon successful completion of this flight the pilot should log the RQD-621 tracking code. The pilot will plan and execute a low level ingress to an objective and apply LAT maneuvers where applicable. A threat scenario is required with detailed brief on ASE loadout, threat capabilities and limitations, and threat counter tactics. Low level shall terminate in simulated or actual objective area.