

CHAPTER 1

KC-130J PILOT
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	<u>PARAGRAPH</u>	<u>PAGE</u>
MARINE AERIAL REFUELER TRANSPORT SQUADRON UNIT TEMPLATE, MISSION STATEMENT, AND CORE COMPETENCY SKILLS.....	100	1-2
PROGRAMS OF INSTRUCTION (POI) FOR BASIC, TRANSITION, AND CONVERSION PILOT.....	101	1-12
POI FOR SERIES CONVERSION PILOT.....	102	1-12
POI FOR REFRESHER PILOT.....	103	1-12
POI FOR INSTRUCTOR PILOT.....	104	1-12
GROUND TRAINING COURSES OF INSTRUCTION.....	110	1-13
AIRCREW TRAINING REFERENCES.....	111	1-13
EVENT TRAINING: BASIC, TRANSITION, CONVERSION	120	1-13
EVENT TRAINING: SERIES CONVERSION	121	1-14
EVENT TRAINING: REFRESHER.....	122	1-15
EVENT TRAINING: MODIFIED REFRESHER.....	123	1-16
GRADUATE LEVEL COURSES.....	125	1-17
EVENT PERFORMANCE REQUIREMENTS.....	130	1-17
CORE SKILL INTRODUCTION TRAINING.....	131	1-19
CORE SKILL BASIC TRAINING.....	132	1-33
CORE SKILL ADVANCED TRAINING.....	133	1-52
CORE PLUS TRAINING.....	134	1-62
INSTRUCTOR TRAINING.....	140	1-68
REQUIREMENTS, QUALIFICATIONS, DESIGNATIONS (RQD).....	150	1-76
EXPENDABLE ORDNANCE REQUIREMENTS.....	160	1-93
SYLLABUS MATRICES.....	161	1-94
T&R CHAINING TABLES.....	162	1-101

CHAPTER 1

KC-130J PILOT

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

UNIT TEMPLATE

NOTE

The capabilities defined and described in the core capability and unit template sections are provided to ensure each like squadron maintains a common base of training and depth of capabilities. When resources permit, and when in the judgment of the commander additional training would significantly increase the unit's war fighting capability, training to a level above these base capabilities is permitted. It is incumbent upon, and expected of, the commander to balance any increase in the depth of core capabilities against the overall health and readiness of his unit while staying within his resource constraints.

1. 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.

2. 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.

3. Table of Organization. Refer to Table of Organization 8820X managed by Total Force Structure, MCCDC, for current authorized T/O.

Squadron

12 Aircraft
42 Pilots [18 TPC/24 CP (T2P or T3P)]
36 Crew Chiefs
37 Loadmasters

6 Aircraft Detachment

24 Pilots [10 TPC/14 CP (T2P or T3P)]
20 Crew Chiefs
21 Loadmasters

3 Aircraft Detachment

12 Pilots [5 TPC/7 CP (T2P or T3P)]
8 Crew Chiefs
8 Loadmasters

4. 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 2.6 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.

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

METL	KC-130J CORE SKILL											CORE PLUS
	AR	TACNAV	FORM	RGR	LRNAV	THR (I)	THR (R)	ALZ	NS (H)	NS (L)	AD	DEFTAC (A)
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
H. Conduct Noncombatant Evacuation	X	X	X	X	X	X	X	X	X	X		X

6. KC-130J 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) crews 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.

* NOTE: DEFTAC is a core plus skill. Proficiency in DEFTAC is not required to obtain unit CSP and will not contribute to unit T-level readiness. Below are KC-130 community recommended unit/individual CSP standards for these skills.

T&R MANUAL, KC-130J

KC-130J Unit CSP Requirements 12 Plane Squadron					
CORE SKILL *CORE PLUS	Pilots	**ACS	Crew Chiefs	Loadmasters	Crews
AR	18	9	9	9	9
TACNAV	18	9	9	9	9
FORM	16				8
LRNAV	24		12		12
THRX(I)	28		14	14	14
THRX(R)	8	4	4	4	4
ALZ	12		6	6	6
RGR	12		***18		6
NS(H)	28		14	14	14
AD	8	4	4	8	4
NS(L)	12		6	6	6
CPL			18	18	18
*DEFTAC	4		2	2	2

KC-130J Unit CSP Requirements 6 Plane Squadron					
CORE SKILL *CORE PLUS	Pilots	**ACS	Crew Chiefs	Loadmasters	Crews
AR	10	5	5	5	5
TACNAV	10	5	5	5	5
FORM	8				4
LRNAV	12		6		6
THRX(I)	14		7	7	7
THRX(R)	4	2	2	2	2
ALZ	6		3	3	3
RGR	6		***9		3
NS(H)	14		7	7	7
AD	4	2	2	4	2
NS(L)	6		3	3	3
CPL			9	9	9
*DEFTAC	2		1	1	1

KC-130J Unit CSP Requirements 3 Plane Squadron					
CORE SKILL *CORE PLUS	Pilots	**ACS	Crew Chiefs	Loadmasters	Crews
AR	6	3	3	3	3
TACNAV	6	3	3	3	3
FORM	4				2
LRNAV	6		3		3
THRX(I)	8		4	4	4
THRX(R)	2	1	1	1	1
ALZ	4		2	2	2
RGR	4		***6		2
NS(H)	8		4	4	4
AD	2	1	1	2	1
NS(L)	4		2	2	2
CPL			5	5	5
*DEFTAC	2		1	1	1

T&R MANUAL, KC-130J

** NOTE: The ACS is occupied by a PILOT.

*** NOTE: Three RGR qualified crewmembers are required per crew, at least one of which shall be a Loadmaster.

(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-130J PILOT	NS (H)	NS (L)	LRNAV	TACNAV	FORM	THR (I)	THR (R)	AR	ALZ	RGR	AD	DEFTAC
T&R event requirements to attain competency	003 004 203* 204* 224 225	025 324	210 211 212 213*	020 021 022 023 222* 223* 224* 225* 024 323*	030 231* 232 032 332*	040 240*	041 341*	050 051 053 054 055 056 250* 251* 252* 253 353*	060 061 062 260* 261* 262* 263 360*	270*	080 380* 381* 383*	440* 441

Notes:

1. Some events are duplicated in more than one category but not in the overall total.
2. "*" Denotes R-Coded events.

(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-130J PILOT	NS (H)	NS (L)	LRNAV	TACNAV	FORM	THR (I)	THR (R)	AR	ALZ	RGR	AD	DEFTAC
T&R event requirements to maintain competency	203 204	324	213	224 323	231	240	340	250 251 253	260 262 360	270	380 381 383	440

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.

KC-130J Leadership Requirements 12 Aircraft Squadron	
DESIGNATION	42 Pilots
TPC	18
SEC LDR	8
DIV LDR	4
TAC RAC	8
STRAT RAC	2

KC-130J Leadership Requirements 6 Aircraft Detachment	
DESIGNATION	24 Pilots
TPC	9
SEC LDR	4
DIV LDR	2
TAC RAC	4
STRAT RAC	1

KC-130J Leadership Requirements 3 Aircraft Detachment	
DESIGNATION	12 Pilots
TPC	5
SEC LDR	2
DIV LDR	1
TAC RAC	2
STRAT RAC	1

7. 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(H) (603)	NS(H)-203, 204, TACNAV-224, 225
NSQ(L) (604)	RQD-603, RQD-620, TACNAV-324
Instrument (606)	IAW OPNAVINST 3710.7 and an annual qualification letter signed by the commanding officer.
Special Instrument (607)	IAW OPNAVINST 3710.7 and an annual qualification letter signed by the commanding officer.
LATQ (620)	TACNAV-323
DEFTAC (641)	DEFTAC-440, 441
T3P NATOPS Check (690)	Core Introduction Phase Complete.
T2P NATOPS Check (691)	Core Basic Phase Complete.
TPC NATOPS Check (698)	RQD-697, Core Basic and Advanced Phases should be complete and IAW NATOPS and command specific directives.
Designation (Tracking Code)	Designation Requirements
Left Seat FAM (600)	IAW command specific directives.
NI/ANI (601)	NI-500, 501 and a designation letter signed by the commanding officer. NI requires certification by the model manager.
NSI (605)	Upon certification by MAWTS-1, the PUI will be designated a NSI by the commanding officer.
PMCP (609)	IAW OPNAVINST 4790 and command specific directives.
LRNAVI (610)	LRNAV-213
ACS TACNAVI (621)	TACNAV-520
TACNAVI (622)	TACNAV-521
LATI (623)	TACNAV-522, 523 Upon completion of 623 evaluation flight the commanding officer may designate the PUI a LAT Instructor.
SECT. LEAD (632)	FORM-631, 632 Evaluation Flight
DIV. LEAD (635)	FORM-634, 635 Evaluation Flight
FORMI (636)	FORM-530, 632
DEFTACI (642)	Upon certification by MAWTS-1, the PUI will be designated a DEFTACI by the commanding officer.
AR Systems (650)	AR-253
TACTICAL RAC (651)	AR-651 Evaluation flight in conjunction with 631 or 632, the commanding officer should designate the pilot a Tactical RAC after or in conjunction with designation as Section Leader.
STRATEGIC RAC (652)	AR-652 Evaluation flight.
ACS ARI (653)	AR-550
ARI (654)	AR-551
ALZI (660)	ALZ-560
ACS ADI (680)	AD-580
ADI (681)	AD-581
WTI (699)	Upon certification by MAWTS-1, the PUI will be designated a WTI by the commanding officer.

T&R MANUAL, KC-130J

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

KC-130J 12 Aircraft Squadron			
INSTRUCTOR DESIGNATION	Pilots	Crew Chiefs	Loadmasters
NI/ANI	6	6	6
NSI	6	4	4
LATI	4		
DEFTACI	1		
WTI	2	4	4
LMI			6
CCI		6	

KC-130J 6 Aircraft Squadron			
INSTRUCTOR DESIGNATION	Pilots	Crew Chiefs	Loadmasters
NI/ANI	3	3	3
NSI	3	2	2
LATI	2		
DEFTACI	1		
WTI	1	2	2
LMI			2
CCI		2	

KC-130J 3 Aircraft Squadron			
INSTRUCTOR DESIGNATION	Pilots	Crew Chiefs	Loadmasters
NI/ANI	1	1	1
NSI	1	1	1
LATI	1		
DEFTACI	1		
WTI	1	1	1
LMI			1
CCI		1	

8. Definitions

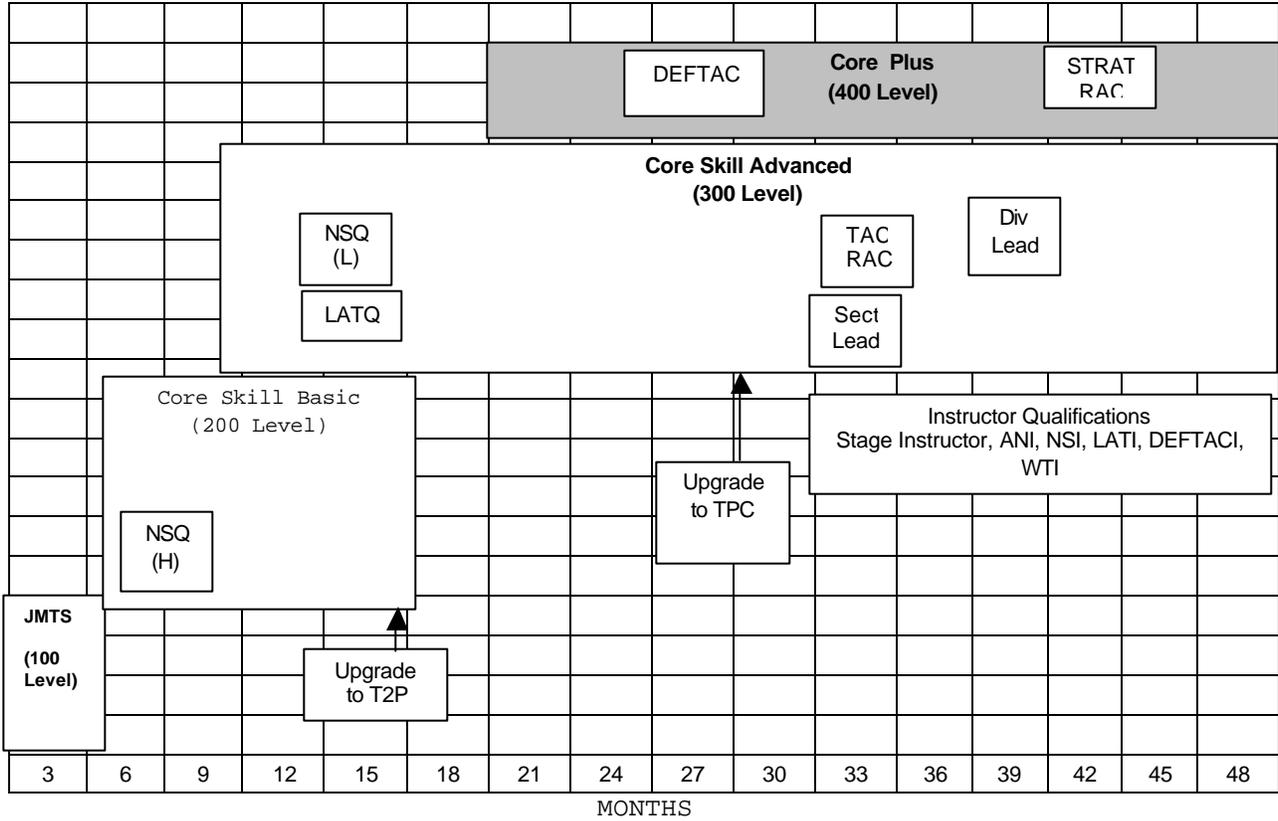
a. Currency. A control measure used to provide an additional margin of safety based on exposure frequency to a particular skill. It is a measure of time since the last event demanding that specific skill. Loss of currency does not affect a loss of Combat Readiness Percentage (CRP). For example, currency 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. CRP is a measurement of "demonstrated proficiency." If an aircrew exceeds the re-fly factor for a particular event, the individual loses CRP for that particular event. To regain proficiency, an individual shall complete the delinquent event with a proficient crewman/flight lead. 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 may 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.

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



101. PROGRAM OF INSTRUCTION (POI) FOR BASIC, TRANSITION, AND CONVERSION PILOT

WEEKS	COURSE	PERFORMING ACTIVITY
1-5	Track 1: KC-130J Aircraft Systems Ground School	JMAT Unit
	Track 2: KC-130J Aircraft Systems Ground School	Tactical Squadron
6-7	Computer-Based Mission Planning	Tactical Squadron
8-28	Track 1:Core Introduction Training	JMAT Unit
	Track 2:Core Introduction Training	Tactical Squadron
29-81	Core Basic Training	Tactical Squadron
82-156	Core Advanced Training	Tactical Squadron
157-181	Core Plus Training	Tactical Squadron

102. PROGRAM OF INSTRUCTION (POI) FOR SERIES CONVERSION PILOT

WEEKS	COURSE	PERFORMING ACTIVITY
1-5	Track 1: KC-130J Aircraft Systems Ground School	JMAT Unit
	Track 2: KC-130J Aircraft Systems Ground School	Tactical Squadron
6-7	Computer-Based Mission Planning	Tactical Squadron
8-28	Track 1:Core Introduction Training	JMAT Unit
	Track 2:Core Introduction Training	Tactical Squadron
29-55	Core Basic Training	Tactical Squadron
56-80	Core Advanced Training	Tactical Squadron
81-105	Core Plus Training	Tactical Squadron

103. PROGRAM OF INSTRUCTION (POI) FOR REFRESHER PILOT

WEEKS	COURSE	PERFORMING ACTIVITY
1-5	Track 1: KC-130J Aircraft Systems Ground School	JMAT Unit
	Track 2: KC-130J Aircraft Systems Ground School	Tactical Squadron
6-7	Computer-Based Mission Planning	Tactical Squadron
8-28	Track 1:Core Introduction Training	JMAT Unit
	Track 2:Core Introduction Training	Tactical Squadron
28-36	Core Basic Training	Tactical Squadron
37-41	Core Advanced Training	Tactical Squadron
42-52	Core Plus Training	Tactical Squadron

104. PROGRAM OF INSTRUCTION (POI) FOR SQUADRON STAGE INSTRUCTOR PILOT

WEEKS	COURSE	PERFORMING ACTIVITY
1-2	Ground and Simulator Training	Tactical Squadron
0-1	Long Range Navigation Stage	Tactical Squadron
0-1	Formation Stage	Tactical Squadron
0-1	Tactical Navigation Stage	Tactical Squadron
0-1	Aerial Refueling Stage	Tactical Squadron
0-1	ALZ Stage	Tactical Squadron

110. 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 are listed in each syllabus level.
3. The following external ground training courses of instruction are required to complete the syllabus.

<u>COURSE</u>	<u>ACTIVITY</u>
Survival, Evasion, Resistance, and Escape (SERE) Course	NAS Brunswick ME, or NAS North Island CA
NITE lab	Tactical Squadron

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

<u>COURSE</u>	<u>ACTIVITY</u>
Advanced Airlift Tactics Training Course	AATTC, St. Joseph, MO
Combat Aircrew Training	MAC CATS, Nellis AFB
Environmental Survival Courses	Regional/Seasonal Survival Schools

111. 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 Tactical Manual (TACMAN)
- T&R Program Manual
- MAWTS-1 Course Catalog
- Allied Tactical Publication - 56 (ATP-56) Air to Air Refueling
- KC-130J Tactics, Techniques, and Procedures (TTP) Documents (AS REQUIRED)
- Flight Clearance (FC) - issued by NAVAIR

120. EVENT TRAINING: BASIC, TRANSITION, CONVERSION

120.1. Core Skill Introduction Training

CORE SKILL INTRODUCTION TRAINING By Stage	Events	Hours	CRP
Basic Qualification (Flight School)	CNATRA Training		25.0
Track 1: Per JMAT approved curriculum			
Track 2			
Cockpit Systems and Procedures Training	11	27.0	
Familiarization & Instruments (FAI)	23	86.0	
NATOPS Check	1	3.0	
TOTALS (Less Flight School)	35	116.0	35.0

120.2. Core Skill Basic Training

CORE SKILL BASIC TRAINING By Stage	Events	Hours	CRP
Night Systems HI (NS(H))	4	8.0	1.8
Long Range Navigation (LRNAV)	4	24.0	1.0
Tactical Navigation (TACNAV)	8	16.0	3.2
Formation (FORM)	3	8.0	1.6
Threat Reaction IR (THRX(I))	2	4.0	0.8
Aerial Refueling (AR)	1	18.0	2.6
Assault Landing Zone (ALZ)	7	12.0	3.2
Rapid Ground Refueling (RGR)	1	0.0	0.8
TOTALS	37	88.0	15.0

120.3. Core Skill Advanced Training

CORE SKILL ADVANCED TRAINING By Stage	Events	Hours	CRP
Tactical Navigation (TACNAV)	4	8.0	4.4
Formation (FORM)	2	5.0	2.2
Threat Reaction Radar (THRX(R))	2	4.0	2.2
Aerial Refueling (AR)	3	7.0	2.3
Assault Landing Zones (ALZ)	1	2.0	2.3
Aerial Delivery (AD)	4	8.0	6.6
TOTALS	16	34.0	20.0

120.4. Core Plus Training

CORE PLUS TRAINING By Stage	Events	Hours	CRP
Formation (FORM)	1	3.0	0.7
Defensive Tactics (DEFTAC)	2	4.0	1.4
Air Refueling (AR)	1	6.0	0.8
Aerial Delivery (AD)	4	8.0	2.1
TOTALS	11	26.0	5.0

121. EVENT TRAINING: SERIES CONVERSION121.1. Core Skill Introduction Training

CORE SKILL INTRODUCTON TRAINING By Stage	Events	Hours	CRP
Basic Qualification (Flight School)	CNATRA Training		25.0
Track 1: JMAT approved curriculum			
Track 2			
Cockpit Systems and Procedures Training	11	27.0	
Familiarization & Instruments (FAI)	23	86.0	
NATOPS Check	1	3.0	
TOTALS (Less Flight School)	35	116.0	35.0

121.2. Core Skill Basic Training

CORE SKILL BASIC TRAINING By Stage	Events	Hours	CRP
Night Systems HI (NS(H))	4	8.0	1.8
Long Range Navigation (LRNAV)	4	24.0	1.0
Tactical Navigation (TACNAV)	8	16.0	3.2
Formation (FORM)	2	6.0	1.6
Threat Reaction Radar (THR(X(I)))	2	4.0	0.8
Aerial Refueling (AR)	6	12.0	2.6
Assault Landing Zone (ALZ)	5	8.0	3.2
Rapid Ground Refueling (RGR)	1	0.0	0.8
TOTALS	31	76.0	15.0

121.3. Core Skill Advanced Training

CORE SKILL ADVANCED TRAINING By Stage	Events	Hours	CRP
Tactical Navigation (TACNAV)	4	8.0	4.4
Formation (FORM)	1	3.0	2.2
Threat Reaction Radar (THR(X(R)))	2	4.0	2.2
Aerial Refueling (AR)	1	3.0	2.3
Assault Landing Zones (ALZ)	1	2.0	2.3
Aerial Delivery (AD)	4	8.0	6.6
TOTALS	13	28.0	20.0

121.4. Core Plus Training

CORE PLUS TRAINING By Stage	Events	Hours	CRP
Formation (FORM)	1	3.0	0.7
Defensive Tactics (DEFTAC)	2	4.0	1.4
Air Refueling (AR)	1	6.0	0.8
Aerial Delivery (AD)	4	8.0	2.1
TOTALS	8	21.0	5.0

122. EVENT TRAINING: REFRESHER122.1. Core Skill Introduction Training

CORE SKILL INTRODUCTON TRAINING By Stage	Events	Hours	CRP
Basic Qualification (Flight School)	CNATRA Training		25.0
Track 1: JMAT approved curriculum			
Track 2			
Cockpit Systems and Procedures Training	6	17.0	
Familiarization & Instruments (FAI)	22	86.0	
NATOPS Check	1	3.0	
TOTALS (Less Flight School)	29	116.0	35.0

122.2. Core Skill Basic Training

CORE SKILL BASIC TRAINING By Stage	Events	Hours	CRP
Night Systems HI (NS(H))	2	4.0	1.8
Long Range Navigation (LRNAV)	1	6.0	1.0
Tactical Navigation (TACNAV)	4	8.0	3.2
Formation (FORM)	1	3.0	1.6
Threat Reaction IR (THRX(I))	1	2.0	0.8
Aerial Refueling (AR)	6	12.0	2.6
Assault Landing Zone (ALZ)	3	6.0	3.2
Rapid Ground Refueling (RGR)	1	0.0	0.8
TOTALS	18	39.0	15.0

122.3. Core Skill Advanced Training

CORE SKILL ADVANCED TRAINING By Stage	Events	Hours	CRP
Tactical Navigation (TACNAV)	2	4.0	4.4
Formation (FORM)	1	3.0	2.2
Threat Reaction Radar (THRX(R))	1	2.0	2.2
Aerial Refueling (AR)	1	3.0	2.3
Assault Landing Zones (ALZ)	1	2.0	2.3
Aerial Delivery (AD)	4	8.0	6.6
TOTALS	10	22.0	20.0

122.4. Core Plus Training

CORE PLUS TRAINING By Stage	Events	Hours	CRP
Formation (FORM)	1	3.0	0.7
Defensive Tactics (DEFTAC)	1	2.0	1.4
Air Refueling (AR)	1	6.0	0.8
Aerial Delivery (AD)	2	4.0	2.1
TOTALS	5	15.0	5.0

123. EVENT TRAINING: MODIFIED REFRESHER123.1. Core Skill Introduction Training

CORE SKILL INTRODUCTON TRAINING By Stage	Events	Hours	CRP
Basic Qualification (Flight School)	CNATRA Training		25.0
Track 1: JMAT approved curriculum			
Track 2			
Cockpit Systems and Procedures Training	6	17.0	
Familiarization & Instruments (FAI)	22	86.0	
NATOPS Check	1	3.0	
TOTALS (Less Flight School)	29	116.0	35.0

123.2. Core Skill Basic Training

CORE SKILL BASIC TRAINING By Stage	Events	Hours	CRP
Night Systems HI (NS(H))	2	4.0	1.8

Long Range Navigation (LRNAV)	1	6.0	1.0
Tactical Navigation (TACNAV)	4	8.0	3.2
Formation (FORM)	1	3.0	1.6
Threat Reaction IR (THRX(I))	1	2.0	0.8
Aerial Refueling (AR)	6	12.0	2.6
Assault Landing Zone (ALZ)	3	6.0	3.2
Rapid Ground Refueling (RGR)	1	0.0	0.8
TOTALS	18	39.0	15.0

123.3. Core Skill Advanced Training

CORE SKILL ADVANCED TRAINING By Stage	Events	Hours	CRP
Tactical Navigation (TACNAV)	2	4.0	4.4
Formation (FORM)	1	3.0	2.2
Threat Reaction Radar (THRX(R))	1	2.0	2.2
Aerial Refueling (AR)	1	3.0	2.3
Assault Landing Zones (ALZ)	1	2.0	2.3
Aerial Delivery (AD)	4	8.0	6.6
TOTALS	10	22.0	20.0

123.4. Core Plus Training

CORE PLUS TRAINING By Stage	Events	Hours	CRP
Formation (FORM)	1	3.0	0.7
Defensive Tactics (DEFTAC)	1	2.0	1.4
Air Refueling (AR)	1	6.0	0.8
Aerial Delivery (AD)	2	4.0	2.1
TOTALS	5	15.0	5.0

125. GRADUATE LEVEL COURSES. There are 4 graduate level courses (DEFTACI, LATI, 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 Stage Instructors will be designated by commanding officers and will instruct in specific T&R mission types, such as LRNAV, FORM, TACNAV, AR, ALZ and AD.

130. EVENT PERFORMANCE REQUIREMENTS

1. General

a. The time required to train a KC-130J pilot to core capable will vary depending on previous pilot experience. Basic, Transition, and Model Conversion pilots should fly the entire syllabus. Series Conversion pilots should fly events coded with an SC. Refresher pilots represent a varying background and should fly flights coded with an R. Commanding officers will review the qualifications, previous experience, currency, and demonstrated ability of refresher pilots with a view towards waiving and/or combining required flights.

b. Once a pilot has completed Core Introduction training and maintains currency in type and model, no requirement exists to re-fly Core Introduction events.

c. All simulator training codes should be flown prior to the first flight in the aircraft for that stage/phase.

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

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

f. Flights annotated with an N shall be flown at night without NVDs. Flights annotated with an (N) may be flown at night without NVDs. Flights annotated with an NS shall be flown at night utilizing NVDs. Flights annotated with an (NS) may be flown at night utilizing NVDs.

g. 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.

h. For NS(H) 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 TLZ 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 NWP 3-22.5-KC-130, Vol. 1, Chapter 6 and Appendix H.

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

j. Non-DEFTAC qualified pilots who are conducting DEFTAC training as the PF or PM shall be instructed by a DEFTACI occupying the other pilot seat.

k. As a general rule, T3Ps should not be responsible for mission briefs, while TPCs should allow T2Ps to brief non-initial mission events.

2. Crew Resource Management (CRM). CRM shall be briefed for all flights and events.

131. CORE INTRODUCTION TRAINING

1. General. Upon completion of this phase of training, the pilot will be a NATOPS qualified Transport Third Pilot. The pilot will be capable of basic aircraft operation to include instrument flight, normal and emergency procedures, crew resource management and computer-based mission planning.

a. Two tracks exist to complete Core Introduction training. Track 1 is the joint USAF/USMC JMAT Phase I and Phase II curriculum. Refer to the approved JMAT curriculum for event details.

b. Track 2 training shall be utilized in the absence of JMAT (Track 1), if JMAT PTR is inadequate or for the Modified Refresher (MR) POI. The MR POI is identical to the Track 2 Refresher POI except for the exclusion of ground training prerequisites. A NATOPS/Assistant NATOPS Instructor shall administer all FAI aircraft executed events.

c. PUIs in both track 1 and 2 must complete KC-130J specific advanced technology aircraft CRM ground training. Track 1 students shall receive this training after completion of the JMAT curriculum. Track 2 students shall complete this training prior to CPT-016.

d. USAF JMATS training equivalent course codes are listed in parentheses.

2. Cockpit Systems and Procedures Training

a. Purpose. To familiarize the pilot with the cockpit, aircraft systems, normal and emergency checklists and procedures.

b. General. In the event of CAPTT/ASMT/WST non-availability, events should be conducted in the aircraft.

c. Crew Requirements. Pilot under instruction and additional pilot or student to occupy other seat.

d. Ground/Academic Training. JMAT approved ground training curriculum.

e. Flight and Simulator Event Training. (11 Events, 27.0 Hours)

CST-010 2.0 T,C,SC CAPTT/ASMT/CPT/WST/KC-130J S

Goal. To familiarize the pilot with cockpit systems and instrument panels, proper seat adjustment, and overall device familiarization.

Requirement. Introduce the pilot to aircraft systems hard panels and displays within the cockpit for the ACAWS, CNI-MU, Fuel System, Electrical System, Engine System and Status, APU, Ice Protection, ECB Panel, and FODS. (JMATS PIQ-J-12-03, PIQ-J-15-03)

Performance Standard. Satisfactory completion of events.

Prerequisite.

Ordinance.

External Syllabus Support.

- CST-011 2.0 T,C,SC CAPTT/ASMT/CPT/WST/KC-130J S
- Goal. To familiarize the pilot with cockpit systems, instrument panels and overall device familiarization.
- Requirement. Introduce the pilot to aircraft systems hard panels and displays within the cockpit for the Hydraulics and Flight Control Systems, Air Conditioning and Pressurization Systems, AMUs and HDDs, Standby Instrumentation, Interior and Exterior Lights, REF/MODE Select Panels, COMM/NAV Tuning, HUD's, Sideslip Warning System, GCAS, AFCS, TCAS/IFF, and Stall Warning and Identification Systems. (JMATS PIQ-J-10-09, PIQ-J-13-09)
- Performance Standard. Satisfactory completion of events.
- Prerequisite. CST-010
- Ordnance.
- External Syllabus Support.
-
- CST-012 2.0 T,C,SC CAPTT/ASMT/CPT/WST/KC-130J S
- Goal. To familiarize the pilot with cockpit systems, instrument panels and overall device familiarization.
- Requirements. Introduce the pilot to aircraft systems hard panels and displays within the cockpit for the CNI Soft Panels, Aircraft Performance and CNI Interface, Cursor Control Panel, Radar System, Digital Map Unit, and Miscellaneous Systems. (JMAT PIQ-J-09-10, PIQ-J-12-13)
- Performance Standard. Satisfactory completion of events.
- Prerequisite. CST-011
- Ordnance.
- External Syllabus Support.
-
- CST-013 2.0 T,C,SC CAPTT/ASMT/CPT/WST/KC-130J S
- Goal. To familiarize the pilot with cockpit systems, instrument panels and overall device familiarization.
- Requirement. Introduce the pilot to aircraft systems, hard panels and displays within the cockpit for the Oxygen System, ICS/PA System, AD System, and review previous systems introduced. (JMATS PIQ-J-15-13, PIQ-J-20-14)
- Performance Standard. Satisfactory completion of events.

Prerequisite. CST-012

Ordinance.

External Syllabus Support.

CST-014 2.0 T,C,SC CAPTT/ASMT/CPT/WST/KC-130J S

Goal. To familiarize the pilot with cockpit systems, instrument panels and overall device familiarization. Primary emphasis is on flight plan information and monitoring.

Requirements. Introduce the pilot to the entering, modifying, and monitoring the performance of a flight plan. (JMATS PIQ-5-05-13)

Performance Standard.

Prerequisite. CST-013

Ordinance.

External Syllabus Support.

CST-015 2.0 T,C,SC CAPTT/ASMT/CPT/WST/KC-130J S

Goal. To familiarize the pilot with cockpit system, instrument panels and overall device familiarization. Primary emphasis is on in-flight plan management and TOLD information.

Requirement. Continue to train the pilot in the use of the CNI-MU in-flight plan management. Vertical navigation in mission profiles and how to modify vertical navigation climb, cruise and descent profiles will be discussed. Holding pattern entry will be introduced. TOLD data entry will be introduced. (JMATS PIQ-J-20-14, PIQ-6-21-23)

Performance Standard. Satisfactory completion of events.

Prerequisite. CST-015

Ordinance.

External Syllabus Support.

CPT-016 3.0 T,C,R,SC CAPTT/CPT/WST/KC-130J S

Goal. Familiarize the pilot with cockpit preflight procedures, ACAWS messages, avionics displays, and expanded checklists.

Requirement. Introduce the pilot to all expanded checklists, basic flight plan entry and normal starts. (JMATS PIQ-C-09-02, PIQ-C-05-04)

Performance Standard. Satisfactory completion of events.

Prerequisite. CST-015

Ordnance.

External Syllabus Support.

CPT-017 3.0 T,C,R,SC CAPTT/CPT/WST/KC-130J S

Goal. Familiarize the pilot with cockpit preflight procedures, and normal checklists. Introduce ACS unique capabilities.

Requirement. Introduce the pilot to abbreviated checklists and soft panel operations. Introduce ACS capabilities and HDD-5 functionality. Introduce performance initialization and weight & balance entry. Practice all normal checklists and flight plan entry. (JMATS PIQ-C-06-05,PIQ-C-05-07)

Performance Standard. Satisfactory completion of events.

Prerequisite. CPT-016

Ordnance.

External Syllabus Support.

CPT-018 3.0 T,C,SC,R,MR CAPTT/CPT/WST/KC-130J S

Goal. Familiarize the pilot with engine start malfunctions and engine shutdown conditions.

Requirement. Introduce the pilot to engine start malfunctions, engine shutdown conditions and associated ACAWS messages. Practice all normal checklists, flight plan entry, performance initialization, and weight & balance entry. (JMATS PIQ-C-16-09)

Performance Standard. Satisfactory completion of events.

Prerequisite. CPT-017

Ordnance.

External Syllabus Support.

CPT-019 3.0 T,C,SC,R,MR CAPTT/CPT/WST/KC-130J S

Goal. Familiarize the pilot with flight and ground emergencies, fuel panel operations, and ATCS demonstration.

Requirements. Introduce the pilot to fuel panel operations, aborted takeoff procedures, and ATCS operations. Practice all normal checklists, flight plan entry, performance initialization, and weight & balance entry. (JMATS PIQ-C-05-12)

Performance Standard. Satisfactory completion of events.

Prerequisite. CPT-018

Ordnance.

External Syllabus Support.

CPT-099 3.0 T,C,SC,R,MR CAPTT/CPT/WST/KC-130J S

Goal. Familiarize the pilot with ground, in-flight emergencies, and BIU backup mode.

Requirement. Introduce the pilot to in-flight emergencies to include—fuel dumping procedures, air start procedures, crosswind takeoff procedures, ATCS inoperative procedures, and BIU backup mode. Practice all normal checklists, flight plan entry, performance initialization, and weight & balance entry. (JMATS PIQ-C-23-14)

Performance Standard. Satisfactory completion of events.

Prerequisite. CPT-019

Ordnance.

External Syllabus Support.

3. Familiarization and Instrument Training

a. Purpose. To attain and maintain the Familiarization Instrument Core Introduction skill. Upon completion of this stage the pilot will be introduced to the use of cockpit controls, aircraft systems, execution of normal and emergency checklists and procedures.

b. General.

(1) FAI-100 shall be completed prior to subsequent FAI evolutions. FAI evolutions should be completed in order.

(2) FAI-102, FAI-105, FAI-107, FAI-114 and FAI-116 may be completed using WST or KC-130J aircraft. If using KC-130J aircraft to complete these events, they shall be completed, in sequence, after all other FAI WST events listed.

(3) A minimum of two (N) coded flights shall be flown at night.

(4) Simulator only events (S) involving flying tasks shall be conducted in a WST.

c. Crew Requirements. P,CP, and one observer.

d. Ground/Academic Training. Prior to FAI-100, all initial/transition/conversion pilots shall complete an approved ground school course consisting of aircraft systems descriptions, normal and emergency procedures, cockpit resource management, computer-based mission planning, basic weight and balance, aircraft preflight and post-flight procedures, emergency evacuation procedures, bailout procedures, donning and use of all emergency equipment, aircrew/automation integration, the six functions of USMC Aviation and VMGR involvement, and the VMGR squadron mission statement and tasks. This training can be completed at an approved USMC conversion training facility or at USAF JMATS at Little Rock AFB, Arkansas

e. Flight and Simulator Training (23 Events, 86.0 Hours)

FAI-100 0.0 T,C,SC KC-130J A

Goal. Train the pilot in aircraft pre-flight inspection, ground evacuation procedures, PF/PM flows.

Requirement. Introduce pre-flight inspection, ground evacuation procedures, PF/PM flows. (JMATS PIQ-I-07-02)

Performance Standard. Per the NFM.

Prerequisite. CPT-099

Ordnance.

External Syllabus Support.

FAI-101 4.0 T,C,SC,R,MR WST S

Goal. Develop crewmember technical proficiency, refine KC-130J CRM skills, familiarize students with the basic handling qualities of the KC-130J, practice ground taxi operations, and practice visual traffic pattern and landings.

Requirement. Complete all checklist procedures, ground emergency procedures, rolling takeoff, abort, general aircraft handling, steep turns, power off stalls, slow flight, visual traffic pattern, 50%, 100%, and no flap landing, full stop landing, touch and go landing procedures, apply skill-based CRM principles during all phases. (JMATS PIQ-W-18-16)

Performance Standard. Per the NFM.

Prerequisite. FAI-100

Ordnance.

External Syllabus Support.

FAI-102

4.0 T,C,SC,R,MR WST/KC-130J S/A (N)

Goal. Develop crewmember technical proficiency, refine KC-130J CRM skills, familiarize students with the basic handling qualities of the KC-130J, practice ground taxi operations, and practice visual traffic pattern and landings.

Requirement. Complete all checklist procedures, ground emergency procedures, rolling takeoff, abort, general aircraft handling, steep turns, power off stalls, slow flight, visual traffic pattern, 50%, 100%, and no flap landing, full stop landing, touch and go landing procedures, apply skill-based CRM principles during all phases. (JMATS PIQ-W-14-16)

Performance Standard. Per the NFM.

Prerequisite. FAI-101, FAI-117 if executed in the aircraft

Ordnance.

External Syllabus Support. SUA coordination if executed in the aircraft.

FAI-103

4.0 T,C,SC,R,MR WST S

Goal. Continue flight training, CRM, and checklist responsibilities. Introduce CNI waypoint approach building and automation as applied instrument approach procedures. Fly normal instrument procedures as listed using all available navaids, procedures, and CRM to successfully maneuver the aircraft to land. CRM for two crewmember flight station is discussed and practiced.

Requirement. Complete all previously introduced checklists, ILS approaches, wind shear recovery procedures, 50% and 100% landings, apply skill-based CRM principles during all phases. (JMATS PIQ-W-09-11)

Performance Standard. Per the NFM.

Prerequisite. FAI-101.

Ordnance.

External Syllabus Support.

FAI-104

4.0 T,C,SC,MR WST S

Goal. Familiarize the pilot in radar and digital map procedures, practice weather avoidance, wind shear recovery, position updates, and digital map use on round robin flight. CRM for two crewmember flight station is discussed and practiced.

Requirement. Complete before takeoff through before leaving airplane checklists, holding procedures, NDB, ILS, and TACAN approaches, four engine missed approach, 50% and 100%

landings, touch and go landing practice, full stop, apply skill-based CRM principles during all phases. (JMATS PIQ-W-22-16)

Performance Standard. Per the NFM.

Prerequisite. FAI-103

Ordinance.

External Syllabus Support.

FAI-105

4.0 T,C,SC,R,MR WST/KC-130J S/A (N)

Goal. Continue flight training, CRM, and checklist responsibilities. Introduce CNI waypoint approach building and automation as applied instrument approach procedures. Fly normal instrument procedures as listed using all available nav aids, procedures, and CRM to successfully maneuver the aircraft to land. CRM for two crewmember flight station is discussed and practiced.

Requirement. Complete before takeoff through before leaving airplane checklists, holding procedures, NDB, ILS, and TACAN, ASR approaches, four engine missed approach, 50% and 100% landings, touch and go landing practice, full stop, visual traffic pattern, apply skill-based CRM principles during all phases. (JMATS PIQ-W-27-16)

Performance Standard. Per the NFM.

Prerequisite. FAI-104, FAI-117 if executed in the aircraft.

Ordinance.

External Syllabus Support.

FAI-106

4.0 T,C,SC,MR WST S

Goal. Introduce PFPS preflight mission planning and basic en route navigation, accomplish and discuss normal anti-ice and deice. CRM for two crewmember flight station is discussed and practiced.

Requirement. Complete before takeoff through before leaving airplane checklists, holding procedures, extract data from performance manual, avionics, bleed air, ice protection system practice, hydraulic procedures for certain ACAWS alerts, CNI route modification procedures, holding procedures, ILS, NDB approach procedures, 50% and 100 % landing procedures, full stop landing procedures, apply skill-based CRM principles during all phases. (JMATS PIQ-W-19-13)

Performance Standard. Per the NFM.

Prerequisite. FAI-104

Ordinance.

External Syllabus Support.

FAI-107

4.0

T,C,SC,R,MR WST/KC-130J S/A (N)

Goal. Continue training in en route systems management, PFPS flight planning and TOLD computations, use of controls, indicators, and systems associated with accomplishment of en route ops. Main system focus is CNI. CRM for two crewmember flight station is discussed and practiced.

Requirement. Complete before takeoff through before leaving airplane checklists, ILS, LOC BC, holding, SID, avionics ACAWS, bleed air ACAWS, radar system ACAWS procedures, TCAS warning procedures, 50% and 100% landings, visual traffic pattern, full stop, apply skill-based CRM principles during all phases. (JMATS PIQ-W-23-13)

Performance Standard. Per the NFM.

Prerequisite. FAI-106, FAI-117 if executed in the aircraft.

Ordnance.

External Syllabus Support.

FAI-108

4.0

T,C,SC,R,MR WST S

Goal. Emphasize handling engine out situations in the air, expanded aircrew checklists. Perform appropriate EP checklist procedures, interpret and manage multiple ACAWS messages, perform engine out approaches, landings, and go-around procedures, perform 0% landings. Asterisked items are emphasized. CRM for two crewmember flight station is discussed and practiced.

Requirement. Obtain normal and 3 engine TOLD, perform taxi through before landing checklists, ILS, slow flight procedures, propulsion system ACAWS, air start procedures, 50% and 100% landings, touch and go landings, asterisked engine shutdown procedure, visual traffic pattern, three engine go-around procedures, engine shutdown checklists, apply skill-based CRM principles during all phases. (JMATS PIQ-W-27-14)

Performance Standard. Per the NFM.

Prerequisite. FAI-106

Ordnance.

External Syllabus Support.

FAI-109

4.0

T,C,SC,R,MR WST S

Goal. Emphasize handling engine out situations in the air, expanded aircrew checklists. Perform appropriate EP checklist procedures, interpret and manage multiple ACAWS messages,

perform engine out approaches, landings, and go-around procedures, perform 0% landings. Asterisked items are emphasized. CRM for two crewmember flight station is discussed and practiced.

Requirement. Obtain normal, 3 engine, and 2 engine TOLD, perform taxi through after landing checklists, ILS, slow flight procedures, VMCA2 maneuver, propulsion system ACAWS, air start procedures, 0%, 50% and 100% landings, touch and go landings, engine fire shutdown and engine shutdown in flight emergencies, three engine go-around procedures, two engine approach and landing procedures, engine shutdown checklist, before leaving airplane checklist, apply skill-based CRM principles during all phases. (JMATS PIQ-W-31-14)

Performance Standard. Per the NFM.

Prerequisite. FAI-108

Ordnance.

External Syllabus Support.

FAI-110

4.0 T,C,SC,R,MR WST S

Goal. Emphasize handling multiple engine out situations in the air while continuing training in expanded aircrew checklists. Perform appropriate EP checklist procedures, interpret and manage multiple ACAWS messages, perform engine out approaches, landings, and go-around procedures, perform a 0% landing. Asterisked items are emphasized. CRM for two crewmember flight station is discussed and practiced.

Requirement. Obtain normal, 3 engine, and 2 engine TOLD, perform taxi through after landing checklists, SID, ILS, VMCA2 maneuver, holding, propulsion system ACAWS, electrical system ACAWS, electrical system EP, air start procedures, 0%, 50% and 100% landings, touch and go landings, fire/smoke/fumes elimination procedure, ground evacuation procedure, three engine landing procedures, three engine go around, three engine take-off procedure, two engine approach and landing procedures, full stop, engine shutdown checklist, before leaving airplane checklist, apply skill-based CRM principles during all phases. (JMATS PIQ-W-35-14)

Performance Standard. Per the NFM.

Prerequisite. FAI-109

Ordnance.

External Syllabus Support.

FAI-111

4.0 T,C,SC,R,MR WST S

Goal. Continue training in en route systems management. Use controls, indicators, and systems that are associated with the accomplishment of en route operations. Main system focus is

electrical and hydraulic. CRM for two crewmember flight station is discussed and practiced.

Requirement. Complete before takeoff through before landing procedures, rolling takeoff, TACAN, NDB approaches, missed approach, fuel system to complete primary fuel management, door and ramp system EP's, rapid decompression procedures, hydraulic EP's, propulsion system ACAWS, ATCS inoperative procedures, flight control system EP's, 50% and 100% landing procedures, full stop, apply skill-based CRM principles during all phases. (JMATS PIQ-W-27-13)

Performance Standard. Per the NFM.

Prerequisite. FAI-110

Ordnance.

External Syllabus Support.

FAI-112

4.0 T,C,SC,R,MR WST S

Goal. Continue training in en route systems management. Use controls, indicators, and systems that are associated with the accomplishment of en route operations. Main system focus is electrical and hydraulic. CRM for two crewmember flight station is discussed and practiced.

Requirement. Complete before takeoff through before landing procedures, rolling takeoff, constant rate climb and descent (VS), constant speed climb and descent (IAS), ILS approaches, holding, SID, STAR, SAR, ditching, fuel system ACAWS, ice protection ACAWS, propulsion system ACAWS, propulsion system EP's, electrical system ACAWS, fire/smoke/fumes elimination, air conditioner ACAWS, landing gear system EP's, 50% and 100% landing procedures, apply skill-based CRM principles during all phases. (JMATS PIQ-W-31-13)

Performance Standard. Per the NFM.

Prerequisite. FAI-111

Ordnance.

External Syllabus Support.

FAI-113

4.0 T,C,SC,R,MR WST S

Goal. Introduce all weather procedures to include: hot, dusty, operational and cold, wet, and wind shear procedures, icing operations, turbulence or thunderstorm penetrations, instrument take-offs and recoveries. CRM for two crewmember flight station is discussed and practiced.

Requirement. Complete power up to before leaving aircraft checklists, instrument take off, STAR, ILS, 50% and 100% landings, full stop landing, three engine approach and landing, wind shear recovery, weather avoidance, thunderstorm

penetration, hot weather, cold weather propulsion system EP's, apply skill-based CRM principles during all phases. (JMATS PIQ-W-26-16)

Performance Standard. Per the NFM.

Prerequisite. FAI-112

Ordnance.

External Syllabus Support.

FAI-114

4.0 T,C,SC,R,MR WST/KC-130J S/A (N)

Goal. Practice CNI waypoint approach building and automation as applied to instrument approach procedures. Fly normal instrument procedures as listed using all available navaids, procedures, and CRM to successfully maneuver the aircraft to land. CRM for two crewmember flight station is discussed and practiced.

Requirement. Complete before takeoff through approach checklists, ILS, TACAN, PAR, head down approach, circling approach, holding, fuel system to primary fuel management, avionics system ACAWS, missed approach, four engine go-around, before landing checklist, 50% and 100% landings, touch and go landings, visual landing pattern, full stop, after landing through before leaving airplane checklists, apply skill-based CRM principles during all phases. (JMATS PIQ-W-05-24)

Performance Standard. Per the NFM.

Prerequisite. FAI-113, FAI-117 if executed in the aircraft

Ordnance.

External Syllabus Support.

FAI-115

4.0 T,C,SC,R,MR WST S

Goal. Introduce BIU backup mode while continuing to train in checklist responsibilities by using the expanded aircrew checklist for BIU backup. Pilots perform appropriate emergency checklist procedures, interpret and manage ACAWS messages, and perform approaches and landings. Main system focus is avionics system. CRM for two crewmember flight station is discussed and practiced.

Requirement. Complete power up through after takeoff/climb checklists, complete BIU backup initial, descent, before landing, after landing, engine shutdown, and before leaving aircraft checklists, complete head down approach, avionics EP's, landing gear EP's, four engine go around, 50% and 100 % landings, full stop, apply skill-based CRM principles during all phases. (JMATS PIQ-W-12-18)

Performance Standard. Per the NFM.

Prerequisite. FAI-113

Ordnance.

External Syllabus Support.

FAI-116

4.0 T,C,SC,R,MR, E WST/KC-130J S/A

Goal. Emphasize handling multiple engine out situations in the air while continuing training in expanded aircrew checklists. Perform appropriate EP checklist procedures, interpret and manage multiple ACAWS messages, perform engine out approaches, landings, and go-around procedures, perform a 0% landing. Main focus is engine out instrument and visual landing pattern procedures. Asterisked items are emphasized. CRM for two crewmember flight station is discussed and practiced.

Requirement. Obtain normal, 3 engine, and 2 engine TOLD, perform before takeoff through after landing checklists, precision and non precision instrument approaches, VMCA2 maneuver, holding, propulsion system ACAWS, electrical system ACAWS, air start procedures, 0%, 50% and 100% landings, touch and go landings, ground evacuation procedure, three engine landing procedures, three engine go around, three engine take-off procedure, two engine approach and landing procedures, full stop, engine shutdown checklist, before leaving airplane checklist, apply skill-based CRM principles during all phases. (JMATS PIQ-W-15-18)

Performance Standard. Per the NFM and IFM.

Prerequisite. FAI-115, FAI-117 if executed in the aircraft

Ordnance.

External Syllabus Support.

FAI-117

4.0 T,C,SC,R,MR, E WST S

Goal. Demonstrate knowledge of en route systems management. Demonstrate CNI waypoint building and automation as applied instrument procedures to include ILS, normal instrument procedures and CRM to successfully maneuver the aircraft to land. Night visual landing will be emphasized. CRM for two crewmember flight station is discussed and practiced.

Requirement. Complete power up through before leaving airplane procedures, holding, avionics ACAWS, NDB, ILS, HI TACAN, four engine missed approach, touch and go landings, full stop, 50% and 100% landings, SID, STAR, ATCS inoperative, brake systems EP's, APU system ACAWS, emergency ground evacuation, apply skill-based CRM principles during all phases. (JMATS PIQ-W-19-18)

Performance Standard. Per the NFM and IFM.

Prerequisite. FAI-115

External Syllabus Support.

132. CORE BASIC TRAINING

1. General. Upon completion of this phase of training, the pilot will be qualified to operate day or night in the non-LAT (NSQ-HI) environment for the basic core skill mission areas. This includes tactical navigation(TACNAV) in an IR threat environment(THRX(I)), high altitude section formation(FORM), improved assault landing zone operations (ALZ), High Speed and Low Speed aerial refueling (AR), rapid ground refueling(RGR) operations and long range navigation (LRNAV). The focus will be in obtaining PILOT Flying (PF), PILOT Monitoring (PM) and Augment Crew Station (ACS) proficiency in these areas.

a. Basic (B), Transition (T) and Conversion (C) syllabus PILOTS entering Core Basic training must have completed JMATS Core Introduction Training; PILOT Initial Qualification (C-130JPIQ) and PILOT Mission Qualification (C-130JPMQ) phase II. Refresher (R) , Modified Refresher (MR) and Series Conversion (SC) pilots may complete the non-JMATS Core Introduction syllabus until the establishment of the appropriate JMATS curriculum.

b. Pilots receiving initial training as the PF, PM or ACS shall be instructed by current Squadron Stage Instructors (SIs) unless a requirement for a LATI, NSI, WTI, or NI/ANI is specified in the stage or event. Once a pilot has completed the initial event, subsequent events may be flown with proficient aircrew.

c. Pilots conducting NS(H) training shall be instructed by an NSI for all NVD events until qualified NSQ(H). After NSQ(H), subsequent initial NVD events may be flown with a proficient NSQ(H) TPC as long as the prerequisites for the event are met.

d. At the discretion of the Commanding Officer, NSQ(H) aircrew may conduct any night or night optional non-LAT event with the aid of NVDs.

e. Simulator events shall be conducted with either an appropriate squadron instructor or an appropriately qualified contract simulator instructor (CSI).

f. 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.

2. Night Systems.

a. Purpose. To attain and maintain the Night Systems Core Basic skill. Upon completion of this phase, the pilot will be capable of operations using NVDs during HLL or LLL conditions in the NSQ(H)(non-LAT) environment.

b. General.

(1) The NSQ(H) qualification syllabus consists of SNS(H)-003, SNS(H)-004, NS(H)-203, NS(H)-204, TACNAV-224, TACNAV-225 and requires 10 hours of total NVD time with at least 5 hours of Low Light Level (LLL) time. Pilots successfully completing these requirements may be issued an appropriate qualification letter by the squadron commander and log RQD-603.

(2) Series Conversion pilots that were previously designated NSQ may be issued the NSQ(H) qualification letter and log RQD-603 upon successful completion of NS(H)-203 and NS(H)-204 and NSI recommendation.

- c. Crew Requirements. NATOPS minimum crew unless otherwise required.
- d. Ground/Academic Training. MAWTS-1 NVD ASP courses and NITE lab.
- e. Flight and Simulator Event Training (4 Events, 8.0 Hours)

SNS(H)-003 2.0 T,C,SC WST S NS

Goal. HLL NVD techniques

Requirement. Discuss/Introduce the donning and wearing of ANVIS-9 NVDs to include the use of oxygen mask with helmets/NVDs. Discuss ANVIS-9G and ANVIS-9R NVD performance differences. Discuss normal and emergency procedures for the ANVIS-9G. Demonstrate flight station lighting with NVDs to include normal and NVIS modes. Demonstrate NVD performance in the HLL environment as well as effects of shadowing, cultural lighting and weather on NVD performance

Performance Standard. Satisfactory completion of events.

Prerequisite. MAWTS-1 NVD ASP courses and NITE lab.

External Syllabus Support. WST Simulator and CSI.

SNS(H)-004 2.0 T,C,SC WST S NS

Goal. LLL NVD techniques

Requirement. Review the donning and wearing of ANVIS-9 NVDs to include the use of oxygen mask with helmets/NVDs. Review normal and emergency procedures for the ANVIS-9G. Review flight station lighting with NVDs to include normal and NVIS modes. Demonstrate NVD performance in the LLL environment as well as effects of shadowing, cultural lighting and weather on NVD performance

Performance Standard. Satisfactory completion of events.

Prerequisite. SNS(H)-003

Ordinance.

External Syllabus Support. WST Simulator and CSI.

NS(H)-203 2.0 T,C,SC,R KC-130J A NS

Goal. HLL NVD Operations

Requirement. Preflight shall include a flight station, cargo compartment and exterior lighting demonstration with NVDs. Emphasis shall be placed on the interaction between aircraft lighting with normal, NVIS and covert modes. Donning NVDs, and the use of oxygen mask with helmets/NVDs shall be practiced to proficiency. Ground operations shall include NVD taxi procedures and aircraft reversing. Flight procedures shall include takeoff, cockpit orientation at altitude, landings,

aircraft operations, and NVD aircrew coordination. The flight should be conducted to emphasize variations that occur with different terrain/water, cultural lighting and altitudes (above 1000 AGL). Conduct a minimum of 4 touch and gos and 1 full stop landing on a hard surface runway as the PF.

Performance Standard. Satisfactory completion per NFM, KC-130J TTP (AS REQUIRED), and OPNAVINST 3710.7_.

Prerequisite. MAWTS-1 NVD ASP ground instruction and NITE lab. SNS(H)-003.

Ordnance.

External Syllabus Support. Airfield capable of lights out operations.

NS(H)-204 2.0 T,C,SC,R KC-130J A NS

Goal. LLL NVD Operations

Requirement. Conduct all operations included in NS(H)-203 under LLL conditions.

Performance Standard. Satisfactory completion per NFM, KC-130J TTP (AS REQUIRED), and OPNAVINST 3710.7_.

Prerequisite. SNS(H)-004, NS(H)-203.

Ordnance.

External Syllabus Support. Airfield capable of lights out operations.

3. Long Range Navigation

a. Purpose. To attain and maintain the long range navigation Core Basic skill. Upon completion of this phase, the pilot will be capable of flying to and from all ICAO environments during day or night.

b. General.

c. Crew Requirements. NATOPS minimum crew unless otherwise required.

d. Academic/Ground Training. Review use of PFPS mission planning, OPARS, CNI-MU functionality, radar operation, ICAO procedures, FLIP GP/APs, the Foreign Clearance Guide, NATOPS cruise profiles, and appropriate aircraft systems CBT modules.

e. Flight and Simulator Training (4 Events, 24.0 Hours)

LRNAV-210 6.0 T,C,SC KC-130J/WST A/S (N)

Goal. Introduce long-range, non-radar, ICAO environment procedures utilizing a constant TAS cruise profile.

Requirement. Introduce long range navigation constant TAS

profile flight planning using flight weather packets, OPARS/PFPS mission planning, diplomatic clearances and appropriate publications. Practice use of FLIP enroute flight publications, coast out procedures, fuel management procedures, non-radar HF/SELCAL voice procedures.

Performance Standard. Satisfactory completion of the procedures per the NFM, and FLIP Publications.

Prerequisite. Review NFM, Long Range Navigation Course and appropriate system CBTs.

Ordnance.

External Syllabus Support. Diplomatic/Flight Clearance.

LRNAV-211

6.0 T,C,SC KC-130J/WST A/S (N)

Goal. Introduce long-range, non-radar, ICAO environment procedures utilizing a long range cruise profile.

Requirement. Introduce long range navigation long range cruise profile flight planning using flight weather packets, OPARS/PFPS mission planning, diplomatic clearances and appropriate publications. Practice use of FLIP enroute flight publications, coast out procedures, fuel management procedures, non-radar HF/SELCAL voice procedures.

Performance Standard. Satisfactory completion of the procedures per the NFM, and FLIP Publications.

Prerequisite. Review NFM, Long Range Navigation Course and appropriate system CBTs.

Ordnance.

External Syllabus Support. Diplomatic/Flight Clearance.

LRNAV-212

6.0 T,C,SC KC-130J/WST A/S (N)

Goal. Introduce long-range, non-radar, ICAO environment procedures utilizing a max continuous power cruise profile.

Requirement. Introduce long range navigation maximum continuous power profile flight planning using flight weather packets, OPARS/PFPS mission planning, diplomatic clearances and appropriate publications. Practice use of FLIP enroute flight publications, coast out procedures, fuel management procedures, non-radar HF/SELCAL voice procedures.

Performance Standard. Satisfactory completion of the procedures per the NFM, and FLIP Publications.

Prerequisite. Review NFM, Long Range Navigation Course and appropriate system CBTs.

Ordnance.

External Syllabus Support. Diplomatic/Flight Clearance.

LRNAV-213 6.0 T,C,SC,R 1 KC-130J/WST A/S (N)

Goal. Review long-range, non-radar, ICAO environment procedures.

Requirement. Practice long range navigation flight planning using flight weather packets, OPARS/PFPS mission planning, diplomatic clearances and appropriate publications. Practice use of FLIP enroute flight publications, coast out procedures, fuel management procedures, non-radar HF/SELCAL voice procedures.

Performance Standard. Satisfactory completion of the procedures per the NFM, and FLIP Publications.

Prerequisite. LRNAV-210, LRNAV-211, LRNAV-212

Ordnance.

External Syllabus Support. Diplomatic/Flight Clearance.

4. Tactical Navigation

a. Purpose. To attain and maintain the Tactical Navigation Core Basic skill. Upon completion of this phase, the pilot will be capable of single ship tactical ingress and egress of mission objective areas during day or night. This includes using CNI TIME-NAV for time constraints, tactical maneuvering and high/low altitude navigation in the non-LAT environment.

b. General.

c. Crew Requirements. PF, PM, ACS, and two observers.

d. Academic/Ground Training. Receive training in the MAWTS-1 Tactical Mission Planning & Low Level Navigation Operations and LAT Maneuvering ASPs by an appropriate stage instructor or WTI. Review NATOPS Flight Manual, KC-130 Operational Guide and appropriate aircraft systems CBT modules.

e. Flight and Simulator Training (8 Events, 16.0 Hours)

STACNAV-020 2.0 T,C,SC WST S

Goal. Introduce tactical ingress/egress

Requirement. Plan and execute a VFR navigation route on a published MTR. The route shall consist of at least six waypoints. Emphasize mission planning procedures, AP/1B usage, Tactical Manual/Operational Guide requirements, SLAP, BASH, PFPs, TASM/AWE and CNI-MU management. In-flight procedures should emphasize HUD symbology, short and long term target speeds, AHD/BHD time, change in vertical/speed profile, tactical pilotage techniques and DIGIMAP/radar MAP mode familiarity. Minimum altitude per T&R Program non-LAT minimums but not lower than comfort level.

Performance Standard. Satisfactory completion of the

procedures per the NFM, KC-130 TACMAN, and Operational Guide.

Prerequisite. MAWTS-1 Tactical Mission Planning & Low Level Navigation Operations ASP.

Ordnance.

External Syllabus Support. WST simulator and CSI.

STACNAV-021 2.0 T,C,SC WST S

Goal. Introduce Tactical TIME NAV.

Requirement. Plan and execute a VFR navigation route of at least six waypoints with at least one time constrained waypoint at the ACS. Route should be conducted within SUAS. Emphasize mission planning procedures, AP-1/A usage, chart construction, Tactical Manual/Operational Guide requirements, SLAP, BASH, PFPS, TASM/AWE and CNI-MU management. In-flight procedures should emphasize CNI LEGS, CNI PROGRESS, CNI TIME NAV, vertical profile and input/modification of Time on Target. Minimum altitude per T&R Program non-LAT minimums but not lower than comfort level.

Performance Standard. Satisfactory completion of the procedures per the NFM, KC-130 TACMAN, and Operational Guide.

Prerequisite. STACNAV-020

Ordnance.

External Syllabus Support. WST simulator and CSI.

STACNAV-022 2.0 T,C,SC WST S

Goal. Advanced tactical TIME NAV.

Requirement. Plan and execute a VFR navigation route of at least six waypoints with at least one time constrained waypoint at the ACS. Route should be conducted within SUAS. Emphasis should be placed on PFPS, TASM/AWE, CNI-MU management, CNI TIME NAV, Vertical profile. Incorporate mission constraints that require in-flight changes to the TIME NAV functions. Minimum altitude per T&R Program non-LAT minimums but not lower than comfort level.

Performance Standard. Satisfactory completion of the procedures per the NFM, KC-130 TACMAN, and Operational Guide.

Prerequisite. STACNAV-021

Ordnance.

External Syllabus Support. WST simulator and CSI.

STACNAV-023 2.0 T,C,SC WST S

Goal. Introduce Tactical Maneuvering.

Requirement. Discuss aircraft limitations that are applicable for high load factor maneuvering. Emphasize principles of energy management and masking techniques. Introduce bunts, jinks in response to small arms/AAA, ridgeline crossings, zoom climbs, terrain clearance turns, hard turns, and break turns. Minimum altitude per T&R Program non-LAT minimums but not lower than comfort level.

Performance Standard. Satisfactory completion of the procedures per the NFM, KC-130 TACMAN, and Operational Guide.

Prerequisite. STACNAV-020, MAWTS-1 LAT Maneuvering ASP

Ordnance.

External Syllabus Support. WST simulator and CSI.

TACNAV-222

2.0 T,C,SC,R KC-130J/WST A/S (N)

Goal. Tactical TIME NAV.

Requirement. Plan and execute a VFR navigation route of at least six waypoints with at least one time constrained waypoint at the ACS. Route should be conducted within SUAS. Emphasis should be placed mission planning procedures, CNI-MU management, CNI TIME NAV and Vertical profile. Incorporate mission constraints that require in-flight changes to route and time on target. Minimum altitude per T&R Program non-LAT minimums but not lower than comfort level.

Performance Standard. Satisfactory completion of the procedures per the NFM, KC-130 TACMAN, and Operational Guide.

Prerequisite. STACNAV-022

Ordnance.

External Syllabus Support. Appropriate Warning/Restricted/Military Operating areas scheduled.

TACNAV-223

2.0 T,C,SC,R KC-130J/WST A/S

Goal. Tactical Navigation.

Requirement. Plan and execute a VFR navigation route on a published MTR or appropriate SUAS. The route shall consist of at least six waypoints. Emphasize mission planning procedures, AP/1A/B usage, Tactical Manual/Operational Guide requirements, SLAP, BASH, PFPS, TASM/AWE and CNI-MU management. Review HUD symbology, short and long term target speeds, AHD/BHD time, change in vertical/speed profile, tactical pilotage techniques and DIGIMAP/radar MAP mode familiarity. Discuss aircraft limitations that are applicable for high load factor maneuvering. Emphasize principles of energy management and masking techniques. Practice bunts, jinks, ridgeline crossings, zoom climbs, terrain clearance turns, hard turns, and break turns. Minimum altitude per T&R Program non-LAT minimums but not lower than comfort level.

Initial event shall be completed in the aircraft.

Performance Standard. Satisfactory completion of the procedures per the NFM, KC-130 TACMAN, and Operational Guide.

Prerequisite. STACNAV-023

Ordnance.

External Syllabus Support. Published and scheduled VR/IR/SR route or appropriate Warning/Restricted/Military Operating areas.

TACNAV-224

2.0 T,C,SC,R KC-130J/WST A/S NS

Goal. HLL Tactical Navigation.

Requirement. Plan and navigate a Low Level route of at least six checkpoints at night during high light conditions. Specific emphasis shall be placed on SLAP light level planning, BASH, effects of high/low contrast terrain, high/low albedo terrain, shadowing, cultural lighting, and weather. Minimum altitude per T&R Program non-LAT minimums but not lower than comfort level. Initial event shall be completed in the aircraft and instructed by a NSI.

Performance Standard. Satisfactory completion of the procedures per the NFM, KC-130 TACMAN, and Operational Guide.

Prerequisite. TACNAV-223, NS(H)-203

Ordnance.

External Syllabus Support. Published and scheduled VR/IR/SR route or appropriate Warning/Restricted/Military Operating areas.

TACNAV-225

2.0 T,C,SC,R KC-130J/WST A/S NS

Goal. LLL Tactical Navigation.

Requirement. Plan and navigate a Low Level route of at least six checkpoints at night during low light conditions. Specific emphasis shall be placed on SLAP light level planning, BASH, effects of high/low contrast terrain, high/low albedo terrain, shadowing, cultural lighting, and weather. Minimum altitude per T&R Program minimums but not lower than comfort level. Initial event shall be completed in the aircraft and instructed by a NSI.

Performance Standard. Satisfactory completion of the procedures per the NFM, KC-130 TACMAN, and Operational Guide.

Prerequisite. TACNAV-224, NS(H)-204

Ordnance.

External Syllabus Support. Published and scheduled VR/IR/SR route or appropriate Warning/Restricted/Military Operating areas.

5. Formation

a. Purpose. To attain and maintain the section formation Core Basic skill. Upon completion of this phase, the pilot will be capable of flying in the Lead or Dash-2 position during high or low altitude tactical ingress/egress in day or night conditions.

b. General.

c. Crew Requirements. PF, PM and two observers.

d. Academic/Ground Training. Review NATOPS Flight Manual, KC-130 Operational Guide and appropriate aircraft systems CBT modules.

e. Flight and Simulator Training (5 Events, 13.0 Hours)

SFORM-030 2.0 T,C WST S

Goal. Introduce basic section formation procedures

Requirement. Demonstrate position cues, normal and emergency procedures for section formation. Emphasis will be placed on communication procedures, ground operations, take-off, join/rendezvous, tanker formations, tactical formations, lead change, under runs, section recoveries, planned weather penetration, lost-sight and inadvertent weather penetration procedures. Demonstrate and practice procedures for handling individual aircraft emergencies while in formation. Event should include day, night unaided, HLL and LLL aided conditions.

Performance Standard. Satisfactory completion of the procedures per the NFM, KC-130 TACMAN, and Operational Guide.

Prerequisite.

Ordnance.

External Syllabus Support. WST simulator and CSI.

FORM-231 3.0 T,C,SC,R 2 KC-130J/WST A/S (N) (NS)

Goal. Introduce section formation procedures

Requirement. Demonstrate position cues, normal and emergency procedures for section formation. Emphasis will be placed on communication procedures, ground operations, take-off, join/rendezvous, tanker formations, tactical formations, tactical turns, concepts of mutual support, lead changes, under runs, section recoveries, planned weather penetration, lost-sight and inadvertent weather penetration procedures. Demonstrate and practice procedures for handling individual aircraft emergencies while in formation. Initial event should be conducted during daytime.

Performance Standard. Satisfactory completion of the procedures per the NFM, KC-130 TACMAN, and Operational Guide.

Prerequisite. SFORM-030, SFORM-031, FORM-232 if flown NVD.

Ordnance.

External Syllabus Support. Appropriate
Warning/Restricted/Military Operating areas scheduled.

FORM-232 3.0 T,C,SC 2 KC-130J/WST A/S NS

Goal. Night Section formation procedures.

Requirement. Practice position cues, normal and emergency procedures for section formation at night. Emphasis will be placed on communication procedures, ground operations, take-off, join/rendezvous, tanker formations, tactical formations, tactical turns, concepts of mutual support, lead changes, under runs, section recoveries, planned weather penetration, lost-sight and inadvertent weather penetration procedures. Demonstrate and practice procedures for handling individual aircraft emergencies while in formation. Event may be conducted in HLL or LLL conditions and should introduce both aided and unaided formation procedures. This is a one time flight event and shall be instructed by a Formation Stage Instructor.

Performance Standard. Satisfactory completion of the procedures per the NFM, KC-130 TACMAN, and Operational Guide.

Prerequisite. FORM 231, RQD-603 or flow with a NSI.

Ordnance.

External Syllabus Support. Appropriate
Warning/Restricted/Military Operating areas scheduled.

6. Threat Reaction

a. Purpose. To attain and maintain the Core Basic Skill of threat reaction in a low to medium infrared (IR) threat environment. Upon completion of this phase, the pilot will be capable of flying in a ground IR threat environment during day or night.

b. General.

- (1) Aircraft must have fully operational ASE suite.
- (2) Appropriate Flares must be loaded prior to flight.
- (3) Appropriate ground threat simulators.

c. Crew Requirements. PF, PM, ACS, and two observers.

d. Academic/Ground Training. Review the NFM, Operational Supplement and the MAWTS-1 KC-130 Aircraft Survivability Equipment and Tactical Crew Coordination ASPs. Review the DECM CBT and PTT.

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

STHRX(I)-040 2.0 T,C,SC WST S

Goal. Introduce Ground IR threat.

Requirement. Introduce the counter measures dispensing system (ALE-47) setup, the missile warning system (AAR-47) setup, HUD/HDD symbology 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 ALE-47. Threat reaction maneuvering should include the take-off, cruise and approach phases of flight.

Performance Standard. Satisfactory execution of procedures per the NFM, and Operational Guide.

Prerequisite. TACNAV-223, MAWTS-1 KC-130 Aircraft Survivability Equipment ASP, Review of DECM CBT and PTT.

Ordnance.

External Syllabus Support. WST simulator and CSI.

THR(XI)-240 2.0 T,C,SC,R KC-130J/WST A/S (N) (NS)

Goal. Ground IR threat.

Requirement. Introduce the counter-measures dispensing system (ALE-47) setup, the missile warning system (AAR-47) setup, HUD/HDD symbology 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 ALE-47. Threat reaction maneuvering should include the take-off, cruise and approach phases of flight.

Performance Standard. Satisfactory execution of procedures per the NFM, and Operational Guide.

Prerequisite. STHR(XI)-040, (RQD-603 or TACNAV-225 and flown with a NSI if NVD).

Ordnance. 240 MJU-8 Training Flares.

External Syllabus Support. Scheduled appropriate counter-measures range.

7. Aerial Refueling.

a. Purpose. To attain and maintain the Aerial Refueling Core Basic skill. Upon completion of this phase, the pilot will be capable of single ship fixed wing, tilt rotor, and rotary wing aerial refueling operations in the day and night environment.

b. General.

(1) Upon completion of AR-255 and AR-256 a pilot may be recommended for AR ACS qualification (RQD-650).

c. Crew Requirements. PF, PM, ACS, and one observer per operated aerial refueling pod.

d. Ground/Academic Training. Complete the Aerial Refueling System Academic Course and the MAWTS-1 Tactical AR Courseware by an appropriate stage instructor or WTI. Review NFM, NATOPS flight manual supplements, NATOPS Air-to-Air Refueling Manual, KC-130 Operational Guide, and appropriate aircraft systems CBT modules.

e. Flight and Simulator Event Training (12 Events, 24 Hours).

SAR-050 2.0 T,C WST S

Goal. Introduce fixed-wing AR procedures.

Requirement. Conduct aerial refueling mission planning requirements using PFPS and receiver aircraft considerations. Discuss and introduce rendezvous procedures, radio procedures, tanker/receiver management and emergency procedures related to fixed wing aerial refueling. Discuss EMCON procedures.

Performance Standard. Satisfactory completion of the procedures per the NFM, AR Manual, and KC-130 TACMAN.

Prerequisite. Aerial Refueling Systems course and MAWTS-1 Tactical AR ASP.

Ordnance.

External Syllabus Support. WST Simulator and CSI.

SAR-051 2.0 T,C WST S

Goal. Introduce tilt rotor AR procedures.

Requirement. Conduct aerial refueling mission planning requirements using PFPS and receiver aircraft considerations. Discuss and introduce rendezvous procedures, radio procedures, tanker/receiver management and emergency procedures related to tilt rotor aerial refueling. Discuss EMCON procedures.

Performance Standard. Satisfactory completion of the procedures per the NFM, AR Manual, and KC-130 TACMAN.

Prerequisite. Aerial Refueling Systems course and MAWTS-1 Tactical AR ASP.

Ordnance.

External Syllabus Support. WST Simulator and CSI.

SAR-052 2.0 T,C WST S

Goal. Introduce rotary wing AR procedures.

Requirement. Conduct aerial refueling mission planning requirements using PFPS and receiver aircraft considerations. Discuss and introduce rendezvous procedures, radio procedures, tanker/receiver management and emergency procedures related to rotary wing aerial refueling. Discuss EMCON procedures.

Performance Standard. Satisfactory completion of the

procedures per the NFM, AR Manual, and KC-130 TACMAN.

Prerequisite. Aerial Refueling Systems course and MAWTS-1 Tactical AR ASP.

Ordnance.

External Syllabus Support. WST Simulator and CSI.

SAR-053

2.0 T,C,SC,R WST S

Goal. Introduce ACS high speed drogue AR procedures.

Requirement. Introduce normal operation of the refueling system during refueling operations. Emphasis should be on normal procedures, alternate procedures, system limitations and emergency procedures as they pertain to a Fixed Wing/Tilt Rotor AR. In the event a WST is not available, this event should be executed in the aircraft.

Performance Standard. Satisfactory completion of the procedures per the NFM, AR Manual, and KC-130 TACMAN.

Prerequisite. SAR-050 or SAR-051.

Ordnance.

External Syllabus Support. WST Simulator and CSI.

SAR-054

2.0 T,C,SC,R WST S

Goal. Introduce ACS low speed drogue AR procedures.

Requirement. Introduce normal operation of the refueling system during refueling operations. Emphasis should be on normal procedures, alternate procedures, system limitations and emergency procedures as pertains to a Rotary Wing AR. In the event a WST is not available, this event should be executed in the aircraft under day VMC conditions.

Performance Standard. Satisfactory completion of the procedures per the NFM, AR Manual, and KC-130 TACMAN.

Prerequisite. SAR-052.

Ordnance.

External Syllabus Support. WST Simulator and CSI.

AR-250

2.0 T,C,SC,R 1 KC-130J/WST A/S (N) (NS)

Goal. FW/TR AR procedures.

Requirement. Conduct single tanker FW or TR aerial refueling. Emphasis should be on mission planning using PFPS and receiver aircraft considerations. Discuss emergency procedures related to air refueling. Conduct single tanker rendezvous procedures,

radio procedures and receiver management. EMCON procedures should be introduced for the completion of the initial syllabus event. The initial event shall be completed under daylight conditions in an aircraft (Not a WST). Event may be conducted with NVDs at night.

Performance Standard. Satisfactory completion of the procedures per the NFM, AR Manual, and KC-130 TACMAN.

Prerequisite. SAR-050 and SAR-051.
(NSQ(H) or flown with a NSI if NVD)

Ordnance.

External Syllabus Support. Fixed wing or Tilt Rotor receiver aircraft.

AR-251

2.0 T,C,SC,R 1 KC-130J/WST A/S

Goal. RW AR procedures.

Requirement. Conduct single tanker RW aerial refueling. Emphasis should be on mission planning using PFPS and receiver aircraft considerations. Conduct rotary wing rendezvous procedures(PF), radio procedures(PM), tanker/receiver management(PM). Discuss emergency procedures related to air refueling. Flight will be conducted in day VMC conditions. EMCON procedures should be introduced for the completion of the initial syllabus event. Review RAC responsibilities. A minimum of three (3) rendezvous as the pilot flying (PF) are required for initial qualification. The initial event shall be completed under daylight conditions in an aircraft (Not a WST).

Performance Standard. Satisfactory completion of the procedures per the NFM, AR Manual, and KC-130 TACMAN.

Prerequisite. SAR-052
(NSQ(H) or flown with a NSI if NVD)

Ordnance.

External Syllabus Support. Rotary Wing receiver aircraft.

AR-252

2.0 T,C,SC,R 1 KC-130J/WST A/S N (NS)

Goal. Night RW AR procedures.

Requirement. Conduct single tanker RW aerial refueling at night. Emphasis should be on mission planning using PFPS and receiver aircraft considerations. Conduct rotary wing rendezvous procedures(PF), radio procedures(PM), tanker/receiver management(PM). Discuss emergency procedures related to air refueling. Flight may be conducted in HLL or LLL conditions. A minimum of (3) rendezvous as the pilot flying (PF) are required and shall include one unaided rendezvous. This is a one time flight event and shall be instructed by an AR stage instructor.

Performance Standard. Satisfactory completion of the procedures per the NFM, AR Manual, and KC-130 TACMAN.

Prerequisite. AR-251, NS-603 or flown with an NSI.

Ordnance.

External Syllabus Support. Rotary Wing receiver aircraft.

AR-253

2.0

T,C,SC,R 1 KC-130J/WST A/S (N) (NS)

Goal. AR System procedures.

Requirement. Operate the aerial refueling system with either high speed or low speed drogues (as required) during aerial refueling from the ACS. Emphasis should be placed on functional knowledge and use of the refueling system; to include system limitations and normal, emergency and alternate procedures.

Performance Standard. Satisfactory completion of the procedures per the NFM, AR Manual, and KC-130 TACMAN\

Prerequisite. SAR-053, SAR-054,
(NSQ(H) or flown with a NSI if NVD)

Ordnance.

External Syllabus Support. FW, TR or RW receiver aircraft.

8. Assault Landing Zone (ALZ)

a. Purpose. To attain and maintain the Core Basic Skill of operating from an improved Assault Landing Zone. Upon completion of this phase, the pilot will be capable of Assault Landing Zone operations to an improved surface airfield. PILOT will be knowledgeable of unimproved airfield considerations and capable of PM duties in unimproved operations during day or night.

b. General.

c. Crew Requirements. PF, PM, and one observer.

d. Academic/Ground Training. Review the NFM, Tactical Manual, Operational Guide and the MAWTS-1 KC-130 Temporary Landing Zone Operations ASP. Attend Self Contained Approach Ground Training.

e. Flight and Simulator Training (6 Events, 10.0 Hours)

SALZ-060

2.0

T,C WST S

Goal. Introduce ALZ Operations.

Requirement. Introduce LZ markings, airfield capabilities, ground floatation, minimum runway requirements and ground

operations. The PILOT should be trained in crew coordination with respect to ALZ operations. Introduce maximum effort take-offs, landings and obstacle clearance criterion with respect to TOLD. Perform a minimum of four (4) touch and go landings, plus at least one maximum effort full stop landing and one maximum effort takeoff. Introduce Combat Offload Procedures. Review appropriate NFM performance charts, Tactical Manual and Operational Supplement.

Performance Standard. Satisfactory execution of procedures per the NFM, and Operational Guide.

Prerequisite. MAWTS-1 KC-130 Temporary Landing Zone Operations ASP.

External Syllabus Support. WST simulator and CSI.

SALZ-061

2.0 T,C WST S N (NS)

Goal. Introduce Night ALZ Operations.

Requirement. Introduce night ALZ operations to include LZ markings, ground operations, crew coordination with respect to ALZ operations, maximum effort take-offs and maximum effort landings. Review max effort TOLD computations. Review appropriate NFM performance charts, Tactical Manual and Operational Supplement. HLL, LLL NVD and unaided operations shall be introduced.

Performance Standard. Satisfactory execution of procedures per the NFM, and Operational Guide.

Prerequisite. SALZ-060

Ordnance.

External Syllabus Support. WST simulator and CSI.

SALZ-062

2.0 T,C,SC WST S (N)

Goal. Introduce tactical arrivals.

Requirement. Introduce use of random high, random low/shallow and self contained approaches. Emphasize terrain study with respect to ingress/egress of the terminal area and method of arrival based on threat. At least one self contained approach will be developed and constructed for use. Introduce use of the Integrated Precision Radar Approach (IPRA) and LZ functions of the CNI-MU.

Performance Standard. Satisfactory execution of procedures per the NFM, Tactical Manual and Operational Guide.

Prerequisite. SALZ-060

Ordnance.

External Syllabus Support. WST simulator and CSI.

ALZ-260

2.0 T,C,SC,R KC-130J/WST A/S (N)

Goal. Improved ALZ Operations.

Requirement. Review LZ markings, airfield capabilities, ground floatation, minimum runway requirements and ground operations. Practice crew coordination with respect to ALZ operations. Practice maximum effort take-offs, landings and obstacle clearance criterion with respect to TOLD. Perform a minimum of four (4) touch and go landings, plus at least one maximum effort full stop landing and one maximum effort takeoff. Practice tactical arrivals. Initial event should be conducted during the day. Review appropriate NFM performance charts, Tactical Manual and Operational Supplement.

Performance Standard. Satisfactory execution of procedures per the NFM, and Operational Guide.

Prerequisite. SALZ-060, SALZ-062, (ALZ-261), MAWTS-1 KC-130 Temporary Landing Zone Operations ASP.

Ordnance.

External Syllabus Support. USMC MMT, MWSS EAF or USAF Combat Control Team with appropriate expeditionary airfield ALZ Marking/lighting and Crash/Fire/Rescue Support.

ALZ-261

2.0 T,C,SC,R 1 KC-130J/WST A/S N (NS)

Goal. Night Improved ALZ operations.

Requirement. Introduce night ALZ operations to include appropriate LZ markings, ground operations, crew coordination with respect to TLZ operations, maximum effort take-offs and maximum effort landings. Review max effort TOLD computations. Perform a minimum of four (4) touch and go landings, plus at least one maximum effort full stop landing and one maximum effort takeoff. Flight may be conducted in HLL or LLL conditions and one unaided approach shall be conducted. This is a one time flight event and shall be instructed by a ALZ Stage Instructor. Review appropriate NFM performance charts, Tactical Manual and Operational Supplement.

Performance Standard. Per the NFM, KC-130 Tactical Manual and Operational Guide.

Prerequisite. ALZ-060, ALZ-260, RQD-603 or flown with a NSI and (NS(H)-203 HLL), (NS(H)-204 LLL)

Ordnance.

External Syllabus Support. USMC MMT, MWSS EAF or USAF Combat Control Team with appropriate expeditionary airfield ALZ Marking/lighting and Crash/Fire/Rescue Support.

ALZ-262

2.0 T,C,SC,R 1 KC-130J/WST A/S (N) (NS)

Goal. Tactical arrivals.

Requirement. Practice use of random high, random low/shallow and self contained approaches. Emphasize terrain study with respect to ingress/egress of the terminal area and method of arrival based on threat. At least one self contained approach will be developed and constructed for use. Practice use of the Integrated Precision Radar Approach (IPRA) and LZ functions of the CNI-MU.

Performance Standard. Satisfactory execution of procedures per the NFM, Tactical Manual and Operational Guide.

Prerequisite. SALZ-062, (RQD-603 or conducted with a proficient NSI).

Ordnance.

External Syllabus Support. USMC MMT, MWSS EAF or USAF Combat Control Team with appropriate expeditionary airfield ALZ Marking/lighting and Crash/Fire/Rescue Support.

ALZ-263 0.0 T,C, SC 1 KC-130J/WST A/S (N)

Goal. Combat offload procedures.

Requirement. Introduce Combat offload of cargo without the use of loading equipment.

Performance Standard. Satisfactorily complete the procedures per the NFM and KC-130 Tactical Manual and Operational Guide.

Prerequisite. NSQ(H) or conducted with a proficient NSI.

Ordnance.

External Syllabus Support. Sufficient ramp space and fork-lift support.

9. Rapid Ground Refueling (RGR)

a. Purpose. To attain and maintain the Rapid Ground Refueling Core Basic Skill. Upon completion of this phase, the pilot will be capable of conducting rapid ground refueling of aircraft and ground vehicles in any environment, day or night.

b. General.

c. Crew Requirements. PF, PM, CC and LMs as required for RGR site.

d. Academic/Ground Training. Review the NFM, Tactical Manual, Operational Guide and the MAWTS-1 KC-130 Rapid Ground Refueling ASP. Review appropriate KC-130J systems CBT.

e. Flight and Simulator Training (0 Flights, 0.0 Hours)

RGR-270 0.0 T,C,R 1 KC-130J A (N)

Goal. RGR procedures.

Requirement. Plan and execute an RGR mission involving actual transfer of fuel to either aircraft or ground vehicles. Emphasis should be on personnel responsibilities to include RS and RASO and the control of receivers through the RGR site. Additionally, discuss RGR location, security, setup, pre/post-stage areas, standard signals and emergencies. Initial event should be conducted during day.

Performance Standard. Satisfactorily complete the procedures per NFM, KC-130 Tactical Manual and Operational Guide.

Prerequisite. (NSQ(H) or conducted with a proficient NSI).

Ordnance.

External Support. Crash/Fire/Rescue Support. Rotary-wing, fixed-wing or ground vehicle (as appropriate).

133. CORE ADVANCED TRAINING

1. General. Upon completion of this phase of training, the pilot will be day and night qualified in the LAT (NSQ(L)) environment for the core advanced skill mission areas. The advanced skill areas include multi-plane FW/TR/RW aerial refueling, division formation, aerial delivery of cargo or static line troops, operations in a radar threat environment and unimproved assault landing zone operations. The focus will be in obtaining PILOT Flying (PF) and PILOT Monitoring (PM) proficiency in these areas.

a. Pilots receiving initial training as the PF, PM or ACS shall be instructed by current Squadron Stage Instructors (SIs) unless a requirement for a LATI, NSI, WTI, or NI/ANI is specified in the stage or event. Once a pilot has completed the initial event, subsequent events may be flown with proficient aircrew.

b. Pilots conducting NS(H) training shall be instructed by an NSI for all NSQ(H)/(L) syllabus events. Once NSQ(H), any non-LAT NVD event may be initially flown with a proficient NSQ(H) TPC (unless otherwise stated) and the prerequisites for the event are met.

c. At the discretion of the Commanding Officer, NSQ(H) aircrew may conduct any non-LAT night or night optional event with the aid of NVDs.

d. The NSQ(L) qualification syllabus consists of NSQ(H), LATQ, STACNAV-025 and TACNAV-324. Pilots successfully completing these requirements may be issued an appropriate qualification letter by the squadron commander.

e. Simulator events shall be conducted with either an appropriate squadron instructor or an appropriately qualified contract simulator instructor (CSI).

f. 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.

2. Tactical Navigation

a. Purpose. To attain and maintain the Tactical Navigation Core Advanced skill. Upon completion of this phase, the pilot will be capable of single ship LAT ingress and egress of mission objective areas during day or night.

b. General.

(1) LAT rules of conduct are contained in the Aviation T&R Program Manual. All LAT sorties require all crew members to be LAT qualified and proficient. If a PF or PM is not qualified and/or proficient, then the other pilot seat shall be occupied by a proficient LATI. The LAT qualification requirement consists of STACNAV-024 and TACNAV-323. Upon completion of LAT qualification requirements, pilots may be issued a qualification letter from the squadron commander and log the RQD-620 tracking code.

(2) The NSQ(L) qualification requirement consists of NSQ(H), LATQ, STACNAV-025 and TACNAV-324 and shall be instructed by a NSI. LAT ROC will be adhered to. Upon completion of the NSQ(L) qualification requirements, pilots may be issued a qualification letter from the squadron commander and log the RQD-604.

c. Crew Requirements. PF, PM, ACS, and two observers.

d. Academic/Ground Training. Receive training in the MAWTS-1 Tactical Mission Planning & Low Level Navigation Operations, KC-130 LAT 1, KC-130 LAT 2 and LAT Maneuvering ASPs by an appropriate Squadron Stage Instructor or WTI. Review NATOPS Flight Manual, KC-130 Tactical Manual, Operational Guide and appropriate aircraft systems CBT modules.

e. Flight and Simulator Training (4 Events, 8.0 Hours)

STACNAV-024 2.0 T,C,SC WST S

Goal. Day LAT procedures.

Requirement. Introduce MAC. Review aircraft limitations that are applicable for high load factor maneuvering. Review principles of energy management and masking techniques. Practice bunts, jinks, ridgeline crossings, zoom climbs, terrain clearance turns, hard turns, and break turns. Minimum altitude per T&R Program minimums but not lower than comfort level.

Performance Standard. Satisfactory completion of the procedures per the NFM, KC-130 TACMAN, and Operational Guide.

Prerequisite. STACNAV-023, MAWTS-1 LAT Maneuvering, KC-130 LAT 1 and KC-130 LAT 2 ASPs.

Ordnance.

External Syllabus Support. WST simulator and CSI.

TACNAV-323 2.0 T,C,SC,R KC-130J/WST A/S

Goal. Day LAT procedures.

Requirement. Review aircraft limitations that are applicable for high load factor maneuvering. Review principles of energy management and masking techniques. Practice bunts, jinks, ridgeline crossings, zoom climbs, terrain clearance turns, hard turns, MAC and break turns. Minimum altitude per T&R Program minimums but not lower than comfort level. Initial event must be conducted in aircraft and instructed by a LATI.

Performance Standard. Satisfactory completion of the procedures per the NFM, KC-130 TACMAN, and Operational Guide.

Prerequisite. STACNAV-024, TACNAV-223, MAWTS-1 LAT Maneuvering, KC-130 LAT1 and KC-130 LAT2 ASPs.

Ordnance.

External Syllabus Support. Scheduled appropriate LAT approved course.

STACNAV-025 2.0 T,C,SC WST NS

Goal. HLL LAT procedures.

Requirement. Introduce MAC. Review aircraft limitations that

are applicable for high load factor maneuvering. Review principles of energy management and masking techniques. Practice bunts, jinks, ridgeline crossings, zoom climbs, terrain clearance turns, hard turns, and break turns while using NVDs. Minimum altitude per T&R Program minimums but not lower than comfort level.

Performance Standard. Satisfactory completion of the procedures per the NFM, KC-130 TACMAN, and Operational Guide.

Prerequisite. NSQ(H), LATQ

Ordnance.

External Syllabus Support. WST simulator and CSI.

TACNAV-324 2.0 T,C,SC,R 1 KC-130J/WST A/S NS

Goal. HLL LAT procedures.

Requirement. Review aircraft limitations that are applicable for high load factor maneuvering. Review principles of energy management and masking techniques. Practice bunts, jinks, ridgeline crossings, zoom climbs, terrain clearance turns, hard turns, MAC and break turns while using NVDs. Minimum altitude per T&R Program minimums but not lower than comfort level. Initial event and subsequent events for pilots who have lost their qualification shall be flown with a NSI.

Performance Standard. Satisfactory completion of the procedures per the NFM, KC-130 TACMAN, and Operational Guide.

Prerequisite. NSQ(H), LATQ, STACNAV-025.

Ordnance.

External Syllabus Support. Scheduled appropriate LAT approved course.

3. Formation

a. Purpose. To attain and maintain division formation Core Advanced skills. Upon completion of this phase, the pilot will be capable of flying in any position of a division of 3-4 KC-130 aircraft day or night.

b. General.

c. Crew Requirements. PF, PM, ACS, and two observers.

d. Academic/Ground Training. Receive training in the MAWTS-1 Tactical Mission Planning & Low Level Navigation Operations and LAT Maneuvering ASPs by an appropriate stage instructor or WTI. Review NATOPS Flight Manual, KC-130 Tactical Manual, Operational Guide and appropriate aircraft systems CBT modules.

e. Flight and Simulator Training (2 Events, 5.0 Hours)

SFORM-032 2.0 T,C 1 WST S

Goal. Division formation procedures.

Requirement. Introduce the pilot to day division formation procedures while flying as a wingman in a flight of at least three aircraft. Perform running and turning rendezvous. Introduce considerations inherent with maintaining tanker, tactical, and cruise positions in a division formation. Introduce lead change procedures. Emphasize visual cues for maintaining position and recognizing closure in a division formation. Review emergency procedures to include lost sight and inadvertent weather penetration as pertains to formation operations. Day, HLL and LLL environments should be demonstrated.

Performance Standard. Satisfactory completion of the procedures per the NFM, KC-130 TACMAN, and Operational Guide.

Prerequisite. SFORM-030

Ordnance.

External Syllabus Support. WST simulator and CSI.

FORM-332 3.0 T,C,SC,R 3-4 KC-130J/WST A/S (N) (NS)

Goal. Division formation procedures.

Requirement. Practice division formation procedures while flying as a wingman in a flight of at least three aircraft. Perform running and turning rendezvous. Review considerations inherent with maintaining tanker, tactical, and cruise positions in a division formation. Practice lead change procedures. Emphasize visual cues for maintaining position and recognizing closure in a division formation. Review emergency procedures to include lost sight and inadvertent weather penetration as pertains to formation operations. Initial event should be conducted during day time. Event should be conducted with NVDs at night.

Performance Standard. Satisfactory completion of the procedures per the NFM, KC-130 TACMAN, and Operational Guide.

Prerequisite. SFORM-032, FORM-231, (FORM-232), (NSQ(H) or flown with NSI).

Ordnance.

External Syllabus Support. Appropriate Warning/Restricted/Military Operating areas scheduled.

4. Threat Reaction

a. Purpose. To attain and maintain the Core Advanced Skill of threat reaction in a low to medium radar threat environment. Upon completion of this phase, the pilot will be capable of flying in a ground radar threat environment during day or night.

b. General.

- (1) Aircraft must have fully operational ASE suite.
- (2) Appropriate Chaff and Decoy Flares must be loaded prior to flight.
- (3) Threat emitters must be available.

c. Crew Requirements. PF, PM, ACS, and two observers.

d. Academic/Ground Training. Receive training in the MAWTS-1 Tactical Mission Planning & Low Level Navigation Operations, LAT Maneuvering, Aircraft Survivability Equipment and Tactical Crew Coordination ASPs by an appropriate stage instructor or WTI. Review NATOPS Flight Manual, KC-130 Tactical Manual, Operational Guide and appropriate aircraft systems CBT modules.

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

STHRX(R)-041 2.0 T,C,SC 1 WST S

Goal. Introduce ground radar threat.

Requirement. Introduce the Radar Warning Receiver (RWR) system, RWR HUD/HDD symbology and threat reaction. The pilot should be exposed to a variety of radar threat scenarios and introduced to appropriate maneuver used in conjunction with the counter measures dispensing system (CMDS). The appropriate modes of operation for the CMDS should be addressed.

Performance Standard. Satisfactory execution of procedures per the NFM, and Operational Guide.

Prerequisite. STHRX(I)-040, STACNAV-023, (STACNAV-024) MAWTS-1 KC-130 Aircraft Survivability Equipment and Tactical Crew Coordination ASPs, Review of DECM CBT and PTT.

Ordnance.

External Syllabus Support. WST simulator and CSI.

THR(X)R)-341 2.0 T,C,SC,R 1 KC-130J/WST A/S (N)

Goal. Ground radar threat.

Requirement. Review the Radar Warning Receiver (RWR) system, RWR HUD/HDD symbology and threat reaction. The pilot should be exposed to a variety of radar threat scenarios of increasing intensity and practice appropriate maneuver used in conjunction with the counter measures dispensing system (CMDS). The appropriate modes of operation for the CMDS should be addressed. The initial event shall be completed in the aircraft.

Performance Standard. Satisfactory execution of procedures per the NFM, and Operational Guide.

Prerequisite. STHRX(R)-041, THR(X)R)-240, TACNAV-323, (TACNAV-324), (NSQ(H) or flown with a NSI).

Ordnance. 300 RR-129/RR-144 Chaff.

External Syllabus Support. Scheduled EW range or threat emitters.

5. Aerial Refueling.

a. Purpose. To attain and maintain the multi-plane aerial refueling Core Advanced skill. Upon completion of this phase, the pilot will be capable of multi-plane FW/TR/RW aerial refueling during day or night.

b. General.

c. Crew Requirements. PF, PM, ACS, and one observer per operated aerial refueling pods.

d. Ground/Academic Training. Complete the Aerial Refueling System Academic Course and the MAWTS-1 Tactical AR Courseware by an appropriate stage instructor or WTI. Review NFM, NATOPS flight manual supplements, NATOPS Air-to-Air Refueling Manual, KC-130 Operational Guide, and appropriate aircraft systems CBT modules.

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

SAR-055 2.0 T,C 1 WST S

Goal. Introduce multi-tanker FW/TR AR procedures.

Requirement. Conduct high speed aerial refueling mission planning requirements using PFPS and receiver aircraft considerations. Discuss and introduce refueling formation options, rendezvous procedures, radio procedures, NAVAIID/radar/TCAS procedures, tanker/receiver management and emergency procedures related to air refueling. Discuss EMCON procedures. Event should be conducted from the dash-2 position and RAC procedures should be introduced. Night environment shall be introduced with and without the use of NVDs.

Performance Standard. Satisfactory completion of the procedures per the NFM, AR Manual, and KC-130 Tactical Manual and Operational Guide.

Prerequisite. SAR-050, SAR-051, SFORM-030

Ordnance.

External Support. WST simulator and CSI.

SAR-056 2.0 T,C 1 WST S (N) (NS)

Goal. Introduce multi-tanker RW AR procedures.

Requirement. Conduct low speed aerial refueling mission planning requirements using PFPS and receiver aircraft considerations. Discuss and introduce refueling formation options, rendezvous procedures, radio procedures,

NAVAID/radar/TCAS procedures, tanker/receiver management and emergency procedures related to air refueling. Discuss EMCON procedures. Event should be conducted from the dash-2 position and RAC procedures should be introduced. Night environment shall be introduced with and without the use of NVDs.

Performance Standard. Satisfactory completion of the procedures per the NFM, AR Manual, and KC-130 Tactical Manual and Operational Guide.

Prerequisite. SAR-052, SFORM-030

Ordnance.

External Support. WST simulator and CSI.

AR-353 3.0 T,C,SC,R 2-4 KC-130J/WST A/S (N) (NS)

Goal. Multi-tanker AR procedures.

Requirement. Conduct FW, TR or RW aerial refueling mission planning requirements using PFPS and receiver aircraft considerations. Discuss and introduce refueling formation options, rendezvous procedures, radio procedures, NAVAID/radar/TCAS procedures, tanker/receiver management and emergency procedures related to air refueling. Discuss EMCON procedures. Initial event should be conducted during day.

Performance Standard. Satisfactory completion of the procedures per the NFM, AR Manual, and KC-130 Tactical Manual and Operational Guide.

Prerequisite. FORM-231, FORM-332 if Division, (FORM-232), (NSQ(H) or flown NSI).

HS: AR-250, SAR-050

LS: AR-251, SAR-051

Ordnance.

External Support. Appropriate type receiver and scheduled SUAS for mission.

6. Assault Landing Zone Operations

a. Purpose. To attain and maintain the Core Advanced Skill of operating from an unimproved Assault Landing Zone. Upon completion of this phase, the pilot will be capable of Assault Landing Zone operations to an unimproved surface airfield during day or night.

b. General.

c. Crew Requirements. PF, PM, and one observer.

d. Academic/Ground Training. Review the NFM, Tactical Manual, Operational Guide and the MAWTS-1 KC-130 Temporary Landing Zone Operations ASP. Attend Self Contained Approach Ground Training.

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

ALZ-360 2.0 T,C,SC,R KC-130J/WST A/S (N)

Goal. Introduce Unimproved ALZ Operations.

Requirement. Practice tactical arrival. Review LZ markings, airfield capabilities, ground floatation, minimum runway requirements and ground operations with emphasis on unimproved surfaces. Practice crew coordination with respect to ALZ operations. Practice maximum effort take-offs, landings and obstacle clearance criterion with respect to TOLD. Minimum runway length shall be IAW KC-130 Tactics Manual. Perform a minimum of four (4) touch and go landings, plus at least one maximum effort full stop landing and one maximum effort takeoff. Review Combat Offload Procedures. The initial event shall be completed in the aircraft during day. Review appropriate NFM performance charts, Tactical Manual and Operational Supplement.

Performance Standard. Satisfactory execution of procedures per the NFM, and Operational Guide.

Prerequisite. ALZ-260, (ALZ-261), ALZ-262, (NSQ(H) or flown with a NSI), MAWTS-1 KC-130 Temporary Landing Zone Operations ASP.

Ordnance.

External Syllabus Support. USMC MMT, MWSS EAF or USAF Combat Control Team with appropriate expeditionary airfield ALZ Marking/lighting and Crash/Fire/Rescue Support.

7. Aerial Delivery

a. Purpose. To attain and maintain the Core Advanced skill of aerial delivery. Upon completion of this phase, the pilot will be capable of planning and executing aerial delivery of cargo or static line personnel, day or night.

b. General.

(1) If a crewmember has not conducted an aerial delivery in the past 60 days, the crew must plan, execute and debrief a simulated AD prior to an actual AD. Simulated ADs in the aircraft do not update aircrew reflly interval.

c. Crew Requirements. PF, PM, ACS, CC and 2 LM minimum.

d. Ground/Academic Training. Complete the MAWTS-1 KC-130 General Aircraft Preparation for Aerial Delivery, Personnel Static and Military Freefall Aerial Delivery, Container Delivery System Aerial Delivery, Heavy Equipment Aerial Delivery and Tactical Aerial Delivery ASPs by an appropriate stage instructor or WTI. Review NFM, NATOPS flight manual supplements, NATOPS Air-to-Air Refueling Manual, KC-130 Operational Guide, and appropriate aircraft systems CBT modules.

e. Flight and Simulator Training (4 Events, 8.0 Hours)

SAD-080 2.0 T,C,SC,R WST S

Goal. Introduce air delivery procedures.

Requirement. Perform in-depth mission analysis and planning to include threat analysis and considerations for minimizing threat effects on mission accomplishment. Perform at least two with in-flight CARP updates. AD profiles may be any combination of Personnel, CDS or HE. Low-level ingress/egress is recommended.

Performance Standard. Per the NFM, KC-130 TACMAN and TTP (AS REQUIRED).

Prerequisite. STACNAV-022, MAWTS-1 KC-130 General Aircraft Preparation for Aerial Delivery, Container Delivery System Aerial Delivery, Personnel Static and Military Freefall Aerial Delivery and Heavy Equipment Aerial Delivery.

Ordnance.

External Support. CSI.

AD-380

2.0 T,C,SC,R 1 KC-130J/WST A/S (NS)

Goal. Cargo air delivery.

Requirement. Review cargo air delivery procedures. Low level ingress/egress recommended. Actual cargo drop (CDS or heavy equipment) is required for initial event. Initial event shall be conducted during day.

Performance Standard. Per the NFM, KC-130 TACMAN and TTP (AS REQUIRED).

Prerequisite. SAD-080, TACNAV-222, TACNAV-223, (NSQ(H) or flown with NSI if NVD).

Ordnance.

External Support. Air delivery platoon for cargo rigging and DZ control.

AD-381

2.0 T,C,SC,R 1 KC-130J/WST A/S (NS)

Goal. Personnel air delivery.

Requirement. Review personnel air delivery procedures. Low level ingress/egress recommended. Actual personnel drop is required for initial code. Initial event shall be conducted during day.

Performance Standard. Per the NFM, KC-130 TACMAN and TTP (AS REQUIRED).

Prerequisite. SAD-080, TACNAV-222, TACNAV-223, (NSQ(H) or flown with NSI if NVD), MAWTS-1 General Aircraft Preparation for Aerial Delivery and Personnel Static and Military Freefall Aerial Delivery ASPs.

Ordnance.

External Support. Air delivery agency for DZ control.

AD-383

2.0 T,C,SC,R 1 KC-130J A (NS)

Goal. ACS Aerial delivery.

Requirement. Review cargo/personnel air delivery procedures. Practice CARP function of the CNI-MU. Low level ingress/egress recommended. Actual drop is required for initial code.

Performance Standard. Per the NFM, KC-130 TACMAN and TTP (AS REQUIRED).

Prerequisite. AD-380 or AD-381, (NSQ(H) or flown with NSI if NVD).

Ordnance.

External Support. Air delivery platoon for cargo rigging and DZ control.

134. CORE PLUS TRAINING

1. General. Upon completion of this phase of training, the pilot will be qualified to plan and execute long range refueling operations, conduct low altitude section formation operations; conduct Aerial Delivery (AD) of personnel, cargo and Battlefield Illumination (BI); and operate in a non-permissive threat environment against ground-to-air and air-to-air threats. The focus will be in obtaining PILOT Flying (PF), Pilot Monitoring (PM) and Augmented Crew Member (ACM) proficiency in these areas.

a. Pilots receiving initial training as the PF, PM or ACS shall be instructed by current Squadron Stage Instructors (SIs) unless a requirement for a LATI, NSI, WTI, or NI/ANI is specified in the stage or event. Once a pilot has completed the initial event, subsequent events may be flown with proficient aircrew.

b. Pilots conducting NS(H) training shall be instructed by an NSI for all NVD events until qualified NSQ(H). After NSQ(H), subsequent initial NVD events may be flown with a proficient NSQ(H) TPC as long as the prerequisites for the event are met.

c. At the discretion of the Commanding Officer, NSQ(H) aircrew may conduct any night or night optional non-LAT event with the aid of NVDs.

d. Simulator events shall be conducted with either an appropriate squadron instructor or an appropriately qualified contract simulator instructor (CSI).

e. 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.

2. Formation

a. Purpose. To attain and maintain the Core Plus Skill of section TACNAV. Upon completion of this stage, the pilot will be capable of flying as lead or dash-2 in a section formation in the low altitude environment.

b. General.

c. Crew Requirements. PF, PM, ACS, and two observers.

d. Academic/Ground Training. Receive training in the MAWTS-1 Tactical Mission Planning & Low Level Navigation Operations and LAT Maneuvering ASPs by an appropriate stage instructor or WTI. Review NATOPS Flight Manual, KC-130 Operational Guide and appropriate aircraft systems CBT modules.

e. Flight Training (2 Events, 4.0 Hours)

FORM-433 3.0 T,C,SC,R 2 KC-130J/WST A/S (NS)

Goal. Introduce section TACNAV formation procedures

Requirement. Introduce enroute tactical formations, tactical turns, and concepts of mutual support on a low altitude route of at least 6 points. Event should be conducted from the

wingman position. Practice normal and emergency procedures for section formation, communication procedures, ground operations, take-off, join/rendezvous, section recoveries, lost sight and inadvertent weather penetration procedures.

Performance Standard. Satisfactory completion of the procedures per the NFM, KC-130 TACMAN, and Operational Guide.

Prerequisite. TACNAV-223, FORM-231, (FORM-232), (TACNAV-224 HLL), (TACNAV-225 LLL), RQD-620 if LAT, (RQD-604 if LAT)

Ordnance.

External Syllabus Support. Appropriate Warning/Restricted/Military Operating areas scheduled.

3. Defensive Tactics

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

b. General.

(1) Aircraft must have fully operational ASE suite.

(2) Appropriate Chaff and Decoy Flares must be loaded prior to flight.

(3) The DEFTAC qualification requirements consist of RQD-640, DEFTAC-440 and DEFTAC-441. Upon successful completion of qualification requirements, pilots maybe issued a DEFTAC qualification letter from the squadron commander and log the RQD-641 tracking code. If a PF or PM is not qualified in DEFTAC, then the other pilot seat shall be occupied by a DEFTACI.

c. Crew Requirements. PF, PM, ACS, and two observers.

d. Academic/Ground Training. Receive training in the MAWTS-1 Tactical Mission Planning & Low Level Navigation Operations, LAT Maneuvering, Aircraft Survivability Equipment and Tactical Crew Coordination ASPs by an appropriate stage instructor or WTI. Review NATOPS Flight Manual, KC-130 Tactical Manual, Operational Guide and appropriate aircraft systems CBT modules.

e. Flight Training (2 Events, 4.0 Hours)

DEFTAC-440 2.0 T,C,SC,R 1 KC-130J, 1 Adversary A (NS)

Goal. Defensive maneuvering relative to an air threat.

Requirement. Practice defensive maneuvers with emphasis on hard turns, break turns, maneuvering velocity, and lookout doctrine.

Performance Standard. Per the NFM, KC-130 TACMAN and Operational Guide.

Prerequisite. RQD-620, (RQD-604).

Ordnance. Full Chaff and Decoy Flare load.

External Support. Appropriate single aggressor aircraft.

DEFTAC-441 2.0 T,C,SC 1 KC-130J, 2 Adversaries A (NS)

Goal. Defensive maneuvering relative to an air threat.

Requirement. Practice defensive maneuvers with two adversary aircraft. Emphasis on lookout doctrine and negating tracking solutions.

Performance Standard. Per the NFM, KC-130 TACMAN and Operational Guide.

Prerequisite. DEFTAC-440, (RQD-604).

Ordnance. Full Chaff and Decoy Flare load.

External Support. Appropriate section aggressor aircraft.

4. Aerial Refueling.

a. Purpose. To attain and maintain the long range aerial refueling Core Plus skill. Upon completion of this phase, the pilot will be capable of planning and executing long range (multiple tanker) FW/TR/RW aerial refueling during day or night.

b. General.

(1) Upon completion of this phase, the squadron commander may designate the pilot a Strategic RAC/Rendezvous Controller, RQD-652.

c. Crew Requirements. PF, PM, ACS, and one observer per operated aerial refueling pod.

d. Ground/Academic Training. Complete the Aerial Refueling System Academic Course, the Central Altitude Reservation Indoctrination Course and the MAWTS-1 Tactical AR Courseware by an appropriate stage instructor or WTI. Review NFM, NATOPS flight manual supplements, NATOPS Air-to-Air Refueling Manual, KC-130 Operational Guide, and appropriate aircraft systems CBT modules.

e. Flight and Simulator Training (1 Flights, 6.0 Hours)

AR-458 6.0 T,C,SC,R 2-4 KC-130J/WST A/S (N)

Goal. Long Range AR operations.

Requirement. Conduct long range FW/TR/RW aerial refueling mission planning requirements using PFPS and receiver aircraft considerations. Discuss and introduce coordination of CORONET movements, movement control, ALTRAVs, hose factor, contingency planning, RAC functions and rendezvous control. Review radio procedures, NAVAID/radar/TCAS procedures, tanker/receiver management and emergency procedures related to air refueling.

Performance Standard. Satisfactory completion of the procedures per the NFM, AR Manual, and KC-130 Tactical Manual and Operational Guide.

Prerequisite. LRNAV-213, AR-353, (RQD-603) and ground/academic training requirements.

Ordnance.

External Support.

5. Air Delivery

a. Purpose. To attain and maintain the Core Plus skill of aerial delivery. Upon completion of this phase, the pilot will be capable of planning and executing aerial delivery of cargo, personnel or battlefield illumination flares from all altitudes, day or night.

b. General.

(1) If a crewmember has not conducted an aerial delivery in the past 60 days, the crew must plan, execute and debrief a simulated AD prior to an actual AD. Simulated ADs in the aircraft do not update aircrew refly interval.

c. Crew Requirements. PF, PM, ACS, CC and 2 LM minimum.

d. Ground/Academic Training. Complete the MAWTS-1 KC-130 General Aircraft Preparation for Aerial Delivery, Personnel Static and Military Freefall Aerial Delivery, Container Delivery System Aerial Delivery, Heavy Equipment Aerial Delivery, Combination and Combat Rubber Raiding Craft Aerial Delivery, Tactical Aerial Delivery, and Battlefield Illumination I and II ASPs by an appropriate stage instructor or WTI. Review NFM, NATOPS flight manual supplements, NATOPS Air-to-Air Refueling Manual, KC-130 Operational Guide, and appropriate aircraft systems CBT modules.

e. Flight and Simulator Training (4 Events, 8.0 Hours)

SAD-084 2.0 T,C,SC,R WST S

Goal. Introduce high altitude air delivery procedures.

Requirement. Perform in-depth mission analysis and planning of high altitude aerial delivery of personnel. Perform at least one HAHO and one HALO personnel AD with in-flight HARP updates. Discuss physiological considerations.

Performance Standard. Per the NFM, KC-130 TACMAN and TTP (AS REQUIRED).

Prerequisite. SAD-080, MAWTS-1 KC-130 Personnel Static and Military Freefall Aerial Delivery ASP.

Ordnance.

External Support. WST simulator and CSI.

AD-482

2.0 T,C,SC 1 KC-130J A (NS)

Goal. Combination AD.

Requirement. Plan, brief, execute, and debrief a combination AD mission. Emphasize the requirement for incorporation of separate personnel and cargo CARP computations. Requires an actual combination drop for initial code.

Performance Standard. Satisfactorily complete procedures per NFM, KC-130 TACMAN, and MCCRES standards.

Prerequisite. AD-380, AD-381, RQD-603 if NVD, MAWTS-1 KC-130 Combination and Combat Rubber Raiding Craft Aerial Delivery ASP.

Ordnance.

External Support. Air delivery platoon for cargo rigging and DZ control.

AD-484

2.0 T,C,SC,R 1 KC-130J A (N)(NS)

Goal. Military free fall AD.

Requirement. Plan, brief, execute, and debrief a military free fall AD operation. The mission may be flown from a pilot station or ACS. Review applicable physiology requirements for high altitude AD operations. Emphasis should be on tactical considerations and manual HARP computations.

Performance Standard. Satisfactorily complete procedures per NFM, KC-130 TACMAN, and MCCRES standards.

Prerequisite. SAD-084, AD-381, RQD-603 if NVD.

Ordnance.

External Support. Force Recon Platoon or other military free fall unit and appropriate DZ control agency.

AD-485

2.0 T,C,SC 1 KC-130J A N (NS)

Goal. Area illumination.

Requirement. Provide illumination using patterns and procedures per the KC-130 TACMAN. Emphasis will be on mission planning and area illumination procedures. PILOT should receive instruction/review procedures on receiving "Call for Fire/9 Line Briefs" prior to executing this mission. The mission may be flown from a pilot station or ACS.

Performance Standard. Satisfactory execution of procedures per the NFM, KC-130 TACMAN, TTP (AS REQUIRED), and applicable Naval weapons/ordnance publications.

Prerequisite. RQD-603 if NVD, MAWTS-1 KC-130 Battlefield Illumination I and II ASPs.

Ordnance. LUU-2 or LUU-19 flares as required.

External Support.

140. INSTRUCTOR TRAINING

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

a. Pilots shall be recommended for instructor designation via Aircrew Performance Review Board. Upon recommendation, the pilot shall complete appropriate syllabus requirements. Upon completion of syllabus, the commanding officer may designate the pilot as an instructor.

b. Instruction conducted at the ACS shall not be provided by an instructor acting as PF or PM.

c. Standardization will be emphasized throughout Instructor training.

d. IUTs shall have 100 hours of TPC time to instruct at the pilot stations. Instructors must maintain proficiency and currency in stage to instruct in that stage.

e. Core Introduction instruction conducted in tactical squadrons shall be conducted by NATOPS or Assistant NATOPS Instructors or as designated by the squadron commander in accordance with the current JMATS process.

2. NATOPS/Assistant NATOPS Instructor (NI/ANI)

a. Purpose. Qualify TPC as a NI/ANI.

b. General. Refer to Instructor Training Phase notes.

c. Crew requirements. NATOPS minimum unless otherwise specified.

d. Ground/Academic Training. Refer to Stage Instructor Training requirements.

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

NI-500

2.0

E 1 WST/KC-130J S/A

Goal. NI/ANI training.

Requirement. Introduce to the IUT to non-NS(H) FAI maneuvers in the Core Introduction syllabus. Introduce the skills required to correct common student errors with the IUT in the right seat as simulated by qualified instructor. Standardize maneuver instruction. May be instructed by either ANI or NI who is proficient and current or an event specific qualified WST CSI.

Performance Standard. Satisfactory completion of events per the NFM.

Prerequisite. PILOT must complete all Stage Instructor ground training requirements.

Ordnance.

External Syllabus Support. WST and CSI if conducted in a WST.

NI-501 2.0 E 1 WST/KC-130J S/A

Goal. NI/ANI designation.

Requirement. Instructor will observe while IUT conducts a FAI event or a NATOPS/Instrument checkride. Flight will be observed by a NI who is proficient and current.

Performance Standard. Satisfactory completion of events per the NFM.

Prerequisite. NI-500

Ordinance.

External Syllabus Support. WST and CSI if conducted in a WST.

2. Stage Instructor Training.

a. Purpose. Qualify the pilot as an Squadron Stage Instructor pilot. Stage instructors may instruct in specifically designated Core Skill areas.

b. General.

(1) ACS IUTs shall be ACS qualified T2Ps or TPCs and recommended to instruct at the ACS. ACS instructors will be designated for Core Basic TACNAV, Core Basic AR and Core Advanced/Plus AD. ACS instructors may instruct for the stage in which they are designated and for events in which they are current and proficient. ACS stage instructors shall be designated in writing by the squadron commander.

(3) Stage instructors shall be designated in writing by the squadron commander.

(4) CSIs may be designated stage instructors based on previous aviation experience and WTI recommendation. CSIs shall be evaluated by a WTI while instructing a stage event and a core skill appropriate ASP prior to stage designation. CSIs shall be designated in writing at the discretion of the squadron commander.

c. Crew Requirements. NATOPS minimum crew or greater unless otherwise specified for the event.

d. Ground/Academic Training.

(1) The Pilot Under Stage Instruction (PUSI) shall complete a Fundamentals of Instruction ground training course prior starting any stage instructor syllabus. This requirement may be waived prior to the establishment of an approved course of instruction.

(2) IUTs shall satisfactorily instruct an appropriate stage ASP or ground training syllabus. The course shall be observed by either a current stage instructor, WTI or ANI as specified per stage instructor event.

e. Flight and Simulator Training (8 Flights, 19.0 Hours)

TACNAV-520 2.0 E 1 WST/KC-130J S/A (N)

Goal. ACS TACNAV stage instructor qualification.

Requirement. Instruct ACS Time-Nav procedures in the Core Basic Syllabus. Demonstrate the instructor skills required to correct common student errors. May be instructed by either a qualified TACNAV stage instructor, WTI or WST CSI.

Performance Standard. Satisfactory completion of events per the NFM.

Prerequisite. As stated in stage requirements.

Ordinance.

External Syllabus Support. WST and CSI if conducted in a WST.

TACNAV-521

2.0 E 1 WST/KC-130J S/A (N)

Goal. TACNAV stage instructor qualification.

Requirement. Instruct PF and PM TACNAV procedures in the Core Basic Syllabus. Demonstrate the instructor skills required to correct common student errors. May be instructed by either a qualified TACNAV stage instructor, WTI or WST CSI.

Performance Standard. Satisfactory completion of events per the NFM.

Prerequisite. TACNAV-520

Ordinance.

External Syllabus Support. WST and CSI if conducted in a WST.

FORM-530

3.0 E 2-4 WST/KC-130J S/A NS

Goal. FORM stage instructor.

Requirement. Instruct formation procedures in the Core Basic/Advanced Syllabus. Flight should be conducted with qualified instructor from either seat. Training will include all FORM maneuvers in Core Basic/Advanced syllabus. Demonstrate ability to correct common student errors as simulated by qualified instructor.

Performance Standard. Per the NFM and KC-130 TACMAN.

Prerequisite. As stated in stage requirements.

Ordinance.

External Syllabus Support. WST and CSI if conducted in a WST.

AR-550

3.0 E 1 WST/KC-130J S/A (N)

Goal. ACS AR stage instructor qualification.

Requirement. Instruct AR operations for the ACS in the Core

basic syllabus during a FWAR, TRAR or HAR mission. Demonstrate the instructor skills required to correct common student errors. May be instructed by either a qualified ACS AR stage instructor or WTI who is proficient and current or an event specific qualified WST CSI.

Performance Standard. Satisfactory completion of events per the NFM.

Prerequisite. As stated in stage requirements.

Ordinance.

External Syllabus Support. WST and CSI if conducted in a WST.

AR-551

3.0 E 1 WST/KC-130J S/A NS

Goal. AR stage instructor qualification.

Requirement. Instruct AR operations in the Core basic/Advanced syllabus during a FWAR, TRAR or HAR mission. Demonstrate the instructor skills required to correct common student errors. May be instructed by either a qualified AR stage instructor or WTI who is proficient and current or an event specific qualified WST CSI.

Performance Standard. Satisfactory completion of events per the NFM.

Prerequisite. AR-550

Ordinance.

External Syllabus Support. WST and CSI if conducted in a WST.

ALZ-560

2.0 E 1 KC-130J A NS

Goal. ALZ stage instructor qualification.

Requirement. Instruct ALZ procedures in the Core Basic/Advanced Phases. Flight may be instructed by either ANI/NI or WTI who is proficient and current or an event specific qualified WST CSI.

Performance Standard. Satisfactory completion of events per the NFM.

Prerequisite. As stated in stage requirements.

Ordinance.

External Syllabus Support. WST and CSI if conducted in a WST.

AD-580

2.0 E 1 WST/KC-130J S/A (N)

Goal. ACS AD instructor training.

Requirement. Instruct AD operations for the ACS in the Core Plus Syllabus. Demonstrate ability to guide student through mission planning process and execution. Flight supervised by qualified stage instructor.

Performance Standard. Per the NFM and KC-130 TACMAN.

Prerequisite. As stated in stage requirements.

Ordnance.

External Syllabus Support. WST and CSI if conducted in a WST.

AD-581 2.0 E 1 WST/KC-130J S/A (N)

Goal. AD instructor training.

Requirement. Instructor under training will practice all AD procedures in Core Plus Syllabus. Demonstrate ability to instruct a PF or PM during AD operations. Correct common student errors as simulated by qualified stage instructor.

Performance Standard. Per the NFM and KC-130 TACMAN.

Prerequisite. AD-580

Ordnance.

External Syllabus Support. WST and CSI if conducted in a WST.

4. Low Altitude Tactics Instructor (LATI)

a. Purpose. Qualify the TPC as a LATI.

b. General.

(1) The T&R Program Manual and the MAWTS-1 Course Catalog are applicable. Completion of the LAT syllabus is a prerequisite. The build-up phase will be developed and supervised by the Squadron WTI.

(2) Upon certification by MAWTS-1 or a Squadron WTI, the LATI designation will be assigned by the Squadron commanding officer.

(3) Currency in LAT is not required to maintain instructor designation. However, the LATI must satisfy 15 day currency requirements in order to instruct as a LATI.

(4) In instances where a disparity exists between the MAWTS-1 Course Catalog and the T&R Manual, the MAWTS-1 Course Catalog shall be adhered to.

(5) The squadron WTI should conduct a flight build-up to ensure that the prospective LATI is prepared for certification. During the LATI build-up phase, the squadron WTI should demonstrate to the prospective LATI appropriate flight brief techniques, structure and objectives, and should highlight common errors in every maneuver. There should be particular emphasis in safety and absolute adherence to the Rules of Conduct for all portions of the LAT flight. The squadron will ensure that the prospective LATI demonstrates a working knowledge of, and an elevated level of

proficiency in, all of the maneuvers delineated in the KC-130J TACNAV T&R syllabus prior to recommendation for certification. The LAT IUT build-up syllabus codes are TACNAV-522 and TACNAV-523.

(6) The LATI certification may be conducted by a KC-130J WTI pilot.

c. Crew requirements. PF, PM, ACS, and two observers.

d. Ground/Academic Training. KC-130J LATI Academics.

(1) The IUT will review and be capable of presenting the following lectures from the LAT Academic Support Package:

- a. LAT Part I: Philosophy and Concepts.
- b. LAT Part II: LAT Considerations.
- c. KC-130J LAT Maneuvering Considerations.
- d. KC-130 Performance and Stress Limitations

(2) LAT Part V: Instructional Techniques will be taught by the squadron WTI or a MAWTS-1 instructor.

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

TACNAV-522 3.0 E 1 KC-130J A

Goal. Re-establish currency/begin certification for LATI.

Requirement. The IUT will brief, instruct and debrief a low altitude flight on a low level route or closed course. Practice flying at comfort level, terrain masking, ridgeline crossing, and proper lookout doctrine. Fly in right seat. Flight conduct and requirements are the same as for TACNAV-330.

Performance Standard. Per NFM, KC-130 TACMAN, MAWTS-1 Course Catalog.

Prerequisite. RQD-620 (LATQ)

Ordinance.

External Syllabus Support. Scheduled appropriate LAT approved course.

TACNAV-523 3.0 E 1 KC-130J A

Goal. Qualify IUT as LATI.

Requirement. The IUT will brief, instruct, and debrief a low altitude flight on a low level route or closed course. IUT will establish comfort level and demonstrate proficiency in the performance of hard turns, break turns, bunt maneuvers, zoom climbs, and ridgeline crossings as well as supervision of navigation and proper lookout doctrine. Flight conduct and requirements are the same as for LAT-532.

Performance Standard. Per NFM, KC-130 TACMAN, MAWTS-1 course catalog.

Prerequisite. LAT-522

Ordnance.

External Syllabus Support. Scheduled appropriate LAT approved course.

5. Defensive Tactics Instructor (DEFTACTI)

a. Purpose. Qualify the pilot as a DEFTACTI.

b. General. The T&R Program Manual and the MAWTS-1 course catalog are germane. Completion of the DEFTACTI syllabus is a prerequisite. The build-up phase may be developed and supervised by the Squadron DEFTACTI. Upon certification by MAWTS-1, the DEFTACTI designation will be assigned by the squadron commanding officer.

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

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

e. Flight Training. DEFTACTI-590 through 592 - Refer to the MAWTS-1 Course Catalog.

6. Night Systems Instructor (NSI)

a. Purpose. Qualify the pilot as an NSI.

b. General. The T&R Program Manual and the MAWTS-1 Course Catalog are germane. NSQ(L) and 30 hours NVD time with minimum 10 hours LLL are prerequisite. The build-up phase may be developed and supervised by the Squadron NSI. Upon certification by MAWTS-1, the NSI designation may be assigned by the squadron commanding officer.

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

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

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

NS(H)-503 3.0 E 1 KC-130J A NS

Goal. Train IUT as NSI.

Requirement. The IUT will brief, instruct, and debrief a NS(H)-203 or NS(H)-204 (HLL/LLL Fam).

Performance Standard. Per NFM, T&R Program Manual, OPNAV 3710.7, KC-130 TACMAN, MAWTS-1 course catalog.

Prerequisite. Refer to stage general notes.

Ordnance.

External Syllabus Support. Airfield capable of lights out operations.

NS(H)-504 3.0 E 1 KC-130J A NS

Goal. Train IUT as NSI.

Requirement. The IUT will brief, instruct, and debrief a TACNAV-224 or TACNAV-225 (HLL/LLL TACNAV).

Performance Standard. Per NFM, T&R Program Manual, OPNAV 3710.7, KC-130 TACMAN, MAWTS-1 course catalog.

Prerequisite. Refer to stage general notes.

Ordnance.

External Syllabus Support. Airfield capable of lights out operations.

7. Weapons Tactics Instructor (WTI)

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

b. General. Tactics and techniques will be taught per the KC-130 Tactical Manual and the MAWTS-1 supplements. Only MAWTS-1 instructors shall instruct/qualify flights in this stage. Qualification shall only be achieved as shown in each flight description.

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

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

e. Flight Training. Refer to the MAWTS-1 Course Catalog.

150. REQUIREMENTS, QUALIFICATIONS AND DESIGNATIONS (RQD)

1. General. To provide a vehicle for tracking codes associated with qualifications and designations.

a. E-codes are evaluation sorties. E-codes in the 600-level phase may be logged in conjunction with any sortie that completes its stage. For example, RQD-604 may be flown in conjunction with TACNAV-334. Once the flight to attain the qualification/designation is complete, a letter from the squadron commanding officer awarding the qualification/designation shall be placed in the NATOPS and APR before that qualification/designation can be utilized.

b. After the commanding officer has designated the PUI in writing as a section lead or a division lead, the operations department shall log RQD-622 (section lead) and RQD-625 (division lead) respectively.

2. Familiarization.

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

b. General.

c. Crew Requirements. NATOPS minimum crew.

d. Ground/Academic Training.

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

RQD-600 2.0 KC-130J/WST A/S N

Goal. Introduce left seat normal, emergency, and instrument procedures.

Requirement. Introduce left seat normal and emergency procedures. Emphasis should be on taxi, backing and take-off/landing procedures from the left seat.

Performance Standard. Per the NFM and NIFM.

Prerequisite. Recommendation by ACRB.

Ordnance.

External Syllabus Support.

3. NATOPS Instructor Certification

a. Purpose. NATOPS and Assistant NATOPS Instructor (NI/ANI) Designation.

b. General. Aircrew Performance Review Boards should only consider experienced Aircraft Commanders with a high level of aviation maturity and effective instructional abilities for designation as NI/ANIs. PILOTS considered should be stage instructors, CRM facilitators and be recommended for the Instrument Board.

c. Crew Requirements. NATOPS minimum crew.

d. Ground Training/Evaluation. Refer to Instructor Stage Phase.

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

RQD-601 2.0 E 1 KC-130J/WST A/S (N)

Goal. NI/ANI Qualification.

Requirement. NATOPS evaluator will conduct a comprehensive evaluation with emphasis on standardization and grading criteria.

Performance Standard. Per OPNAVINST 3710.7__, NFM, and the NIFM.

Prerequisite. NI-501 and commanding officer designation.

Ordnance.

External Syllabus Support.

4. Night Systems Qualification (NSQ)

a. Purpose. Track NSQ qualifications.

b. General. Pilots receiving instruction leading to NSQ (H) or NSQ(L) in the KC-130J will be qualified in the equivalent day sortie.

c. Crew Requirements.

d. Ground Training/Evaluation. See stage requirements listed in Core Basic and Core Advanced phase training.

e. Flight and Simulator Training (0 Flights, 0.0 Hours)

RQD-603 0.0

Goal. Track NSQ(H) High Altitude (Above 500 AGL)

Requirement.

Performance Standard.

Prerequisite. NS(H)-204, TACNAV-224, TACNAV-225, 10 hours of NVD flight time with at least 5 hours LLL and commanding officer designation.

Ordnance.

External Syllabus Support.

RQD-604 0.0

Goal. Track NSQ(L) Low Altitude

Requirement.

Performance Standard.

Prerequisite. TACNAV-324, RQD-603, RQD-620 and commanding officer designation.

Ordnance.

External Syllabus Support.

5. Night System Instructor Certification

a. Purpose. NSI Qualification.

b. General. The T&R Program Manual and the MAWTS-1 Course Catalog define the requirements and training requirements for NSI. The completion of the Combat Qualification Phase and Division Leader designation is a prerequisite. The build-up phase may be administered by a squadron NSI, however a MAWTS KC-130 instructor shall conduct the certification flight. Upon certification by MAWTS-1, the NSI designation will be assigned by the squadron commanding officer.

c. Crew Requirements. NATOPS minimum crew unless otherwise required.

d. Ground/Academic Training. See MAWTS-1 Course Catalog.

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

RQD-605 2.0 1 KC-130J A NS

Goal. NSI Qualification.

Requirement. Qualify the pilot as an NSI. This event may be completed in conjunction with NS(H)-503 or NS(H)-504. IUT shall instruct a MAWTS-1 NVD ASP as part of NSI qualification.

Performance Standard. Satisfactorily execute the procedures per NFM, KC-130 TACMAN, and TTP (AS REQUIRED), MAWTS-1 ASP for NSI.

Prerequisite. NS(H)-503, NS(H)-504, RQD-604, RQD-632, RQD-654

Ordnance.

External Syllabus Support.

6. Instrument

a. Purpose. Evaluate the pilot's knowledge and application of NATOPS instrument procedures and techniques.

b. General

(1) General policy, requirements, and prerequisites concerning NATOPS instrument evaluations are contained in OPNAVINST 3710.7_, NFM, and the NIFM.

c. Crew Requirements. NATOPS minimum crew.

d. Ground Training/Evaluation. Ground training and evaluation shall be

conducted per OPNAVINST 3710.7_, NFM, and NIFM.

e. Flight Training (2 Flights, 3.0 Hours)

RQD-606 2.0 T,C,SC,R E WST/KC-130J S/A (N)

Goal. Conduct a standard instrument flight evaluation.

Requirement. Designate pilot per OPNAVINST 3710.7_, NFM, and the NIFM.

Performance Standard. Per OPNAVINST 3710.7_, NFM, and the NIFM.

Prerequisite. Minimum experience per OPNAVINST 3710.7

Ordnance.

External Syllabus Support.

RQD-607 2.0 T,C,SC,R E WST/KC-130J S/A (N)

Goal. Conduct a special instrument flight evaluation.

Requirement. Per OPNAVINST 3710.7_, NFM, and the NIFM.

Performance Standard. Per OPNAVINST 3710.7_, NFM, and the NIFM.

Prerequisite. Minimum experience per OPNAVINST 3710.7_, RQD-606.

Ordnance.

External Syllabus Support.

7. Functional Check Flight PILOT

- a. Purpose. Qualify the TPC as a post maintenance check pilot.
- b. General.
 - (1) TPCs must have 150 hours KC-130J flight time and a minimum of three FCFs (two "A" Profiles) to be eligible for FCF designation.
- c. Crew Requirements. NATOPS minimum crew.
- d. Ground/Academic Training. Functional Check Flight Examination.
- e. Flight Training (1 Flight, 4.0 Hours)

RQD-609 4.0 1 KC-130J/WST A/S

Goal. PMCF qualification.

Requirement. Conduct a flight phase inspection upon

completion of post maintenance discrepancies. The flight shall consist of an "A" profile functional check flight and be instructed by a qualified and proficient FCF pilot.

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

8. Long Range Navigation (LRNAV) Stage Instructor.

- a. Purpose. Track LRNAV Stage Instructor designation.
- b. General.
- c. Crew Requirements.
- d. Ground/Academic Training. Shall complete the ground instruction requirements of the Stage Instructor Phase.
- d. Simulator and Flight Training (0 Flights, 0.0 Hours)

RQD-610 0.0

Goal. Track LRNAV Stage Instructor designation.

Requirement.

Performance Standard.

Prerequisite. ACRB Recommendation, ground training requirements and commanding officer's designation.

Ordnance.

External Syllabus Support.

9. LAT Qualification (LATQ).

- a. Purpose. Track LAT Qualification designation.
- b. General. See course description and requirements in Core Advanced phase. NSQ(L) qualification will accompany LATQ.
- c. Crew Requirements.
- d. Ground Training/Evaluation.
- e. Simulator and Flight Training (0 Periods, 0.0 Hours)

RQD-620 0.0

Goal. Tracking code for LAT qualification.

Requirement.

Performance Standard.

Prerequisite. TACNAV-323.

Ordnance.

External Syllabus Support.

10. TACNAV Stage Instructor.

- a. Purpose. Track TACNAV Stage Instructor designation.
- b. General. See course description and requirements in Instructor Training phase.
- c. Crew Requirements.
- d. Ground Training/Evaluation.
- e. Simulator and Flight Training (0 Periods, 0.0 Hours)

RQD-621 0.0

Goal. Tracking code for ACS TACNAV Stage Instructor qualification.

Requirement.

Performance Standard.

Prerequisite. TACNAV-520 and commanding officer designation.

Ordnance.

External Syllabus Support.

RQD-622 0.0

Goal. Tracking code for TACNAV Stage Instructor qualification.

Requirement.

Performance Standard.

Prerequisite. TACNAV-521, RQD-620 and commanding officer designation.

Ordnance.

External Syllabus Support.

11. Low Altitude Tactics Instructor Certification

- a. Purpose. Track LAT Instructor designation.
- b. General. See course description and requirements in Instructor Training phase.
- c. Crew Requirements.

- d. Ground Training/Evaluation.
- e. Simulator and Flight Training (0 Periods, 0.0 Hours)

RQD-623 0.0

Goal. Track LAT Instructor designation.

Requirement.

Performance Standard.

Prerequisite. TACNAV-523 and commanding officer designation.

Ordnance.

External Syllabus Support.

12. Section Leader Designation.

a. Purpose. Prepare and qualify the pilot for section leader. During the workup stage for section leader, one flight should be of tactical nature (section TACNAV to AD, multi-ship AR, etc). The pilot should review section formations, multi-plane AR formations, planned and inadvertent weather penetrations and section recovery techniques. One flight should be flown at night.

b. Ground Training. Review formation leader responsibilities outlined in the OPNAVINST 3710.7__, KC-130 NFM, AAR Manual, and MAWTS-1 ASP air refueling courseware.

c. Prerequisite. Form-232, AR-353, RQD-603, 100 flight hours as a TPC.

d. Flight Training (2 Flights, 6.0 Hours)

RQD-631 3.0 2 KC-130J A (N)

Goal. Practice Section Leadership.

Requirement. The Section Lead Under Training (SLUT) is to brief and lead a section formation evolution from takeoff to landing. Discuss flight leadership responsibilities. This flight should be conducted in conjunction with a tactical mission.

Performance Standard. Per the NFM and OPNAVINST 3710.7__.

Prerequisite.

Ordnance.

External Syllabus Support.

RQD-632 3.0 R,E 2 KC-130J A (N)

Goal. Qualify as Section Leader.

Requirement. The SLUT is to brief and lead a section formation evolution from takeoff to landing. Discuss flight leadership responsibilities. This flight should be conducted in conjunction with a tactical mission and instructed by a qualified stage instructor.

Performance Standard. Per the NFM and OPNAVINST 3710.7__.

Prerequisite. RQD-631

Ordnance.

External Syllabus Support.

13. Division Leader Designation.

a. Purpose. Prepare and qualify the pilot for division leader. During the workup stage for division leader, at least one flight should be flown in conjunction with a multi-plane AR, and one flight flown at night. The pilot should review division formations, multi-plane AR formations, planned and inadvertent weather penetrations and division recovery techniques.

b. Ground Training. Review formation leader responsibilities outlined in the OPNAVINST 3710.7__ , KC-130 NFM, AAR Manual, and MAWTS-1 ASP air refueling courseware.

c. Prerequisite. FORM-332 and 100 hours as a qualified section leader (RQD-632).

d. Flight Training (2 Flights, 6.0 Hours)

RQD-634 3.0 3-4 KC-130J A (N)

Goal. Practice Division Leadership.

Requirement. The Division Lead Under Training is to brief and lead a division formation evolution from takeoff to landing. Discuss flight leadership responsibilities and tactical RAC responsibilities. This flight should be conducted in conjunction with a tactical mission. Night is recommended.

Performance Standard. Per the NFM and OPNAVINST 3710.7__.

Prerequisite.

Ordnance.

External Syllabus Support.

RQD-635 3.0 R,E 3-4 KC-130J A (N)

Goal. Qualify as a Division Leader.

Requirement. The pilot is to brief and lead a division formation evolution from takeoff to landing. Discuss flight leadership responsibilities as outlined in OPNAVINSTINST 3710.7_. This flight should be conducted during an AAR

mission and evaluated by a squadron WTI.

Performance Standard. Per the NFM and OPNAVINST 3710.7u.

Prerequisite. RQD-634

Ordnance.

External Syllabus Support.

14. Formation Stage Instructor.

a. Purpose. Track Formation Stage Instructor designation.

b. General.

c. Crew Requirements.

d. Ground Training/Evaluation. See stage requirements listed in Instructor Training phase.

d. Simulator and Flight Training (0 Flights, 0.0 Hours)

RQD-636

0.0

Goal. Track Formation Instructor designation.

Requirement.

Performance Standard.

Prerequisite. FAI-530 and commanding officer's designation.

Ordnance.

External Syllabus Support.

15. Defensive Tactics (DEFTAC) Qualification.

a. Purpose. Qualify pilot in single-ship DEFTAC maneuvering and Aircraft Survivability Equipment (ASE) utilization.

b. General. See course description and requirements for DEFTAC in the Core Plus Phase.

c. Crew Requirements.

d. Ground Training/Evaluation. Refer to training requirements in the Core Plus.

e. Simulator and Flight Training (0 Periods, 0.0 Hours)

RQD-641

0.0

1 KC-130J A

Goal. Tracking code for DEFTAC qualification.

Requirement.

Performance Standard.

Prerequisite. DEFTAC-440, DEFTAC-441 and commanding officer designation.

Ordnance.

External Syllabus Support.

16. DEFTAC Instructor (DEFTACI)

- a. Purpose. Track DEFTAC Instructor qualification.
- b. General. Refer to Instructor Training Phase.
- c. Crew Requirements.
- d. Ground Training/Evaluation. Refer to training requirements in the Instructor Training Phase.
- e. Simulator and Flight Training (0 Periods, 0.0 Hours)

RQD-642

0.0

Goal. Tracking code for DEFTACI designation.

Requirement.

Performance Standards.

Prerequisites. Commanding Officer's designation.

Ordnance.

External Syllabus Support.

17. Aerial Refueling ACS Designation.

- a. Purpose. Qualify the pilot as an ACS operator for refueling missions.
- b. General. This code should be given when the pilot has demonstrated proficiency at the ACS during high speed and low speed aerial refueling, with and without a fuselage tank installed.
- c. Crew Requirements.
- d. Ground Training/Evaluation. Review applicable CBTs and NATOPS chapters for AR system and limitations.
- e. Simulator and Flight Training (0 Periods, 0.0 Hours)

RQD-650

0.0

Goal. Track ACS AR designation.

Requirement.

Performance Standard.

Prerequisite.

External Syllabus Support.

18. Tactical Refueling Area Commander (TACTICAL RAC) Designation.

a. Purpose. Qualify the pilot as a Refueling Area Commander for multi-plane, static orbit air-to-air refueling operations.

b. General. This flight should be instructed by a qualified stage instructor.

c. Ground Training. Review RAC responsibilities outlined in the OPNAVINST 3710.7, KC-130 NFM, AAR Manual, and MAWTS-1 ASP air refueling courseware.

d. Flight Training (1 Flights 2.0 Hours)

RQD-651 2.0 R,E 2 KC-130J A (N)

Goal. Tactical RAC designation.

Requirement. Brief, conduct, and control a multi-tanker extended AR mission. Discuss responsibilities of Refueling Area Commander on a static orbit track. Focus should be on refueling formation integrity, receiver management, and fuel management for the entire flight.

Performance Standard. Per the NFM and the Air Refueling Manual.

Prerequisite. AR-353, RQD-603, RQD-632.

Ordnance.

External Syllabus Support.

19. Strategic Refueling Area Commander (Strategic RAC) Qualification.

a. Purpose. Qualify the TPC as a Strategic RAC for long range overwater refueling operations.

b. General. This designation qualifies the pilot to act as RAC for extended over-water tanker missions. A detailed knowledge of both tanker and receiver fuel management, Central Altitude Reservation Facility (CARF) coordination, long-range navigation techniques and international flight operations is required. Commanders should select only the most skilled and experienced aircraft commanders for this qualification.

c. Ground Training. Review Strategic RAC responsibilities outlined in the AAR Manual appendix on KC-130 long-range over-water mission planning.

d. Flight Training (1 Flights 8.0 Hours)

RQD-652 8.0 R,E 2 KC-130J A (N)

Goal. Strategic RAC designation.

Requirement. Brief, conduct, and control a multi-tanker extended AR mission. Discuss responsibilities of Refueling Area Commander, lead, Rendezvous Controller, Movement Control Officer, Tanker Force Commander, and Receiver Force Commander. Emphasis on ALTRV execution. Flight shall be evaluated by a qualified Refueling Area Commander.

Performance Standard. Per the NFM and the Air Refueling Manual.

Prerequisite. RQD-651.

Ordnance.

External Syllabus Support.

20. Aerial Refueling Stage Instructor.

- a. Purpose. Track Aerial Refueling Stage Instructor designations.
- b. General. See course description and requirements in Instructor Training phase.
- c. Crew Requirements.
- d. Ground Training/Evaluation.
- e. Simulator and Flight Training (0 Periods, 0.0 Hours)

RQD-653

0.0

Goal. Tracking code for ACS Aerial Refueling Stage Instructor qualification.

Requirement.

Performance Standard.

Prerequisite. AR-550 and commanding officer designation.

Ordnance.

External Syllabus Support.

RQD-654

0.0

Goal. Tracking code for PF/PM Aerial Refueling Stage Instructor qualification.

Requirement.

Performance Standard.

Prerequisite. AR-551 and commanding officer designation.

Ordnance.

External Syllabus Support.

21. Assault Landing Zone Stage Instructor (ALZI).

- a. Purpose. Track ALZ Stage Instructor qualification.
- b. General.
- c. Crew Requirements.
- d. Ground Training/Evaluation. See stage requirements listed in Instructor Training phase.
- d. Simulator and Flight Training (0 Flights, 0.0 Hours)

RQD-660

0.0

Goal. Track ALZ Instructor designation.

Requirement.

Performance Standard.

Prerequisite. FAI-560 and commanding officer's designation.

Ordnance.

Syllabus Support.

22. Aerial Delivery (AD) Stage Instructor Certification

- a. Purpose. Track AD Instructor designation.
- b. General. See course description and requirements in Instructor Training phase.
- c. Crew Requirements.
- d. Ground Training/Evaluation.
- e. Simulator and Flight Training (0 Periods, 0.0 Hours)

RQD-680

0.0

Goal. Track ACS AD Instructor designation.

Requirement.

Performance Standard.

Prerequisite. AD-580 and commanding officer designation.

Ordnance.

External Syllabus Support.

RQD-681

0.0

Goal. Track AD Instructor designation.

Requirement.

Performance Standard.

Prerequisite. AD-581 and commanding officer designation.

Ordnance.

External Syllabus Support.

23. Transport Third Pilot (T3P) Check

a. Purpose. Qualify as a T3P.

b. General. After the student pilot has completed his initial JMATS/Core Introduction training and NATOPS check, the RQD-690 tracking code shall be logged. Subsequent T3P evaluation flights shall be scheduled as a RQD-690 code.

c. Crew Requirements. NATOPS minimum crew.

d. Ground Training/Evaluation. Open and closed book NATOPS examinations and the specific requirements for T3P designation per OPNAVINST 3710.7__.

e. Flight Training (1 Flight, 2.0 Hours)

RQD-690

2.0

T,C,SC,R,E WST/KC-130J S/A (N)

Goal. T3P NATOPS evaluation flight.

Requirement. Conduct NATOPS evaluation flight.

Performance Standard. Per the NFM and OPNAVINST 3710.7__.

Prerequisite. KC-130J Core Introduction Syllabus Complete.

Ordnance.

External Syllabus Support.

24. Transport Second Pilot (T2P) Check

a. Purpose. Qualify as a T2P.

b. General. Upon completion of the initial examination and evaluation, this flight will be used as the annual NATOPS evaluation. The written tactical examination will not be required for subsequent evaluations.

c. Crew Requirements. NATOPS minimum crew.

d. Ground Training/Evaluation. Open and closed book NATOPS examinations, Open book tactics examination and the specific requirements for T2P designation per OPNAVINSTINST 3710.7__.

e. Flight Training (1 Flight, 2.0 Hours)

RQD-691 2.0 T,C,SC,R,E WST/KC-130J S/A (N)

Goal. T2P NATOPS evaluation flight.

Requirement. Conduct NATOPS evaluation flight.

Performance Standard. Per the NFM and OPNAVINST 3710.7__.

Prerequisite. Completion of Core Basic syllabus, currency/flight time per NFM.

Ordnance.

External Syllabus Support.

25. Transport Plane Commander Upgrade.

a. Purpose. Qualify pilot for TPC upgrade.

b. General. This stage is intended to prepare the pilot for the upgrade to TPC. Upon completion of the initial syllabus, RQD-698 will be used to track annual NATOPS evaluations.

c. Crew Requirements. NATOPS minimum crew.

d. Ground Training/Evaluation. Pilots considered for TPC should be Core Advanced syllabus complete, NSQ(H), currency/flight time per NFM, and the specific requirements for TPC designation per OPNAVINST 3710.7__. Commanders may waive specific pre-requisites for TPC designation at their discretion.

e. Flight and Simulator Training (7 Periods, 36.0 Hours)

RQD-692 3.0 T,C,SC,R WST S (N)

Goal. Prepare T2P for upgrade to TPC.

Requirement. Review NATOPS normal, emergency, and instrument procedures.

Performance Standard. Per the NFM and NIFM.

Prerequisite.

Ordnance.

External Syllabus Support.

RQD-693 3.0 T,C,SC,R WST S (N)

Goal. Prepare T2P for upgrade to TPC.

Requirement. Review NATOPS normal, emergency, and instrument procedures.

Performance Standard. Per the NFM and NIFM.

Prerequisite. RQD-692

Ordnance.

External Syllabus Support.

RQD-694

3.0 T,C,SC,R WST S (N)

Goal. Prepare T2P for upgrade to TPC.

Requirement. Review NATOPS normal, emergency, and instrument procedures.

Performance Standard. Per the NFM and NIFM.

Prerequisite. RQD-693

Ordnance.

External Syllabus Support.

RQD-695

3.0 T,C,SC,R WST S (N)

Goal. Prepare T2P for upgrade to TPC.

Requirement. Review NATOPS normal, emergency, and instrument procedures.

Performance Standard. Per the NFM and NIFM.

Prerequisite. RQD-694

Ordnance.

External Syllabus Support.

RQD-696

3.0 T,C,SC,R WST S (N)

Goal. Prepare T2P for upgrade to TPC.

Requirement. Review NATOPS normal, emergency, and instrument procedures.

Performance Standard. Per the NFM and NIFM.

Prerequisite. RQD-695

Ordnance.

External Syllabus Support.

RQD-697

18.0 T,C KC-130J A (N)

Goal. TPC Route Check.

Requirement. PILOT will demonstrate the ability to manage all aspects of an extended mission. Evaluation should be a long-range mission involving cargo handling, international flight

procedures, route planning, and aircrew management. This flight should involve multiple legs with RON (remain-over-night).

Performance Standard. Per the NFM, FLIP, FCG and published SOPs.

Prerequisite. RQD-696

Ordnance.

External Syllabus Support. Diplomatic/Flight Clearance.

RQD-698 3.0 T,C,SC,R,E KC-130J/WST A/S (N)

Goal. TPC NATOPS evaluation flight.

Requirement. Conduct NATOPS evaluation flight.

Performance Standard. Per the NFM.

Prerequisite. RQD-697

Ordnance.

External Syllabus Support.

26. Weapons and Tactics Instructor (WTI)

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

b. General. Tactics and techniques will be taught per the KC-130J Tactical Manual and the MAWTS-1 supplements. Only MAWTS-1 instructors shall instruct/qualify flights in this stage. Qualification shall only be achieved as shown in each flight description.

c. Crew Requirements. Refer to MAWTS-1 Course Catalog.

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

e. Flight and Simulator Training. See the MAWTS-1 Course Catalog.

RQD-699 0.0

Goal. Tracking code for WTI designation.

Requirement. Successfully complete the requirements of WTI. This code shall be logged upon commanding officer designation.

Performance Standards. Refer to Instructor Training Phase.

Prerequisites. Refer to Instructor Training Phase.

Ordnance.

External Syllabus Support.

160. EXPENDABLE ORDNANCE REQUIREMENTS

BASIC/TRANSITION/CONVERSION/REFRESHER

ORDNANCE	100 SERIES	200 SERIES	300 SERIES	400 SERIES	IUT	ANNUAL
MJU-8						
RR-129						
RR-144						
LUU-2A/B,B/B				80		80
LUU-19				80		80

CORE SKILL BASIC

STAGE	CODE	HRS	SIM HRS	REFLT	CRP	SIM CRP	SC	R	E	N	NS	REMARKS
SNS(H)	003		2.0	*			X				NS	
SNS(H)	004		2.0	*			X				NS	
NS(H)	203	2.0		90	0.9		X	X			NS	
NS(H)	204	2.0		90	0.9		X	X			NS	
LRNAV	210	6.0		*			X			(N)		
LRNAV	211	6.0		*			X			(N)		
LRNAV	212	6.0		*			X			(N)		
LRNAV	213	6.0		365	1.0		X	X		(N)		
STACNAV	020		2.0	*			X					
STACNAV	021		2.0	*			X					
STACNAV	022		2.0	*			X					
STACNAV	023		2.0	*			X					
TACNAV	222	2.0		365	0.8		X	X		(N)		A/S
TACNAV	223	2.0		365	0.8		X	X				A/S
TACNAV	224	2.0		180	0.8		X	X			NS	A/S
TACNAV	225	2.0		180	0.8		X	X			NS	A/S
SFORM	030		2.0	*								
FORM	231	3.0		365	1.6		X	X		(N)	(NS)	2A/S
FORM	232	3.0		*			X				NS	2A/S
STHRX(I)	040		2.0	*			X					
THR(X) (I)	240	2.0		180	0.8		X	X		(N)	(NS)	S/A
SAR	050		2.0	*								
SAR	051		2.0	*								
SAR	052		2.0	*								
SAR	053		2.0	*			X	X				
SAR	054		2.0	*			X	X				
AR	250	2.0		365	0.9		X	X		(N)	(NS)	A/S
AR	251	2.0		365	0.9		X	X				A/S
AR	252	2.0		*			X	X		N	(NS)	A/S
AR	253	2.0		180	0.8					(N)	(NS)	
SALZ	060		2.0	*								
SALZ	061		2.0	*						N	(NS)	
SALZ	062		2.0	*			X			(N)		
ALZ	260	2.0		180	1.1		X	X		(N)		A/S
ALZ	261	2.0		*			X	X		(N)	NS	A/S
ALZ	262	2.0		180	1.1		X	X		(N)	(NS)	
ALZ	263	0.0		730	1.0		X			(N)		
RGR	270	0.0		730	0.8		X	X		(N)		
TOTAL 200	37	56.0	32.0		15.0	0.0						
TOTAL 100,200	CI+ 37.0	CI+ 56.0	CI+ 32.0		CI+ 9.9	CI+ 5.1						

CORE SKILL ADVANCE

STAGE	CODE	HRS	SIM HRS	REFL	CRP	SIM CRP	SC	R	E	N	NS	REMARKS
STACNAV	024		2.0	*			X					
TACNAV	323	2.0		180	2.2		X	X				
STACNAV	025		2.0	*			X				NS	
TACNAV	324	2.0		180	2.2		X	X			NS	
SFORM	032		2.0	*								
FORM	332	3.0		365	2.2		X	X		(N)	(NS)	A/S
STHRX(R)	041		2.0	*			X					
THRX(R)	341	2.0		180	2.2		X	X		(N)		S/A
SAR	055		2.0	*								
SAR	056		2.0	*						(N)	(NS)	
AR	353	3.0		365	2.3		X	X		(N)	(NS)	A/S
ALZ	360	2.0		180	2.3		X	X		(N)		A/S
SAD	080		2.0	*			X	X				
AD	380	2.0		180	2.2		X	X			(NS)	A/S, ACS
AD	381	2.0		180	2.2		X	X			(NS)	A/S, ACS
AD	383	2.0		180	2.2		X	X			(NS)	A/S, ACS
TOTAL	16	20.0	14.0		20.0	0.0						
TOTAL 100, 200,300	CI+ 53.0	CI+ 76.0	CI+ 46.0		CI+ 35.0	CI+ 0.0						

CORE PLUS

STAGE	CODE	HRS	SIM HRS	REFLT	CRP	SIM CRP	SC	R	E	N	NS	REMARKS
FORM	433	3.0		365	0.7		X	X			(NS)	
DEFTAC	440	2.0		365	0.7		X	X			(NS)	1 ADV
DEFTAC	441	2.0		365	0.7		X				(NS)	2 ADV
AR	458	6.0		365	0.8		X	X		(N)		A/S, ACS
SAD	084		2.0	*			X	X				
AD	482	2.0		180	0.7		X				(NS)	
AD	484	2.0		180	0.7		X	X		(N)	(NS)	ACS
AD	485	2.0		180	0.7		X			X		ACS
TOTAL	8	19.0	2.0		5.0	0.0						
TOTAL 100, 200, 300,400	CI+ 61.0	CI+ 95.0	CI+ 48.0		CI+ 40.0	CI+ 0.0						

INSTRUCTOR TRAINING

STAGE	CODE	HRS	SIM HRS	NOTES All Events are E coded
NI	500	2.0		NI/ANI Training
NI	501	2.0		NI/ANI Check
NS(H)	503	3.0		NS(H) FAM IUT
NS(H)	504	3.0		NS(H) TACNAV IUT
TACNAV	520	2.0		ACS TACNAV Stage Instructor Check
TACNAV	521	2.0		TACNAV Stage Instructor Check
TACNAV	522	3.0		Begin certification for LATI
TACNAV	523	3.0		LATI Check
FORM	530	3.0		FORM Stage Instructor Check
AR	550	3.0		ACS AR Stage Instructor Check
AR	551	3.0		AR Stage Instructor Check
ALZ	560	2.0		ALZ Stage Instructor Check
AD	580	2.0		ACS AD Stage Instructor Check
AD	581	2.0		AD Stage Instructor Check

REQUIREMENTS, QUALIFICATIONS, AND DESIGNATIONS

STAGE	CODE	HRS	TRACK	A/C OR SIM	NOTES
RQD	600	2.0		A/S	Left Seat FAI
RQD	601	2.0		A/S	NI/ANI Check
RQD	603	0.0	X		NSQ(H)
RQD	604	0.0	X		NSQ(L)
RQD	605	2.0		A	NSI Check
RQD	606	2.0	X	A/S	Standard Instrument Check
RQD	607	2.0	X	A/S	Special Instrument Check
RQD	609	4.0		A/S	PMCF
RQD	610	0.0			LRNAVI
RQD	620	0.0	X		LATQ
RQD	621	0.0			ACS TACNAV Stage Instructor
RQD	622	0.0			TACNAV Stage Instructor
RQD	623	0.0			LATI
RQD	631	3.0		A	Section Lead Practice
RQD	632	3.0	X	A	Section Lead Check
RQD	634	3.0		A	Division Lead Practice
RQD	635	3.0	X	A	Division Lead Check
RQD	636	0.0			Formation Stage Instructor
RQD	641	0.0	X		DEFTAG(A) Qualification
RQD	642	0.0			DEFTAG(I) Designation
RQD	650	0.0			AR ACS Designation
RQD	651	2.0		A	Tactical RAC Designation
RQD	652	8.0		A	Strategic RAC Designation
RQD	653	0.0			AR ACS Stage Instructor
RQD	654	0.0			AR Stage Instructor
RQD	660	0.0			ALZ Stage Instructor
RQD	680	0.0			AD ACS Stage Instructor
RQD	681	0.0			AD Stage Instructor
RQD	690	2.0	X	A/S	T3P NATOPS Check
RQD	691	2.0	X	A/S	T2P NATOPS Check
RQD	692	3.0		S	TPC Upgrade Sim
RQD	693	3.0		S	TPC Upgrade Sim
RQD	694	3.0		S	TPC Upgrade Sim
RQD	695	3.0		S	TPC Upgrade Sim
RQD	696	3.0		S	TPC Upgrade Sim
RQD	697	18.0		A	TPC Route Check
RQD	698	3.0	X	A/S	TPC NATOPS Check
RQD	699	0.0			WTI Designation

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

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

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

(1) Night Optional. Chained codes annotated with parentheses around them, e.g. (200), are only chain-updated if the chaining code is flown at night.

(2) Night Systems Optional. Chained codes annotated with parentheses and NS after them, e.g. (200 NS), are only chain-updated if the chaining code is flown using night systems.

(3) Light Level Optional. Chained codes annotated with parentheses and HLL after them, e.g. (200 HLL), are only chain-updated if the chaining code is flown using night systems during a high light level period. Chained codes annotated with parentheses and LLL after them, e.g. (200 LLL), are only chain-updated if the chaining code is flown using night systems during a low light level period.

c. Syllabus Event Conversion Matrix. The matrix is used to convert Stage and Training Code events from the previous KC-130FRT T&R Manual to the Stage and Training Codes contained within this Manual. The automated flight scheduling tool, Squadron Assistance Risk Assessment (SARA), will automatically convert and update the previous Stage and Training Codes contained under the Old Primary column to the New Stage and Training Codes. There is a possibility that more than one old Stage and Training Code could map to the New Stage and Training Codes. Therefore, the column "Old Secondary" was established. Due to software shortcomings in the SARA program, SARA can only map one old code to the new code. It is the responsibility of the local SARA administrator to manually map "Old Secondary" codes to the new Stage and Training Codes.

EVENT UPDATE CHAINING

STAGE	FLIGHT	FLIGHT UPDATED
	NS(H) 203	
	NS(H) 204	
	LRNAV 210	(203 HLL), (204 LLL)
	LRNAV 211	(203 HLL), (204 LLL)
	LRNAV 212	(203 HLL), (204 LLL)
	LRNAV 213	(203 HLL), (204 LLL), 210, 211, 212
	TACNAV 222	
	TACNAV 223	222
	TACNAV 224	203, 222, 223
	TACNAV 225	204, 222, 223
	FORM 231	(203 HLL), (204 LLL)
	FORM 232	(203 HLL), (204 LLL), 231
THR(X) (I)	240	(203 HLL), (204 LLL)
	AR 250	(203 HLL), (204 LLL)
	AR 251	
	AR 252	(203 HLL), (204 LLL), 251
	AR 253	(203 HLL), (204 LLL)
	ALZ 260	(203 HLL), (204 LLL)
	ALZ 261	(203 HLL), (204 LLL), 260
	ALZ 262	(203 HLL), (204 LLL)
	ALZ 263	(203 HLL), (204 LLL)
	RGR 270	(203 HLL), (204 LLL)
	TACNAV 323	222, 223
	TACNAV 324	203, 222, 223, 224, 323
	FORM 332	(203 HLL), (204 LLL), 231, (232)
THR(X) (R)	340	
	AR 353	(203 HLL), (204 LLL), 231, (232), (250 HS), (251 LS), (332 DIV)
	ALZ 360	(203 HLL), (204 LLL), 260, (261)
	AD 380	(203 HLL), (204 LLL)
	AD 381	(203 HLL), (204 LLL), 380
	AD 383	(203 HLL), (204 LLL)
	DEFTAC 440	(203 HLL), (204 LLL)
	DEFTAC 441	(203 HLL), (204 LLL), 440
	AR 458	(203 HLL), (204 LLL), 213, (250 HS), (251 LS)
	AD 482	(203 HLL), (204 LLL), 480, 481
	AD 484	(203 HLL), (204 LLL)
	AD 485	(203 HLL), (204 LLL)

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

STAGE AND TRAINING CODE - NEW	STAGE AND TRAINING CODE - OLD PRIMARY	STAGE AND TRAINING CODE - OLD SECONDARY
CST-010		
CST-011		
CST-012		
CST-013		
CST-014		
CST-015		
CPT-016		
CPT-017		
CPT-018		
CPT-019		
CPT-099		
FAI-100	FAI-105	
FAI-101	FAI-105	
FAI-102	FAI-105	
FAI-103	FAI-105	
FAI-104	FAI-105	
FAI-105	FAI-105	
FAI-106	FAI-105	
FAI-107	FAI-105	
FAI-108	FAI-105	
FAI-109	FAI-105	
FAI-110	FAI-105	
FAI-111	FAI-105	
FAI-112	FAI-105	
FAI-113	FAI-105	
FAI-114	FAI-105	
FAI-115	FAI-105	
FAI-116	FAI-105	
FAI-117	FAI-105	
NS-003	SNS-202	
NS-004	RQD-632	
NS-203	NS-203	
NS-204	RQD-632	
LRNAV-210	LRNAV-251	
LRNAV-211	LRNAV-251	
LRNAV-212	LRNAV-250	
LRNAV-213	LRNAV-251	
TACNAV-020	SLLNAV-220	
TACNAV-021	LLNAV-224	
TACNAV-022	LLNAV-224	
TACNAV-023	LLNAV-222	
TACNAV-222	LLNAV-224	
TACNAV-223	LLNAV-221	
TACNAV-224	LLNAV-222	
TACNAV-225	LLNAV-325	

T&R MANUAL, KC-130J

SFORM-030	SFORM-230	
FORM-231	FORM-231	
FORM-232	FORM-232	FORM-233
STHRX-040	SDEFTACG-360	
THR-240	DEFTAC(G)-363	
AR-050		
AR-051	AR-210	
AR-052	AR-210	
AR-053	AR-213	
AR-054	AR-216	
AR-250	AR-210	AR-211
AR-251	AR-213	
AR-252	AR-214	AR-312
AR-253	AR-212	AR-216
SALZ-060	TLZ-271	
SALZ-061	TLZ-271	
SALZ-062	TLZ-277	
ALZ-260	TLZ-271	
ALZ-261	TLZ-272	
ALZ-262	TLZ-271	
ALZ-263	TLZ-276	
RGR-270	RGR-280	
STACNAV-024	LAT-322	
TACNAV-323	LAT-323	
STACNAV-025		
TACNAV-324	LAT-324	
SFORM-032	FORM-335	
FORM-332	FORM-335	FORM-336
STHRX-041	THR-362	
THR-341	THR-363	
SAR-055	AR-310	
SAR-056	AR-311	
AR-353	AR-310	AR-311
ALZ-360	TLZ-370	TLZ-372
SAD-080	AD-241	SAD-340
AD-380	AD-241	
AD-381	AD-242	
AD-383	AD-243	
FORM-433	FORM-234	FORM-334
DEFTAC-440	DEFTAC(A)-460	
DEFTAC-441	DEFTAC(A)-461	
AR-458	AR-410	
SAD-084	AD-441	
AD-482	AD-441	
AD-484	AD-440	
AD-485	AD-442	
NI-500	RQD-670	RQD-671
NI-501	RQD-670	RQD-671
NS-503	RQD-650	
NS-504	RQD-650	
TACNAV-520	LLNAV-536	
TACNAV-521	LLNAV-537	

T&R MANUAL, KC-130J

TACNAV-522	LAT-590	LAT-591
TACNAV-523	LAT-592	LAT-651
FORM-530	FORM-538	FORM-539
AR-550	AR-534	
AR-551	AR-535	
ALZ-560	TLZ-544	TLZ-545
AD-580	AD-540	
AD-581	AD-541	
DEFTACI-590		
DEFTACI-591		
DEFTACI-592		
RQD-600	RQD-600	
RQD-601	RQD-670	RQD-671
RQD-603	RQD-632	RQD-633
RQD-604		
RQD-605	RQD-650	
RQD-606	RQD-605	
RQD-607	RQD-606	
RQD-609	RQD-690	
RQD-610	RQD-665	
RQD-620	RQD-630	
RQD-621		
RQD-622	RQD-662	
RQD-623	RQD-651	
RQD-631	RQD-640	RQD-641
RQD-632	RQD-642	
RQD-634	RQD-643	RQD-644
RQD-635	RQD-645	
RQD-636	RQD-663	
RQD-641	RQD-635	
RQD-642	RQD-652	
RQD-650		
RQD-651	RQD-646	
RQD-652	RQD-647	
RQD-653		
RQD-654	RQD-661	
RQD-660	RQD-666	
RQD-680		
RQD-681	RQD-664	
RQD-690	RQD-610	
RQD-691	RQD-611	
RQD-692	RQD-612	RQD-613
RQD-693	RQD-614	RQD-615
RQD-694	RQD-616	RQD-617
RQD-695	RQD-618	RQD-619
RQD-696	RQD-620	
RQD-697	RQD-624	
RQD-698	RQD-625	
RQD-699	RQD-653	