

**NAVAL AIR TRAINING COMMAND**



**NAS CORPUS CHRISTI, TEXAS  
CIN Q-2A-0117/Q-2A-0120**

---

# **CHIEF OF NAVAL AIR TRAINING**



## **T-6B PRIMARY FLIGHT INSTRUCTOR TRAINING**

**2009**





DEPARTMENT OF THE NAVY

CHIEF OF NAVAL AIR TRAINING  
CNATRA  
250 LEXINGTON BLVD SUITE 102  
CORPUS CHRISTI TX 78419-5041

CNATRAINST 1542.165  
N716

15 DEC 09

CNATRA INSTRUCTION 1542.165

Subj: T-6B PRIMARY FLIGHT INSTRUCTOR CURRICULUM

1. Purpose. To issue the curriculum for qualifying naval aviators/military pilots to instruct student military aviators in the T-6B Primary phase of training.
2. Cancellation. N/A.
3. Action. This instruction is effective on receipt. No changes will be made without written authorization by the Chief of Naval Air Training (CNATRA).
4. Forms. The Aviation Training Forms required by this directive are automated in the Training Integration Management System (TIMS) computer program. This system has been assigned a system form number of CNATRA 1542/2022. An update of these forms shall be accomplished no later than the issuance of this curriculum.

  
JAMES A. CRABBE  
Chief of Staff

LARGE FORMAT (8.5 X 11)

Distribution:

CNATRAINST 5215.1S

List I (C, D, K, L, N, V, W, EE, FF)

List III (M, P)

Copy to:

CNO (N789) (N00T)

CMC

NETC

NAVOPMEDINST

NAVAIRWARCENTRASYSIDIV Orlando

NETSAFA

CNATRA (N734)

19<sup>TH</sup> AF/DON

COMTRAWING TWO (COOP File)

CNATRAINST 1542.165  
15 DEC 09

SMALL FORMAT (5.5 X 8.5)

CNATRA Distribution:

CNATRA (10)

PAT PUB Coordinator TRAWING FOUR (150)

PAT PUB Coordinator TRAWING FIVE (200)

LIST OF EFFECTIVE PAGES

Original

Total number of pages is 204 consisting of the following:

<u>Page Number</u>	<u>Issue</u>
Letter - 2	
3/(4 blank)	
i - ii	
iii/(iv blank)	
v/(vi blank)	
vii - xiv	
xv/(xvi blank)	
xvii - xx	
xxi/(xxii blank)	
xxiii - xxiv	
I-1 - I-2	
(I-3 blank)/I-4	
I-5 - I-12	
I-13/(I-14 blank)	
II-1 - II-8	
II-9/(II-10 blank)	
III-1 - III-26	
III-27/(III-28 blank)	
IV-1 - IV-28	
V-1 - V-18	
VI-1 - VI-18	
VII-1 - VII-28	
VII-29/(VII-30 blank)	
VIII-1/(VIII-2 blank)	
IX-1 - IX-28	

CNATRAINST 1542.165  
15 DEC 09

BLANK PAGE

TABLE OF CONTENTS

	<u>PAGE</u>
<u>SUMMARY OF CHANGES</u> .....	v
<u>COURSE DATA</u> .....	vii
<u>ABBREVIATIONS</u> .....	xvii
<u>GLOSSARY</u> .....	xxiii
CHAPTER I. <u>GENERAL INSTRUCTIONS</u>	
SYLLABUS MANAGEMENT .....	I-1
TRAINING MANAGEMENT .....	I-1
T-6B IUT ACADEMICS COURSE FLOW .....	I-4
T-6B FLIGHT/DEVICE IUT COURSE FLOW .....	I-5
T-6B ADVANCED QUALIFICATIONS COURSE FLOW .....	I-6
T-6B ROTARY-TO-STRIKE TRANSITION COURSE FLOW .....	I-7
GROUND TRAINING AND BRIEFING REQUIREMENTS, MISSION PREPARATION, BRIEFINGS, AND DEBRIEFING .....	I-8
MISSION GRADING PROCEDURES AND EVALUATION POLICIES ...	I-9
SPECIAL INSTRUCTIONS AND RESTRICTIONS .....	I-12
CHAPTER II. <u>GROUND TRAINING</u>	
ADMINISTRATION/INDOCTRINATION (G01) .....	II-1
SYSTEMS (SY01/2/3) .....	II-2
OPERATING PROCEDURES (PR01) .....	II-4
FLIGHT RULES AND REGULATIONS (G02) .....	II-5
FIXED-WING AERODYNAMICS (G03) .....	II-6
NATOPS QUALIFICATION (G04/5) .....	II-7
NATOPS INSTRUMENT GROUND SCHOOL/IRATS (G06) .....	II-8
LOCAL PROCEDURES (LP01) .....	II-9
CHAPTER III. <u>NATOPS TRAINING</u>	
MATRICES .....	III-1
NATOPS STAGE MANEUVER ITEM FILE MATRIX .....	III-1
NATOPS QUALIFICATION TRAINING (Q11) .....	III-6
NATOPS COCKPIT PROCEDURES (Q21) .....	III-7
EMERGENCY PROCEDURES TRAINER (NATOPS) (Q22) .....	III-10
NATOPS - CONTACT (Q31) .....	III-12
NATOPS - INSTRUMENT (Q32) .....	III-15
NATOPS (Q41) .....	III-17
NATOPS (Q42) .....	III-20
NATOPS CHECK FLIGHT (Q43) .....	III-24

CHAPTER IV. CONTACT TRAINING

MATRICES .....IV-1  
CONTACT STAGE MANEUVER ITEM FILE MATRIX .....IV-1  
CONTACT FLIGHT PROCEDURES (C11) .....IV-4  
OUT-OF-CONTROL FLIGHT (C12) .....IV-5  
DAY CONTACT (C31) .....IV-6  
DAY CONTACT (C41) .....IV-9  
DAY CONTACT (C42) .....IV-12  
DAY CONTACT (C43) .....IV-15  
STANDARDIZATION DAY CONTACT CHECK FLIGHT (C44) .....IV-18  
NIGHT CONTACT (C45) .....IV-21  
STANDARDIZATION NIGHT CONTACT CHECK FLIGHT (C46) ...IV-23  
STANDARDIZATION OUT-OF-CONTROL FLIGHT (C47) .....IV-25  
STANDARDIZATION OUT-OF-CONTROL CHECK FLIGHT (C48) ..IV-27

CHAPTER V. INSTRUMENT TRAINING

MATRICES .....V-1  
INSTRUMENT STAGE MANEUVER ITEM FILE MATRIX .....V-1  
INSTRUMENTS (IN11/12) .....V-3  
BASIC INSTRUMENTS (I31) .....V-5  
RADIO INSTRUMENTS (I32) .....V-7  
BASIC INSTRUMENTS (I41) .....V-9  
RADIO INSTRUMENTS (I42) .....V-12  
STANDARDIZATION INSTRUMENT CHECK FLIGHT (I43) .....V-15  
NATOPS INSTRUMENT CHECK FLIGHT (I44) .....V-17

CHAPTER VI. NAVIGATION TRAINING

MATRICES .....VI-1  
NAVIGATION STAGE MANEUVER ITEM FILE MATRIX .....VI-2  
LOW-LEVEL ADVANCED QUALIFICATION MANEUVER ITEM  
FILE MATRIX .....VI-3  
NAVIGATION (NA11) .....VI-4  
DAY NAVIGATION (N31) .....VI-5  
NIGHT NAVIGATION (N32) .....VI-7  
DAY NAVIGATION (N41) .....VI-9  
NIGHT NAVIGATION (N42) .....VI-11  
LOW-LEVEL (L31) .....VI-13  
LOW-LEVEL (L41) .....VI-15  
LOW-LEVEL CHECK FLIGHT (L42) .....VI-17

CHAPTER VII. FORMATION TRAINING

MATRICES .....VII-1  
FORMATION STAGE MANEUVER ITEM FILE MATRIX .....VII-1  
AF FORMATION STUDENT SYLLABUS MANAGEMENT .....VII-3  
IUT ADVANCED QUALIFICATION .....VII-3  
AF FORMATION STAGE MANEUVER ITEM FILE MATRIX .....VII-4  
FORMATION/TACTICAL FORMATION (F11/12) .....VII-6

AF FORMATION (F13) .....VII-8  
FORMATION (F31) .....VII-9  
FORMATION (F41) .....VII-11  
FORMATION (F42) .....VII-14  
STANDARDIZATION FORMATION CHECK FLIGHT (F43) .....VII-17  
TACTICAL FORMATION (F44) .....VII-19  
STANDARDIZATION TACTICAL FORMATION CHECK  
FLIGHT (F45) .....VII-22  
AF FORMATION (F46) .....VII-24  
STANDARDIZATION AF FORMATION CHECK FLIGHT (F47) ..VII-27

CHAPTER VIII. TACTICAL TRAINING

DOES NOT APPLY .....VIII-1

CHAPTER IX. COURSE TRAINING STANDARDS

PURPOSE .....IX-1  
IUT/STUDENT DUTIES AND RESPONSIBILITIES .....IX-1  
GENERAL STANDARDS .....IX-1  
EXECUTION .....IX-1  
JOB TASKS .....IX-2  
GRADED ITEMS .....IX-2  
COURSE TRAINING STANDARDS .....IX-2

CNATRAINST 1542.165  
15 DEC 09

BLANK PAGE



CNATRAINST 1542.165  
15 DEC 09

BLANK PAGE

COURSE DATA

1. Course Title. T-6B Primary Flight Instructor Training.
2. Course ID Number. T-6B Primary Flight Instructor Training, Q-2A-0117; Rotary-to-Strike Transition, Q-2A-0120.
3. Location(s). NAS Corpus Christi, TX 78419-5021 and NAS Whiting Field, Milton, FL 32510-6155.
4. Course Status. Active.
5. Course Mission. T-6B Primary Flight Instructor Training is designed to provide designated naval aviators and military pilots with the appropriate flight procedures, instructional methodology, and techniques to instruct undergraduate flight students in the Primary phase of flight training. The Rotary-to-Strike Transition Syllabus is designed for fleet rotary wing aviators selected for strike transition training. Requests for amendments or deviations to this instruction shall be forwarded to CNATRA (N71).
6. Prerequisite Training. Designated Naval Aviator/military pilot.
7. Security Clearance Requirements. None.
8. Follow-on Training. As required to maintain currency.
9. Course Length. Training Air Wing (TRAWING) Commanders are directed to provide the course of instruction contained herein to include a minimum full qualification in the NATOPS, Contact, Instrument, and Navigation stages. Overall time-to-train is calculated in accordance with CNATRAINST 1550.6E. Training days are as follows:

	<u>Training Days</u>	<u>Calendar Weeks</u>
Initial IUT	70.8	15.7
Rotary-to-Strike Transition	28.3	6.3
10. Class Capacity. Variable.
11. Instructor Requirements. One flight instructor per eight military aviators undergoing this training.
12. Course Curriculum Model Manager. TRAWING FIVE.
13. Quota Management Authority. Chief of Naval Air Training.
14. Quota Control. Chief of Naval Operations.

15. Course Training Subjects

a. Initial IUT Ground Training

<b>ADMINISTRATION</b>		
<b>Block</b>	<b>Symbol</b>	<b>Hours</b>
Check-In	G0101	2.5
Checkout	G0107	0.5
<b>Totals</b>		<b>3.0</b>

<b>INITIAL IUT GROUND TRAINING</b>		
<b>Block</b>	<b>Symbol</b>	<b>Hours</b>
Ejection Seat/Egress Procedures	G0102	2.0
Aviation Safety Program	G0103	1.0
GLOC/GTIP	G0104	1.0
Crew Resource Management	G0105	3.0
Flight Instructor Training Course	G0106	26.0
T-6B Aircraft Systems 1	SY0101-16	24.1
T-6B Aircraft Systems 1 Exam	SY0190	1.5
T-6B Aircraft Systems 2	SY0201-12	13.9
T-6B Aircraft Systems 2 Exam	SY0290	1.5
FMS Trainer	SY0301-2	4.0
Operating Procedures	PR0101-2	2.0
	PR0104-12	12.5
EP BOLDFACE Exam	PR0113	0.5
Flight Rules and Regulations	G0201	3.0
Flight Rules and Regulations Exam	G0290	1.0
Fixed-Wing Aerodynamics	G0301	2.0
Fixed-Wing Aerodynamics Exam	G0390	1.0
NATOPS Open-Book Exam	G0490	3.0
NATOPS Closed-Book Exam	G0590	1.0
NATOPS Instrument Ground School/IRATS	G0601	6.0
NATOPS Instrument Ground School/IRATS Exam	G0690	2.0
Course Rules	LP0102	4.5
Course Rules Exam	LP0190	1.0
<b>Totals</b>		<b>117.5</b>

b. Initial IUT Flight Support

<b>INITIAL IUT FLIGHT SUPPORT</b>		
<b>Block</b>	<b>Symbol</b>	<b>Hours</b>
Day Contact Flight Procedures	C1101-8	9.6
Contact Exam	C1190	1.5
Night Procedures	C1109	0.8
Out-of-Control Flight Procedures Exam	C1290	1.0
Basic Instruments Flight Procedures	IN1101-3	2.7
Instruments 1 Exam	IN1190	1.5
Radio Instruments Flight Procedures	IN1202-3, IN1205-6, IN1208-10	8.1
Instruments 2 Exam	IN1290	1.5
Navigation Flight Procedures	NA1102-3 NA1106-7	7.5
Navigation Exam	NA1190	1.5
NATOPS Flight 0	Q1101	1.5
<b>Totals</b>		<b>37.2</b>

c. Initial IUT Flight Training

INITIAL IUT FLIGHT TRAINING						
Block	UTD		OFT		T-6B Dual	
	Flts	Hrs	Flts	Hrs	Flts	Hrs
NATOPS Qualification	4	5.2	5	6.5	8	14.4
NATOPS Check Flight					1	1.8
Day Contact			3	3.9	9	14.4
Standardization Day Contact Check Flight					1	1.6
Night Contact					1	1.6
Standardization Night Contact Check Flight					1	1.6
Instruments			6	7.8	6	9.6
Standardization Instrument Check Flight					1	1.6
NATOPS Instrument Check Flight					1	1.6
Day Navigation			1	1.3	1	1.6
Night Navigation			1	1.3	1	1.6
<b>Totals</b>	<b>4</b>	<b>5.2</b>	<b>16</b>	<b>20.8</b>	<b>31</b>	<b>51.4</b>

d. Annual Ground Training

ADDITIONAL IP GROUND TRAINING (ANNUALLY)		
Block	Symbol	Hours
Ejection Seat/Egress Procedures	G0102	2.0
Crew Resource Management	G0105	3.0
Course Rules Exam	LP0190	1.0
NATOPS Instrument Ground School/IRATS	G0601	6.0
NATOPS Instrument Ground School/IRATS Exam	G0690	2.0
NATOPS Open-Book Exam	G0490	3.0
NATOPS Closed-Book Exam	G0590	1.0
<b>Totals</b>		<b>18.0</b>

e. Advanced Qualifications and Annual Flight Support

<b>FORMATION FLIGHT SUPPORT</b>		
<b>Block</b>	<b>Symbol</b>	<b>Hours</b>
Formation Flight Procedures	F1101-5	7.5
Formation Exam	F1190	1.5
<b>Totals</b>		<b>9.0</b>

<b>TACTICAL FORMATION FLIGHT SUPPORT</b>		
<b>Block</b>	<b>Symbol</b>	<b>Hours</b>
Tactical Formation	F1201	0.9
<b>Totals</b>		<b>0.9</b>

<b>AF FORMATION FLIGHT SUPPORT</b>		
<b>Block</b>	<b>Symbol</b>	<b>Hours</b>
AF Formation Flight Procedures	F1301	2.0
AF Formation Exam	F1390	1.0
<b>Totals</b>		<b>3.0</b>

<b>ADDITIONAL IP FLIGHT SUPPORT (ANNUALLY)</b>		
<b>Block</b>	<b>Symbol</b>	<b>Hours</b>
Out-of-Control Flight Procedures Exam	C1290	1.0
<b>Totals</b>		<b>1.0</b>

f. Advanced Qualifications and Annual Flight Training

<b>FORMATION FLIGHT TRAINING (ADVANCED QUALIFICATION)</b>						
<b>Block</b>	<b>UTD</b>		<b>OFT</b>		<b>T-6B Dual</b>	
	<b>Flts</b>	<b>Hrs</b>	<b>Flts</b>	<b>Hrs</b>	<b>Flts</b>	<b>Hrs</b>
Formation			1	1.3	8	12.8
Standardization Formation Check Flight					1	1.6
<b>Totals</b>			<b>1</b>	<b>1.3</b>	<b>9</b>	<b>14.4</b>

<b>TACTICAL FORMATION FLIGHT TRAINING (ADVANCED QUALIFICATION)</b>						
<b>Block</b>	<b>UTD</b>		<b>OFT</b>		<b>T-6B Dual</b>	
	<b>Flts</b>	<b>Hrs</b>	<b>Flts</b>	<b>Hrs</b>	<b>Flts</b>	<b>Hrs</b>
Tactical Formation					3	4.8
Standardization Tactical Formation Check Flight					1	1.6
<b>Totals</b>					<b>4</b>	<b>6.4</b>

<b>LOW-LEVEL NAVIGATION FLIGHT TRAINING (ADVANCED QUALIFICATION)</b>						
<b>Block</b>	<b>UTD</b>		<b>OFT</b>		<b>T-6B Dual</b>	
	<b>Flts</b>	<b>Hrs</b>	<b>Flts</b>	<b>Hrs</b>	<b>Flts</b>	<b>Hrs</b>
Low-Level			1	1.3	1	1.6
Low-Level Check Flight					1	1.6
<b>Totals</b>			<b>1</b>	<b>1.3</b>	<b>2</b>	<b>3.2</b>

<b>OCF FLIGHT TRAINING (ADVANCED QUALIFICATION)</b>						
<b>Block</b>	<b>UTD</b>		<b>OFT</b>		<b>T-6B Dual</b>	
	<b>Flts</b>	<b>Hrs</b>	<b>Flts</b>	<b>Hrs</b>	<b>Flts</b>	<b>Hrs</b>
Standardization OCF Flight					1	1.6
Standardization OCF Check Flight					1	1.6
<b>Totals</b>					<b>2</b>	<b>3.2</b>

<b>AF FORMATION FLIGHT TRAINING (ADVANCED QUALIFICATION)</b>						
<b>Block</b>	<b>UTD</b>		<b>OFT</b>		<b>T-6B Dual</b>	
	<b>Flts</b>	<b>Hrs</b>	<b>Flts</b>	<b>Hrs</b>	<b>Flts</b>	<b>Hrs</b>
AF Formation					5	8.0
Standardization AF Formation Check Flight					1	1.6
<b>Totals</b>					<b>6</b>	<b>9.6</b>

ADDITIONAL T-6B IP FLIGHT TRAINING (ANNUALLY)						
Block	UTD		OFT		T-6B Dual	
	Flts	Hrs	Flts	Hrs	Flts	Hrs
EP Trainer			1	1.3		
NATOPS Check Flight					1	1.8
Standardization Day Contact Check Flight					1	1.6
Standardization Instrument Check Flight					1	1.6
NATOPS Instrument Check Flight					1	1.6
<b>Totals</b>			<b>1</b>	<b>1.3</b>	<b>4</b>	<b>6.6</b>

g. Rotary-to-Strike Transition Ground Training

ROTARY-TO-STRIKE TRANSITION ADMINISTRATION		
Block	Symbol	Hours
Check-In	G0101	2.5
Checkout	G0107	0.5
<b>Totals</b>		<b>3.0</b>

ROTARY-TO-STRIKE TRANSITION GROUND TRAINING		
Block	Symbol	Hours
Ejection Seat/Egress Procedures	G0102	2.0
T-6B Aircraft Systems 1	SY0101-16	24.1
T-6B Aircraft Systems 1 Exam	SY0190	1.5
T-6B Aircraft Systems 2	SY0201-12	13.9
T-6B Aircraft Systems 2 Exam	SY0290	1.5
FMS Trainer	SY0301-2	4.0
Operating Procedures	PR0101-2	2.0
	PR0104-12	12.5
EP BOLDFACE Exam	PR0113	0.5
Course Rules	LP0102	4.5
NATOPS Open-Book Exam	G0490	3.0
<b>Totals</b>		<b>69.5</b>

h. Rotary-to-Strike Transition Flight Support

<b>ROTARY-TO-STRIKE TRANSITION FLIGHT SUPPORT</b>		
<b>Block</b>	<b>Symbol</b>	<b>Hours</b>
NATOPS Flight 0	Q1101	1.5
Contact	C1101-4 C1107-8	7.1
Basic Instruments Flight Procedures	IN1101-3	2.7
Formation Flight Procedures	F1101-5 F1201	8.4
<b>Totals</b>		<b>19.7</b>

i. Rotary-to-Strike Transition Flight Training. No solo events are authorized. Transition pilots are not required to meet EOB MIF standards.

<b>ROTARY-TO-STRIKE TRANSITION FLIGHT TRAINING</b>						
<b>Block</b>	<b>UTD</b>		<b>OFT</b>		<b>T-6B Dual</b>	
	<b>Flts</b>	<b>Hrs</b>	<b>Flts</b>	<b>Hrs</b>	<b>Flts</b>	<b>Hrs</b>
NATOPS	3	3.9	2	2.6	3	5.4
Day Contact			1	1.3	2	3.2
Instruments			1	1.3	2	3.2
Formation			1	1.3	4	6.4
<b>Totals</b>	<b>3</b>	<b>3.9</b>	<b>5</b>	<b>6.5</b>	<b>11</b>	<b>18.2</b>

16. Training Preparation Time. In addition to the hours formally planned for classes, simulators, and flights, significant additional time to prepare and study should be expected outside of scheduled training hours. This range will vary depending on the complexity of the material and individual student needs, and may be up to several hours per event. For simulator and flight events, specific brief and taxi times will be programmed into TIMS and accounted for on the flight schedule, per the following table:

ADDITIONAL FORMAL TRAINING TIME PER EVENT			
Training Area	Brief/Preflight/Taxi	Taxi/Debrief	Total
Flight	1.70	1.00	2.7
Simulator	0.50	0.50	1.0
Academic and Flight Support	0.25	0.25	0.5

17. Physical Requirements. As specified in Chapter 15 of the Manual of the Medical Department, and all applicable anthropometric standards.

18. Obligated Service. Refer to MILPERSMAN for naval personnel.

19. Primary Instructional Methods. Lecture, computer-assisted instruction, self- and group-paced study, and in-flight instruction.

20. Preceding Curriculum Data. None.

21. Student Performance Measurement/Application of Standards. The standards outlined in Chapter IX, Course Training Standards, are used to evaluate student performance of individual items and maneuvers. Final judgment regarding the satisfactory performance of any flight maneuver rests with the instructor pilot to assess the environmental and systems factors affecting the condition under which the performance is measured and the student's experience within the stage.

CNATRAINST 1542.165  
15 DEC 09

BLANK PAGE

ABBREVIATIONS

The following is a list of abbreviations used in the curriculum:

Aero	-	Aerodynamics
AF	-	Air Force
AFB	-	Air Force Base
AFFP	-	Air Force Formation Flight Procedures
AGL	-	Above Ground Level
AGSM	-	Anti-Gravity Straining Maneuver
AIM	-	Aeronautical Information Manual
AOA	-	Angle of Attack
AOB	-	Angle of Bank
AP	-	Area Planning
ASI	-	Aviation Student Indoctrination
ASR	-	Airport Surveillance Radar
ATC	-	Air Traffic Control
ATF	-	Aviation Training Form
ATIS	-	Automatic Terminal Information Service
ATS	-	Aviation Training Summary or Approach Turn Stall
AWOS	-	Automated Weather Observation System
BASH	-	Bird/Animal Strike Hazard
BAW	-	Basic Air Work
BDA	-	Battle Damage Assessment
CAI	-	Computer-Assisted Instruction
CDI	-	Course Deviation Indicator
CNATRA	-	Chief of Naval Air Training
CR	-	Course Rules

CRM	-	Crew Resource Management
CTS	-	Course Training Standard
DA	-	Decision Altitude
DCONFP	-	Day Contact Flight Procedures
DH	-	Decision Height
DME	-	Distance Measuring Equipment
ECS	-	Environmental Control System
ELP	-	Emergency Landing Pattern
EOB	-	End of Block
EP	-	Emergency Procedure
EPT	-	Emergency Procedures Trainer
EST	-	Ejection Seat Trainer
FAF	-	Final Approach Fix
FAWP	-	Final Approach Waypoint
FFP	-	Formation Flight Procedures
FIH	-	Flight Information Handbook
FITC	-	Flight Instructor Training Course
FITU	-	Flight Instructor Training Unit
FLIP	-	Flight Information Publication
FMS	-	Flight Management System
FRR	-	Flight Rules and Regulations
FSS	-	Flight Support Services
FTI	-	Flight Training Instruction
GLOC	-	G-Induced Loss of Consciousness
GPS	-	Global Positioning System
GSI	-	Glideslope Indicator

GTIP - G-Tolerance Improvement Program  
H/X - Hours per Event  
HAPL - High Altitude Power Loss  
HEFOE - Hydraulic, Electrical, Fuel, Oxygen, Engine  
HILO - Holding-In-Lieu-Of  
HUD - Head-up Display  
IAF - Initial Approach Fix  
IAP - Initial Approach Procedure  
IAW - In Accordance With  
IFR - Instrument Flight Rules  
ILS - Instrument Landing System  
IMC - Instrument Meteorological Conditions  
IP - Instructor Pilot  
IRATS - Instrument Refresher Academic Training Syllabus  
ITU - Instructor Training Unit  
IUT - Instructor Under Training  
KIAS - Knots Indicated Airspeed  
LDG - Landing  
MAP - Missed Approach Point  
MAWP - Missed Approach Waypoint  
MDA - Minimum Descent Altitude  
MIF - Maneuver Item File  
MIL - Mediated Interactive Lecture  
MOA - Military Operating Area  
MPTS - Multi-Service Pilot Training System

NALCOMIS - Naval Aviation Logistics Command Operating  
Maintenance Information System

NAS - Naval Air Station

NATOPS - Naval Air Training Operating Procedures  
Standardization

NAV - Navigation

NAVAID - Navigational Aid

NCONFP - Night Contact Flight Procedures

NG - No Grade

NM - Nautical Mile(s)

OBOGS - On-Board Oxygen Generating System

OCF - Out-of-Control Flight

OCFFP - Out-of-Control Flight Flight Procedures

OFT - Operational Flight Trainer

OIC - Officer in Charge

OLF - Outlying Field

OPNAV - Office of the Chief of Naval Operations

OPS - Operations

ORM - Operational Risk Management

P/P - Pen/Pencil and Paper

PAR - Precision Approach Radar

PCL - Power Control Lever

PEL - Precautionary Emergency Landing

PEL/P - Precautionary Emergency Landing/Pattern

PMSV - Pilot-to-Metro Service

PMU - Power Management Unit

RVFAC - Radar Vectors to Final Approach Course

SI - Standardization Instructor  
SID - Standard Instrument Departure  
SOP - Standard Operating Procedure  
SSR - Special Syllabus Requirement  
STARs - Standard Terminal Arrivals  
SYS - Systems  
TIMS - Training Integration Management System  
TOLD - Takeoff and Landing Data  
TRAWING - Training Air Wing  
UFCP - Up Front Control Panel  
UHF - Ultra High Frequency  
UTD - Unit Training Device (T-6B)  
VFR - Visual Flight Rules  
VHF - Very High Frequency  
VMC - Visual Meteorological Conditions  
VNAV - Visual Navigation  
VOR - VHF Omnidirectional Range

CNATRAINST 1542.165  
15 DEC 09

BLANK PAGE

GLOSSARY

1. Advancing X. Completed event within the normal syllabus flow. Excludes events with last characters in the range 86-89.
2. Aviation Training Summary. A tabular sheet listing the MIF and maneuver grades within a training stage.
3. Block of Training. A sequential series of lessons within a training stage sharing an identical MIF. The fifth character in the lesson designator identifies a block.
4. Check Flight (SXX90). A flight check in any stage of training.
5. Contact. The stage of training that combines day and night flight familiarization, aerobatics maneuvers, and out-of-control flight procedures.
6. Course of Training. The entire program of preflight, flight, simulation, academics, and officer development conducted in all media during the programmed training days.
7. Course Training Standard. A description of required behaviors and standards of performance for a specific maneuver. These standards are in Chapter IX.
8. Courseware. The technical data, FTIs, audio, video, film, CAI, instructor guides, student study guides, and other training material developed to support and implement the syllabus of instruction.
9. Critical Item. Any maneuver coded with a plus sign (+). This symbol indicates the maneuver is required and must be accomplished to the specified standard in that block of training.
10. Fixed-Wing Operating Procedures Manual. A training wing directive describing standard operating procedures for local fixed-wing aircraft.
11. Flight Training Instruction. A CNATRA-approved manual describing flight procedures and techniques for each training stage.
12. Hours per X. The average length for each event in a block, rounded to the nearest tenth of an hour.
13. Instructor Training Form. A grade sheet documenting IUT performance for all categories of training regardless of media, phase, or stage.

14. Lesson Designator. All syllabus events have a seven-character lesson designator in the following format:

Char	Meaning	Remarks
1 <sup>st</sup> - 3 <sup>rd</sup>	Stage	C-Contact      N-Navigation      LP-Local F-Formation      Q-NATOPS      Procedures G-Ground      SY-Systems      IN-Instruments I-Instrument      PR-Operating      NA-Navigation L-Low-Level      Procedures      Flight Support
4 <sup>th</sup>	Media	0-Ground      2-T-6B UTD      4-T-6B Training      3-T-6B OFT 1-Flight Support
5 <sup>th</sup>	Block	Sequential, indicating block within stage.
6 <sup>th</sup> & 7 <sup>th</sup>	Event/Check Identifier	Sequential, indicating event within block, or other event types as shown below: 84-Adaptation      88-Initial Progress 85-Practice Sim      Check 86-Warmup      89-Final Progress Check 87-Extra Training      90-Check Flight/Exam

15. Maneuver Item File. A listing of required maneuvers and associated proficiency levels for each block of training.

16. Master Syllabus. Chapters I-VIII list all training syllabus activities, prerequisites, and desired training flow.

17. Special Syllabus Requirement. One time, ungraded demonstration item(s).

18. Stage of Training. All training of a particular type (Ground, Contact, Instruments, Navigation, Formation) within a phase. The first 1-3 letters in the lesson designator identifies the stage of each lesson (Example: F4101 is in the Formation stage; SY0101 is in the Systems stage).

19. Standardization Instructor. The squadron commander/FITU OIC will designate SIs for each stage.

20. Training Media. The media for this syllabus includes aircraft, UTDs, OFTs, ground training, and CAI. The fourth character in the lesson identifier designates the training media.

## Chapter I

### General Instructions

#### 1. Syllabus Management

- a. Distribution. Participating squadron personnel.
- b. Interpretation. The syllabus is directive. Should circumstances create situations not covered within the scope of this syllabus, or course of action appears to conflict with other directives, consult CNATRA (N71).
- c. Deviations. Document all deviations on the event's ATF.
- d. Changes. Recommended changes shall be submitted IAW CNATRAINST 1550.6E.
- e. Syllabus Description. The syllabus is divided into stages; the stages are grouped by flight training regimes such as Contact, Instrument, Formation, Navigation, and NATOPS flights. Each stage is subdivided into training blocks. The training blocks consist of a specified number of flights or device events. Course Training Standards are modified by the MIFs to identify the acceptable level of performance that must be achieved at the completion of each training block.

#### 2. Training Management

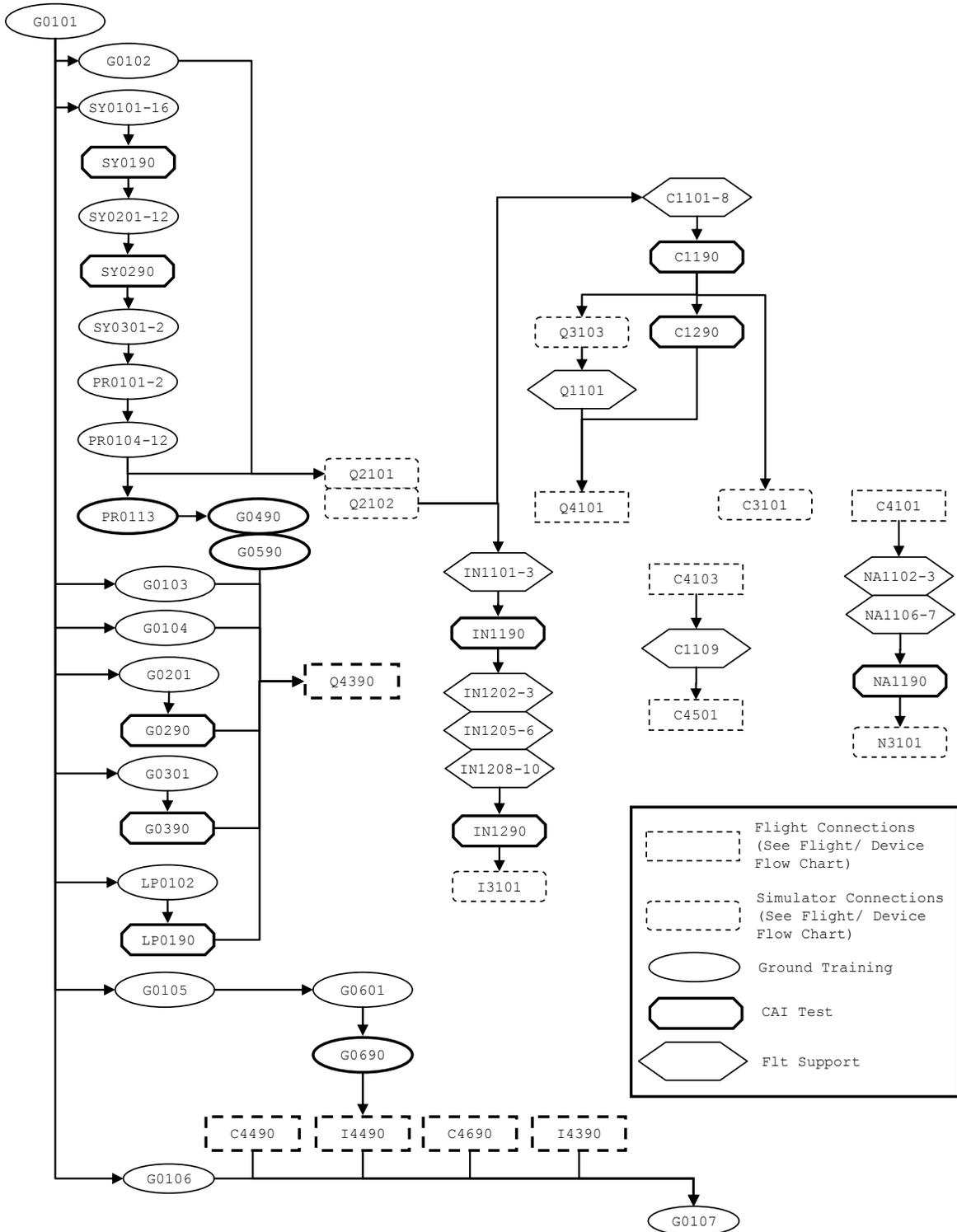
- a. Syllabus Progression. Fly events within each stage sequentially, except as noted. Do not start a block without all prerequisites. IUTs or transition students may be in different stages simultaneously. Where applicable, IUTs or transition students shall be prepared, and will be eligible, for both a Contact and an Instrument syllabus event. IUTs or transition students must complete all events, unless approved for acceleration. The assigned squadron ITU will maintain administrative control over the transition pilot and will be responsible for all scheduling of events for the Rotary-to-Strike Transition syllabus. System training management is designed to facilitate two graded events (flight, simulator, or exam) per IUT/transition student per day.
- b. Maneuver Continuity. IUTs and transition students must accomplish previously introduced maneuvers frequently enough to ensure maintaining required proficiency.
- c. H/X. Standardization instructor pilots shall plan and execute missions to meet H/X as closely as practical. If actual event length varies from H/X by more than 0.3 hrs, annotate reason(s) in the general comment section of the ATF.

d. Special Syllabus Requirements. SSRs are allocated to flights. Unless noted otherwise, SIs may accomplish SSRs on any flight within the block. SSRs shall be completed in the specified block. Annotate completed SSRs in the SSR comments section of the ATF. Assign NG/1 as the SSR maneuver grade.

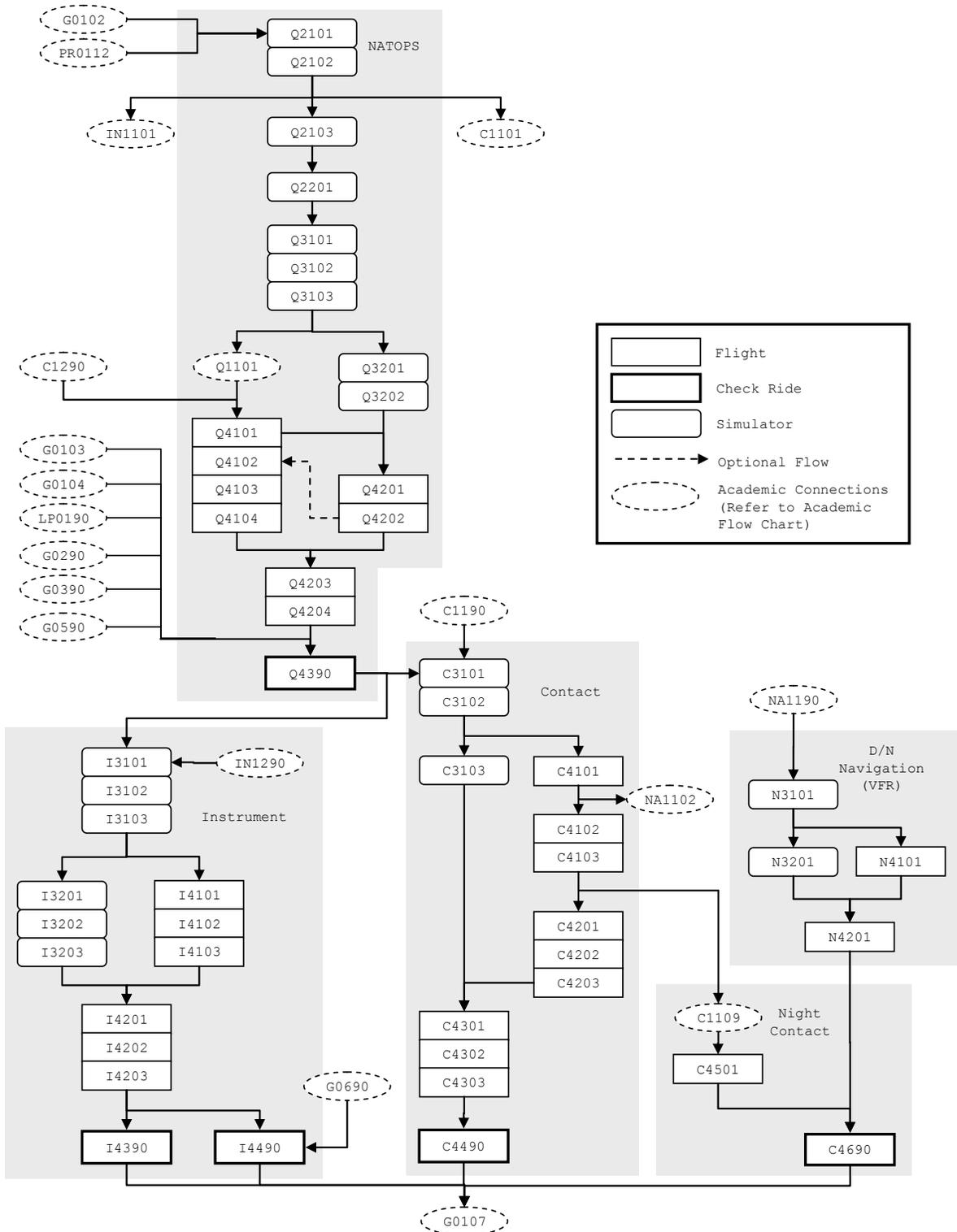
CNATRAINST 1542.165  
15 DEC 09

BLANK PAGE

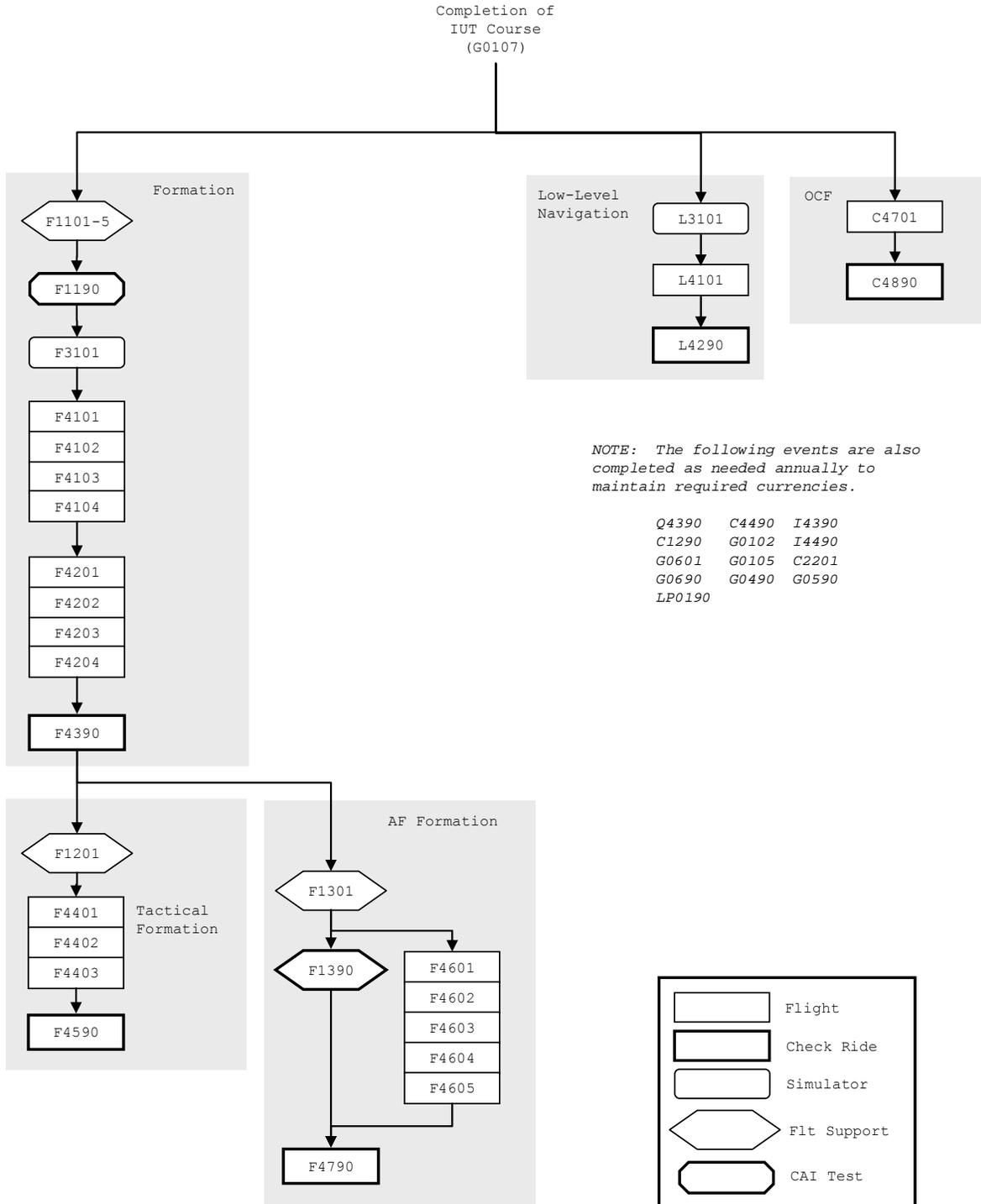
T-6B IUT ACADEMICS COURSE FLOW



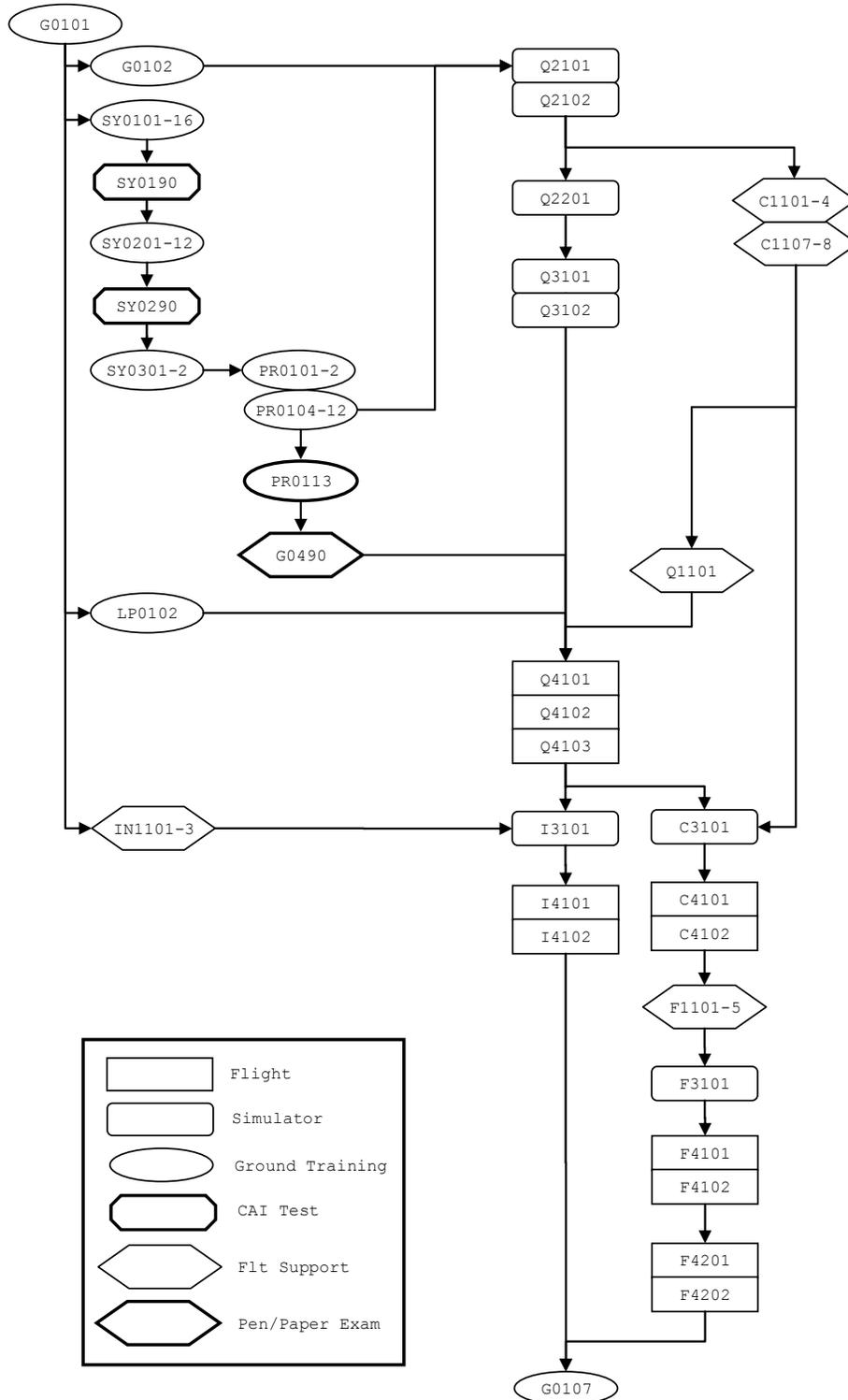
**T-6B FLIGHT/DEVICE IUT COURSE FLOW**



**T-6B ADVANCED QUALIFICATIONS COURSE FLOW**



**T-6B ROTARY-TO-STRIKE TRANSITION COURSE FLOW**



3. Ground Training and Briefing Requirements, Mission Preparation, Briefings, and Debriefings

a. EOB Events. The SI shall carefully review the ATS in planning the EOB event to ensure the profile includes opportunities to reach MIF on all critical items and optional items attempted in the block.

b. Preparation. IUTs and transition students shall arrive for each flight with:

(1) Thorough knowledge of:

(a) The flight's discuss items as listed in Chapters III-VIII.

(b) Procedural knowledge of the critical items for the event's training block.

(2) A flight profile tailored to training requirements, weak areas, and continuity.

(3) The latest ATS for the stage.

c. Briefing. Thoroughly cover the mission's:

(1) Event discuss items, as listed in Chapters III-VIII.

(2) Specific objectives.

(3) Techniques and required procedures for accomplishing those objectives.

(4) Planned profile, contingencies, and ORM considerations.

d. Debriefing

(1) After each event, the SI shall critique the IUT's or transition student's performance using cause/effect analysis, particularly with respect to the CTS.

(2) The mission's complexity and IUT's or transition student's progress will govern the time required for the debrief.

(3) The SI shall provide the IUT or transition student with a new ATS, and may provide a copy of the event's ATF.

(4) Simulator debriefing stations should be used as required following simulator events.

4. Mission Grading Procedures and Evaluation Policies

a. General Evaluation Policy. CTSS listed in this instruction and the MIFs are minimum stage/phase completion standards per maneuver. CTSS/MIFs are designed to allow for minimum performance in a specific area with the understanding that performance above the minimum CTS/MIF will offset the weak area.

b. Grading Procedures (Aircraft and Training Devices)

(1) Overall Grading

(a) The overall grade for all flight and device events, with the exception of the NATOPS Check Flight, will be pass/fail.

(b) The overall grade for the NATOPS Check Flight will be UQ, CQ, or Q as described below:

1. Unqualified (UQ Level) - Fails to meet minimum acceptable criteria and needs supervised instruction.

2. Conditionally Qualified (CQ Level) - Meets minimum acceptable criteria and is safe to fly as the Mission Commander.

3. Qualified (Q Level) - Displays good knowledge of operational procedures and a thorough understanding of the aircraft.

(2) Standard Maneuver Grading. Use the following grading scale to document the characteristic performance of IUTs or transition students on all flight and device maneuvers attempted during each dual event, with the exception of maneuvers done during the NATOPS phase of training. This is an absolute grading scale. Judge their proficiency **only** against the item's course training standard.

(a) Demonstrated (NG/1 Level). Enter "No Grade (NG)":

1. When the SI demonstrates the maneuver and the IUT or transition student does not subsequently perform it during the event.

2. To indicate accomplishing SSRs. Specify the completed SSRs in the SSR comments section of the ATF.

(b) Unable (U/2 Level). Performance is unsafe or lacks sufficient knowledge, skill, or ability. Deviations greatly exceed CTS, significantly disrupting performance. Corrections significantly lag deviations or aggravate the deviation.

(c) Fair (F/3 Level). Performance is safe, but with limited proficiency. Deviations exceed CTS, detracting from performance. Corrections noticeably lag deviations and may not be appropriate. EXAMPLE: Using bank angle to compensate for poor rudder trim would be an inappropriate correction for heading deviations.

(d) Good (G/4 Level). Characteristic performance is within CTS. Deviations outside CTS are allowed, provided they are brief, minor, and do not affect safety of flight. Corrections must be appropriate and timely.

(e) Excellent (E/5 Level). Greatly surpasses CTS. Performance is correct, efficient, and skillful. Deviations are very minor. Corrections, if required, are initiated by the IUT or transition student and are appropriate, smooth, and rapid.

(3) NATOPS Maneuver Grading. During the NATOPS phase of training, grading will be IAW NATOPS standards. This applies to the following syllabus training events:

Q4101	Q4103	Q4201	Q4203	Q4390
Q4102	Q4104	Q4202	Q4204	

Judge the proficiency of the IUT or transition student only against the item's CTS or NATOPS grading criteria. The grading scale will be as per the NATOPS as listed below:

5 = Not applicable to NATOPS Block Training  
4 = Q  
3 = CQ  
2 = UQ  
1 = Demonstrate

Corresponding Course Training Standards will reference NATOPS.

(4) Progression Rule. Performance must meet MIF by the end of block. IUTs shall maintain or exceed MIF performance from one block, stage, or media to the next.

NOTE: Transition pilots are not required to meet EOB MIF standards.

(5) Maneuver Requirements. For each block:

(a) Mandatory Items. Items with a number and a plus (+) are mandatory and must meet the required proficiency by EOB. When a maneuver is performed multiple times in a block of training, the last grade assigned for the maneuver will determine if the IUT meets EOB MIF.

(b) Optional Items. Items with a number, but without a plus (+), are optional. However, if flown, they must meet the required EOB proficiency the last time the maneuver is graded in the block.

(6) Incomplete Events. In general, SIs should consider an event complete if able to accomplish either all high or all low work. This is particularly true when weather precludes one or the other, and the SI is able to emphasize training where weather permits. Subsequent events in the block, when available, can reverse this emphasis, hence achieving overall training balance. If an IUT or transition student has had ample opportunity to learn a task and subsequently flies a short mission, do not incomplete the mission solely to provide unwarranted extra training. Assess the event complete if:

(a) Seventy-five percent of the event's H/X was used for training, and

(b) Sufficient events remain in the block to redress the imbalance, and

(c) Individual maneuvers can still be accomplished within the block.

(d) Otherwise, assess the event incomplete.

(7) Completion Events. An event may both complete a previous event and count as an advancing X.

(8) Simulator Event Completion. Assess a simulator event complete if the IUT or student has received a full 1.3-hour training period.

c. Policies for Evaluation Flights and Ground Evaluations

(1) Check Flights (SXX90). Check flights (IUTs only) amount to single event training blocks. Therefore, all rules regarding progressing out of a block apply, except as noted below:

(a) Fly a representative cross section of optional maneuvers.

(b) Up to two optional maneuvers may be graded F/3 where G/4 is required without requiring an overall unsatisfactory.

(c) The entire event should be devoted to assessing the IUT's ability and readiness to progress to the next stage of training. All maneuvers indicated with a plus (+) are check flight critical and must be accomplished to MIF.

(d) The IUT should be able to demonstrate required levels of proficiency without SI assistance. However, instruction is allowed on check flights, and IUTs may reaccomplish maneuvers at the SI's discretion.

(2) Incomplete Check Flight. The check shall be incomplete when:

(a) Any (+) item was not flown, or

(b) The SI was unable to sample sufficient examples of a given maneuver to assess the IUT's overall performance.

NOTE: The subsequent flight need only include maneuvers required to complete the check.

(c) Exceptions. The check is complete and the overall grade is unsatisfactory if:

1. Any critical item is below MIF, or

2. Any maneuver is U/2.

## 5. Special Instructions and Restrictions

a. Schedule limitations for IUTs or transition students will be left to the discretion of the ITU or cognizant squadron, but consistent with the provisions of OPNAVINST 3710.7T.

b. All IUT or transition student flights will be conducted in accordance with the current T-6B Flight Manual, FTI, and local SOP. No deviations from standard maneuvers are authorized except in cases of emergency.

c. Completion of the NATOPS stage as described in this instruction meets the NATOPS qualification requirements for the T-6B aircraft.

d. Reasonable accelerations and decelerations in the curriculum are authorized when warranted by previous experience or demonstrated ability. Combination of any two events is authorized. During the accelerated period, the IUT may progress to the next block of training once MIF is met within the current block of training. Accelerations of the curriculum require TRAWING commander approval and shall be annotated in writing in the Instructor Training Jacket.

CNATRAINST 1542.165  
15 DEC 09

BLANK PAGE

Chapter II

Ground Training

Block #	Media	Title	Events	Hrs	Category
G01	Class	Administration/ Indoctrination	7	36.0	ASI

1. Prerequisites

a. G0101 prior to G0102, G0103, G0104, G0105, and G0106.

b. G0106, C4490, C4690, I4390, and I4490 prior to G0107 - IUT only.

c. F4202 and I4102 prior to G0107 - Rotary-to-Strike Transition only.

2. Events

G0101	Sqdn	Check-In. IUT will check in with Squadron. This block includes Publications Issue and Flight Gear Fitting.		2.5	
G0102	Lect	Ejection Seat/Egress Procedures		2.0	
G0103	Offline MIL	Aviation Safety Program		1.0	
G0104	Offline MIL	GLOC/GTIP		1.0	
G0105	Offline MIL	Crew Resource Management		3.0	
G0106	Offline MIL	FITC		26.0	
G0107	Sqdn	Checkout		0.5	

3. Syllabus Notes

a. Rotary-to-Strike students take only G0101, G0102, and G0107.

b. G0102 requires the use of an EST and an EPT.

4. Discuss Items. None.

Block #	Media	Title	Events	Hrs	Category
SY01/2/3	Class	Systems	32	45.0	See Below

1. Prerequisites

- a. G0101 prior to SY0101.
- b. SY0101-16 (in order) prior to SY0190.
- c. SY0190 prior to SY0201; SY0201-12 in order prior to SY0290.
- d. SY0290 prior to SY0301-2 (any order).

2. Events

SY0101	JPATS MIL	Introduction to T-6B Systems	1.0	SYS1
SY0102	T-6B	Aircraft Systems Tour	1.5	SYS1
SY0103	JPATS CAI	Flight Controls	1.2	SYS1
SY0104	JPATS CAI	Hydraulic System 1	1.5	SYS1
SY0105	JPATS CAI	Hydraulic System 2	1.3	SYS1
SY0106	JPATS MIL	Systems Review	1.9	SYS1
SY0107	JPATS CAI	Up Front Control Panel	2.0	SYS1
SY0108	JPATS CAI	Flight Instruments 1	1.6	SYS1
SY0109	JPATS CAI	Flight Instruments 2	1.1	SYS1
SY0110	JPATS CAI	Head-Up Display	1.0	SYS1
SY0111	JPATS CAI	Communication System	1.8	SYS1
SY0112	JPATS CAI	Navigation Systems	1.7	SYS1
SY0113	JPATS CAI	UFCP Scenarios (optional)	1.0	SYS1
SY0114	JPATS CAI	FMS	1.0	SYS1

2. Events (Cont)

SY0115	JPATS MIL	Systems Review 2	3.5	SYS1
SY0116	UTD	T-6B Cockpit Familiarization	1.0	SYS1
SY0190	JPATS CAI Test	Systems 1 Exam	1.5	SYS1
SY0201	JPATS CAI	Electrical System	1.2	SYS2
SY0202	JPATS CAI	Fuel System	1.0	SYS2
SY0203	JPATS MIL	Electrics and Fuel Review	1.4	SYS2
SY0204	JPATS CAI	Propulsion 1	1.8	SYS2
SY0205	JPATS CAI	Propulsion 2	1.1	SYS2
SY0206	JPATS MIL	Propulsion Review	1.5	SYS2
SY0207	JPATS CAI	Environmental System 1	0.8	SYS2
SY0208	JPATS CAI	Environmental System 2	0.5	SYS2
SY0209	JPATS CAI	Canopy System	0.6	SYS2
SY0210	JPATS CAI	Ejection System	1.0	SYS2
SY0211	UTD	T-6B Cockpit Familiarization 2	1.0	SYS2
SY0212	JPATS MIL	Systems Review 3	2.0	SYS2
SY0290	JPATS CAI Test	Systems 2 Exam	1.5	SYS2
SY0301	SS	FMS Trainer 1	2.0	FMS
SY0302	SS	FMS Trainer 2	2.0	FMS

3. Syllabus Note. SY0113 is an optional event.

4. Discuss Items. None.

Block #	Media	Title	Events	Hrs	Category
PR01	Class	Operating Procedures	12	15.0	PR
1.	<u>Prerequisite.</u>	SY0302 (FMS Trainer 2).			
2.	<u>Events</u>				
PR0101	JPATS MIL	Introduction to Operating Procedures		1.0	
PR0102	JPATS CAI	Exterior Inspection		1.0	
PR0104	JPATS CAI	Preflight Checks		1.3	
PR0105	JPATS CAI	In-flight Checks		0.7	
PR0106	JPATS CAI	Postflight Checks		0.5	
PR0107	JPATS MIL	Handling Emergency Procedures		0.9	
PR0108	JPATS MIL	Takeoff Emergencies		1.0	
PR0109	JPATS MIL	In-flight Emergencies 1		3.0	
PR0110	JPATS MIL	In-flight Emergencies 2		2.0	
PR0111	JPATS MIL	In-flight Emergencies 3		2.5	
PR0112	JPATS CAI	Aircraft Operating Limitations		0.6	
PR0113	P/P Exam	EP BOLDFACE Exam		0.5	

3. Syllabus Notes. In this block, event codes are the same codes as in the T-6A JPPT syllabus for corresponding events.

4. Discuss Items. None.

Block #	Media	Title	Events	Hrs	Category
G02	Wkbk/CAI	Flight Rules and Regulations	2	4.0	FRR
1.	<u>Prerequisite.</u>	G0101 (Check-in).			
2.	<u>Events</u>				
	G0201	Wkbk Flight Rules and Regulations		3.0	
	G0290	CAI Flight Rules and Regulations Exam Test		1.0	
3.	<u>Syllabus Note.</u>	Rotary-to-Strike Transition students do not take this block.			
4.	<u>Discuss Items.</u>	None.			

Block #	Media	Title	Events	Hrs	Category
G03	Wkbk/CAI	Fixed-Wing Aerodynamics	2	3.0	Aero

1. Prerequisite. G0101 (Check-in).

2. Events

G0301	Wkbk	Fixed-Wing Aerodynamics		2.0	
G0390	JPATS CAI Test	Fixed-Wing Aerodynamics Exam		1.0	

3. Syllabus Note. Rotary-to-Strike Transition students do not take this block.

4. Discuss Items. None.

Block #	Media	Title	Events	Hrs	Category
G04/5	P/P	NATOPS Qualification	2	4.0	NATOPS

1. Prerequisites

- a. PR0113 (EP Exam) prior to G0490.
- b. G0490 (NATOPS Open-Book Exam) prior to G0590 - IUT only.

2. Events

G0490	P/P Exam	NATOPS Open-Book Exam		3.0	
G0590	P/P Exam	NATOPS Closed-Book Exam		1.0	

- 3. Syllabus Note. Rotary-to-Strike students do not take G0590.
- 4. Discuss Items. None.

Block #	Media	Title	Events	Hrs	Category
G06	Class	NATOPS Instrument Ground School/IRATS	2	8.0	IFR

1. Prerequisite. G0105 (CRM).

2. Events

G0601 Offline MIL NATOPS Instrument Ground School/IRATS 6.0

G0690 P/P Exam NATOPS Instrument Ground School/IRATS Exam 2.0

3. Syllabus Note. Rotary-to-Strike Transition students do not take this block.

4. Discuss Items. None.

Block #	Media	Title	Events	Hrs	Category
LP01	Class	Local Procedures	2	5.5	LP

1. Prerequisite. G0101 (Check-in).

2. Events

LP0102	Offline MIL	Course Rules		4.5	
--------	----------------	--------------	--	-----	--

LP0190	P/P Exam	Course Rules Exam		1.0	
--------	-------------	-------------------	--	-----	--

3. Syllabus Notes

a. Rotary-to-Strike Transition students do not take LP0190.

b. In this block, event codes are the same codes as in the T-6A JPPT syllabus for corresponding events.

4. Discuss Items. None.

CNATRAINST 1542.165  
15 DEC 09

BLANK PAGE

Chapter III

NATOPS Training

1. Matrices. The following matrix is an overview of the entire NATOPS stage. The purpose of this matrix is to provide the IUT and IP the easiest way to track progress, regression, and overall status in relation to the MIF. In addition, there is a single matrix following each block description throughout this chapter.

2. NATOPS Stage MIF

 Simulator/Device Event  
 Check Flight Event  
 N = NATOPS CTS

NATOPS STAGE MANEUVER ITEM FILE								
CTS REF	MANEUVER	Q2103	Q2201	Q3103	Q3202	Q4104	Q4204	Q4390
1	General Knowledge/ Procedures	3+	3+	3+	3+	3+	4+	4+
2	Emergency Procedures	3+	4+	3+	3+	3+	4+	4+
3	Headwork/Situational Awareness	3+	3+	3+	3+	3+	4+	4+
4	Basic Air Work	3+	3+	3+	3+	3+	4+	4+
N	Abort Start	3+	4					
N	PMU Off Ground Start	3+	4					
N	Fire Warning on Ground (Fire Annunciator Illuminated)	3+	4					
N	Emergency Engine Shutdown	3+	4					
N	Emergency Ground Egress	3+	4					
N	Abort Takeoff	3+	4					
N	Aircraft Departs Prepared Surface	3+	4					

MIF continued on next page.

NATOPS STAGE MANEUVER ITEM FILE								
CTS REF	MANEUVER	Q2103	Q2201	Q3103	Q3202	Q4104	Q4204	Q4390
N	Engine Failure Immediately After Takeoff	3+	4					
N	Engine Failure During Flight	3+	4					
N	PMU NORM Airstart	3+	4					
N	PMU OFF Airstart	3+	4					
N	Immediate Airstart	3+	4					
N	Uncommanded Propeller Feather	3+	4					
N	Uncommanded Power Changes/LOP	3+	4					
N	Fire Warning in Flight (Fire Annunciator Illuminated)	3+	4					4+
N	Smoke and Fume Elimination	3+	4					
N	PMU Failure	3+	4					
N	Chip Detector Warning	3+	4					
N	Oil System Malfunction or Low Oil Press	3+	4					
N	Electrical Failures	3+	4					
N	Avionics Failures	3+	4					
N	Fuel System Failures	3+	4					
N	Hydraulic System Failures	3+	4					
N	OBOGS System Fail	3+	4					
N	Trim System Malfunctions	3+	4					
N	Controlled Ejection	3+	4					

MIF continued on next page.

NATOPS STAGE MANEUVER ITEM FILE								
CTS REF	MANEUVER	Q2103	Q2201	Q3103	Q3202	Q4104	Q4204	Q4390
N	Uncontrolled Ejection	3+	4					
N	Precautionary Emergency Landing	3+	4					
N	Landing Gear Emergency Extension	3+	4					
5	In-flight Checks/Fuel Management	3+	3+	3+	3+	3+	4+	4+
6	In-flight Planning/ Area Orientation		3+	3+	3+	3+	4+	4+
7	Task Management	3+	3+	3+	3+	3+	4+	4+
8	Communication	3+	3+	3+	3+	3+	4+	4+
9	Mission Planning/ Briefing/Debriefing	1	1	3+	3+	3+	4+	4+
10	Ground Operations	3+	3+	3+	3+	3+	4+	4+
11	Takeoff	3	3	3+	3+	3+	4+	4+
12	Departure	3	3	3+	3+	3+	4+	4+
14	G-Awareness/Exercise					3+	4+	4+
15	Turn Pattern			3+		3+	4+	4
16	Level Speed Change			3+		3+	4+	4
17	Slow Flight			3+		3+	4+	4+
18	Power-On Stall			3+		3+	4+	4+
19	Landing Pattern Stalls			3+		3+	4+	4+
20	Emergency Landing Pattern Stalls			3+		3+	4+	4+
21	Spin			3+		3+	4+	4+
22	Contact Unusual Attitudes			3+		3+	4+	4+
23	Inverted Flight			3+		3+	4+	4+
25	Loop			3+		3+	4+	4
26	Aileron Roll			3+		3+	4+	4

MIF continued on next page.

NATOPS STAGE MANEUVER ITEM FILE								
CTS REF	MANEUVER	Q2103	Q2201	Q3103	Q3202	Q4104	Q4204	Q4390
27	Split-S			3+		3+	4+	4
28	Barrel Roll			3+		3+	4+	4
29	Cloverleaf			3+		3+	4+	4
30	Immelmann			3+		3+	4+	4
31	Cuban Eight			3+		3+	4+	4
32	Wingover			3+		3+	4+	4
33	Slip			3+		3+	4+	4
43	S-1 Pattern				3		4	4
44	Steep Turns				3+		4+	4
45	IFR Unusual Attitudes				3+		4+	4
46	Confidence Maneuvers				3		4	4
47	Point-to-Point				3+		4+	4
48	Holding				3+		4+	4
50	Enroute Procedures				3+		4+	4
51	Enroute Descent				3+		4+	4
52	High-Altitude Approach				3+		4	4
53	Teardrop Approach				3+		4+	4
54	Arcing Approach				3+		4+	4
55	HILO Approach				3+		4+	4
56	Procedure Turn Approach				3+		4+	4
57	RVFAC Approach				3+		4+	4
58	GPS Approach				3+		4+	4
59	PAR Approach				3+		4+	4
60	ASR Approach				3+		4+	4
61	VOR Final				3+		4+	4
62	ILS Final				3+		4+	4
63	LOC Final				3+		4+	4
64	GPS Final				3+		4+	4

MIF continued on next page.

NATOPS STAGE MANEUVER ITEM FILE								
CTS REF	MANEUVER	Q2103	Q2201	Q3103	Q3202	Q4104	Q4204	Q4390
65	No-gyro Final				3+		4+	4
67	Circling Approach				3+		4+	4
68	Missed Approach				3+		4+	4
69	Transition to Landing/ Landing				3+		4+	4+
73	OCF Recovery						4+	4+
34	HAPL			3+		3+	4+	4+
35	Precautionary Emergency Landing			3+		3+	4+	4+
36	PEL/P			3+		3+	4+	4+
37	ELP Landing			3+		3+	4+	4+
38	VFR Arrival/Course Rules			3+		3+	4+	4
39	Landing Pattern			3+		3+	4+	4+
40	No-Flap Landing			3+		3+	4+	4+
40	Takeoff Flap Landing			3+		3+	4+	4+
40	LDG Flap Landing			3+		3+	4+	4+
41	AOA Pattern			3+		3+	3	3
42	Waveoff			3+		3+	4+	4+
	Special Syllabus Requirements					1		1

Block #	Media	Title	Events	Hrs	Category
Q11	Class	NATOPS Qualification Training	1	1.5	NATOPS

1. Prerequisites

a. Q3103 - IUT only.

b. C1108 (Advanced Aerobatics) - Rotary-to-Strike Transition.

2. Events

Q1101 Sqdn NATOPS Flight 0 1.5

3. Syllabus Notes

a. IUTs and Rotary-to-Strike Transition students complete this event.

b. IUT shall demonstrate preflight, postflight, cockpit introduction (to include strapping in), and emergency ground egress.

4. Discuss Items. Discuss scheduling, brief and debrief, flight gear check, aircraft issue, weight and balance, aircraft discrepancy reporting, CTS, exams, simulator requirements, FTI reference material, TIMS, and NALCOMIS.

Block #	Media	Title	Events	Hrs	H/X
Q21	UTD	NATOPS Cockpit Procedures	3	3.9	1.3

1. Prerequisites

- a. PR0112 (Aircraft Operating Limitations).
- b. G0102 (Egress Procedures).

2. Syllabus Notes

- a. Rotary-to-Strike Transition students take Q2101-2 only.
- b. The following procedures will be performed by the IUT on the indicated event:

Q2101

All normal checklists, abort start (PMU abort, hung, and no-start), non-PMU abort (hot start), fire warning on ground, emergency engine shutdown, emergency ground egress, abort, and aircraft departs prepared surface.

Q2102

All normal checklists, engine failure immediately after takeoff, chip detector warning, PMU normal airstart, PMU off airstart, PMU failure, uncommanded prop feather, engine failure during flight (flameout, seized engine, loss of power), immediate airstart, PEL, and controlled and uncontrolled ejection.

Q2103

All normal checklists, hydraulic system failures, emergency landing gear extension, oil system malfunction, OBOGS system failures, fire warning in flight, trim system malfunctions, electrical failures (bus tie inoperative, battery bus inoperative, generator inoperative), and fuel system failures (imbalance on ground and in flight, low fuel pressure in flight).

3. Special Syllabus Requirements. None.

4. Discuss Items

Q2101

All normal operating procedures and Q2101 required emergency procedures.

Q2102

All Q2102 required emergency procedures.

Q2103

All Q2103 required emergency procedures.

5. Block MIF

CTS REF	MANEUVER	Q2103
1	General Knowledge/Procedures	3+
2	Emergency Procedures	3+
3	Headwork/Situational Awareness	3+
4	Basic Air Work	3+
N	Abort Start	3+
N	PMU Off Ground Start	3+
N	Fire Warning on Ground (Fire Annunciator Illuminated)	3+
N	Emergency Engine Shutdown	3+
N	Emergency Ground Egress	3+
N	Abort Takeoff	3+
N	Aircraft Departs Prepared Surface	3+
N	Engine Failure Immediately After Takeoff	3+
N	Engine Failure During Flight	3+
N	PMU NORM Airstart	3+
N	PMU OFF Airstart	3+
N	Immediate Airstart	3+
N	Uncommanded Propeller Feather	3+
N	Uncommanded Power Changes/LOP	3+
N	Fire Warning in Flight (Fire Annunciator Illuminated)	3+
N	Smoke and Fume Elimination	3+
N	PMU Failure	3+
N	Chip Detector Warning	3+
N	Oil System Malfunction or Low Oil Press	3+
N	Electrical Failures	3+
N	Avionics Failures	3+

MIF continued on next page.

CTS REF	MANEUVER	Q2103
N	Fuel System Failures	3+
N	Hydraulic System Failures	3+
N	OBOGS System Fail	3+
N	Trim System Malfunctions	3+
N	Controlled Ejection	3+
N	Uncontrolled Ejection	3+
N	Precautionary Emergency Landing	3+
N	Landing Gear Emergency Extension	3+
5	In-flight Checks/Fuel Management	3+
7	Task Management	3+
8	Communication	3+
9	Mission Planning/Briefing/ Debriefing	1
10	Ground Operations	3+
11	Takeoff	3
12	Departure	3

Block #	Media	Title	Events	Hrs	H/X
Q22	UTD/OFT	Emergency Procedures Trainer (NATOPS)	1	1.3	1.3

1. Prerequisites

- a. Q2103 - IUT only.
- b. Q2102 - Rotary-to-Strike Transition only.

2. Syllabus Note. This event is also required annually to maintain qualification currency.

3. Special Syllabus Requirements. N/A.

4. Discuss Items. All normal checklists, all critical items, and a cross section of noncritical memory items.

5. Block MIF

CTS REF	MANEUVER	Q2201
1	General Knowledge/Procedures	3+
2	Emergency Procedures	4+
3	Headwork/Situational Awareness	3+
4	Basic Air Work	3+
N	Abort Start	4
N	PMU Off Ground Start	4
N	Fire Warning on Ground (Fire Annunciator Illuminated)	4
N	Emergency Engine Shutdown	4
N	Emergency Ground Egress	4
N	Abort Takeoff	4
N	Aircraft Departs Prepared Surface	4
N	Engine Failure Immediately After Takeoff	4
N	Engine Failure During Flight	4
N	PMU NORM Airstart	4
N	PMU OFF Airstart	4

MIF continued on next page.

CTS REF	MANEUVER	Q2201
N	Immediate Airstart	4
N	Uncommanded Propeller Feather	4
N	Uncommanded Power Changes/LOP	4
N	Fire Warning in Flight (Fire Annunciator Illuminated)	4
N	Smoke and Fume Elimination	4
N	PMU Failure	4
N	Chip Detector Warning	4
N	Oil System Malfunction or Low Oil Press	4
N	Electrical Failures	4
N	Avionics Failures	4
N	Fuel System Failures	4
N	Hydraulic System Failures	4
N	OBOGS System Fail	4
N	Trim System Malfunctions	4
N	Controlled Ejection	4
N	Uncontrolled Ejection	4
N	Precautionary Emergency Landing	4
N	Landing Gear Emergency Extension	4
5	In-flight Checks/Fuel Management	3+
6	In-flight Planning/Area Orientation	3+
7	Task Management	3+
8	Communication	3+
9	Mission Planning/Briefing/Debriefing	1
10	Ground Operations	3+
11	Takeoff	3
12	Departure	3

Block #	Media	Title	Events	Hrs	H/X
Q31	OFT	NATOPS - Contact	3	3.9	1.3

1. Prerequisite. Q2201.

2. Syllabus Notes

a. Rotary-to-Strike Transition students take only Q3101-2.

b. Practice basic handling characteristics, basic maneuvers, and local procedures. Introduce and practice the following:

(1) Ground operations.

(2) Landing pattern procedures.

(3) Landing pattern stalls and normal and slow flight.

(4) Contact unusual attitude recoveries.

(5) Local departures and course rules.

(6) Local radio procedures.

(7) Spin recovery.

3. Special Syllabus Requirements. None.

4. Discuss Items

Q3101

All local procedures to include ground operations, course rules, radio procedures, and HUD.

Q3102

Contact stage maneuvers to include: takeoff, departure, slow flight, power-on stalls, landing pattern stalls, ELP stalls, spin, slips, precautionary emergency landing, PEL/P, HAPL, emergency landing profile, landing pattern, AOA pattern, waveoff, no-flap landing, takeoff flap landing, and LDG flap landings.

Q3103

Contact stage maneuvers to include: Contact unusual attitude recoveries, inverted flight, loop, aileron roll, split-S, barrel roll, cloverleaf, Immelman, and Cuban eight.

5. Block MIF

CTS REF	MANEUVER	Q3103
1	General Knowledge/Procedures	3+
2	Emergency Procedures	3+
3	Headwork/Situational Awareness	3+
4	Basic Air Work	3+
5	In-flight Checks/Fuel Management	3+
6	In-flight Planning/Area Orientation	3+
7	Task Management	3+
8	Communication	3+
9	Mission Planning/Briefing/Debriefing	3+
10	Ground Operations	3+
11	Takeoff	3+
12	Departure	3+
15	Turn Pattern	3+
16	Level Speed Change	3+
17	Slow Flight	3+
18	Power-On Stall	3+
19	Landing Pattern Stalls	3+
20	Emergency Landing Pattern Stalls	3+
21	Spin	3+
22	Contact Unusual Attitudes	3+
23	Inverted Flight	3+
25	Loop	3+
26	Aileron Roll	3+
27	Split-S	3+
28	Barrel Roll	3+
29	Cloverleaf	3+
30	Immelmann	3+
31	Cuban Eight	3+
32	Wingover	3+

MIF continued on next page.

CTS REF	MANEUVER	Q3103
33	Slip	3+
34	HAPL	3+
35	Precautionary Emergency Landing	3+
36	PEL/P	3+
37	ELP Landing	3+
38	VFR Arrival/Course Rules	3+
39	Landing Pattern	3+
40	No-Flap Landing	3+
40	Takeoff Flap Landing	3+
40	LDG Flap Landing	3+
41	AOA Pattern	3+
42	Waveoff	3+

Block #	Media	Title	Events	Hrs	H/X
Q32	OFT/UTD	NATOPS - Instrument	2	2.6	1.3

1. Prerequisite. Q3103.

2. Syllabus Notes

a. Rotary-to-Strike Transition students do not take this block.

b. Practice instrument flight maneuvers.

c. Q3201 may be flown in OFT or UTD; Q3202 should be flown in OFT.

3. Special Syllabus Requirements. None.

4. Discuss Items

Q3201

All instrument maneuvers to include: steep turns; IFR unusual attitudes; point-to-point; holding; enroute descent; missed approach; teardrop approach; arcing approach; HILO approach; procedure turn approach; RVFAC approach; ILS; and localizer, VOR, and circling approaches.

Q3202

All instrument maneuvers to include: high altitude approach and PAR, ASR, no-gyro final, and GPS approaches.

5. Block MIF

CTS REF	MANEUVER	Q3202
1	General Knowledge/Procedures	3+
2	Emergency Procedures	3+
3	Headwork/Situational Awareness	3+
4	Basic Air Work	3+
5	In-flight Checks/Fuel Management	3+
6	In-flight Planning/Area Orientation	3+
7	Task Management	3+

MIF continued on next page.

CTS REF	MANEUVER	Q3202
8	Communication	3+
9	Mission Planning/Briefing/Debriefing	3+
10	Ground Operations	3+
11	Takeoff	3+
12	Departure	3+
43	S-1 Pattern	3
44	Steep Turns	3+
45	IFR Unusual Attitudes	3+
46	Confidence Maneuvers	3
47	Point-to-Point	3+
48	Holding	3+
50	Enroute Procedures	3+
51	Enroute Descent	3+
52	High-Altitude Approach	3+
53	Teardrop Approach	3+
54	Arcing Approach	3+
55	HILO Approach	3+
56	Procedure Turn Approach	3+
57	RVFAC Approach	3+
58	GPS Approach	3+
59	PAR Approach	3+
60	ASR Approach	3+
61	VOR Final	3+
62	ILS Final	3+
63	LOC Final	3+
64	GPS Final	3+
65	No-gyro Final	3+
67	Circling Approach	3+
68	Missed Approach	3+
69	Transition to Landing/Landing	3+

Block #	Media	Title	Events	Hrs	H/X
Q41	T-6B	NATOPS	4	7.2	1.8

1. Prerequisites

- a. C1290 - IUT only.
- b. Q1101 (NATOPS Flight 0).
- c. LP0102 (Course Rules Lecture) - Rotary-to-Strike Transition only.
- d. G0490 (NATOPS Open Book Exam) - Rotary-to-Strike Transition only.
- e. Q3102 - Rotary-to-Strike Transition only.

2. Syllabus Notes

- a. Rotary-to-Strike Transition students complete Q4101-3 only.
- b. All events in this block shall be flown from the front cockpit.
- c. Q4201 and Q4202 may be flown prior to Q4102, Q4103, and Q4104.

3. Special Syllabus Requirements

Q4102

Stability demonstration, demonstrate controls neutral spin, progressive spin, and OCF recovery.

4. Discuss Items

Q4101

Local area flying procedures, HUD, ground operations/emergencies, engine failure during flight, airstart, uncommanded prop feather, prop sleeve touchdown, compressor stall, OCF, fire warning during flight, smoke and fume elimination, ejection, ELP, landing gear emergency extension, and takeoff emergencies.

Q4102

Local area flying procedures, hydraulic system failures, landing emergencies, crosswind takeoff/landing, wake turbulence, wet runway landing, hard landing, TOLD definitions, and chip light.

Q4103

Uncommanded power change, PMU fault, PMU failure, electrical failure, avionics failures, radio failure (VMC/IMC), lost procedures, and oil system malfunctions.

Q4104

Controllability check, trim malfunctions, canopy damage, loss of canopy, canopy unlocked, wing flap failure, thunderstorm penetration, icing restrictions, bird strike, high-speed dive recovery, and fuel system malfunctions.

5. Block MIF

CTS REF	MANEUVER	Q4104
1	General Knowledge/Procedures	3+
2	Emergency Procedures	3+
3	Headwork/Situational Awareness	3+
4	Basic Air Work	3+
5	In-flight Checks/Fuel Management	3+
6	In-flight Planning/Area Orientation	3+
7	Task Management	3+
8	Communication	3+
9	Mission Planning/Briefing/Debriefing	3+
10	Ground Operations	3+
11	Takeoff	3+
12	Departure	3+
14	G-Awareness/Exercise	3+
15	Turn Pattern	3+
16	Level Speed Change	3+
17	Slow Flight	3+
18	Power-On Stall	3+

MIF continued on next page.

CTS REF	MANEUVER	Q4104
19	Landing Pattern Stalls	3+
20	Emergency Landing Pattern Stalls	3+
21	Spin	3+
22	Contact Unusual Attitudes	3+
23	Inverted Flight	3+
25	Loop	3+
26	Aileron Roll	3+
27	Split-S	3+
28	Barrel Roll	3+
29	Cloverleaf	3+
30	Immelmann	3+
31	Cuban Eight	3+
32	Wingover	3+
33	Slip	3+
34	HAPL	3+
35	Precautionary Emergency Landing	3+
36	PEL/P	3+
37	ELP Landing	3+
38	VFR Arrival/Course Rules	3+
39	Landing Pattern	3+
40	No-Flap Landing	3+
40	Takeoff Flap Landing	3+
40	LDG Flap Landing	3+
41	AOA Pattern	3+
42	Waveoff	3+
	Special Syllabus Requirements	1

Block #	Media	Title	Events	Hrs	H/X
Q42	T-6B	NATOPS	4	7.2	1.8

1. Prerequisites

- a. Q4101.
- b. Q3202.
- c. Q4104 prior to Q4203.
- d. Q4202 prior to Q4203.

2. Syllabus Notes

- a. Rotary-to-Strike Transition students do not take this block.
- b. Q4201 and Q4202 may be flown prior to Q4102, Q4103, and Q4104 and may be flown from the rear cockpit; Q4203-4 shall be flown from the front cockpit.
- c. At a minimum, the IUT shall complete one procedure turn, teardrop, HILO, arcing, and RVFAC by the completion of Q4204.

3. Special Syllabus Requirements. None.

4. Discuss Items

Q4201

FMS operations, departure procedures, VOR holding procedures, teardrop approach, arcing approach, HILO approach, procedure turn approach, RVFAC approach, and GPS approach.

Q4202

PAR approach, ASR approach, no-gyro final, ILS approach, localizer approach, localizer backcourse approach, and standby instrument flight.

Q4203

Local area flying procedures, physiological incident, OBOGS failure, OBOGS overtemp, ECS duct overtemp, cockpit overpressurization, rapid decompression, and diversion.

Q4204

Review previous discuss items.

5. Block MIF

CTS REF	MANEUVER	Q4204
1	General Knowledge/Procedures	4+
2	Emergency Procedures	4+
3	Headwork/Situational Awareness	4+
4	Basic Air Work	4+
5	In-flight Checks/Fuel Management	4+
6	In-flight Planning/Area Orientation	4+
7	Task Management	4+
8	Communication	4+
9	Mission Planning/Briefing/Debriefing	4+
10	Ground Operations	4+
11	Takeoff	4+
12	Departure	4+
14	G-Awareness/Exercise	4+
15	Turn Pattern	4+
16	Level Speed Change	4+
17	Slow Flight	4+
18	Power-On Stall	4+
19	Landing Pattern Stalls	4+
20	Emergency Landing Pattern Stalls	4+
21	Spin	4+
22	Contact Unusual Attitudes	4+
23	Inverted Flight	4+
25	Loop	4+
26	Aileron Roll	4+
27	Split-S	4+
28	Barrel Roll	4+
29	Cloverleaf	4+
30	Immelmann	4+
31	Cuban Eight	4+

MIF continued on next page.

CTS REF	MANEUVER	Q4204
32	Wingover	4+
33	Slip	4+
43	S-1 Pattern	4
44	Steep Turns	4+
45	IFR Unusual Attitudes	4+
46	Confidence Maneuvers	4
47	Point-to-Point	4+
48	Holding	4+
50	Enroute Procedures	4+
51	Enroute Descent	4+
52	High-Altitude Approach	4
53	Teardrop Approach	4+
54	Arcing Approach	4+
55	HILO Approach	4+
56	Procedure Turn Approach	4+
57	RVFAC Approach	4+
58	GPS Approach	4+
59	PAR Approach	4+
60	ASR Approach	4+
61	VOR Final	4+
62	ILS Final	4+
63	LOC Final	4+
64	GPS Final	4+
65	No-gyro Final	4+
67	Circling Approach	4+
68	Missed Approach	4+
69	Transition to Landing/Landing	4+
73	OCF Recovery	4+
34	HAPL	4+
35	Precautionary Emergency Landing	4+
36	PEL/P	4+
37	ELP Landing	4+

MIF continued on next page.

CTS REF	MANEUVER	Q4204
38	VFR Arrival/Course Rules	4+
39	Landing Pattern	4+
40	No-Flap Landing	4+
40	Takeoff Flap Landing	4+
40	LDG Flap Landing	4+
41	AOA Pattern	3
42	Waveoff	4+

Block #	Media	Title	Events	Hrs	H/X
Q43	T-6B	NATOPS Check Flight	1	1.8	1.8

1. Prerequisites

- a. G0103 (Aviation Safety Program).
- b. G0104 (GLOC/GTIP).
- c. LP0190 (Course Rules Exam).
- d. G0290 (FRR Exam).
- e. G0390 (T-34 Aerodynamics Exam).
- f. G0590 (NATOPS Closed Book Exam).
- g. Q4204.

2. Syllabus Notes

- a. Rotary-to-Strike Transition students do not take this block.
- b. Event shall be flown from the front cockpit.
- c. Execute comprehensive check of introduced maneuvers in accordance with Section 8 of the T-6B NATOPS Flight Manual.
- d. Discuss procedures for securing the rear cockpit for solo flight.
- e. A minimum of two aerobatic maneuvers shall be conducted.
- f. Initial qualification requires holding and precision and non-precision approach.

3. Special Syllabus Requirements. Spiral demonstration.

4. Discuss Items. None.

5. Block MIF

CTS REF	MANEUVER	Q4390
1	General Knowledge/Procedures	4+
2	Emergency Procedures	4+
3	Headwork/Situational Awareness	4+
4	Basic Air Work	4+
N	Fire Warning in Flight (Fire Annunciator Illuminated)	4+
5	In-flight Checks/Fuel Management	4+
6	In-flight Planning/Area Orientation	4+
7	Task Management	4+
8	Communication	4+
9	Mission Planning/Briefing/Debriefing	4+
10	Ground Operations	4+
11	Takeoff	4+
12	Departure	4+
14	G-Awareness/Exercise	4+
15	Turn Pattern	4
16	Level Speed Change	4
17	Slow Flight	4+
18	Power-On Stall	4+
19	Landing Pattern Stalls	4+
20	Emergency Landing Pattern Stalls	4+
21	Spin	4+
22	Contact Unusual Attitudes	4+
23	Inverted Flight	4+
25	Loop	4
26	Aileron Roll	4
27	Split-S	4
28	Barrel Roll	4
29	Cloverleaf	4

MIF continued on next page.

CTS REF	MANEUVER	Q4390
30	Immelmann	4
31	Cuban Eight	4
32	Wingover	4
33	Slip	4
43	S-1 Pattern	4
44	Steep Turns	4
45	IFR Unusual Attitudes	4
46	Confidence Maneuvers	4
47	Point-to-Point	4
48	Holding	4
50	Enroute Procedures	4
51	Enroute Descent	4
52	High-Altitude Approach	4
53	Teardrop Approach	4
54	Arcing Approach	4
55	HILO Approach	4
56	Procedure Turn Approach	4
57	RVFAC Approach	4
58	GPS Approach	4
59	PAR Approach	4
60	ASR Approach	4
61	VOR Final	4
62	ILS Final	4
63	LOC Final	4
64	GPS Final	4
65	No-gyro Final	4
67	Circling Approach	4
68	Missed Approach	4
69	Transition to Landing/Landing	4+
73	OCF Recovery	4+
34	HAPL	4+
35	Precautionary Emergency Landing	4+

MIF continued on next page.

CTS REF	MANEUVER	Q4390
36	PEL/P	4+
37	ELP Landing	4+
38	VFR Arrival/Course Rules	4
39	Landing Pattern	4+
40	No-Flap Landing	4+
40	Takeoff Flap Landing	4+
40	LDG Flap Landing	4+
41	AOA Pattern	3
42	Waveoff	4+
	Special Syllabus Requirements	1

CNATRAINST 1542.165  
15 DEC 09

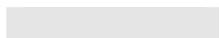
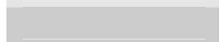
BLANK PAGE

Chapter IV

Contact Training

1. Matrices. The following matrix is an overview of the entire Contact stage, including two Advanced Qualification\* blocks. The purpose of this matrix is to provide the IUT and IP the easiest way to track progress, regression, and overall status in relation to the MIF. In addition, there is a single matrix following each block description throughout this chapter.

2. Contact Stage MIF

 Simulator/Device Event  
 Check Flight Event

<b>CONTACT STAGE MANEUVER ITEM FILE</b>										
<b>CTS REF</b>	<b>MANEUVER</b>	<b>C3103</b>	<b>C4103</b>	<b>C4203</b>	<b>C4303</b>	<b>C4490</b>	<b>C4501</b>	<b>C4690</b>	<b>C4701*</b>	<b>C4890*</b>
1	General Knowledge/ Procedures	4+	4+	4+	4+	4+	4+	4+	4+	4+
2	Emergency Procedures	4+	4+	4+	4+	4+	4+	4+	4+	4+
3	Headwork/Situational Awareness	4+	4+	4+	4+	4+	4+	4+	4+	4+
4	Basic Air Work	4+	4+	4+	4+	4+	4+	4+	4+	4+
5	In-flight Checks/Fuel Management	4+	4+	4+	4+	4+	4+	4+	4+	4+
6	In-flight Planning/Area Orientation	4+	4+	4+	4+	4+	4+	4+	4+	4+
7	Task Management	4+	4+	4+	4+	4+	4+	4+	4+	4+
8	Communication	4+	4+	4+	4+	4+	4+	4+	4+	4+
9	Mission Planning/ Briefing/Debriefing	3+	4+	4+	4+	4+	4+	4+		
10	Ground Operations	4	4+	4+	4+	4+	4+	4+	4+	4+
11	Takeoff	4+	3+	4+	4+	4+	4+	4+	4+	4+
12	Departure	4+	4+	4+	4+	4+	4+	4+	4+	4+

MIF continued on next page.

<b>CONTACT STAGE MANEUVER ITEM FILE</b>										
<b>CTS REF</b>	<b>MANEUVER</b>	<b>C3103</b>	<b>C4103</b>	<b>C4203</b>	<b>C4303</b>	<b>C4490</b>	<b>C4501</b>	<b>C4690</b>	<b>C4701*</b>	<b>C4890*</b>
14	G-Awareness/Exercise		4+	4+	4+	4+				
15	Turn Pattern	3+	4+	4	4	4				
16	Level Speed Change	3+	4+	4	4	4				
17	Slow Flight	3+	3	4+	4+	4+				
18	Power-On Stall	3+	4	4+	4+	4+				
19	Landing Pattern Stalls	3+	4+	4	4+	4+				
19	Landing Pattern Stalls - No-Flap	3+	3	4+	4+	4				
20	Emergency Landing Pattern Stalls	3+	4+	4	4+	4				
21	Spin	3	4	4+	4+	4				
22	Contact Unusual Attitudes	3+	4+	4	4+	4+			4+	4+
23	Inverted Flight			3+	4+	4			4+	4+
24	Stability Demonstration	3	3+	3+	4+	4				
25	Loop	3+	3+	3+	4+	4				
26	Aileron Roll	3+	3+	3+	4+	4				
27	Split-S	3+	3+	3+	4+	4				
28	Barrel Roll	3+	3	3+	4+	4				
29	Cloverleaf	3+	3	3+	4+	4				
30	Immelmann	3+	3	3+	4+	4				
31	Cuban Eight	3+	3	3+	4+	4				
32	Wingover	3+	3	3+	4+	4				
33	Slip	3	3	4+	4+	4				
34	HAPL	3+	3+	4	4+	4				
35	Precautionary Emergency Landing	3+	3+	4+	4+	4				

MIF continued on next page.

<b>CONTACT STAGE MANEUVER ITEM FILE</b>										
<b>CTS REF</b>	<b>MANEUVER</b>	<b>C3103</b>	<b>C4103</b>	<b>C4203</b>	<b>C4303</b>	<b>C4490</b>	<b>C4501</b>	<b>C4690</b>	<b>C4701*</b>	<b>C4890*</b>
36	PEL/P	3+	3+	4+	4+	4+	4+	4+		
37	ELP Landing	3+	3	3+	4+	4+	4+	4+		
70	Progressive Spin								4+	4+
71	Controls Neutral Spin								4+	4+
72	Spiral								4+	4+
73	OCF Recovery				4+	4			4+	4+
38	VFR Arrival/Course Rules	3	3+	4+	4+	4+	4+	4+	4+	4+
39	Landing Pattern	3+	3+	4+	4+	4+	4+	4+	4+	4+
40	No-Flap Landing	3+	3+	3+	4+	4+	4+	4+	4+	4+
40	Takeoff Flap Landing	3+	3+	3+	4+	4+	4+	4+	4+	4+
40	LDG Flap Landing	3+	3+	3+	4+	4+	4+	4+	4+	4+
41	AOA Pattern	3+	3+	3+	4+	4				
42	Waveoff	4	4+	4+	4+	4	4+	4+		
13	Instructional Skills/Student Management	3+	3+	3+	4+	4+	4+	4+		
	Special Syllabus Requirements			1	1				1	

\*OCF Advanced Qualification

Block #	Media	Title	Events	Hrs	Category
C11	CAI/MIL	Contact Flight Procedures	10	11.9	See Below

1. Prerequisites

- a. Q2102 prior to C1101.
- b. C1101-8 in order prior to C1190 - IUT only.
- c. C4103 prior to C1109 - IUT only.
- d. C1101-4 in order prior to C1107-8 in order - Rotary-to-Strike Transition only.

2. Events

C1101	JPATS CAI	Stalls		1.5	DCONFP
C1102	JPATS CAI	Recoveries		0.5	DCONFP
C1103	JPATS CAI	Spins		1.0	DCONFP
C1104	JPATS CAI	Energy Management		1.6	DCONFP
C1105	JPATS MIL	Contact Review		2.0	DCONFP
C1106	JPATS CAI	Rear Cockpit Preflight		0.5	DCONFP
C1107	JPATS CAI	Basic Aerobatics		0.7	DCONFP
C1108	JPATS CAI	Advanced Aerobatics		1.8	DCONFP
C1190	JPATS CAI Test	Contact Exam		1.5	DCONFP
C1109	JPATS CAI	Night Procedures		0.8	NCONFP

3. Syllabus Note. In this block, Rotary-to-Strike Transition students complete only C1101-4 and C1107-8.

4. Discuss Items. None.

Block #	Media	Title	Events	Hrs	Category
C12	P/P	Out-of-Control Flight	1	1.0	OCFFP

1. Prerequisite. C1190 - IUT only.

2. Events

C1290	P/P Exam	Out-of-Control Flight Procedures Exam		1.0	
-------	-------------	--	--	-----	--

3. Syllabus Note

- a. Rotary-to-Strike students do not take C1290.
- b. The OCF Advanced Qualification requires this exam be retaken annually to maintain currency in the qualification.

4. Discuss Items. None.

Block #	Media	Title	Events	Hrs	H/X
C31	OFT	Day Contact	3	3.9	1.3

1. Prerequisites

- a. C1190 (Contact Exam) - IUT only.
- b. Q4390 - IUT only.
- c. C1108 (Advanced Aerobatics) - Rotary-to-Strike Transition only.
- d. Q4103 - Rotary-to-Strike Transition only.

2. Syllabus Notes

- a. Rotary-to-Strike Transition students complete C3101 only.
- b. All maneuvers performed by the IUT will emphasize instructional procedures and techniques while maintaining pilot proficiency level.

3. Special Syllabus Requirements. None.

4. Discuss Items

C3101

Takeoff, departure, turn pattern, level speed change, slow flight, landing pattern stalls, spin, Contact unusual attitudes, landing pattern, no-flap landing, takeoff flap landing, LDG flap landing, AOA pattern, and waveoff.

C3102

Loop, aileron roll, split-S, barrel roll, cloverleaf, Immelmann, Cuban eight, and wingover.

C3103

HAPL, PEL, PEL/P, ELP, and ELP landing.

5. Block MIF

CTS REF	MANEUVER	C3103
1	General Knowledge/Procedures	4+
2	Emergency Procedures	4+
3	Headwork/Situational Awareness	4+
4	Basic Air Work	4+
5	In-flight Checks/Fuel Management	4+
6	In-flight Planning/Area Orientation	4+
7	Task Management	4+
8	Communication	4+
9	Mission Planning/Briefing/Debriefing	3+
10	Ground Operations	4
11	Takeoff	4+
12	Departure	4+
15	Turn Pattern	3+
16	Level Speed Change	3+
17	Slow Flight	3+
18	Power-On Stall	3+
19	Landing Pattern Stalls	3+
19	Landing Pattern Stalls - No-Flap	3+
20	Emergency Landing Pattern Stalls	3+
21	Spin	3
22	Contact Unusual Attitudes	3+
24	Stability Demonstration	3
25	Loop	3+
26	Aileron Roll	3+
27	Split-S	3+
28	Barrel Roll	3+
29	Cloverleaf	3+
30	Immelmann	3+

MIF continued on next page.

CTS REF	MANEUVER	C3103
31	Cuban Eight	3+
32	Wingover	3+
33	Slip	3
34	HAPL	3+
35	Precautionary Emergency Landing	3+
36	PEL/P	3+
37	ELP Landing	3+
38	VFR Arrival/Course Rules	3
39	Landing Pattern	3+
40	No-Flap Landing	3+
40	Takeoff Flap Landing	3+
40	LDG Flap Landing	3+
41	AOA Pattern	3+
42	Waveoff	4
13	Instructional Skills/Student Management	3+

Block #	Media	Title	Events	Hrs	H/X
C41	T-6B	Day Contact	3	4.8	1.6

1. Prerequisites

- a. C3102 - IUT only.
- b. C3101 - Rotary-to-Strike Transition only.

2. Syllabus Notes

- a. Rotary-to-Strike Transition students take C4101-2 only.
- b. Rotary-to-Strike Transition students will fly all events in this block from the front seat.
- c. All IUT events will be flown from the rear cockpit; all maneuvers will emphasize rear-cockpit proficiency.
- d. Once initial proficiency is achieved, the IUT shall practice instruction.

3. Special Syllabus Requirements. None.

4. Discuss Items

C4101

Front and rear cockpit switchology differences, takeoff, departure, turn pattern, level speed change, slow flight, landing pattern stalls, ELP stalls, spin, Contact unusual attitudes, landing pattern, no-flap landing, takeoff flap landing, LDG flap landing, AOA pattern, and waveoff.

C4102

Loop, aileron roll, split-S, barrel roll, cloverleaf, Immelmann, Cuban eight, and wingover.

C4103

HAPL, PEL, PEL/P, ELP, and ELP landing.

5. Block MIF

CTS REF	MANEUVER	C4103
1	General Knowledge/Procedures	4+
2	Emergency Procedures	4+
3	Headwork/Situational Awareness	4+
4	Basic Air Work	4+
5	In-flight Checks/Fuel Management	4+
6	In-flight Planning/Area Orientation	4+
7	Task Management	4+
8	Communication	4+
9	Mission Planning/Briefing/Debriefing	4+
10	Ground Operations	4+
11	Takeoff	3+
12	Departure	4+
14	G-Awareness/Exercise	4+
15	Turn Pattern	4+
16	Level Speed Change	4+
17	Slow Flight	3
18	Power-On Stall	4
19	Landing Pattern Stalls	4+
19	Landing Pattern Stalls - No-Flap	3
20	Emergency Landing Pattern Stalls	4+
21	Spin	4
22	Contact Unusual Attitudes	4+
24	Stability Demonstration	3+
25	Loop	3+
26	Aileron Roll	3+
27	Split-S	3+
28	Barrel Roll	3
29	Cloverleaf	3
30	Immelmann	3

MIF continued on next page.

CTS REF	MANEUVER	C4103
31	Cuban Eight	3
32	Wingover	3
33	Slip	3
34	HAPL	3+
35	Precautionary Emergency Landing	3+
36	PEL/P	3+
37	ELP Landing	3
38	VFR Arrival/Course Rules	3+
39	Landing Pattern	3+
40	No-Flap Landing	3+
40	Takeoff Flap Landing	3+
40	LDG Flap Landing	3+
41	AOA Pattern	3+
42	Waveoff	4+
13	Instructional Skills/Student Management	3+

Block #	Media	Title	Events	Hrs	H/X
C42	T-6B	Day Contact	3	4.8	1.6

1. Prerequisite. C4103.

2. Syllabus Notes

a. Rotary-to-Strike Transition students do not take this block.

b. All events will be flown from the rear cockpit.

c. All events will concentrate on introducing instructional procedures/techniques while continuing to build proficiency in the rear cockpit.

d. Observe a minimum of one student brief/debrief evolution during block.

3. Special Syllabus Requirements

C4201

Demonstrate visual straight-in.

4. Discuss Items

C4201

Working area/outlying field operations, student C4101 briefing items/profile, energy management, and visual straight-in.

C4202

Pattern chalkboard brief (IUT brief) and student C4102 briefing items/profile.

C4203

Emergency landing pattern chalkboard brief (IUT brief) and student C4103 briefing items/profile.

5. Block MIF

CTS REF	MANEUVER	C4203
1	General Knowledge/Procedures	4+
2	Emergency Procedures	4+
3	Headwork/Situational Awareness	4+
4	Basic Air Work	4+
5	In-flight Checks/Fuel Management	4+
6	In-flight Planning/Area Orientation	4+
7	Task Management	4+
8	Communication	4+
9	Mission Planning/Briefing/Debriefing	4+
10	Ground Operations	4+
11	Takeoff	4+
12	Departure	4+
14	G-Awareness/Exercise	4+
15	Turn Pattern	4
16	Level Speed Change	4
17	Slow Flight	4+
18	Power-On Stall	4+
19	Landing Pattern Stalls	4
19	Landing Pattern Stalls - No-Flap	4+
20	Emergency Landing Pattern Stalls	4
21	Spin	4+
22	Contact Unusual Attitudes	4
23	Inverted Flight	3+
24	Stability Demonstration	3+
25	Loop	3+
26	Aileron Roll	3+
27	Split-S	3+
28	Barrel Roll	3+
29	Cloverleaf	3+

MIF continued on next page.

CTS REF	MANEUVER	C4203
30	Immelmann	3+
31	Cuban Eight	3+
32	Wingover	3+
33	Slip	4+
34	HAPL	4
35	Precautionary Emergency Landing	4+
36	PEL/P	4+
37	ELP Landing	3+
38	VFR Arrival/Course Rules	4+
39	Landing Pattern	4+
40	No-Flap Landing	3+
40	Takeoff Flap Landing	3+
40	LDG Flap Landing	3+
41	AOA Pattern	3+
42	Waveoff	4+
13	Instructional Skills/Student Management	3+
	Special Syllabus Requirements	1

Block #	Media	Title	Events	Hrs	H/X
C43	T-6B	Day Contact	3	4.8	1.6

1. Prerequisites

- a. C4203.
- b. C3103.

2. Syllabus Notes

- a. Rotary-to-Strike Transition students do not take this block.
- b. Events will be flown from the rear cockpit.
- c. During this block of training, special emphasis will be placed on defensive posturing and instructional techniques. On C4302 and C4303, the IUT will practice instructing and evaluating SI in simulated student role. IUT will debrief and generate ATF on simulated student.
- d. C4302 will be flown as a student C4203 syllabus event.
- e. C4303 will be flown as a student C4105 syllabus event.
- f. Observe a minimum of one student brief/debrief evolution during block.

3. Special Syllabus Requirements

C4301

Demonstrate progressive spin, controls neutral spin, and spiral.

C4302

SI will demonstrate a cross section of common student errors.

C4303

SI will demonstrate a cross section of common student errors.

4. Discuss Items

C4301

Out-of-control flight recognition and recovery; defensive positioning/exposure/recovery; spin versus spiral flight characteristics; and MPTS review of ATF and ATS. Common student errors; spin and stall errors; stalls during out-of-balance flight; aircraft flight characteristics associated with stalling in a skid versus a slip; skid-to-slip - rudder

swap; defensive positioning for all maneuvers listed in the MIF; and what to expect on C4302 flight profile.

C4302

Early contact defensive positioning; Contact stage student errors; and landing pattern errors to include: improper OLF entry/departure, interval errors, basic arrival deviations, improper communications, late flare, high flare, flat landings, porpoise landings, landing long, off center line, nose-wheel shimmy, landing in a crab, improper waveoffs, and low-key considerations. How to brief a typical student Contact flight (ATF, ATS, etc.), managing a typical student Contact flight (i.e., high-to-low), how to write the ATF and grade using MPTS, course training standards, and how to use the CTS.

C4303

Aborted takeoff, brake energy charts/determination, minimum power-required charts/determination, defensive positioning, and tower-controlled field operations.

5. Block MIF

CTS REF	MANEUVER	C4303
1	General Knowledge/Procedures	4+
2	Emergency Procedures	4+
3	Headwork/Situational Awareness	4+
4	Basic Air Work	4+
5	In-flight Checks/Fuel Management	4+
6	In-flight Planning/Area Orientation	4+
7	Task Management	4+
8	Communication	4+
9	Mission Planning/Briefing/Debriefing	4+
10	Ground Operations	4+
11	Takeoff	4+
12	Departure	4+
14	G-Awareness/Exercise	4+
15	Turn Pattern	4
16	Level Speed Change	4

MIF continued on next page.

CTS REF	MANEUVER	C4303
17	Slow Flight	4+
18	Power-On Stall	4+
19	Landing Pattern Stalls	4+
19	Landing Pattern Stalls - No-Flap	4+
20	Emergency Landing Pattern Stalls	4+
21	Spin	4+
22	Contact Unusual Attitudes	4+
23	Inverted Flight	4+
24	Stability Demonstration	4+
25	Loop	4+
26	Aileron Roll	4+
27	Split-S	4+
28	Barrel Roll	4+
29	Cloverleaf	4+
30	Immelmann	4+
31	Cuban Eight	4+
32	Wingover	4+
33	Slip	4+
34	HAPL	4+
35	Precautionary Emergency Landing	4+
36	PEL/P	4+
37	ELP Landing	4+
73	OCF Recovery	4+
38	VFR Arrival/Course Rules	4+
39	Landing Pattern	4+
40	No-Flap Landing	4+
40	Takeoff Flap Landing	4+
40	LDG Flap Landing	4+
41	AOA Pattern	4+
42	Waveoff	4+
13	Instructional Skills/Student Management	4+
	Special Syllabus Requirements	1

Block #	Media	Title	Events	Hrs	H/X
C44	T-6B	Standardization Day Contact Check Flight	1	1.6	1.6

1. Prerequisite. C4303.
2. Syllabus Notes
  - a. Rotary-to-Strike Transition students do not take this block.
  - b. Event will be flown from the rear cockpit.
  - c. OCF maneuvers are required on initial qualification only. They may be flown on requalification flights if flown with an OCF instructor.
  - d. A minimum of four aerobatic maneuvers (SI choice) shall be flown.
3. Special Syllabus Requirements. None.
4. Discuss Items. Any emergency procedure, defensive positioning, OCF, and OCF recovery procedures.
5. Block MIF

CTS REF	MANEUVER	C4490
1	General Knowledge/Procedures	4+
2	Emergency Procedures	4+
3	Headwork/Situational Awareness	4+
4	Basic Air Work	4+
5	In-flight Checks/Fuel Management	4+
6	In-flight Planning/Area Orientation	4+
7	Task Management	4+
8	Communication	4+
9	Mission Planning/Briefing/Debriefing	4+
10	Ground Operations	4+
11	Takeoff	4+

MIF continued on next page.

CTS REF	MANEUVER	C4490
12	Departure	4+
14	G-Awareness/Exercise	4+
15	Turn Pattern	4
16	Level Speed Change	4
17	Slow Flight	4+
18	Power-On Stall	4+
19	Landing Pattern Stalls	4+
19	Landing Pattern Stalls - No-Flap	4
20	Emergency Landing Pattern Stalls	4
21	Spin	4
22	Contact Unusual Attitudes	4+
23	Inverted Flight	4
24	Stability Demonstration	4
25	Loop	4
26	Aileron Roll	4
27	Split-S	4
28	Barrel Roll	4
29	Cloverleaf	4
30	Immelmann	4
31	Cuban Eight	4
32	Wingover	4
33	Slip	4
34	HAPL	4
35	Precautionary Emergency Landing	4
36	PEL/P	4+
37	ELP Landing	4+
73	OCF Recovery	4
38	VFR Arrival/Course Rules	4+
39	Landing Pattern	4+
40	No-Flap Landing	4+
40	Takeoff Flap Landing	4+
40	LDG Flap Landing	4+

MIF continued on next page.

CTS REF	MANEUVER	C4490
41	AOA Pattern	4
42	Waveoff	4
13	Instructional Skills/Student Management	4+

Block #	Media	Title	Events	Hrs	H/X
C45	T-6B	Night Contact	1	1.6	1.6

1. Prerequisite. C1109 (Night Contact Flight Procedures).
2. Syllabus Notes
  - a. Rotary-to-Strike Transition students do not take this block.
  - b. Event will be flown from the rear cockpit.
3. Special Syllabus Requirements. None.
4. Discuss Items. Night flying considerations, aircraft and cockpit lighting, applicable night emergencies, local night SOP, and electrical system malfunctions.

5. Block MIF

CTS REF	MANEUVER	C4501
1	General Knowledge/Procedures	4+
2	Emergency Procedures	4+
3	Headwork/Situational Awareness	4+
4	Basic Air Work	4+
5	In-flight Checks/Fuel Management	4+
6	In-flight Planning/Area Orientation	4+
7	Task Management	4+
8	Communication	4+
9	Mission Planning/Briefing/Debriefing	4+
10	Ground Operations	4+
11	Takeoff	4+
12	Departure	4+
36	PEL/P	4+
37	ELP Landing	4+
38	VFR Arrival/Course Rules	4+
39	Landing Pattern	4+
40	No-Flap Landing	4+
40	Takeoff Flap Landing	4+
40	LDG Flap Landing	4+
42	Waveoff	4+
13	Instructional Skills/Student Management	4+

Block #	Media	Title	Events	Hrs	H/X
C46	T-6B	Standardization Night Contact Check Flight	1	1.6	1.6

1. Prerequisites
  - a. C4501.
  - b. N4201.
2. Syllabus Notes. None.
3. Special Syllabus Requirements. None.
4. Discuss Items. Applicable night emergencies, local SOP night operations, and student Night Contact event.

5. Block MIF

CTS REF	MANEUVER	C4690
1	General Knowledge/Procedures	4+
2	Emergency Procedures	4+
3	Headwork/Situational Awareness	4+
4	Basic Air Work	4+
5	In-flight Checks/Fuel Management	4+
6	In-flight Planning/Area Orientation	4+
7	Task Management	4+
8	Communication	4+
9	Mission Planning/Briefing/Debriefing	4+
10	Ground Operations	4+
11	Takeoff	4+
12	Departure	4+
36	PEL/P	4+
37	ELP Landing	4+
38	VFR Arrival/Course Rules	4+
39	Landing Pattern	4+
40	No-Flap Landing	4+
40	Takeoff Flap Landing	4+
40	LDG Flap Landing	4+
42	Waveoff	4+
13	Instructional Skills/Student Management	4+

Block #	Media	Title	Events	Hrs	H/X
C47	T-6B	Standardization Out-of-Control Flight	1	1.6	1.6

1. Prerequisite. Completion of IUT syllabus.
2. Syllabus Notes
  - a. OCF Advanced Qualification only.
  - b. Rotary-to-Strike Transition students do not take this block.
  - c. Event will be flown from the front cockpit.
3. Special Syllabus Requirements. Aggravated stall demonstration, stability demonstration, demonstrate improper ELP profile, and demonstrate landing pattern errors.
4. Discuss Items
  - a. Out-of-control flight/recovery procedures, high spins (controls neutral, progressive), spin versus spiral, stalls during out-of-balance flight; aircraft flight characteristics associated with stalling in a skid versus a slip; and skid-to-slip - rudder swap.
  - b. Common IUT errors, defensive positioning, and landing pattern errors to include: improper OLF entry/departure, interval errors, basic arrival deviations, improper communications, late flare, high flare, flat landings, porpoise landings, landing long, off center line, nose-wheel shimmy, landing in a crab, improper waveoffs, and low-key considerations.

5. Block MIF

CTS REF	MANEUVER	C4701
1	General Knowledge/Procedures	4+
2	Emergency Procedures	4+
3	Headwork/Situational Awareness	4+
4	Basic Air Work	4+
5	In-flight Checks/Fuel Management	4+
6	In-flight Planning/Area Orientation	4+
7	Task Management	4+
8	Communication	4+
10	Ground Operations	4+
11	Takeoff	4+
12	Departure	4+
22	Contact Unusual Attitudes	4+
23	Inverted Flight	4+
70	Progressive Spin	4+
71	Controls Neutral Spin	4+
72	Spiral	4+
73	OCF Recovery	4+
38	VFR Arrival/Course Rules	4+
39	Landing Pattern	4+
40	No-Flap Landing	4+
40	Takeoff Flap Landing	4+
40	LDG Flap Landing	4+
	Special Syllabus Requirements	1

Block #	Media	Title	Events	Hrs	H/X
C48	T-6B	Standardization Out-of-Control Check Flight	1	1.6	1.6

1. Prerequisite. C4701.
2. Syllabus Notes
  - a. OCF Advanced Qualification only.
  - b. Rotary-to-Strike Transition students do not take this block.
  - c. Event will be flown from the front cockpit.
3. Special Syllabus Requirements. None.
4. Discuss Items. Out-of-control flight/recovery procedures, high spins (controls neutral, progressive), spin versus spiral, common IUT errors, defensive positioning, and any previously discussed item.

5. Block MIF

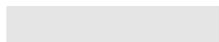
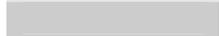
CTS REF	MANEUVER	C4890
1	General Knowledge/Procedures	4+
2	Emergency Procedures	4+
3	Headwork/Situational Awareness	4+
4	Basic Air Work	4+
5	In-flight Checks/Fuel Management	4+
6	In-flight Planning/Area Orientation	4+
7	Task Management	4+
8	Communication	4+
10	Ground Operations	4+
11	Takeoff	4+
12	Departure	4+
22	Contact Unusual Attitudes	4+
23	Inverted Flight	4+
70	Progressive Spin	4+
71	Controls Neutral Spin	4+
72	Spiral	4+
73	OCF Recovery	4+
38	VFR Arrival/Course Rules	4+
39	Landing Pattern	4+
40	No-Flap Landing	4+
40	Takeoff Flap Landing	4+
40	LDG Flap Landing	4+

Chapter V

Instrument Training

1. Matrices. The following matrix is an overview of the entire Instrument stage. The purpose of this matrix is to provide the IUT and IP the easiest way to track progress, regression, and overall status in relation to the MIF. In addition, there is a single matrix following each block description throughout this chapter.

2. Instrument Stage MIF

 Simulator/Device Event  
 Check Flight Event

<b>INSTRUMENT STAGE MANEUVER ITEM FILE</b>							
<b>CTS REF</b>	<b>MANEUVER</b>	<b>I3103</b>	<b>I3203</b>	<b>I4103</b>	<b>I4203</b>	<b>I4390</b>	<b>I4490</b>
1	General Knowledge/Procedures	3+	4+	3+	4+	4+	4+
2	Emergency Procedures	3+	4+	3+	4+	4+	4+
3	Headwork/Situational Awareness	3+	4+	3+	4+	4+	4+
4	Basic Air Work	4+	4+	4+	4+	4+	4+
5	In-flight Checks/Fuel Management	3+	4+	3+	4+	4+	4+
6	In-flight Planning/Area Orientation	4+	4+	4+	4+	4+	4+
7	Task Management	3+	4+	3+	4+	4+	4+
8	Communication	4+	4+	4+	4+	4+	4+
9	Mission Planning/Briefing/Debriefing	3+	4+	4+	4+	4+	4+
10	Ground Operations	4	4	4+	4+	4+	4+
11	Takeoff	4+	4+	4+	4+	4+	4+
12	Departure	4+	4+	4+	4+	4+	4+
43	S-1 Pattern	3	4	4	4	4	4
44	Steep Turns	3+	4	4+	4	4	4

MIF continued on next page.

<b>INSTRUMENT STAGE MANEUVER ITEM FILE</b>							
<b>CTS REF</b>	<b>MANEUVER</b>	<b>I3103</b>	<b>I3203</b>	<b>I4103</b>	<b>I4203</b>	<b>I4390</b>	<b>I4490</b>
45	IFR Unusual Attitudes	3+	4	4+	4	4	4
46	Confidence Maneuvers	4	4	4	4	4	4
49	Radial Intercepts	3	4	4	4	4	4
47	Point-to-Point	3+	4+	3+	4+	4	4
48	Holding	4+	4+	4+	4+	4+	4+
50	Enroute Procedures	4	4+	4+	4+	4+	4+
51	Enroute Descent	4	4+	4+	4+	4+	4+
52	High-Altitude Approach	3	4+	4	4+	4	4
53	Teardrop Approach	4	4+	4+	4+	4	4
54	Arcing Approach	4	4+	4+	4+	4	4
55	HILO Approach	4	4+	4+	4+	4	4
56	Procedure Turn Approach	4	4+	4+	4+	4	4
57	RVFAC Approach	4	4+	4+	4+	4	4
58	GPS Approach	4	4+	4+	4+	4	4
59	PAR Approach	4	4+	4+	4+	4	4
60	ASR Approach	4	4+	4+	4+	4	4
61	VOR Final	3	4+	4+	4+	4	4
62	ILS Final	3	4+	4+	4+	4	4
63	LOC Final	3	4+	4+	4+	4	4
64	GPS Final	3	4+	4+	4+	4	4
65	No-Gyro Final	3	4+	4	4+	4	4
66	Backup Flight Instrument Approach	3+	4+	3	4	4	4
67	Circling Approach	3	3+	3	4+	4	4
68	Missed Approach	4	4+	4+	4+	4+	4
69	Transition to Landing/ Landing	4+	4+	3+	4+	4+	4+
13	Instructional Skills/Student Management	3+	4+	3+	4+	4+	
	Special Syllabus Requirements			1	1		

Block #	Media	Title	Events	Hrs	Category
IN11/12	CAI	Instruments	12	13.8	See Below

1. Prerequisites

- a. Q2102 prior to IN1101 - IUT only.
- b. IN1101-3 in order prior to IN1190 - IUT only.
- c. IN1190 prior to IN1202 - IUT only.
- d. IN1202-3 in order prior to IN1205 - IUT only.
- e. IN1205-6 in order prior to IN1208 - IUT only.
- f. IN1208-10 in order prior to IN1290 - IUT only.
- g. G0101 prior to IN1101-3 in order - Rotary-to-Jet Transition only.

2. Events

IN1101	JPATS CAI	Instrument Displays and Cross-check		1.0	IN1
IN1102	JPATS CAI	Turns, Climbs, Descents		0.7	IN1
IN1103	JPATS CAI	Instrument Maneuvers		1.0	IN1
IN1190	JPATS CAI Test	Instruments 1 Exam		1.5	IN1
IN1202	JPATS CAI	Instrument Takeoff and Departure		0.8	IN2
IN1203	JPATS CAI	Arrival Preparation and Holding		0.6	IN2
IN1205	JPATS CAI	Descent and Penetration		0.7	IN2
IN1206	JPATS CAI	Low Altitude Approaches		0.9	IN2

2. Events (Cont)

IN1208	JPATS	Final Approach	1.2	IN2
	CAI			
IN1209	JPATS	Radar Approaches	1.4	IN2
	CAI			
IN1210	JPATS	Transition to Landing and	2.5	IN2
	CAI	Missed Approach		
IN1290	JPATS	Instruments 2 Exam	1.5	IN2
	CAI			
		Test		

3. Syllabus Notes

a. Rotary-to-Strike Transition students complete IN1101-3 only.

b. In this block, event codes are the same codes as in the T-6A JPPT syllabus for corresponding events.

4. Discuss Items. None.

Block #	Media	Title	Events	Hrs	H/X
I31	OFT	Basic Instruments	3	3.9	1.3

1. Prerequisites

- a. IN1290 (Instruments 2 Exam) - IUT only.
- b. Q4390 - IUT only.
- c. IN1103 (Instrument Maneuvers) - Rotary-to-Strike Transition only.
- d. Q4103 - Rotary-to-Strike Transition only.

2. Syllabus Note. Rotary-to-Strike Transition students complete I3101 only.

3. Special Syllabus Requirements. None.

4. Discuss Items

I3101  
UFCP, FMS setup, and scan patterns.

I3102  
Battery failure, generator failure, and backup flight instrument.

I3103  
IMC emergencies.

5. Block MIF

CTS REF	MANEUVER	I3103
1	General Knowledge/Procedures	3+
2	Emergency Procedures	3+
3	Headwork/Situational Awareness	3+
4	Basic Air Work	4+
5	In-flight Checks/Fuel Management	3+
6	In-flight Planning/Area Orientation	4+
7	Task Management	3+
8	Communication	4+

MIF continued on next page.

CTS REF	MANEUVER	I3103
9	Mission Planning/Briefing/Debriefing	3+
10	Ground Operations	4
11	Takeoff	4+
12	Departure	4+
43	S-1 Pattern	3
44	Steep Turns	3+
45	IFR Unusual Attitudes	3+
46	Confidence Maneuvers	4
49	Radial Intercepts	3
47	Point-to-Point	3+
48	Holding	4+
50	Enroute Procedures	4
51	Enroute Descent	4
52	High-Altitude Approach	3
53	Teardrop Approach	4
54	Arcing Approach	4
55	HIL0 Approach	4
56	Procedure Turn Approach	4
57	RVFAC Approach	4
58	GPS Approach	4
59	PAR Approach	4
60	ASR Approach	4
61	VOR Final	3
62	ILS Final	3
63	LOC Final	3
64	GPS Final	3
65	No-Gyro Final	3
66	Backup Flight Instrument Approach	3+
67	Circling Approach	3
68	Missed Approach	4
69	Transition to Landing/Landing	4+
13	Instructional Skills/Student Management	3+

Block #	Media	Title	Events	Hrs	H/X
I32	OFT	Radio Instruments	3	3.9	1.3

1. Prerequisite. I3103.
2. Syllabus Note. Rotary-to-Strike Transition students do not take this block.
3. Special Syllabus Requirements. None.
4. Discuss Items

I3201

Clearance and departure procedures, lost communications, local procedures/FIH, radar approaches, and no-gyro radar approaches.

I3202

FMS flight plan usage, FMS SID, FMS STAR, FMS holding, and FMS arcing approach.

I3203

FMS HILO approach, FMS procedure turn approach, GPS approach, RVFAC, and FMS missed approach.

5. Block MIF

CTS REF	MANEUVER	I3203
1	General Knowledge/Procedures	4+
2	Emergency Procedures	4+
3	Headwork/Situational Awareness	4+
4	Basic Air Work	4+
5	In-flight Checks/Fuel Management	4+
6	In-flight Planning/Area Orientation	4+
7	Task Management	4+
8	Communication	4+
9	Mission Planning/Briefing/Debriefing	4+
10	Ground Operations	4

MIF continued on next page.

CTS REF	MANEUVER	I3203
11	Takeoff	4+
12	Departure	4+
43	S-1 Pattern	4
44	Steep Turns	4
45	IFR Unusual Attitudes	4
46	Confidence Maneuvers	4
49	Radial Intercepts	4
47	Point-to-Point	4+
48	Holding	4+
50	Enroute Procedures	4+
51	Enroute Descent	4+
52	High-Altitude Approach	4+
53	Teardrop Approach	4+
54	Arcing Approach	4+
55	HIL0 Approach	4+
56	Procedure Turn Approach	4+
57	RVFAC Approach	4+
58	GPS Approach	4+
59	PAR Approach	4+
60	ASR Approach	4+
61	VOR Final	4+
62	ILS Final	4+
63	LOC Final	4+
64	GPS Final	4+
65	No-Gyro Final	4+
66	Backup Flight Instrument Approach	4+
67	Circling Approach	3+
68	Missed Approach	4+
69	Transition to Landing/Landing	4+
13	Instructional Skills/Student Management	4+

Block #	Media	Title	Events	Hrs	H/X
I41	T-6B	Basic Instruments	3	4.8	1.6

1. Prerequisites

- a. I3103 - IUT only.
- b. I3101 - Rotary-to-Strike Transition only.

2. Syllabus Notes

- a. Rotary-to-Strike Transition students take only I4101-2.
- b. I4101 will be flown from the rear cockpit; I4102-3 will be flown from the front cockpit.
- c. One hour of nighttime should be completed during the I41 block. Discuss local night procedures prior to night flight.
- d. Flights may be conducted as an out-and-in.
- e. During block, IUT will fly and instruct a portion of each flight.

3. Special Syllabus Requirements

I4101  
Local departure, recovery, and vertigo demonstration.

I4103  
SI will demonstrate a cross section of common student errors.

4. Discuss Items

I4101  
Instrument scan; local IFR departure; and local airspace management/MOA operations.

I4102  
Hypoxia/hyperventilation and OBOGS caution/warning light, and icing considerations.

I4103  
Common student errors and student grading practices.

5. Block MIF

CTS REF	MANEUVER	I4103
1	General Knowledge/Procedures	3+
2	Emergency Procedures	3+
3	Headwork/Situational Awareness	3+
4	Basic Air Work	4+
5	In-flight Checks/Fuel Management	3+
6	In-flight Planning/Area Orientation	4+
7	Task Management	3+
8	Communication	4+
9	Mission Planning/Briefing/Debriefing	4+
10	Ground Operations	4+
11	Takeoff	4+
12	Departure	4+
43	S-1 Pattern	4
44	Steep Turns	4+
45	IFR Unusual Attitudes	4+
46	Confidence Maneuvers	4
49	Radial Intercepts	4
47	Point-to-Point	3+
48	Holding	4+
50	Enroute Procedures	4+
51	Enroute Descent	4+
52	High-Altitude Approach	4
53	Teardrop Approach	4+
54	Arcing Approach	4+
55	HIL0 Approach	4+
56	Procedure Turn Approach	4+
57	RVFAC Approach	4+
58	GPS Approach	4+
59	PAR Approach	4+

MIF continued on next page.

CTS REF	MANEUVER	I4103
60	ASR Approach	4+
61	VOR Final	4+
62	ILS Final	4+
63	LOC Final	4+
64	GPS Final	4+
65	No-Gyro Final	4
66	Backup Flight Instrument Approach	3
67	Circling Approach	3
68	Missed Approach	4+
69	Transition to Landing/Landing	3+
13	Instructional Skills/Student Management	3+
	Special Syllabus Requirements	1

Block #	Media	Title	Events	Hrs	H/X
I42	T-6B	Radio Instruments	3	4.8	1.6

1. Prerequisites

- a. I3203.
- b. I4103.

2. Syllabus Notes

- a. Rotary-to-Strike Transition students do not take this block.
- b. Events will be flown from the front cockpit.
- c. At least two flights from the I42 block must be completed during an out-and-in or during a cross-country.
- d. A minimum of three approaches and holding shall be accomplished on each event. One approach will terminate to a missed approach followed by direct to an alternate for a follow-on approach.
- e. Flights should represent a typical student profile.
- f. During I4201, conduct flight to enable the IUT to accomplish GPS enroute navigation and terminal area procedures.
- g. During block, IUT will fly and instruct a portion of each flight.
- h. Observe a minimum of one student brief/debrief evolution during block.

3. Special Syllabus Requirements

I4203

SI will demonstrate a cross section of common student errors.

4. Discuss Items

I4201

Clearance and departure procedures, stereo routes (canned flight plans), airway navigation, lost communications, local procedures/FIH, PAR approach, ASR approach, and no-gyro radar approach.

I4202

FMS flight plan usage, FMS SID, FMS STAR, FMS holding, and FMS arcing approach.

I4203

FMS HILO approach, FMS procedure turn approach, GPS approach, RVFAC approach, FMS missed approach, common student errors, student grading practices, and defensive posturing.

5. Block MIF

CTS REF	MANEUVER	I4203
1	General Knowledge/Procedures	4+
2	Emergency Procedures	4+
3	Headwork/Situational Awareness	4+
4	Basic Air Work	4+
5	In-flight Checks/Fuel Management	4+
6	In-flight Planning/Area Orientation	4+
7	Task Management	4+
8	Communication	4+
9	Mission Planning/Briefing/Debriefing	4+
10	Ground Operations	4+
11	Takeoff	4+
12	Departure	4+
43	S-1 Pattern	4
44	Steep Turns	4
45	IFR Unusual Attitudes	4
46	Confidence Maneuvers	4
49	Radial Intercepts	4
47	Point-to-Point	4+
48	Holding	4+
50	Enroute Procedures	4+
51	Enroute Descent	4+
52	High-Altitude Approach	4+
53	Teardrop Approach	4+

MIF continued on next page.

CTS REF	MANEUVER	I4203
54	Arcing Approach	4+
55	HILO Approach	4+
56	Procedure Turn Approach	4+
57	RVFAC Approach	4+
58	GPS Approach	4+
59	PAR Approach	4+
60	ASR Approach	4+
61	VOR Final	4+
62	ILS Final	4+
63	LOC Final	4+
64	GPS Final	4+
65	No-Gyro Final	4+
66	Backup Flight Instrument Approach	4
67	Circling Approach	4+
68	Missed Approach	4+
69	Transition to Landing/Landing	4+
13	Instructional Skills/Student Management	4+
	Special Syllabus Requirements	1

Block #	Media	Title	Events	Hrs	H/X
I43	T-6B	Standardization Instrument Check Flight	1	1.6	1.6

1. Prerequisite. I4203.
2. Syllabus Notes
  - a. Rotary-to-Strike Transition students do not take this block.
  - b. A minimum of holding, one precision, and one non-precision approach shall be flown.
  - c. Event will be flown from the front cockpit.
3. Special Syllabus Requirements. None.
4. Discuss Items. Student check flight criteria, FMS operations, and lost communication (IAW local SOP).
5. Block MIF

CTS REF	MANEUVER	I4390
1	General Knowledge/Procedures	4+
2	Emergency Procedures	4+
3	Headwork/Situational Awareness	4+
4	Basic Air Work	4+
5	In-flight Checks/Fuel Management	4+
6	In-flight Planning/Area Orientation	4+
7	Task Management	4+
8	Communication	4+
9	Mission Planning/Briefing/Debriefing	4+
10	Ground Operations	4+
11	Takeoff	4+
12	Departure	4+

MIF continued on next page.

CTS REF	MANEUVER	I4390
43	S-1 Pattern	4
44	Steep Turns	4
45	IFR Unusual Attitudes	4
46	Confidence Maneuvers	4
49	Radial Intercepts	4
47	Point-to-Point	4
48	Holding	4+
50	Enroute Procedures	4+
51	Enroute Descent	4+
52	High-Altitude Approach	4
53	Teardrop Approach	4
54	Arcing Approach	4
55	HIL0 Approach	4
56	Procedure Turn Approach	4
57	RVFAC Approach	4
58	GPS Approach	4
59	PAR Approach	4
60	ASR Approach	4
61	VOR Final	4
62	ILS Final	4
63	LOC Final	4
64	GPS Final	4
65	No-Gyro Final	4
66	Backup Flight Instrument Approach	4
67	Circling Approach	4
68	Missed Approach	4+
69	Transition to Landing/Landing	4+
13	Instructional Skills/Student Management	4+

Block #	Media	Title	Events	Hrs	H/X
I44	T-6B	NATOPS Instrument Check Flight	1	1.6	1.6

1. Prerequisites

- a. G0690 (NATOPS Instrument Ground School/IRATS Exam).
- b. I4203.

2. Syllabus Notes

a. Rotary-to-Strike Transition students do not take this block.

b. Flight will be conducted IAW OPNAVINST 3710 annual instrument check flight requirements.

c. If annual CRM flight evaluation was conducted in conjunction with the NATOPS Instrument Check Flight, it shall be noted in the remarks section of the OPNAVINST 3710/2 NATOPS Instrument Rating Request Form.

3. Special Syllabus Requirements. None.

4. Discuss Items. None.

5. Block MIF

CTS REF	MANEUVER	I4490
1	General Knowledge/Procedures	4+
2	Emergency Procedures	4+
3	Headwork/Situational Awareness	4+
4	Basic Air Work	4+
5	In-flight Checks/Fuel Management	4+
6	In-flight Planning/Area Orientation	4+
7	Task Management	4+
8	Communication	4+
9	Mission Planning/Briefing/Debriefing	4+

MIF continued on next page.

CTS REF	MANEUVER	I4490
10	Ground Operations	4+
11	Takeoff	4+
12	Departure	4+
43	S-1 Pattern	4
44	Steep Turns	4
45	IFR Unusual Attitudes	4
46	Confidence Maneuvers	4
49	Radial Intercepts	4
47	Point-to-Point	4
48	Holding	4+
50	Enroute Procedures	4+
51	Enroute Descent	4+
52	High-Altitude Approach	4
53	Teardrop Approach	4
54	Arcing Approach	4
55	HILO Approach	4
56	Procedure Turn Approach	4
57	RVFAC Approach	4
58	GPS Approach	4
59	PAR Approach	4
60	ASR Approach	4
61	VOR Final	4
62	ILS Final	4
63	LOC Final	4
64	GPS Final	4
65	No-Gyro Final	4
66	Backup Flight Instrument Approach	4
67	Circling Approach	4
68	Missed Approach	4
69	Transition to Landing/Landing	4+

Chapter VI

Navigation Training

1. Matrices. The following matrices present an overview of the entire Navigation stage and Low-Level Advanced Qualification. The purpose of these matrices is to provide the IUT and IP the easiest way to track progress, regression, and overall status in relation to the MIF. In addition, there is a single matrix following each block description throughout this chapter.

2. Navigation Stage MIF

Simulator/Device Event

<b>NAVIGATION STAGE MANEUVER ITEM FILE</b>					
<b>CTS REF</b>	<b>MANEUVER</b>	<b>N3101</b>	<b>N3201</b>	<b>N4101</b>	<b>N4201</b>
1	General Knowledge/Procedures	3+	3+	4+	4+
2	Emergency Procedures	4+	4+	4+	4+
3	Headwork/Situational Awareness	3+	3+	4+	4+
4	Basic Air Work	4+	4+	4+	4+
5	In-flight Checks/Fuel Management	3+	3+	4+	4+
6	In-flight Planning/Area Orientation	3+	3+	4+	4+
7	Task Management	3+	3+	4+	4+
8	Communication	3+	3+	4+	4+
9	Mission Planning/Briefing/Debriefing	3+	3+	4+	4+
10	Ground Operations	4	4	4+	4+
11	Takeoff	4+	4+	4+	4+
12	Departure	3+	3+	4+	4+
75	Route Management	3+	3+	4+	4+
38	VFR Arrival/Course Rules	3+	3+	4+	4+
39	Landing Pattern	4+	4+	4+	4+
40	No-Flap Landing	4	4	4	4
40	Takeoff Flap Landing	4+	4+	4+	4+
40	LDG Flap Landing	4	4	4	4
78	ATIS/PMSV/FSS/Weather	3+	3+	4+	4+
13	Instructional Skills/Student Management	3+	3+	4+	4+

3. Low-Level Advanced Qualification MIF

Simulator/Device Event

<b>LOW-LEVEL ADVANCED QUALIFICATION MANEUVER ITEM FILE</b>				
<b>CTS REF</b>	<b>MANEUVER</b>	<b>L3101</b>	<b>L4101</b>	<b>L4290</b>
1	General Knowledge/Procedures	3+	4+	4+
2	Emergency Procedures	4+	4+	4+
3	Headwork/Situational Awareness	3+	4+	4+
4	Basic Air Work	4+	4+	4+
5	In-flight Checks/Fuel Management	3+	4+	4+
6	In-flight Planning/Area Orientation	3+	4+	4+
7	Task Management	3+	4+	4+
8	Communication	3+	4+	4+
9	Mission Planning/Briefing/Debriefing	3+	4+	4+
10	Ground Operations	4	4+	4+
11	Takeoff	4+	4+	4+
12	Departure	4+	4+	4+
74	Route Entry/Exit	3+	4+	4+
75	Route Management	3+	4+	4+
76	Standard Time Corrections	3+	4+	4+
77	Standard Course Corrections	3+	4+	4+
38	VFR Arrival/Course Rules	4+	4+	4+
39	Landing Pattern	4+	4+	4+
40	No-Flap Landing	4	4	4
40	Takeoff Flap Landing	4+	4+	4+
40	LDG Flap Landing	4	4	4
78	ATIS/PMSV/FSS/Weather	4+	4+	4+
13	Instructional Skills/Student Management	3+	4+	4+

Block #	Media	Title	Events	Hrs	Category
NA11	CAI	Navigation	5	9.0	NAV

1. Prerequisites

- a. C4101 prior to NA1102-3 (in order).
- b. NA1103 prior to NA1106-7 (in order).
- c. NA1107 prior to NA1190.

2. Events

NA1102	JPATS CAI	IFR Mission Planning		3.0	
NA1103	JPATS CAI	IFR Navigation		1.5	
NA1106	JPATS CAI	VFR Mission Planning		1.5	
NA1107	JPATS CAI	VFR/Low-Level Navigation		1.5	
NA1190	JPATS CAI Test	Navigation Exam		1.5	

3. Syllabus Notes

- a. Rotary-to-Strike students do not take Navigation block.
- b. In this block, event codes are the same codes as in the T-6A JPPT syllabus for corresponding events.

4. Discuss Items. None.

Block #	Media	Title	Events	Hrs	H/X
N31	OFT	Day Navigation	1	1.3	1.3

1. Prerequisite. NA1190 (Navigation Exam).
2. Syllabus Note. Rotary-to-Strike Transition students do not take this block.
3. Special Syllabus Requirements. None.
4. Discuss Items. VFR chart preparation, emergency field selection, airspace classification, VFR field entry/departure (AIM), and any applicable day emergency.

5. Block MIF

CTS REF	MANEUVER	N3101
1	General Knowledge/Procedures	3+
2	Emergency Procedures	4+
3	Headwork/Situational Awareness	3+
4	Basic Air Work	4+
5	In-flight Checks/Fuel Management	3+
6	In-flight Planning/Area Orientation	3+
7	Task Management	3+
8	Communication	3+
9	Mission Planning/Briefing/Debriefing	3+
10	Ground Operations	4
11	Takeoff	4+
12	Departure	3+
75	Route Management	3+
38	VFR Arrival/Course Rules	3+
39	Landing Pattern	4+
40	No-Flap Landing	4
40	Takeoff Flap Landing	4+
40	LDG Flap Landing	4
78	ATIS/PMSV/FSS/Weather	3+
13	Instructional Skills/Student Management	3+

Block #	Media	Title	Events	Hrs	H/X
N32	OFT	Night Navigation	1	1.3	1.3

1. Prerequisite. N3101.
2. Syllabus Note. Rotary-to-Strike Transition students do not take this block.
3. Special Syllabus Requirements. None.
4. Discuss Items. Night visual navigation procedures, night VFR chart interpretation, local night VNAV SOPs, and any applicable night emergency procedure.

5. Block MIF

CTS REF	MANEUVER	N3201
1	General Knowledge/Procedures	3+
2	Emergency Procedures	4+
3	Headwork/Situational Awareness	3+
4	Basic Air Work	4+
5	In-flight Checks/Fuel Management	3+
6	In-flight Planning/Area Orientation	3+
7	Task Management	3+
8	Communication	3+
9	Mission Planning/Briefing/Debriefing	3+
10	Ground Operations	4
11	Takeoff	4+
12	Departure	3+
75	Route Management	3+
38	VFR Arrival/Course Rules	3+
39	Landing Pattern	4+
40	No-Flap Landing	4
40	Takeoff Flap Landing	4+
40	LDG Flap Landing	4
78	ATIS/PMSV/FSS/Weather	3+
13	Instructional Skills/Student Management	3+

Block #	Media	Title	Events	Hrs	H/X
N41	T-6B	Day Navigation	1	1.6	1.6

1. Prerequisite. N3101.

2. Syllabus Notes

a. Rotary-to-Strike Transition students do not take this block.

b. N41 block may be flown at anytime during the Day Contact syllabus after completion of C4101 and N3101.

c. Event is flown from the rear cockpit.

3. Special Syllabus Requirements. None.

4. Discuss Items. VFR chart preparation, emergency field selection, destination maintenance facilities and operating procedures, airspace classification, and VFR field entry/departure (AIM), any applicable day emergency, and local cross-country SOP.

5. Block MIF

CTS REF	MANEUVER	N4101
1	General Knowledge/Procedures	4+
2	Emergency Procedures	4+
3	Headwork/Situational Awareness	4+
4	Basic Air Work	4+
5	In-flight Checks/Fuel Management	4+
6	In-flight Planning/Area Orientation	4+
7	Task Management	4+
8	Communication	4+
9	Mission Planning/Briefing/Debriefing	4+
10	Ground Operations	4+
11	Takeoff	4+
12	Departure	4+
75	Route Management	4+
38	VFR Arrival/Course Rules	4+
39	Landing Pattern	4+
40	No-Flap Landing	4
40	Takeoff Flap Landing	4+
40	LDG Flap Landing	4
78	ATIS/PMSV/FSS/Weather	4+
13	Instructional Skills/Student Management	4+

Block #	Media	Title	Events	Hrs	H/X
N42	T-6B	Night Navigation	1	1.6	1.6

1. Prerequisites

- a. N4101.
- b. N3201.

2. Syllabus Notes

a. Rotary-to-Strike Transition students do not take this block.

b. N42 block may be flown anytime after N4101 and N3201, but must be complete prior to C4690.

c. Event is flown from the rear cockpit.

3. Special Syllabus Requirements. None.

4. Discuss Items. Night visual navigation procedures, night VFR chart interpretation, local night SOPs, and applicable night emergency.

5. Block MIF

CTS REF	MANEUVER	N4201
1	General Knowledge/Procedures	4+
2	Emergency Procedures	4+
3	Headwork/Situational Awareness	4+
4	Basic Air Work	4+
5	In-flight Checks/Fuel Management	4+
6	In-flight Planning/Area Orientation	4+
7	Task Management	4+
8	Communication	4+
9	Mission Planning/Briefing/Debriefing	4+
10	Ground Operations	4+
11	Takeoff	4+
12	Departure	4+
75	Route Management	4+
38	VFR Arrival/Course Rules	4+
39	Landing Pattern	4+
40	No-Flap Landing	4
40	Takeoff Flap Landing	4+
40	LDG Flap Landing	4
78	ATIS/PMSV/FSS/Weather	4+
13	Instructional Skills/Student Management	4+

Block #	Media	Title	Events	Hrs	H/X
L31	OFT	Low-Level	1	1.3	1.3

1. Prerequisite. Completion of IUT syllabus.
2. Syllabus Note. Low-level Advanced Qualification pilots only.
3. Special Syllabus Requirements. None.
4. Discuss Items. Low-level chart preparation, AP-1B, BASH, FMS procedures, emergency field selection, airspace classification, route entry/exit, route management, standard time corrections, standard course corrections, and any applicable day emergency.

5. Block MIF

CTS REF	MANEUVER	L3101
1	General Knowledge/Procedures	3+
2	Emergency Procedures	4+
3	Headwork/Situational Awareness	3+
4	Basic Air Work	4+
5	In-flight Checks/Fuel Management	3+
6	In-flight Planning/Area Orientation	3+
7	Task Management	3+
8	Communication	3+
9	Mission Planning/Briefing/Debriefing	3+
10	Ground Operations	4
11	Takeoff	4+
12	Departure	4+
74	Route Entry/Exit	3+
75	Route Management	3+
76	Standard Time Corrections	3+
77	Standard Course Corrections	3+
38	VFR Arrival/Course Rules	4+
39	Landing Pattern	4+
40	No-Flap Landing	4
40	Takeoff Flap Landing	4+
40	LDG Flap Landing	4
78	ATIS/PMSV/FSS/Weather	4+
13	Instructional Skills/Student Management	3+

Block #	Media	Title	Events	Hrs	H/X
L41	T-6B	Low-Level	1	1.6	1.6

1. Prerequisite. L3101.
2. Syllabus Notes
  - a. Low-level Advanced Qualification pilots only.
  - b. Event is flown from the rear cockpit.
3. Special Syllabus Requirements. None.
4. Discuss Items. Low-level chart preparation, FMS procedures, emergency field selection, route entry/exit, route management, standard time corrections, standard course corrections, VFR field entry/departure (AIM), and any applicable day emergency.

5. Block MIF

CTS REF	MANEUVER	L4101
1	General Knowledge/Procedures	4+
2	Emergency Procedures	4+
3	Headwork/Situational Awareness	4+
4	Basic Air Work	4+
5	In-flight Checks/Fuel Management	4+
6	In-flight Planning/Area Orientation	4+
7	Task Management	4+
8	Communication	4+
9	Mission Planning/Briefing/Debriefing	4+
10	Ground Operations	4+
11	Takeoff	4+
12	Departure	4+
74	Route Entry/Exit	4+
75	Route Management	4+
76	Standard Time Corrections	4+
77	Standard Course Corrections	4+
38	VFR Arrival/Course Rules	4+
39	Landing Pattern	4+
40	No-Flap Landing	4
40	Takeoff Flap Landing	4+
40	LDG Flap Landing	4
78	ATIS/PMSV/FSS/Weather	4+
13	Instructional Skills/Student Management	4+

Block #	Media	Title	Events	Hrs	H/X
L42	T-6B	Low-Level Check Flight	1	1.6	1.6

1. Prerequisite. L4101.
2. Syllabus Notes
  - a. Low-level Advanced Qualification pilots only.
  - b. Event is flown from the rear cockpit.
3. Special Syllabus Requirements. None.
4. Discuss Items. Review low-level procedures and any applicable day emergency.

5. Block MIF

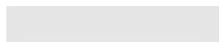
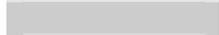
CTS REF	MANEUVER	L4290
1	General Knowledge/Procedures	4+
2	Emergency Procedures	4+
3	Headwork/Situational Awareness	4+
4	Basic Air Work	4+
5	In-flight Checks/Fuel Management	4+
6	In-flight Planning/Area Orientation	4+
7	Task Management	4+
8	Communication	4+
9	Mission Planning/Briefing/Debriefing	4+
10	Ground Operations	4+
11	Takeoff	4+
12	Departure	4+
74	Route Entry/Exit	4+
75	Route Management	4+
76	Standard Time Corrections	4+
77	Standard Course Corrections	4+
38	VFR Arrival/Course Rules	4+
39	Landing Pattern	4+
40	No-Flap Landing	4
40	Takeoff Flap Landing	4+
40	LDG Flap Landing	4
78	ATIS/PMSV/FSS/Weather	4+
13	Instructional Skills/Student Management	4+

Chapter VII

Formation Training

1. Matrices. The following matrices are overviews of the entire Formation Stage. The purpose of these matrices is to provide the IUT and IP the easiest way to track progress, regression, and overall status in relation to the MIF. In addition, there is a single matrix following each block description throughout this chapter.

2. Formation Stage MIF

 Simulator/Device Event  
 Check Flight Event

<b>FORMATION STAGE MANEUVER ITEM FILE</b>							
<b>CTS REF</b>	<b>MANEUVER</b>	<b>F3101</b>	<b>F4104</b>	<b>F4204</b>	<b>F4390</b>	<b>F4403</b>	<b>F4590</b>
1	General Knowledge/Procedures	3+	3+	4+	4+	4+	4+
2	Emergency Procedures	3+	3+	4+	4+	4+	4+
3	Headwork/Situational Awareness	3+	3+	4+	4+	4+	4+
4	Basic Air Work	4+	4+	4+	4+	4+	4+
5	In-flight Checks/Fuel Management	4+	4+	4+	4+	4+	4+
6	In-flight Planning/Area Orientation	3+	3+	4+	4+	4+	4+
7	Task Management	3+	3+	4+	4+	4+	4+
8	Communication	3+	3+	4+	4+	4+	4+
9	Mission Planning/Briefing/Debriefing	3+	3+	4+	4+	4+	4+
10	Ground Operations		3+	4+	4+	4+	4+
79	Lead Change	3+	3+	4+	4+	4+	4+
80	Visual Signals	3+	3+	4+	4+	4+	4+
14	G-Awareness/Exercise		4+	4+	4+	4+	4+
39	Landing Pattern	4+	4+	4+	4+	4+	4+

MIF continued on next page.

<b>FORMATION STAGE MANEUVER ITEM FILE</b>							
<b>CTS REF</b>	<b>MANEUVER</b>	<b>F3101</b>	<b>F4104</b>	<b>F4204</b>	<b>F4390</b>	<b>F4403</b>	<b>F4590</b>
40	No-Flap Landing	4	4	4	4	4	4
40	Takeoff Flap Landing	4+	4+	4+	4+	4+	4+
40	LDG Flap Landing	4	4	4	4	4	4
83	Wingman Consideration		3+	4+	4+	4+	4+
13	Instructional Skills/Student Management		3+	4+	4+	4+	4+
	<b>Formation Lead</b>						
81	Section Takeoff		3+	4+	4	4+	4
82	Interval Takeoff/Rendezvous		3+	4+	4	4+	4
12	Departure		3+	4+	4+	4+	4+
90	Breakup and Rendezvous		3+	4+	4+	4+	4+
38	VFR Arrival/Course Rules		3+	4+	4+	4+	4+
95	Formation Approach		3+	4+	4+	4+	4+
	<b>Formation Wingman</b>						
81	Section Takeoff	2+	3+	4+	4	4+	4
82	Interval Takeoff/Rendezvous	2+	3+	4+	4	4+	4
84	Parade (Straight-and-Level)	2+	3+	4+	4+	4+	4+
85	Parade/Turns Into	2+	3+	4+	4+	4+	4+
86	Parade/Turns Away (IFR)	2+	3+	4+	4+	4+	4+
87	Parade/Turns Away (VFR)	2+	3+	4+	4+	4+	4+
89	Crossunder	2+	3+	4+	4+	4	4
90	Breakup and Rendezvous	2+	3+	4+	4+	4	4
91	Running Rendezvous	2+	3+	4+	4+	4	4
92	Underrun	2+	3+	4+	4+	4	4
93	Cruise Maneuvering	2+	3+	4+	4+	4	4
94	Tail-Chase	2+	3+	4+	4+	4	4
95	Formation Approach	2+	3+	4+	4	4	4

MIF continued on next page.

<b>FORMATION STAGE MANEUVER ITEM FILE</b>							
<b>CTS REF</b>	<b>MANEUVER</b>	<b>F3101</b>	<b>F4104</b>	<b>F4204</b>	<b>F4390</b>	<b>F4403</b>	<b>F4590</b>
96	Tactical Spread					4+	4+
96	Tactical - In Place (Called/Uncalled)					4+	4+
96	Tactical - Shackle					4+	4+
96	Tactical - Cross Turn					4+	4+
96	Tactical - Check Turn					4+	4+
96	Tactical Turns (Called/Uncalled)					4+	4+
	Special Syllabus Requirements			1			

3. AF Formation Student Syllabus Management. The AF Formation Syllabus is written to prepare USAF Fighter/Bomber track students for the fighter/bomber Specialized Undergraduate Pilot Training Program at Vance AFB. AF Formation in the T-6B is conducted in a way that is very specific to AF fighter/bomber operations and therefore contains basic AF formations, AF formation procedures, and three-dimensional maneuvering.

4. IUT Advanced Qualification. The IUT Advanced Qualification for AF Formation is designed to bring an IUT from a non-AF, non-fixed wing background to a proficiency level that is satisfactory to instruct this syllabus at the Joint Primary Training Squadron at NAS Whiting Field.

5. AF Formation Stage MIF

Check Flight Event

<b>AF FORMATION STAGE MANEUVER ITEM FILE</b>			
<b>CTS REF</b>	<b>MANEUVER</b>	<b>F4605</b>	<b>F4790</b>
1	General Knowledge/Procedures	4+	4+
2	Emergency Procedures	4+	4+
3	Headwork/Situational Awareness	4+	4+
4	Basic Air Work	4+	4+
5	In-Flight Checks/Fuel Management	4+	4+
6	In-Flight Planning/Area Orientation	4+	4+
8	Communication	4+	4+
9	Mission Planning/Briefing/Debriefing	4+	4+
10	Ground Operations	4+	4+
79	Lead Change	4+	4+
80	Visual Signals	4+	4+
14	G-Awareness/Exercise	4+	4+
39	Landing Pattern	4+	4+
40	No-Flap Landing	4	4
40	Takeoff Flap Landing	4+	4+
40	LDG Flap Landing	4	4
13	Instructional Skills/Student Management	4+	4+
	<b>FORMATION LEAD</b>		
81	Section Takeoff	4+	4+
82	Interval Takeoff/Rendezvous	4	4
12	Departure	4+	4+
104	Wingwork	4+	4+
105	Extended Trail	4+	4+
38	VFR Arrival/Course Rules	4+	4
95	Formation Approach	4+	4+
106	Formation Landing	4+	4

MIF continued on next page.

<b>AF FORMATION STAGE MANEUVER ITEM FILE</b>			
<b>CTS REF</b>	<b>MANEUVER</b>	<b>F4605</b>	<b>F4790</b>
	<b>FORMATION WING</b>		
81	Section Takeoff	4+	4+
82	Interval Takeoff/Rendezvous	4	4
84	Fingertip	4+	4+
98	Route	4+	4+
99	Echelon	4+	4+
89	Crossunder	4+	4+
100	Straight Ahead Rejoin	4+	4+
101	Turning Rejoin	4+	4+
102	High Yo-Yo	4+	4
103	Low Yo-Yo	4+	4
104	Wingwork	4+	4+
105	Extended Trail	4+	4+
95	Formation Approach	4+	4+
106	Formation Landing	4+	4
	<b>MISCELLANEOUS</b>		
107	AF Pattern Operations	4+	4+
97	Knock-It-Off Procedures	4	4
88	Lost Wingman Exercise	4+	4+
96	Tactical Maneuvering	4+	4+
108	Battle Damage Assessment	4+	4+
	Special Syllabus Requirements	1	

Block #	Media	Title	Events	Hrs	Category
F11/12	MIL/CAI	Formation/ Tactical Formation	7	9.9	See Below

1. Prerequisites

a. Completion of IUT syllabus prior to F1101-5 (in order) - Formation Advanced Qualification.

b. F1105 prior to F1190 - Formation Advanced Qualification.

c. Completion of F4390 prior to F1201 - Tactical Formation Advanced Qualification.

d. C4102 prior to F1101-5 in order - Rotary-to-Strike Transition.

2. Events

F1101	JPATS MIL	Introduction to Formation/ Visual Signals		1.5	FFP1
F1102	JPATS CAI	Basic Formation		1.5	FFP1
F1103	JPATS CAI	Advanced Formation		1.8	FFP1
F1104	JPATS MIL	Formation Review		2.0	FFP1
F1105	JPATS CAI	Tail Chase Maneuvering		0.7	FFP1
F1190	JPATS CAI Test	Formation Exam		1.5	FFP1
F1201	JPATS CAI	Tactical Formation		0.9	FFP2

3. Syllabus Notes

a. Initial IUTs do not complete this block; Formation Advanced Qualification IPs complete F1101-5 and F1190.

b. IP must have Formation Advanced Qualification in order to begin Tactical Formation Advanced Qualification.

c. Tactical Formation Advanced Qualification IPs complete F1201 only.

d. Rotary-to-Strike Transition students complete F1101-5 only.

4. Discuss Items. None.

Block #	Media	Title	Events	Hrs	Category
F13	Class	AF Formation	2	3.0	AFFP

1. Prerequisites

- a. F4390 prior to F1301.
- b. F1301 prior to F1390.

2. Events

F1301	Lect	AF Formation Flight Procedures		2.0	
F1390	P/P Exam	AF Formation Exam		1.0	

3. Syllabus Notes

- a. Initial IUTs and Rotary-to-Strike Transition students do not take F13 block.
- b. AF Formation Advanced Qualification IPs complete both events.

4. Discuss Items. None.

Block #	Media	Title	Events	Hrs	H/X
F31	OFT	Formation	1	1.3	1.3

1. Prerequisites

a. F1190 (Formation Exam) - Formation Advanced Qualification only.

b. F1105 - Rotary-to-Strike Transition students only.

2. Syllabus Note. Initial IUTs do not take this block.

3. Special Syllabus Requirements. None.

4. Discuss Items. Visual signals and Formation maneuvers.

5. Block MIF

CTS REF	MANEUVER	F3101
1	General Knowledge/Procedures	3+
2	Emergency Procedures	3+
3	Headwork/Situational Awareness	3+
4	Basic Air Work	4+
5	In-flight Checks/Fuel Management	4+
6	In-flight Planning/Area Orientation	3+
7	Task Management	3+
8	Communication	3+
9	Mission Planning/Briefing/Debriefing	3+
79	Lead Change	3+
80	Visual Signals	3+
39	Landing Pattern	4+
40	No-Flap Landing	4
40	Takeoff Flap Landing	4+
40	LDG Flap Landing	4

MIF continued on next page.

CTS REF	MANEUVER	F3101
	<b>Formation Wingman</b>	
81	Section Takeoff	2+
82	Interval Takeoff/Rendezvous	2+
84	Parade (Straight-and-Level)	2+
85	Parade/Turns Into	2+
86	Parade/Turns Away (IFR)	2+
87	Parade/Turns Away (VFR)	2+
89	Crossunder	2+
90	Breakup and Rendezvous	2+
91	Running Rendezvous	2+
92	Underrun	2+
93	Cruise Maneuvering	2+
94	Tail-Chase	2+
95	Formation Approach	2+

Block #	Media	Title	Events	Hrs	H/X
F41	T-6B	Formation	4	6.4	1.6

1. Prerequisite. F3101.

2. Syllabus Notes

a. IUTs do not take this block; Formation Advanced Qualification IPs complete all events in block.

b. Rotary-to-Strike Transition students take F4101-2 only.

c. F4101-2 shall be flown from the front cockpit.

d. F4103-4 shall be flown from the rear cockpit.

3. Special Syllabus Requirements. None.

4. Discuss Items

F4101

Emergency field locations in operating area, visual signals, section takeoff, interval takeoff, parade, crossunder, breakup and rendezvous, running rendezvous, underrun, area management, course rules, and lost wingman.

F4102

Aborted takeoff procedures for lead and wingman, and responsibilities of the section leader.

F4103

Cruise position, cruise turns, tail-chase, and formation approach.

F4104

Any previously discussed formation maneuver, formation emergency procedures, and landing gear inspection.

5. Block MIF

CTS REF	MANEUVER	F4104
1	General Knowledge/Procedures	3+
2	Emergency Procedures	3+
3	Headwork/Situational Awareness	3+
4	Basic Air Work	4+
5	In-flight Checks/Fuel Management	4+
6	In-flight Planning/Area Orientation	3+
7	Task Management	3+
8	Communication	3+
9	Mission Planning/Briefing/Debriefing	3+
10	Ground Operations	3+
79	Lead Change	3+
80	Visual Signals	3+
14	G-Awareness/Exercise	4+
39	Landing Pattern	4+
40	No-Flap Landing	4
40	Takeoff Flap Landing	4+
40	LDG Flap Landing	4
83	Wingman Consideration	3+
13	Instructional Skills/Student Management	3+
	<b>Formation Lead</b>	
81	Section Takeoff	3+
82	Interval Takeoff/Rendezvous	3+
12	Departure	3+
90	Breakup and Rendezvous	3+
38	VFR Arrival/Course Rules	3+
95	Formation Approach	3+

MIF continued on next page.

CTS REF	MANEUVER	F4104
	<b>Formation Wingman</b>	
81	Section Takeoff	3+
82	Interval Takeoff/Rendezvous	3+
84	Parade (Straight-and-Level)	3+
85	Parade/Turns Into	3+
86	Parade/Turns Away (IFR)	3+
87	Parade/Turns Away (VFR)	3+
89	Crossunder	3+
90	Breakup and Rendezvous	3+
91	Running Rendezvous	3+
92	Underrun	3+
93	Cruise Maneuvering	3+
94	Tail-Chase	3+
95	Formation Approach	3+

Block #	Media	Title	Events	Hrs	H/X
F42	T-6B	Formation	4	6.4	1.6

1. Prerequisites

- a. F4104 - Formation Advanced Qualification only.
- b. F4102 - Rotary-to-Strike Transition only.

2. Syllabus Notes

- a. Initial IUTs do not take block; Formation Advanced Qualification IPs complete all events in block.
- b. Rotary-to-Strike Transition students take F4201-2 only.
- c. The IUT must perform knock-it-off/terminate procedures as both Lead and Wing during the event block.
- d. During F4203-4, IUT will fly and instruct a portion of the flight.
- e. Events will be flown from the rear cockpit.

3. Special Syllabus Requirements

F4201

Demonstrate visual landing gear check.

F4203

SI will demonstrate a cross section of common student errors.

F4204

SI will demonstrate a cross section of common student errors.

4. Discuss Items

F4201

Airborne damaged aircraft and visual landing gear inspection, HEFOE procedures, lost communication procedures, inadvertent instrument flight, lost sight procedures, and knock-it-off/terminate procedures.

F4202

Section ELP procedures, blind procedures, and common student errors.

F4203

Any emergency procedure and common student errors.

F4204

Any emergency procedure and common student errors.

5. Block MIF

CTS REF	MANEUVER	F4204
1	General Knowledge/Procedures	4+
2	Emergency Procedures	4+
3	Headwork/Situational Awareness	4+
4	Basic Air Work	4+
5	In-flight Checks/Fuel Management	4+
6	In-flight Planning/Area Orientation	4+
7	Task Management	4+
8	Communication	4+
9	Mission Planning/Briefing/Debriefing	4+
10	Ground Operations	4+
79	Lead Change	4+
80	Visual Signals	4+
14	G-Awareness/Exercise	4+
39	Landing Pattern	4+
40	No-Flap Landing	4
40	Takeoff Flap Landing	4+
40	LDG Flap Landing	4
83	Wingman Consideration	4+
13	Instructional Skills/Student Management	4+
	<b>Formation Lead</b>	
81	Section Takeoff	4+
82	Interval Takeoff/Rendezvous	4+
12	Departure	4+
90	Breakup and Rendezvous	4+
38	VFR Arrival/Course Rules	4+
95	Formation Approach	4+

MIF continued on next page.

CTS REF	MANEUVER	F4204
	<b>Formation Wingman</b>	
81	Section Takeoff	4+
82	Interval Takeoff/Rendezvous	4+
84	Parade (Straight-and-Level)	4+
85	Parade/Turns Into	4+
86	Parade/Turns Away (IFR)	4+
87	Parade/Turns Away (VFR)	4+
89	Crossunder	4+
90	Breakup and Rendezvous	4+
91	Running Rendezvous	4+
92	Underrun	4+
93	Cruise Maneuvering	4+
94	Tail-Chase	4+
95	Formation Approach	4+
	Special Syllabus Requirements	1

Block #	Media	Title	Events	Hrs	H/X
F43	T-6B	Standardization Formation Check Flight	1	1.6	1.6

1. Prerequisite. F4204.
2. Syllabus Notes
  - a. Formation Advanced Qualification only.
  - b. Event will be flown from the rear cockpit.
3. Special Syllabus Requirements. None.
4. Discuss Items. Any previously discussed maneuver and any emergency procedure.
5. Block MIF

CTS REF	MANEUVER	F4390
1	General Knowledge/Procedures	4+
2	Emergency Procedures	4+
3	Headwork/Situational Awareness	4+
4	Basic Air Work	4+
5	In-flight Checks/Fuel Management	4+
6	In-flight Planning/Area Orientation	4+
7	Task Management	4+
8	Communication	4+
9	Mission Planning/Briefing/Debriefing	4+
10	Ground Operations	4+
79	Lead Change	4+
80	Visual Signals	4+
14	G-Awareness/Exercise	4+
39	Landing Pattern	4+
40	No-Flap Landing	4

MIF continued on next page.

CTS REF	MANEUVER	F4390
40	Takeoff Flap Landing	4+
40	LDG Flap Landing	4
83	Wingman Consideration	4+
13	Instructional Skills/Student Management	4+
	<b>Formation Lead</b>	
81	Section Takeoff	4
82	Interval Takeoff/Rendezvous	4
12	Departure	4+
90	Breakup and Rendezvous	4+
38	VFR Arrival/Course Rules	4+
95	Formation Approach	4+
	<b>Formation Wingman</b>	
81	Section Takeoff	4
82	Interval Takeoff/Rendezvous	4
84	Parade (Straight-and-Level)	4+
85	Parade/Turns Into	4+
86	Parade/Turns Away (IFR)	4+
87	Parade/Turns Away (VFR)	4+
89	Crossunder	4+
90	Breakup and Rendezvous	4+
91	Running Rendezvous	4+
92	Underrun	4+
93	Cruise Maneuvering	4+
94	Tail-Chase	4+
95	Formation Approach	4

Block #	Media	Title	Events	Hrs	H/X
F44	T-6B	Tactical Formation	3	4.8	1.6

1. Prerequisite. F1201 (Tactical Formation).
2. Syllabus Notes
  - a. Tactical Formation Advanced Qualification only.
  - b. F4401 shall be flown from the front cockpit; F4402-3 shall be flown from the rear cockpit.
  - c. During F4403, IUT will fly and instruct a portion of the flight.
3. Special Syllabus Requirements. None.
4. Discuss Items
  - F4401  
Tactical spread, in place, shackle, cross turn, check turn, and tactical turns (called/uncalled).
  - F4402  
Common Student Errors and any emergency procedure.
  - F4403  
Common Student Errors and any emergency procedure.

5. Block MIF

CTS REF	MANEUVER	F4403
1	General Knowledge/Procedures	4+
2	Emergency Procedures	4+
3	Headwork/Situational Awareness	4+
4	Basic Air Work	4+
5	In-flight Checks/Fuel Management	4+
6	In-flight Planning/Area Orientation	4+
7	Task Management	4+
8	Communication	4+
9	Mission Planning/Briefing/Debriefing	4+
10	Ground Operations	4+
79	Lead Change	4+
80	Visual Signals	4+
14	G-Awareness/Exercise	4+
39	Landing Pattern	4+
40	No-Flap Landing	4
40	Takeoff Flap Landing	4+
40	LDG Flap Landing	4
83	Wingman Consideration	4+
13	Instructional Skills/Student Management	4+
	<b>Formation Lead</b>	
81	Section Takeoff	4+
82	Interval Takeoff/Rendezvous	4+
12	Departure	4+
90	Breakup and Rendezvous	4+
38	VFR Arrival/Course Rules	4+
95	Formation Approach	4+

MIF continued on next page.

CTS REF	MANEUVER	F4403
	<b>Formation Wingman</b>	
81	Section Takeoff	4+
82	Interval Takeoff/Rendezvous	4+
84	Parade (Straight-and-Level)	4+
85	Parade/Turns Into	4+
86	Parade/Turns Away (IFR)	4+
87	Parade/Turns Away (VFR)	4+
89	Crossunder	4
90	Breakup and Rendezvous	4
91	Running Rendezvous	4
92	Underrun	4
93	Cruise Maneuvering	4
94	Tail-Chase	4
95	Formation Approach	4
96	Tactical Spread	4+
96	Tactical - In Place (Called/Uncalled)	4+
96	Tactical - Shackle	4+
96	Tactical - Cross Turn	4+
96	Tactical - Check Turn	4+
96	Tactical Turns (Called/Uncalled)	4+

Block #	Media	Title	Events	Hrs	H/X
F45	T-6B	Standardization Tactical Formation Check Flight	1	1.6	1.6

1. Prerequisite. F4403.
2. Syllabus Notes
  - a. Tactical Formation Advanced Qualification only.
  - b. Event will be flown from the rear cockpit.
3. Special Syllabus Requirements. None.
4. Discuss Items. Any previously discussed maneuver and any emergency procedure.
5. Block MIF

CTS REF	MANEUVER	F4590
1	General Knowledge/Procedures	4+
2	Emergency Procedures	4+
3	Headwork/Situational Awareness	4+
4	Basic Air Work	4+
5	In-flight Checks/Fuel Management	4+
6	In-flight Planning/Area Orientation	4+
7	Task Management	4+
8	Communication	4+
9	Mission Planning/Briefing/Debriefing	4+
10	Ground Operations	4+
79	Lead Change	4+
80	Visual Signals	4+
14	G-Awareness/Exercise	4+
39	Landing Pattern	4+
40	No-Flap Landing	4
40	Takeoff Flap Landing	4+

MIF continued on next page.

CTS REF	MANEUVER	F4590
40	LDG Flap Landing	4
83	Wingman Consideration	4+
13	Instructional Skills/Student Management	4+
	<b>Formation Lead</b>	
81	Section Takeoff	4
82	Interval Takeoff/Rendezvous	4
12	Departure	4+
90	Breakup and Rendezvous	4+
38	VFR Arrival/Course Rules	4+
95	Formation Approach	4+
	<b>Formation Wingman</b>	
81	Section Takeoff	4
82	Interval Takeoff/Rendezvous	4
84	Parade (Straight-and-Level)	4+
85	Parade/Turns Into	4+
86	Parade/Turns Away (IFR)	4+
87	Parade/Turns Away (VFR)	4+
89	Crossunder	4
90	Breakup and Rendezvous	4
91	Running Rendezvous	4
92	Underrun	4
93	Cruise Maneuvering	4
94	Tail-Chase	4
95	Formation Approach	4
96	Tactical Spread	4+
96	Tactical - In Place (Called/Uncalled)	4+
96	Tactical - Shackle	4+
96	Tactical - Cross Turn	4+
96	Tactical - Check Turn	4+
96	Tactical Turns (Called/Uncalled)	4+

Block #	Media	Title	Events	Hrs	H/X
F46	T-6B	AF Formation	5	8.0	1.6

1. Prerequisite. F1301 (AF Formation Flight Procedures).

2. Syllabus Notes

a. AF Formation Advanced Qualification.

b. IUT will occupy the front cockpit on F4601; remaining events will be flown from the rear cockpit.

3. Special Syllabus Requirements

F4601

Demonstrate AF briefing procedures, formation takeoff, route formation, MOA procedures, fence check/OPS check, G-awareness procedures, wingwork, echelon turn, lost wingman, breakout, battle damage assessment, extended trail maneuvering, and formation approach and landing - home field.

F4602

Demonstrate AF pattern operations.

4. Discuss Items

F4601

AF Formation briefs and conduct of flight.

F4602

Local area operations and out-and-in procedures.

F4603

USAF pattern operations, Supervisor of Flying (SOF), Top Three, and Runway Supervisory Unit (RSU).

F4604

Profile management and efficiency.

F4605

MOA operations, Instrument Trail Departure, and AGSM.

5. Block MIF

CTS REF	MANEUVER	F4605
1	General Knowledge/Procedures	4+
2	Emergency Procedures	4+
3	Headwork/Situational Awareness	4+
4	Basic Air Work	4+
5	In-Flight Checks/Fuel Management	4+
6	In-Flight Planning/Area Orientation	4+
8	Communication	4+
9	Mission Planning/Briefing/Debriefing	4+
10	Ground Operations	4+
79	Lead Change	4+
80	Visual Signals	4+
14	G-Awareness/Exercise	4+
39	Landing Pattern	4+
40	No-Flap Landing	4
40	Takeoff Flap Landing	4+
40	LDG Flap Landing	4
13	Instructional Skills/Student Management	4+
	<b>FORMATION LEAD</b>	
81	Section Takeoff	4+
82	Interval Takeoff/Rendezvous	4
12	Departure	4+
104	Wingwork	4+
105	Extended Trail	4+
38	VFR Arrival/Course Rules	4+
95	Formation Approach	4+
106	Formation Landing	4+

MIF continued on next page.

CTS REF	MANEUVER	F4605
	<b>FORMATION WING</b>	
81	Section Takeoff	4+
82	Interval Takeoff/Rendezvous	4
84	Fingertip	4+
98	Route	4+
99	Echelon	4+
89	Crossunder	4+
100	Straight Ahead Rejoin	4+
101	Turning Rejoin	4+
102	High Yo-Yo	4+
103	Low Yo-Yo	4+
104	Wingwork	4+
105	Extended Trail	4+
95	Formation Approach	4+
106	Formation Landing	4+
	<b>MISCELLANEOUS</b>	
107	AF Pattern Operations	4+
97	Knock-It-Off Procedures	4
88	Lost Wingman Exercise	4+
96	Tactical Maneuvering	4+
108	Battle Damage Assessment	4+
	Special Syllabus Requirements	1

Block #	Media	Title	Events	Hrs	H/X
F47	T-6B	Standardization AF Formation Check Flight	1	1.6	1.6

1. Prerequisites
  - a. F1390 (AF Formation Exam).
  - b. F4605.
2. Syllabus Notes
  - a. AF Formation Advanced Qualification only.
  - b. Event will be flown from rear cockpit.
3. Special Syllabus Requirements. None.
4. Discuss Items. AF formation brief and any previously discussed items.
5. Block MIF

CTS REF	MANEUVER	F4790
1	General Knowledge/Procedures	4+
2	Emergency Procedures	4+
3	Headwork/Situational Awareness	4+
4	Basic Air Work	4+
5	In-Flight Checks/Fuel Management	4+
6	In-Flight Planning/Area Orientation	4+
8	Communication	4+
9	Mission Planning/Briefing/Debriefing	4+
10	Ground Operations	4+
79	Lead Change	4+
80	Visual Signals	4+
14	G-Awareness/Exercise	4+
39	Landing Pattern	4+
40	No-Flap Landing	4

MIF continued on next page.

CTS REF	MANEUVER	F4790
40	Takeoff Flap Landing	4+
40	LDG Flap Landing	4
13	Instructional Skills/Student Management	4+
	<b>FORMATION LEAD</b>	
81	Section Takeoff	4+
82	Interval Takeoff/Rendezvous	4
12	Departure	4+
104	Wingwork	4+
105	Extended Trail	4+
38	VFR Arrival/Course Rules	4
95	Formation Approach	4+
106	Formation Landing	4
	<b>FORMATION WING</b>	
81	Section Takeoff	4+
82	Interval Takeoff/Rendezvous	4
84	Fingertip	4+
98	Route	4+
99	Echelon	4+
89	Crossunder	4+
100	Straight Ahead Rejoin	4+
101	Turning Rejoin	4+
102	High Yo-Yo	4
103	Low Yo-Yo	4
104	Wingwork	4+
105	Extended Trail	4+
95	Formation Approach	4+
106	Formation Landing	4
	<b>MISCELLANEOUS</b>	
107	AF Pattern Operations	4+
97	Knock-It-Off Procedures	4

MIF continued on next page.

CTS REF	MANEUVER	F4790
88	Lost Wingman Exercise	4+
96	Tactical Maneuvering	4+
108	Battle Damage Assessment	4+

CNATRAINST 1542.165  
15 DEC 09

BLANK PAGE

Chapter VIII

Tactical Training

This chapter does not apply to T-6B Primary Flight Instructor Training.

CNATRAINST 1542.165  
15 DEC 09

BLANK PAGE

## Chapter IX

### Course Training Standards

1. Purpose. These standards outline the tasks and proficiency required of IUTs and Transition students during the initial and upgrade training.

2. IUT/Student Duties and Responsibilities

- a. Plan the mission.
- b. Ensure the aircraft is preflighted, inspected, and equipped for the assigned mission.
- c. Operate the aircraft to accomplish the mission using sound judgment and airmanship.

3. General Standards

- a. Achieve training standards for VMC maneuvers in conjunction with visual clearing.
- b. Unless otherwise specified, use **BASIC AIR WORK (BAW)** standards for all items with altitude, airspeed, or heading parameters.
- c. "Standard" equates to **good** (G/4).
- d. Aircraft control must be smooth and positive. Performance may be within CTS and still not warrant a grade of **good** if control inputs are delayed, erratic, imprecise, or inappropriate. Slight deviations in establishing or maintaining the proper or desired aircraft attitude or position may occur during the maneuver being performed.
- e. Momentary deviations outside CTS that do not compromise flight safety are acceptable if subsequent corrections are timely.
- f. Procedural knowledge and application must comply with applicable directives and allow efficient mission accomplishment. If individual tasks require pre-mission planning, the standards from **MISSION PLANNING** apply.

4. Execution. The MIF regulates IUT/student progression to meet required standards prior to phase completion. Instructor pilots shall evaluate student performance against these standards.

5. Job Tasks. Specific performance and standards required are described as follows:

BEHAVIOR STATEMENT	STANDARDS
Graded Item	
<ul style="list-style-type: none"> <li>• A brief description of the behavior, required action, and/or conditions.</li> </ul>	<ul style="list-style-type: none"> <li>• The specific standards for the action. May be read as "The IUT/student..."</li> </ul>

6. Graded Items. The MIF for specific graded items varies for each stage. Several items are graded on all complete syllabus events. The standards for these Universally Graded Items are listed first. Then beginning with NATOPS, each stage's MIF table is listed followed by the CTSS unique to that stage. Once the standard for a graded item has been established, the description will be omitted from later stages where it is also graded.

7. Course Training Standards

UNIVERSALLY GRADED ITEMS

BEHAVIOR STATEMENT	STANDARDS
1. General Knowledge/Procedures	
<ul style="list-style-type: none"> <li>• Demonstrate satisfactory knowledge of aircraft systems, procedures, flight training instructions, and directives.</li> </ul>	<ul style="list-style-type: none"> <li>• Demonstrate a thorough understanding of aircraft system capabilities, aircraft directives, and applicable instructions.</li> <li>• Demonstrate the ability to apply procedures from all applicable sources of guidance.</li> </ul>
2. Emergency Procedures	
<ul style="list-style-type: none"> <li>• Maintain in-depth knowledge of NATOPS and appropriate directives.</li> <li>• Perform critical/noncritical action emergency procedures.</li> </ul>	<ul style="list-style-type: none"> <li>• Correctly analyzes situation.</li> <li>• Performs/recites critical action steps from memory.</li> <li>• Uses checklist when conditions permit.</li> <li>• Completes procedures in a timely manner.</li> </ul>

BEHAVIOR STATEMENT	STANDARDS
3. Headwork/Situational Awareness	
<ul style="list-style-type: none"> <li>● Maintain situational awareness to include the following: <ul style="list-style-type: none"> <li>▶ Awareness - Correlates and keeps track of what is happening on the ground, in own aircraft, or with other flight members, and copes with subsequent mission impact as a result of their happenings.</li> <li>▶ Flexibility - Copes with rapidly changing situations or conditions in flight or on the ground, and adjusts mission as needed to obtain desired objectives.</li> <li>▶ Capacity - Cognizant of how large a task loading they can cope with before becoming saturated, confused, or frustrated to the point safety is jeopardized or the mission is rendered ineffective.</li> <li>▶ Flight Discipline - Follows orders and carries out all required steps in a procedure in the proper order.</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>● Demonstrates the ability to minimize the effects of adverse factors and capitalize on opportunities to avoid mission degradation. Factors to be considered may include, but are not limited to, weather conditions, airspace and approach restrictions, high-density traffic, aircraft capabilities and limitations, and fuel conservation.</li> <li>● Correctly assesses all possible factors bearing on the situation and selects the best course of action.</li> <li>● Makes correct decisions based on complete or incomplete knowledge of the situation. Foresees the outcome(s) of present actions and modifies those actions as necessary to obtain the best outcome.</li> <li>● Decisions enhance mission effectiveness and do not hinder others from completing their missions.</li> <li>● Never exceeds capabilities to control the aircraft safely. Selects an alternative course of action, when needed, to reduce task loading and allow for effective mission accomplishment.</li> <li>● Has complete knowledge of all rules and regulations and carries out all duties with minimum supervision.</li> </ul>

BEHAVIOR STATEMENT	STANDARDS
4. Basic Air Work	
<ul style="list-style-type: none"> <li>● Establish and maintain desired altitude, airspeed, and heading during flight.</li> </ul>	<ul style="list-style-type: none"> <li>● Maintains aircraft within 100 feet, 10 KIAS, 10° of heading.</li> <li>● Appropriately uses power, attitude, and trim.</li> <li>● Levels off within 100 feet of desired altitude.</li> <li>● Maintains smooth/positive control consistent with flight conditions.</li> <li>● Correctly uses trim system to maintain aircraft control.</li> </ul>
5. In-Flight Checks/Fuel Management	
<ul style="list-style-type: none"> <li>● Complete checks as required.</li> </ul>	<ul style="list-style-type: none"> <li>● Performs: <ul style="list-style-type: none"> <li>▶ Operations checks at least every 20 minutes.</li> <li>▶ Before landing checklist at required configuration points.</li> <li>▶ Pre-stalling, spinning, and aerobatics checklist when required.</li> </ul> </li> <li>● Does not go below Joker or Bingo fuel without informing the flight leader as applicable.</li> </ul>
6. In-Flight Planning/Area Orientation	
<ul style="list-style-type: none"> <li>● Perform in-flight planning to include maintaining area orientation, profile management, energy management, and remaining within area limits.</li> </ul>	<ul style="list-style-type: none"> <li>● Efficiently sequences maneuvers.</li> <li>● Adjusts mission profile for external factors (weather, traffic, etc.).</li> <li>● Maintains positional awareness using ground references, navigational aids, VFR charts, or FLIPs.</li> <li>● Maintains appropriate boundaries and altitude block within a working area as required.</li> </ul>

BEHAVIOR STATEMENT	STANDARDS
7. Task Management	
<ul style="list-style-type: none"> <li>● Prioritize and manage tasks, based on existing and new information, while maintaining constructive behavior under stress.</li> </ul>	<ul style="list-style-type: none"> <li>● Correctly prioritizes multiple tasks.</li> <li>● Uses all available resources to manage workload.</li> <li>● Asks for assistance when overloaded.</li> <li>● Clearly states the problem and proposed solutions.</li> <li>● Uses facts to come up with solutions.</li> </ul>
8. Communication	
<ul style="list-style-type: none"> <li>● Perform verbal and visual communication to include: <ul style="list-style-type: none"> <li>▶ Use of UHF/VHF radio.</li> <li>▶ Intercockpit and formation intraflight communications.</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>● Correctly formulated, timely response with proper radio discipline and concise terminology.</li> <li>● Required radio calls made IAW FLIP requirements.</li> <li>● Visual signals IAW applicable directives.</li> </ul>
9. Mission Planning/Briefing/Debriefing	
<ul style="list-style-type: none"> <li>● Perform mission planning to include takeoff, climb, enroute, descent, approach, and landing data: planning mission profile and alternate course of action where appropriate.</li> <li>● Plan alternate course of action.</li> <li>● Prepare flight log/chart/DD 175.</li> </ul>	<ul style="list-style-type: none"> <li>● Uses required directives and forms.</li> <li>● Plans mission in a timely manner to meet requirements.</li> <li>● Completes all forms correctly.</li> <li>● Complies with all directives.</li> </ul>

BEHAVIOR STATEMENT	STANDARDS
10. Ground Operations	
<ul style="list-style-type: none"> <li>● Inspect and wear personal equipment.</li> <li>● Prepare aircraft for flight.</li> <li>● Move aircraft to and from parking area to runway.</li> <li>● Perform postflight duties.</li> </ul>	<ul style="list-style-type: none"> <li>● Correctly inspects and wears personal equipment.</li> <li>● Correctly and expeditiously performs exterior inspection, prestart, start, taxi, before takeoff, lineup, and shutdown checklists.</li> <li>● Taxies safely via prescribed routing within three feet of centerline.</li> <li>● Completes all required forms IAW directives.</li> </ul>
11. Takeoff	
<ul style="list-style-type: none"> <li>● Perform takeoff to include: <ul style="list-style-type: none"> <li>▶ Checking aircraft performance by means of precomputed takeoff data.</li> <li>▶ Retracting gear/flaps.</li> <li>▶ Accelerate to climb airspeed.</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>● Does not allow aircraft to move prior to brake release for takeoff.</li> <li>● Applies appropriate crosswind controls.</li> <li>● Maintains runway centerline within 10 feet.</li> <li>● Rotates to and maintains proper takeoff attitude, becomes airborne at appropriate airspeed for existing conditions.</li> <li>● Retracts gear and flaps when safely airborne and prior to exceeding aircraft limitations.</li> <li>● Transitions to cross-check scan.</li> </ul>
12. Departure	
<ul style="list-style-type: none"> <li>● Perform VFR, IFR, or simulated IFR departure.</li> </ul>	<ul style="list-style-type: none"> <li>● Maintains altitudes, ground tracks, headings, and airspeeds as required.</li> <li>● Complies with valid controller instructions or departure procedure.</li> </ul>

BEHAVIOR STATEMENT	STANDARDS
13. Instructional Skills/Student Management	
<ul style="list-style-type: none"> <li>● Perform pre-mission briefing for aircraft or simulator event.</li> <li>● Effectively instruct, evaluate, and document student performance.</li> <li>● Perform postmission debriefing for aircraft or simulator event.</li> </ul>	<ul style="list-style-type: none"> <li>● Presents all information required to accomplish mission correctly, understandably, concisely, and in a logical sequence.</li> <li>● Student aware of his weaknesses, progress, and corrective actions.</li> <li>● Completely documents results.</li> </ul>

CONTACT

BEHAVIOR STATEMENT	STANDARDS
14. G-Awareness/Exercise	
<ul style="list-style-type: none"> <li>● Ensure proper anti-G suit operation. Perform G-awareness exercise and AGSM. Maintain awareness of G-loading through all maneuvers.</li> </ul>	<ul style="list-style-type: none"> <li>● Performs G-warmup and G-awareness turns IAW directives.</li> <li>● Performs proper AGSM technique.</li> <li>● Avoids exceeding aircraft G-limitations.</li> </ul>
15. Turn Pattern	
<ul style="list-style-type: none"> <li>● Perform turn pattern IAW the FTI.</li> </ul>	<ul style="list-style-type: none"> <li>● Perform within Basic Airwork CTS.</li> </ul>
16. Level Speed Change	
<ul style="list-style-type: none"> <li>● Perform level speed change IAW the FTI.</li> </ul>	<ul style="list-style-type: none"> <li>● Perform within Basic Airwork CTS.</li> </ul>
17. Slow Flight	
<ul style="list-style-type: none"> <li>● Perform slow flight IAW the FTI.</li> </ul>	<ul style="list-style-type: none"> <li>● Contact: Airspeed +5,-0 KIAS.</li> <li>● Maintains BAW.</li> </ul>
18. Power-on Stall	
<ul style="list-style-type: none"> <li>● Perform power-on stall IAW FTI.</li> </ul>	<ul style="list-style-type: none"> <li>● Initiates recovery when control effectiveness is lost.</li> <li>● Recovers to an established climb with minimum altitude loss.</li> <li>● Recognizes secondary stall, if entered, and recovers properly.</li> </ul>

BEHAVIOR STATEMENT	STANDARDS
19. Landing Pattern Stalls	
<ul style="list-style-type: none"> <li>● Perform simulated landing pattern stalls in various configurations.</li> </ul>	<ul style="list-style-type: none"> <li>● Recognizes approach to stall indications and recovers properly.</li> <li>● Recovers to an established climb with minimum altitude loss.</li> <li>● Recognizes secondary stall, if entered, and recovers properly.</li> </ul>
20. Emergency Landing Pattern Stalls	
<ul style="list-style-type: none"> <li>● Perform emergency landing pattern stalls and recoveries in authorized configurations.</li> </ul>	<ul style="list-style-type: none"> <li>● Initiates recovery at the sound of the gear warning horn, stick shaker, or approach-to-stall indications as appropriate.</li> <li>● Recovers by lowering pitch as appropriate.</li> <li>● Maintains the turn or ground track profile as appropriate.</li> </ul>
21. Spin	
<ul style="list-style-type: none"> <li>● Spin and recover per FTI.</li> </ul>	<ul style="list-style-type: none"> <li>● Performs clearing turn and check list.</li> <li>● Properly enters spin IAW FTI.</li> <li>● Initiates proper recovery inputs following a stabilized steady-state spin.</li> <li>● Recovers from ensuing unusual attitude without exceeding aircraft limitations.</li> </ul>

BEHAVIOR STATEMENT	STANDARDS
22. Contact Unusual Attitudes	
<ul style="list-style-type: none"> <li>● Recover from nose-high unusual attitude.</li>   <li>● Recover from nose-low unusual attitude.</li>   <li>● Recover from an inverted unusual attitude.</li> </ul>	<ul style="list-style-type: none"> <li>● Nose-High: <ul style="list-style-type: none"> <li>▶ Minimizes airspeed loss during recovery.</li> <li>▶ Does not: <ul style="list-style-type: none"> <li>■ Overstress or stall aircraft.</li> <li>■ Enter subsequent unusual attitude.</li> </ul> </li> </ul> </li> <li>● Nose-Low: <ul style="list-style-type: none"> <li>▶ Minimizes altitude loss and airspeed buildup during recovery.</li> <li>▶ Does not: <ul style="list-style-type: none"> <li>■ Overstress or stall aircraft.</li> <li>■ Enter subsequent unusual attitude.</li> </ul> </li> </ul> </li> <li>● Inverted: <ul style="list-style-type: none"> <li>▶ Minimizes altitude loss and airspeed buildup during recovery.</li> <li>▶ Does not: <ul style="list-style-type: none"> <li>■ Overstress or stall aircraft.</li> <li>■ Enter subsequent unusual attitude.</li> <li>■ Split-S.</li> </ul> </li> </ul> </li> </ul>
23. Inverted Flight	
<ul style="list-style-type: none"> <li>● Establish the aircraft at recommended entry airspeed of 180-200 knots in the clean configuration.</li> </ul>	<ul style="list-style-type: none"> <li>● Performs inverted flight IAW FTI.</li> <li>● Does not exceed 15 seconds inverted.</li> <li>● Maintains altitude <math>\pm 300</math> feet.</li> <li>● Maintains heading <math>\pm 15^\circ</math>.</li> </ul>
24. Stability Demonstration	
<ul style="list-style-type: none"> <li>● Perform stability demonstration IAW FTI.</li> </ul>	<ul style="list-style-type: none"> <li>● Recognizes required aircraft control inputs to preclude entering stall or spin.</li> </ul>
25. Loop	
<ul style="list-style-type: none"> <li>● Perform a loop IAW the FTI.</li> </ul>	<ul style="list-style-type: none"> <li>● Initiates using <math>4 \pm 1</math> Gs.</li> <li>● Completes within: <ul style="list-style-type: none"> <li>▶ 200 feet of entry altitude.</li> <li>▶ <math>\pm 10^\circ</math> of entry heading.</li> </ul> </li> </ul>

BEHAVIOR STATEMENT	STANDARDS
26. Aileron Roll	
<ul style="list-style-type: none"> <li>● Perform an aileron roll IAW the FTI.</li> </ul>	<ul style="list-style-type: none"> <li>● Maintains minimum yaw during roll.</li> <li>● Rolls out with less than 5° AOB.</li> </ul>
27. Split-S	
<ul style="list-style-type: none"> <li>● Perform a split-S per the FTI.</li> </ul>	<ul style="list-style-type: none"> <li>● Initiates at: <ul style="list-style-type: none"> <li>▶ 120-140 KIAS.</li> <li>▶ 5-10 degrees nose high.</li> </ul> </li> <li>● Recovers within: <ul style="list-style-type: none"> <li>▶ 2500-3000 feet below entry altitude.</li> <li>▶ 20° of reciprocal heading.</li> </ul> </li> </ul>
28. Barrel Roll	
<ul style="list-style-type: none"> <li>● Perform a barrel roll per the FTI.</li> </ul>	<ul style="list-style-type: none"> <li>● Does not exceed 2 Gs.</li> <li>● Arrives at 45° position: <ul style="list-style-type: none"> <li>▶ 80-100 degrees AOB.</li> <li>▶ 55-60 degrees nose high.</li> </ul> </li> <li>● Arrives at 90° position: <ul style="list-style-type: none"> <li>▶ Nose 10-20 degrees above the horizon.</li> <li>▶ 170-190 degrees AOB.</li> <li>▶ 100-120 KIAS.</li> <li>▶ 80-90 degrees of entry heading.</li> </ul> </li> <li>● Completes within: <ul style="list-style-type: none"> <li>▶ 200 feet of entry altitude.</li> <li>▶ 10° of entry heading.</li> </ul> </li> </ul>
29. Cloverleaf	
<ul style="list-style-type: none"> <li>● Perform cloverleaf IAW the FTI.</li> </ul>	<ul style="list-style-type: none"> <li>● Initiates using 4 ±1 Gs.</li> <li>● Arrives at 45° position: <ul style="list-style-type: none"> <li>▶ 80-100 degrees AOB.</li> <li>▶ 55-60 degrees nose high.</li> </ul> </li> <li>● Arrives at 90° position: <ul style="list-style-type: none"> <li>▶ Nose 10-20 degrees above the horizon.</li> <li>▶ 170-190 degrees AOB.</li> <li>▶ 100-120 KIAS.</li> <li>▶ 80-90 degrees of entry heading.</li> </ul> </li> <li>● Completes within 10° of entry heading.</li> </ul>

BEHAVIOR STATEMENT	STANDARDS
30. Immelmann	
<ul style="list-style-type: none"> <li>● Perform Immelmann per the FTI.</li> </ul>	<ul style="list-style-type: none"> <li>● Initiates using 4 ±1 Gs.</li> <li>● Completes within: <ul style="list-style-type: none"> <li>▶ 100-120 KIAS.</li> <li>▶ 20° of reciprocal heading.</li> <li>▶ 2500-3000 feet above entry altitude.</li> </ul> </li> </ul>
31. Cuban Eight	
<ul style="list-style-type: none"> <li>● Perform half-Cuban eight per the FTI.</li> </ul>	<ul style="list-style-type: none"> <li>● Initiates using 4 ±1 Gs.</li> <li>● Completes within: <ul style="list-style-type: none"> <li>▶ 200 feet of entry altitude.</li> <li>▶ 20° of reciprocal heading.</li> </ul> </li> </ul>
32. Wingover	
<ul style="list-style-type: none"> <li>● Perform a wingover IAW the FTI.</li> </ul>	<ul style="list-style-type: none"> <li>● Does not exceed: <ul style="list-style-type: none"> <li>▶ 2 Gs.</li> <li>▶ 90° AOB.</li> </ul> </li> <li>● Arrives at 90° position: <ul style="list-style-type: none"> <li>▶ 80-90 degrees AOB.</li> <li>▶ 85-95 degrees from entry heading.</li> </ul> </li> <li>● Arrives at level-flight position within: <ul style="list-style-type: none"> <li>▶ 200 feet of entry altitude.</li> <li>▶ 10° of reciprocal heading.</li> </ul> </li> </ul>
33. Slip	
<ul style="list-style-type: none"> <li>● Perform a slip IAW FTI.</li> </ul>	<ul style="list-style-type: none"> <li>● Uses proper cross-control procedures.</li> <li>● Terminates slip after dissipating excess energy level necessary to continue profile.</li> </ul>
34. High Altitude Power Loss	
<ul style="list-style-type: none"> <li>● Intercept the ELP at or below high key following a simulated engine failure above 3000 feet AGL.</li> </ul>	<ul style="list-style-type: none"> <li>● Properly identifies nearest suitable airfield and initial glide to high key.</li> <li>● Formulates plan to intercept ELP profile and executes successfully.</li> <li>● Flies correct checkpoints on ELP.</li> <li>● Establishes aircraft on final in position to make a safe landing at the selected site.</li> </ul>

BEHAVIOR STATEMENT	STANDARDS
35. Precautionary Emergency Landing	
<ul style="list-style-type: none"> <li>● In response to simulated EP, proceed to high key for the nearest suitable runway, then intercept the ELP.</li> </ul>	<ul style="list-style-type: none"> <li>● Performs timely procedural execution.</li> <li>● Selects nearest suitable runway and appropriate high key.</li> <li>● Maintains airspeed 120-125 KIAS on the ELP.</li> <li>● Uses power rather than delaying configuration to maintain ELP profile.</li> <li>● If conditions permit, lowers flaps at low-key.</li> <li>● Establishes aircraft on final in position to make a safe landing.</li> </ul>
36. PEL/P	
<ul style="list-style-type: none"> <li>● In response to simulated EP, proceed to appropriate ELP position for the nearest suitable runway, then intercept the ELP.</li> <li>● Perform from initiation to crossing runway threshold.</li> </ul>	<ul style="list-style-type: none"> <li>● Performs timely procedural execution.</li> <li>● Selects nearest suitable runway and intercepts appropriate ELP position.</li> <li>● Maintains airspeed 120-125 KIAS on the ELP.</li> <li>● Uses power rather than delaying configuration to maintain ELP profile.</li> <li>● If conditions permit, lowers flaps at low-key.</li> <li>● Establishes aircraft on final in position to make a safe landing.</li> </ul>
37. ELP Landing	
<ul style="list-style-type: none"> <li>● Perform landing in proper ELP configuration.</li> </ul>	<ul style="list-style-type: none"> <li>● Touches down at proper pitch attitude while maintaining ground track using wing-low procedures as appropriate.</li> <li>● Touches down in prescribed landing zone.</li> </ul>

BEHAVIOR STATEMENT	STANDARDS
38. VFR Arrival/Course Rules	
<ul style="list-style-type: none"> <li>● Operate to and from OLF and home field using local course rules.</li> </ul>	<ul style="list-style-type: none"> <li>● Complies with the FTI, local course rules.</li> <li>● Navigation: <ul style="list-style-type: none"> <li>▶ Proceeds under own navigation to OLF/home field entry point.</li> <li>▶ Asks for, and successfully complies with, radar vectors to OLF/home field entry point.</li> </ul> </li> </ul>
39. Landing Pattern	
<ul style="list-style-type: none"> <li>● If from initial, from rolling out on downwind to the straightaway.</li> <li>● If from takeoff, touch-and-go, or waveoff, commencing the crosswind turn to the straightaway.</li> </ul>	<ul style="list-style-type: none"> <li>● Complies with BAW parameters except: <ul style="list-style-type: none"> <li>▶ Maximum 45° AOB.</li> <li>▶ TO Flap: <ul style="list-style-type: none"> <li>■ 115 ±5 KIAS from 180 until straightaway.</li> <li>■ 105 ±5 KIAS until beginning landing flare.</li> </ul> </li> <li>▶ LDG Flap: <ul style="list-style-type: none"> <li>■ 110 ±5 KIAS from 180 until straightaway.</li> <li>■ 100 ±5 KIAS until beginning landing flare.</li> </ul> </li> <li>▶ No-Flap: <ul style="list-style-type: none"> <li>■ 120 ±5 KIAS from 180 until straightaway.</li> <li>■ 110 ±5 KIAS until beginning landing flare.</li> </ul> </li> <li>▶ Rolls out on final: <ul style="list-style-type: none"> <li>■ Within 75 feet of runway centerline.</li> <li>■ With 1200-1500 feet of straightaway.</li> <li>■ Between 100-150 feet AGL.</li> </ul> </li> </ul> </li> </ul>

BEHAVIOR STATEMENT	STANDARDS
40. Landing (No-Flap, Takeoff Flap, LDG Flap)	
<ul style="list-style-type: none"> <li>● Execute normal landing per the FTI.</li> <li>● From crossing runway threshold until: <ul style="list-style-type: none"> <li>▶ Touch-and-go, commencing crosswind turn.</li> <li>▶ Full stop, aircraft is at taxi speed.</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>● Maintains: <ul style="list-style-type: none"> <li>▶ Correct glidepath until flare initiation.</li> <li>▶ No-Flap: Minimum 110 KIAS until landing transition.</li> <li>▶ Takeoff Flap: Minimum 105 KIAS until landing transition.</li> <li>▶ LDG Flap: Minimum 100 KIAS until landing transition.</li> </ul> </li> <li>● Touches down with: <ul style="list-style-type: none"> <li>▶ Appropriate crosswind controls.</li> <li>▶ Main gear first (nose-high attitude).</li> <li>▶ Nose gear <math>\pm 10</math> feet of centerline.</li> </ul> </li> <li>● Touches down in the touchdown zone as defined by Contact FTI and local instructions.</li> </ul>
41. Angle-of-Attack Pattern	
<ul style="list-style-type: none"> <li>● Perform AOA approach to a normal flared landing.</li> </ul>	<ul style="list-style-type: none"> <li>● Transitions to AOA when established on downwind.</li> <li>● Maintains AOA <math>\pm 2</math> units.</li> <li>● Rolls out on final: <ul style="list-style-type: none"> <li>▶ 1200-1500 feet of straightaway.</li> <li>▶ 100-150 feet AGL.</li> <li>▶ Within 75 feet of runway centerline.</li> </ul> </li> <li>● Executes normal flared landing.</li> </ul>
42. Waveoff	
<ul style="list-style-type: none"> <li>● Discontinue approach to landing.</li> </ul>	<ul style="list-style-type: none"> <li>● Expeditiously executes waveoff procedures.</li> <li>● Initiates waveoff when: <ul style="list-style-type: none"> <li>▶ Conflicting with PEL traffic.</li> <li>▶ Stall warning system actuates (stick shaker).</li> <li>▶ Aircraft requires more than 45-degree AOB to avoid overshooting final.</li> <li>▶ Directed.</li> <li>▶ Aircraft is not in a safe position to make a safe landing.</li> </ul> </li> </ul>

INSTRUMENT

BEHAVIOR STATEMENT	STANDARDS
43. S-1 Pattern	
<ul style="list-style-type: none"> <li>● Perform the S-1 pattern, maintaining a constant vertical velocity, correcting for deviation through the maneuver.</li> </ul>	<ul style="list-style-type: none"> <li>● Maintains BAW parameters.</li> </ul>
44. Steep Turns	
<ul style="list-style-type: none"> <li>● Perform steep turns (45- and 60-degree AOB) using instrument references only.</li> </ul>	<ul style="list-style-type: none"> <li>● Bank angle <math>\pm 10</math> degrees.</li> <li>● Maintain <math>\pm 15</math> KIAS desired airspeed.</li> <li>● Rolls out on heading <math>\pm 15</math> degrees at 60-degree AOB and <math>\pm 10</math> degrees at 45-degree AOB.</li> </ul>
45. IFR Unusual Attitudes	
<ul style="list-style-type: none"> <li>● Perform unusual attitude recovery using full panel references.</li> </ul>	<ul style="list-style-type: none"> <li>● Nose low: Recovers minimizing altitude loss and airspeed buildup.</li> <li>● Nose high: <ul style="list-style-type: none"> <li>▶ Does not stall aircraft.</li> <li>▶ Does not overstress aircraft.</li> <li>▶ Does not enter subsequent unusual attitude.</li> </ul> </li> </ul>
46. Confidence Maneuvers	
<ul style="list-style-type: none"> <li>● Perform confidence maneuvers IAW FTI.</li> </ul>	<ul style="list-style-type: none"> <li>● Maintains positive and smooth aircraft control during maneuvers.</li> <li>● Performs maneuvers using instrument references only.</li> </ul>
47. Point-to-Point	
<ul style="list-style-type: none"> <li>● Proceed direct to an assigned fix using VOR/DME point-to-point per FTI.</li> </ul>	<ul style="list-style-type: none"> <li>● Applies FTI procedures to expeditiously establish a correct initial heading.</li> <li>● Continuously updates heading to: <ul style="list-style-type: none"> <li>▶ Avoid sudden, large, heading changes.</li> <li>▶ Arrive within 0.5 DME and 10 radials of desired point.</li> </ul> </li> </ul>

BEHAVIOR STATEMENT	STANDARDS
48. Holding	
<ul style="list-style-type: none"> <li>● Perform holding IAW FTI.</li> </ul>	<ul style="list-style-type: none"> <li>● Computes proper entry turn.</li> <li>● Estimates wind direction and applies appropriate corrections.</li> <li>● Establishes and maintains aircraft within holding airspace.</li> </ul>
49. Radial Intercepts	
<ul style="list-style-type: none"> <li>● Perform radial intercepts per FTI or ATC direction.</li> </ul>	<ul style="list-style-type: none"> <li>● Establishes aircraft <math>\pm 3^\circ</math> of desired radial.</li> </ul>
50. Enroute Procedures	
<ul style="list-style-type: none"> <li>● Maintain aircraft's track on appropriate radial or airway.</li> <li>● Identify an intersection using appropriate NAVAID(s).</li> </ul>	<ul style="list-style-type: none"> <li>● Maintains <math>\pm 3</math> radials of centerline.</li> <li>● Estimates approximate wind direction and applies proper crosswind correction.</li> <li>● Positions the aircraft at a required intersection or leads the turn at an intersection to roll out on the required radial <math>\pm 3^\circ</math>.</li> <li>● Gives position report as required.</li> <li>● For GPS, maintains <math>\pm 2</math> NM of centerline.</li> </ul>
51. Enroute Descent	
<ul style="list-style-type: none"> <li>● Perform IFR descent from enroute altitude or MOA.</li> </ul>	<ul style="list-style-type: none"> <li>● Maintains altitudes, ground tracks, headings, and airspeeds as required.</li> <li>● Complies with BAW standards.</li> </ul>
52. High-Altitude Approach	
<ul style="list-style-type: none"> <li>● Perform high-altitude approach procedure from IAF to MAP.</li> </ul>	<ul style="list-style-type: none"> <li>● Plans descent rate consistent with approach requirements.</li> <li>● Maintains standards for appropriate IAP layout.</li> </ul>
53. Teardrop Approach	
<ul style="list-style-type: none"> <li>● Perform a teardrop approach IAW FTI.</li> </ul>	<ul style="list-style-type: none"> <li>● IAF to FAF: Maintains course <math>\pm 5</math> degrees or valid intercept.</li> <li>● By the FAF or initiating descent to MDA: <ul style="list-style-type: none"> <li>▶ Completes landing checklist.</li> <li>▶ Has aircraft trimmed and at final approach airspeed <math>+10/-0</math> KIAS.</li> </ul> </li> </ul>

BEHAVIOR STATEMENT	STANDARDS
54. Arcing Approach	
<ul style="list-style-type: none"> <li>● Perform an arcing approach per FTI.</li> </ul>	<ul style="list-style-type: none"> <li>● Adheres to standards for arcing.</li> <li>● By the FAF or initiating descent to MDA:               <ul style="list-style-type: none"> <li>▶ Completes landing checklist.</li> <li>▶ Has aircraft trimmed and at final approach airspeed +10/-0 KIAS.</li> </ul> </li> </ul>
55. HILO Approach	
<ul style="list-style-type: none"> <li>● Perform a holding pattern approach per FTI.</li> </ul>	<ul style="list-style-type: none"> <li>● Computes proper entry turn.</li> <li>● IAF to FAF: Maintains course <math>\pm 5^\circ</math> or valid intercept.</li> <li>● By the FAF or initiating descent to MDA.               <ul style="list-style-type: none"> <li>▶ Completes landing checklist.</li> <li>▶ Has aircraft trimmed and at final approach airspeed +10/-0 KIAS.</li> </ul> </li> </ul>
56. Procedure Turn Approach	
<ul style="list-style-type: none"> <li>● Perform a procedure turn approach per FTI.</li> </ul>	<ul style="list-style-type: none"> <li>● IAF to FAF: Maintains course <math>\pm 5^\circ</math> or valid intercept.</li> <li>● By the FAF or initiating descent to MDA:               <ul style="list-style-type: none"> <li>▶ Completes landing checklist.</li> <li>▶ Has aircraft trimmed and at final approach airspeed +10/-0 KIAS.</li> </ul> </li> </ul>
57. RVFAC Approach	
<ul style="list-style-type: none"> <li>● Perform an approach using radar vectors to final approach course per FTI.</li> </ul>	<ul style="list-style-type: none"> <li>● Responds quickly and correctly to controller instructions.</li> <li>● Maintains headings <math>\pm 5^\circ</math>.</li> </ul>
58. GPS Approach	
<ul style="list-style-type: none"> <li>● Perform a GPS approach IAW FTI.</li> </ul>	<ul style="list-style-type: none"> <li>● Initial approach waypoint to FAWP: Maintains course <math>\pm 0.25</math> NM or valid intercept.</li> <li>● At 3 NM from FAWP, ensures FAWP is active waypoint.</li> <li>● At 2 NM from FAWP, ensures GPS is in active mode.</li> </ul>

BEHAVIOR STATEMENT	STANDARDS
59. PAR Approach	
<ul style="list-style-type: none"> <li>● Perform PAR approach IAW FTI.</li> </ul>	<ul style="list-style-type: none"> <li>● Responds quickly and correctly to controller instructions.</li> <li>● Prior to beginning descent to DH: <ul style="list-style-type: none"> <li>▶ Completes landing checklist.</li> <li>▶ Has aircraft trimmed and at final airspeed +10/-0 KIAS.</li> </ul> </li> <li>● On final: <ul style="list-style-type: none"> <li>▶ Maintains <math>\pm 3^\circ</math> of desired course.</li> <li>▶ Maintains airspeed +10/-0 KIAS.</li> <li>▶ Reaches DH.</li> <li>▶ Can safely land from approach.</li> </ul> </li> </ul>
60. ASR Approach	
<ul style="list-style-type: none"> <li>● Perform ASR approach IAW FTI.</li> </ul>	<ul style="list-style-type: none"> <li>● Responds quickly and correctly to controller instructions.</li> <li>● Prior to beginning descent to MDA: <ul style="list-style-type: none"> <li>▶ Completes landing checklist.</li> <li>▶ Has aircraft trimmed and at final airspeed +10/-0 KIAS.</li> </ul> </li> <li>● On final <ul style="list-style-type: none"> <li>▶ Maintains <math>\pm 3^\circ</math> of desired course.</li> <li>▶ Maintains airspeed +10/-0 KIAS.</li> <li>▶ Reaches MDA.</li> <li>▶ Can safely land from approach.</li> </ul> </li> </ul>
61. VOR Final	
<ul style="list-style-type: none"> <li>● Perform VOR final from FAF to MAP.</li> </ul>	<ul style="list-style-type: none"> <li>● Maintains <math>\pm 3^\circ</math> of desired course.</li> <li>● Maintains airspeed +10/-0 KIAS.</li> <li>● Maintains CDI within 1 dot.</li> <li>● Reaches and maintains MDA +100/-0 feet.</li> <li>● Can safely land from approach.</li> </ul>
62. ILS Final	
<ul style="list-style-type: none"> <li>● Perform ILS final from glideslope intercept to DH.</li> </ul>	<ul style="list-style-type: none"> <li>● Maintains <math>\pm 3^\circ</math> of desired course.</li> <li>● Maintains airspeed +10/-0 KIAS.</li> <li>● Maintains CDI within 1 dot.</li> <li>● Maintains GSI within 1 dot.</li> <li>● Reaches DH.</li> <li>● Can safely land from approach.</li> </ul>

BEHAVIOR STATEMENT	STANDARDS
63. Localizer Final	
<ul style="list-style-type: none"> <li>● Perform LOC final from FAF to MAP.</li> </ul>	<ul style="list-style-type: none"> <li>● Maintains <math>\pm 3^\circ</math> of desired course.</li> <li>● Maintains airspeed +10/-0 KIAS.</li> <li>● Maintains CDI within 1 dot.</li> <li>● Reaches and maintains MDA +100/-0 feet.</li> <li>● Can safely land from approach.</li> </ul>
64. GPS Final	
<ul style="list-style-type: none"> <li>● Perform GPS final from FAWP to MAWP.</li> </ul>	<ul style="list-style-type: none"> <li>● Maintains <math>\pm 3^\circ</math> of desired course.</li> <li>● Maintains airspeed +10/-0 KIAS.</li> <li>● Maintains CDI within 1 dot.</li> <li>● Reaches and maintains MDA +100/-0 feet.</li> <li>● Can safely land from approach.</li> </ul>
65. No-Gyro Final	
<ul style="list-style-type: none"> <li>● Perform IAW FTI.</li> </ul>	<ul style="list-style-type: none"> <li>● Maintains airspeed +10/-0 KIAS.</li> <li>● Reaches DH or MDA.</li> <li>● Can safely land from approach.</li> </ul>
66. Backup Flight Instrument Approach	
<ul style="list-style-type: none"> <li>● Perform final approach from descent point to DH/MDA using PAR/ASR for guidance.</li> </ul>	<ul style="list-style-type: none"> <li>● Responds quickly and correctly to controller instructions.</li> <li>● By starting descent to DH/MDA: <ul style="list-style-type: none"> <li>▶ Completes landing checklist.</li> <li>▶ Has aircraft trimmed and at final airspeed.</li> </ul> </li> <li>● Maintains airspeed -0/+10 KIAS on final.</li> <li>● Can safely land from approach.</li> </ul>
67. Circling Approach	
<ul style="list-style-type: none"> <li>● Visually align the aircraft for landing on a runway other than that to which the approach was flown, or from a circling IAP per the FTI.</li> </ul>	<ul style="list-style-type: none"> <li>● Properly orients circling instructions to the landing runway.</li> <li>● Selects appropriate MDA for aircraft category.</li> <li>● Maintains at/above MDA consistent with weather.</li> <li>● Remains within the clear zone for the approach category.</li> <li>● Executes missed approach instructions for the approach flown.</li> </ul>

BEHAVIOR STATEMENT	STANDARDS
68. Missed Approach	
<ul style="list-style-type: none"> <li>● Perform a missed approach.</li> </ul>	<ul style="list-style-type: none"> <li>● Complies with FTI procedures.</li> <li>● Initiates when field not in sight and               <ul style="list-style-type: none"> <li>▶ Nonprecision,                   <ul style="list-style-type: none"> <li>■ Inside FAF and full scale CDI deflection,</li> <li>■ At specified MAP DME,</li> <li>■ At expiration of timing in the absence of DME.</li> </ul> </li> <li>▶ Precision, first of                   <ul style="list-style-type: none"> <li>■ Decision height,</li> <li>■ Controller-directed,</li> </ul> </li> <li>▶ Or, not in position for safe landing.</li> </ul> </li> </ul>
69. Transition to Landing/Landing	
<ul style="list-style-type: none"> <li>● Execute normal landing per the FTI.</li> <li>● From crossing runway threshold until:               <ul style="list-style-type: none"> <li>▶ Touch-and-go, commencing crosswind turn.</li> <li>▶ Full stop, aircraft is at taxi speed.</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>● Maintains:               <ul style="list-style-type: none"> <li>▶ Correct glidepath until flare initiation.</li> <li>▶ TO flap: Minimum 105 KIAS until landing transition.</li> <li>▶ LDG flap: Minimum 100 KIAS until landing transition.</li> </ul> </li> <li>● Touches down with:               <ul style="list-style-type: none"> <li>▶ Appropriate crosswind controls.</li> <li>▶ Main gear first (nose-high attitude).</li> <li>▶ Nose gear <math>\pm 10</math> feet of centerline.</li> </ul> </li> <li>● Touches down in the touchdown zone as defined by Contact FTI and local instructions.</li> </ul>

OCF

BEHAVIOR STATEMENT	STANDARDS
70. Progressive Spin	
<ul style="list-style-type: none"> <li>● Perform progressive spin IAW NATOPS/FTI.</li> </ul>	<ul style="list-style-type: none"> <li>● Selects altitude that allows recovery by 10,000 feet.</li> <li>● Ensures aircraft is in steady-state spin before reversing the rudder direction.</li> <li>● Recovery procedures are IAW NATOPS/FTI.</li> </ul>
71. Controls Neutral Spin	
<ul style="list-style-type: none"> <li>● Perform controls-neutral spin IAW NATOPS/FTI.</li> </ul>	<ul style="list-style-type: none"> <li>● Selects altitude that allows recovery by 10,000 feet.</li> <li>● Ensures aircraft is in a steady-state spin before neutralizing the controls.</li> <li>● Recovery procedures are IAW NATOPS/FTI.</li> </ul>
72. Spiral	
<ul style="list-style-type: none"> <li>● Perform spiral maneuver and recover per NATOPS/FTI.</li> </ul>	<ul style="list-style-type: none"> <li>● Maintains thorough knowledge of spiral indications and characteristics.</li> <li>● Commences in clean configuration.</li> <li>● Performs clearing turn and Pre-stalling, spin, and aerobatic checklist.</li> <li>● Enters spiral at or above in order to recover by 10,000 feet AGL.</li> <li>● Performs entry IAW OCF FTI.</li> <li>● Reports altitude, AOA, airspeed, and turn needle following spiral entry.</li> <li>● Initiates proper recovery inputs.</li> <li>● Does not overstress the aircraft.</li> </ul>
73. Out-of-Control Flight Recovery	
<ul style="list-style-type: none"> <li>● Recognize OCF situation and promptly execute recovery procedures.</li> </ul>	<ul style="list-style-type: none"> <li>● Executes OCF recovery procedures IAW NATOPS/FTI.</li> <li>● Does not overspeed gear and/or flaps.</li> <li>● Does not overstress the aircraft.</li> <li>● Recovers by 10,000 feet.</li> </ul>

NAVIGATION

BEHAVIOR STATEMENT	STANDARDS
74. Route Entry/Exit	
<ul style="list-style-type: none"> <li>● Perform route entry procedures.</li> </ul>	<ul style="list-style-type: none"> <li>● Accomplishes required ATC coordination, visually identifies route entry, complies with all entry time requirements, effectively maneuvers aircraft into route structure, arrives at entry point <math>\pm 1</math> NM.</li> </ul>
75. Route Management	
<ul style="list-style-type: none"> <li>● Navigate from point-to-point using dead reckoning and visual references.</li> </ul>	<ul style="list-style-type: none"> <li>● Establishes chart position using clock-chart-ground.</li> <li>● Identifies chart significant landmarks along route.</li> <li>● Correctly applies standard timing corrections.</li> <li>● Correctly applies standard course corrections.</li> <li>● Reaches each checkpoint <math>\pm 1</math> NM.</li> </ul>
76. Standard Time Corrections	
<ul style="list-style-type: none"> <li>● Navigate from point-to-point using dead reckoning and visual references.</li> </ul>	<ul style="list-style-type: none"> <li>● Makes airspeed adjustments to arrive on target <math>\pm 1</math> minute.</li> </ul>
77. Standard Course Corrections	
<ul style="list-style-type: none"> <li>● Navigate from point-to-point using dead reckoning and visual references.</li> </ul>	<ul style="list-style-type: none"> <li>● Makes adjustments to maintain a visual low-level course given a specified course <math>\pm 2</math> NM.</li> </ul>
78. ATIS/PMSV/FSS/Weather	
<ul style="list-style-type: none"> <li>● Use ATIS/PMSV to update destination conditions.</li> <li>● Use FSS as required to open, change, and close flight plans.</li> </ul>	<ul style="list-style-type: none"> <li>● Checks ATIS prior to contacting destination approach control.</li> <li>● Updates destination and alternate weather with PMSV/AWOS/FSS enroute, when required.</li> <li>● Contacts FSS to: <ul style="list-style-type: none"> <li>▶ Open flight plans after departure.</li> <li>▶ Change flight plans enroute.</li> <li>▶ Close flight plans after landing.</li> </ul> </li> </ul>

FORMATION

BEHAVIOR STATEMENT	STANDARDS
79. Lead Change	
<ul style="list-style-type: none"> <li>● Transfer control of the flight from lead to Dash 2.</li> </ul>	<ul style="list-style-type: none"> <li>● Performs expeditiously IAW the appropriate FTI parameters and procedures.</li> </ul>
80. Visual Signals	
<ul style="list-style-type: none"> <li>● Communicate using hand, head, and aircraft movements.</li> </ul>	<ul style="list-style-type: none"> <li>● Performs IAW FTI.</li> </ul>
81. Section Takeoff	
<ul style="list-style-type: none"> <li>● Perform takeoff from takeoff clearance through landing gear retraction while in close formation.</li> </ul>	<ul style="list-style-type: none"> <li>● Performs IAW FTI.</li> <li>● Wingman maintains takeoff position until gear retraction, and then expeditiously moves to parade/fingertip position.</li> </ul>
82. Interval Takeoff/Rendezvous	
<ul style="list-style-type: none"> <li>● Perform takeoff as Dash 2 from takeoff clearance until in parade/fingertip position.</li> </ul>	<ul style="list-style-type: none"> <li>● Performs IAW FTI.</li> <li>● Dash 2 accomplishes timely rendezvous.</li> </ul>
83. Wingman Consideration	
<ul style="list-style-type: none"> <li>● Plan and maneuver to avoid unnecessarily complicating Dash 2's tasks.</li> </ul>	<ul style="list-style-type: none"> <li>● Considers airspace and weather in planning maneuvers.</li> <li>● Monitors Dash 2.</li> <li>● Does not exceed Dash 2 capabilities.</li> <li>● Maneuvers smoothly and avoids abrupt power changes.</li> <li>● Does not exceed FTI parameters.</li> </ul>

BEHAVIOR STATEMENT	STANDARDS
84. Parade/Fingertip (Straight-and-Level)	
<ul style="list-style-type: none"> <li>● Maintain close formation position IAW the FTI.</li> </ul>	<ul style="list-style-type: none"> <li>● Maintains these parameters:               <ul style="list-style-type: none"> <li>▶ Wingtip separation: 10 feet ±4 feet.</li> <li>▶ Fore/aft from bearing line: 4 feet.</li> <li>▶ Vertical deviation: 4 feet.</li> <li>▶ Smooth flight control and PCL corrections.</li> </ul> </li> <li>● Performs checklist items, radio frequency changes, and navigational tasks expeditiously/safely.</li> </ul>
85. Parade/Turns Into	
<ul style="list-style-type: none"> <li>● Dash 2 is on the inside of the turn while in parade.</li> </ul>	<ul style="list-style-type: none"> <li>● Maintains parade position.</li> </ul>
86. Parade/Turns Away (IFR)	
<ul style="list-style-type: none"> <li>● Perform parade turns during actual/simulated IMC.</li> </ul>	<ul style="list-style-type: none"> <li>● Maintains normal parade checkpoints for all turns.</li> <li>● Lead does not exceed 45° AOB.</li> </ul>
87. Parade/Turns Away (VFR)	
<ul style="list-style-type: none"> <li>● Dash 2 is on the outside of the turn while in parade.</li> </ul>	<ul style="list-style-type: none"> <li>● Maintains proper position and rotates about own longitudinal axis.</li> </ul>
88. Lost Wingman Exercise	
<ul style="list-style-type: none"> <li>● Execute appropriate separation procedure IAW the FTI.</li> </ul>	<ul style="list-style-type: none"> <li>● Safely executes procedures IAW the FTI.</li> </ul>
89. Crossunder	
<ul style="list-style-type: none"> <li>● Dash 2 moves from parade/fingertip on one side of the formation to parade/fingertip on the other side.</li> </ul>	<ul style="list-style-type: none"> <li>● Performs IAW appropriate FTI.</li> </ul>

BEHAVIOR STATEMENT	STANDARDS
90. Breakup and Rendezvous	
<ul style="list-style-type: none"> <li>● Separate flight and return to close formation.</li> </ul>	<ul style="list-style-type: none"> <li>● Performs IAW FTI.</li> <li>● Expeditiously maneuvers to the briefed rendezvous line.</li> <li>● Maintains positive overtake throughout the remainder to the rendezvous.</li> <li>● Lead monitors Dash 2's position.</li> </ul>
91. Running Rendezvous	
<ul style="list-style-type: none"> <li>● Reform to parade while lead is maintaining constant heading.</li> </ul>	<ul style="list-style-type: none"> <li>● Performs IAW FTI.</li> <li>● Dash 2 accomplishes timely running rendezvous.</li> </ul>
92. Underrun	
<ul style="list-style-type: none"> <li>● Dash 2 discontinues joinup due to being excessively acute, acute in close, or has excessive closure.</li> </ul>	<ul style="list-style-type: none"> <li>● Recognizes requirement for underrun in time to safely execute procedures IAW the appropriate FTI.</li> </ul>
93. Cruise Maneuvering	
<ul style="list-style-type: none"> <li>● Perform cruise maneuvering sequence.</li> </ul>	<ul style="list-style-type: none"> <li>● Lead: <ul style="list-style-type: none"> <li>▶ Smoothly maneuvers IAW FTI parameters.</li> <li>▶ Minimizes use of power to maintain stable platform.</li> </ul> </li> <li>● Wing: <ul style="list-style-type: none"> <li>▶ Maintains approximate cruise position according to lead's bank angle.</li> <li>▶ Minimizes use of power to maintain proper position.</li> <li>▶ Properly uses pursuit curves to maintain position.</li> </ul> </li> </ul>

BEHAVIOR STATEMENT	STANDARDS
94. Tail-Chase	
<ul style="list-style-type: none"> <li>● Perform tail-chase maneuvering as lead or wing.</li> </ul>	<ul style="list-style-type: none"> <li>● Lead: <ul style="list-style-type: none"> <li>▶ Smoothly maneuvers IAW FTI parameters.</li> <li>▶ Monitors Dash 2.</li> </ul> </li> <li>● Wing: <ul style="list-style-type: none"> <li>▶ Recognizes changes in aspect, bearing line, closure, and range.</li> <li>▶ Correctly establishes lead/lag/pure pursuit to maintain 800-1000 feet nose-to-tail position.</li> <li>▶ Minimizes use of power to maintain position.</li> </ul> </li> </ul>
95. Formation Approach	
<ul style="list-style-type: none"> <li>● Execute an instrument or VFR straight-in approach as lead or wing.</li> </ul>	<ul style="list-style-type: none"> <li>● Lead: <ul style="list-style-type: none"> <li>▶ Maintains appropriate Contact, Instrument, or Formation FTI approach parameters and procedures.</li> <li>▶ Maintains wingman consideration.</li> </ul> </li> <li>● Wing: <ul style="list-style-type: none"> <li>▶ Maintains parade/fingertip parameters.</li> <li>▶ Configures on lead's signals.</li> <li>▶ Sets and monitors NAVAIDS.</li> </ul> </li> </ul>
96. Tactical Formation - Spread/Turns	
<ul style="list-style-type: none"> <li>● Straight-and-level, wingman maintains position on lead.</li> <li>● During turns, wingman maintains position on lead.</li> </ul>	<ul style="list-style-type: none"> <li>● Lead provides predictable platform for wingman.</li> <li>● Wingman: <ul style="list-style-type: none"> <li>▶ Maintains position using energy maneuverability concepts.</li> <li>▶ Fixes position IAW FTI.</li> <li>▶ Deconflicts lead's flight path.</li> <li>▶ Flies appropriate geometry IAW FTI.</li> </ul> </li> </ul>

Air Force Formation

BEHAVIOR STATEMENT	STANDARDS
97. Knock-It-Off Procedures	
<ul style="list-style-type: none"> <li>● Perform knock-it-off for any unsafe or other required situation.</li> </ul>	<ul style="list-style-type: none"> <li>● Maneuvers in appropriate, predictable manner to not present further hazard to the flight.</li> <li>● Executes proper communications.</li> </ul>
98. Route	
<ul style="list-style-type: none"> <li>● Maintain enroute medium/high level formation position IAW the FTI.</li> </ul>	<ul style="list-style-type: none"> <li>● Maintains position IAW FTI while performing required duties.</li> </ul>
99. Echelon	
<ul style="list-style-type: none"> <li>● Maintain close formation when lead turns away.</li> </ul>	<ul style="list-style-type: none"> <li>● Lead: IAW FTI, 60 ±5 degrees AOB, within BAW parameters.</li> <li>● Wing: Maintains position IAW FTI.</li> </ul>
100. Straight Ahead Rejoin	
<ul style="list-style-type: none"> <li>● Reform to fingertip while lead is maintaining constant heading.</li> </ul>	<ul style="list-style-type: none"> <li>● Performs IAW FTI.</li> <li>● Wingman does not exceed lead's 3/9 line.</li> </ul>
101. Turning Rejoin	
<ul style="list-style-type: none"> <li>● Reform to fingertip while lead is maintaining constant angle-of-bank turn.</li> </ul>	<ul style="list-style-type: none"> <li>● Performs IAW FTI, correctly using lead, lag, and pure pursuit to execute rejoin.</li> </ul>
102. High Yo-Yo	
<ul style="list-style-type: none"> <li>● Get out of lead's turn plane when lead commands a turning rejoin, then rejoin on lead.</li> </ul>	<ul style="list-style-type: none"> <li>● Executes high yo-yo when appropriate and IAW FTI.</li> <li>● Climbs sufficiently above lead's turn plane and maintains visual on lead before returning to lead's plane of motion.</li> </ul>
103. Low Yo-Yo	
<ul style="list-style-type: none"> <li>● Use low yo-yo to close range and obtain the rejoin line on lead.</li> </ul>	<ul style="list-style-type: none"> <li>● Executes low yo-yo when appropriate and IAW FTI.</li> </ul>

BEHAVIOR STATEMENT	STANDARDS
104. Wingwork	
<ul style="list-style-type: none"> <li>● Stay in close formation.</li> </ul>	<ul style="list-style-type: none"> <li>● Lead: <ul style="list-style-type: none"> <li>▶ Maneuvers smoothly.</li> <li>▶ Maintains FTI parameters.</li> <li>▶ Monitors wingman.</li> <li>▶ Does not exceed 90 degrees AOB.</li> </ul> </li> <li>● Wing maintains parade/fingertip parameters.</li> </ul>
105. Extended Trail	
<ul style="list-style-type: none"> <li>● Perform extended trail maneuvering as lead or wing.</li> </ul>	<ul style="list-style-type: none"> <li>● Lead: <ul style="list-style-type: none"> <li>▶ Smoothly maneuvers within FTI parameters.</li> <li>▶ Monitors wingman.</li> </ul> </li> <li>● Wing: <ul style="list-style-type: none"> <li>▶ Recognizes changes in aspect, angle-off, and closure/range.</li> <li>▶ Correctly establishes lead/lag pursuit to maintain FTI position.</li> </ul> </li> </ul>
106. Formation Landing	
<ul style="list-style-type: none"> <li>● Perform landing from one-mile final through rollout while in close formation.</li> </ul>	<ul style="list-style-type: none"> <li>● Performs IAW FTI, landing on the center of the appropriate side of the runway.</li> <li>● Wingman maintains stacked level position through touchdown, and then drops back during rollout.</li> </ul>
107. AF Pattern Operations	
<ul style="list-style-type: none"> <li>● Execute AF pattern operations per the FTI.</li> </ul>	<ul style="list-style-type: none"> <li>● Maintains pattern altitude ±50 feet.</li> <li>● Maintains pattern airspeed ±5 knots.</li> <li>● Arrives at the perch in accordance with FTI procedures.</li> <li>● Rolls out on final on centerline with 1500-3000 feet of straight-away.</li> </ul>
108. Battle Damage Assessment	
<ul style="list-style-type: none"> <li>● Conduct BDA during return to base per the FTI.</li> </ul>	<ul style="list-style-type: none"> <li>● Executes visual check IAW FTI</li> <li>● Provides accurate information and description on condition of aircraft.</li> </ul>