

NAVAL AIR TRAINING COMMAND



NAS CORPUS CHRISTI, TEXAS
CIN Q-2A-0475

CNATRAINST 1542.154B
5 Apr 2022

CHIEF OF NAVAL AIR TRAINING



PRIMARY AND INTERMEDIATE NAVAL FLIGHT OFFICER T-6A INSTRUCTOR UNDER TRAINING CURRICULUM

2022



DEPARTMENT OF THE NAVY
CHIEF OF NAVAL AIR TRAINING
250 LEXINGTON BLVD SUITE 179
CORPUS CHRISTI TX 78419-5041

CNATRAINST 1542.154B
N712
5 Apr 2022

CNATRA INSTRUCTION 1542.154B

From: Chief of Naval Air Training

Subj: T-6A PRIMARY AND INTERMEDIATE FLIGHT INSTRUCTOR UNDER
TRAINING CURRICULUM

1. Purpose. To issue the curriculum for qualifying designated Naval Aviators to instruct Student Naval Flight Officers in the T-6A Primary and Intermediate phases of training.
2. Cancellation. CNATRAINST 1542.154A will be cancelled when the last enrolled instructor under training completes the curriculum.
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. Records Management. Records created as a result of this instruction, regardless of media and format, must be managed per Secretary of the Navy Manual 5210.1 of September 2019.
5. Review and Effective Date. Per OPNAVINST 5215.7A, CNATRA N7 will review this instruction annually on the anniversary of its effective date to ensure applicability, currency, and consistency with Federal, Department of the Defense, Secretary of the Navy, and Navy policy and statutory authority using OPNAV 5215/40 Review of Instruction. This instruction will be in effect for 10 years unless revised or canceled in the interim, and will be reissued by the 10-year anniversary date if it is still required, unless it meets one of the exceptions in OPNAVINST 5215.17A, paragraph 9. Otherwise, if the instructions is not required, it will be processed for cancellation as soon as the need for cancellation is known following the guidance in OPNAV Manual 5215.1 of May 2016.
6. Forms. Forms required by this instruction are automated in the Training/Learning Manager Management System computer program. Additional copies of CNATRA forms are available on the CNATRA Web site <https://www.cnatra.navy.mil/pubs-forms.asp>.

K. H. DELANO
Chief of Staff

Releasability and distribution:

This instruction is cleared for public release and is available electronically only via Chief of Naval Air Training Web site <https://cpf.navy.deps.mil/sites/cnatra/Pages/Instructions.aspx>.

CNATRAINST 1542.154B
5 Apr 2022

BLANK PAGE

LIST OF EFFECTIVE PAGES

Original

Total number of pages is 148 consisting of the following:

<u>Page Number</u>	<u>Issue</u>
Letter/(2 blank)	
3/(4 blank)	
i - ii	
iii/(iv blank)	
v/(vi blank)	
vii - xxii	
xxiii/(xxiv blank)	
I-1 - I-2	
I-3/(I-4 blank)	
I-5 - I-10	
I-11/(I-12 blank)	
II-1 - II-8	
III-1 - III-22	
IV-1 - IV-14	
IV-15/(IV-16 blank)	
V-1 - V-10	
VI-1 - VI-6	
VI-7/(VI-8 blank)	
VII-1 - VII-16	
VIII-1 - VIII-4	
IX-1 - IX-20	
IX-21/(IX-22 blank)	
X-1/(X-2 blank)	

CNATRAINST 1542.154B
5 Apr 2022

BLANK PAGE

TABLE OF CONTENTS

	<u>PAGE</u>
<u>SUMMARY OF CHANGES</u>	v
<u>COURSE DATA</u>	vii
<u>ABBREVIATION CHANGES</u>	xv
<u>GLOSSARY</u>	xx
 <u>CHAPTER I. GENERAL INSTRUCTIONS</u>	
SYLLABUS MANAGEMENT.....	I-1
TRAINING MANAGEMENT	I-1
T-6A INITIAL IUT COURSE FLOW	I-3
T-6A UPGRADE COURSE FLOW	I-5
GROUND TRAINING AND BRIEFING REQUIREMENTS.....	I-6
MISSION GRADING PROCEDURES AND EVALUATION POLICIES	I-7
SPECIAL INSTRUCTIONS AND RESTRICTION	I-11
 <u>CHAPTER II. INTITAL IUT GROUND TRAINING</u>	
ADMINISTRATION (ADM01)	II-1
AVIATION STUDENT INDOCTRINATION (ASI01).....	II-2
SYSTEMS ENGINEERING (ENG01)	II-3
EMERGENCY PROCEDURES (EP01).....	II-5
CREW RESOURCE MANAGEMENT (CRM01)	II-6
AIRCREW PHYSIOLOGY AND SWIM REFRESHER TRAINING (SWM01) ..	II-7
CNATRA FLIGHT INSTRUCTOR TRAINING COURSE (FTC01)	II-8
 <u>CHAPTER III. NATOPS TRAINING</u>	
MATRICES.....	III-1
NATOPS STAGE MANEUVER ITEM FILE.....	III-1
NATOPS (NA11)	III-5
COCKPIT PROCEDURE TRAINING (NA31)	III-7
NATOPS (NA32)	III-10
ANNUAL EMERGENCY PROCEDURES TRAINER (NA33).....	III-12
NATOPS (NA41)	III-14
NATOPS CHECK FLIGHT (NA42)	III-18
NATOPS INSTRUMENT RATING CHECK FLIGHT (NA43)	III-21

CHAPTER IV. FAMILIARIZATION TRAINING

GENERAL IV-1
MATRICES..... IV-1
FAMILIARIZATION STAGE MANEUVER ITEM FILE..... IV-1
FAMILIARIZATION FLIGHT SUPPORT TRAINING (FAM11)..... IV-4
FAMILIARIZATION (FAM31) IV-5
FAMILIARIZATION (FAM41) IV-7
NIGHT FAMILIARIZATION (FAM42)..... IV-10
FAMILIARIZATON CHECK FLIGHT (FAM43)..... IV-13

CHAPTER V. INSTRUMENT NAVIGATION TRAINING

GENERAL V-1
MATRICES..... V-1
INSTRUMENT NAVIGATION STAGE MANEUVER ITEM FILE V-1
INSTRUMENT NAVIGATION GROUND TRAINING (NAV11) V-3
INSTRUMENT NAVIGATION (NAV31)..... V-4
INSTRUMENT NAVIGATION (NAV41)..... V-6
INSTRUMENT NAVIGATION CHECK FLIGHT (NAV42)..... V-8

CHAPTER VI. OPERATIONAL NAVIGATION TRAINING

MATRICES..... VI-1
OPERATIONAL NAVIGATION STAGE MANEUVER ITEM FILE..... VI-1
OPERATIONAL NAVIGATION GROUND TRAINING (ON11)..... VI-2
OPERATIONAL NAVIGATION (ON31) VI-3
OPERATIONAL NAVIGATION (ON41) VI-4
OPERATIONAL NAVIGATION CHECK FLIGHT (ON42)..... VI-6

CHAPTER VII. FORMATION TRAINING

MATRICES..... VII-1
FORMATION STAGE MANEUVER ITEM FILE..... VII-1
FORMATION GROUND TRAINING (FRM11)..... VII-3
STRIKE FORMATION GROUND TRAINING (STK11)..... VII-4
FORMATION (FRM31) VII-5
FORMATION EXPOSURE FLIGHT (FRM41) VII-7
FORMATION (FRM42) VII-9
FORMATION CHECK FLIGHT (FRM43) VII-11
STRIKE FORMATION (STK41)..... VII-13
STRIKE FORMATION CHECK FLIGHT (STK42) VII-15

CHAPTER VIII. OUT OF CONTROL FLIGHT TRAINING

MATRICES VIII-1
OUT-OF-CONTROL FLIGHT STAGE MANEUVER ITEM FILE VIII-1
OUT-OF-CONTROL FLIGHT GROUND TRAINING (OCF11) VIII-2
OCF STANDARDIZATION INSTRUCTOR FLIGHT (OCF41)..... VIII-3
OCF STANDARDIZATION INSTRUCTOR CHECK FLIGHT (OCF42)..... VIII-4

CHAPTER IX. COURSE TRAINING STANDARDS

PURPOSE IX-1
IUT 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

CHAPTER X. MASTER MATERIALS LIST

INDIVIDUALLY ISSUED MATERIALS X-1
AIRCRAFT AND/OR MAJOR TRAINING DEVICES X-1

BLANK PAGE

SUMMARY OF CHANGES

CHANGE NUMBER	DATE OF CHANGE	CHANGE DESCRIPTION	PAGES AFFECTED/ INITIALS

BLANK PAGE

COURSE DATA

1. Course Title. T-6A Primary and Intermediate Flight Instructor Under Training Curriculum.
2. Course ID Number (CIN). Q-2A-0475.
3. Location. Naval Air Station (NAS) Pensacola.
4. Course Status. Active.
5. Course Mission. The T-6A Primary and Intermediate Flight Instructor Under Training (IUT) Curriculum is designed to provide prospective instructors with the appropriate flight procedures, instructional methodology and techniques to instruct Student Naval Flight Officers (SNFOs) in the Primary and Intermediate phases of flight training. Requests for amendments or deviations to this instruction shall be forwarded to the Chief of Naval Air Training (N71).
6. Prerequisite Training
 - a. Designated as U.S Navy and Marine Naval Aviator, or foreign military aviator.
 - b. Swim/Physiology Class 1, if required per CNAF M-3710-7 guidance, prior to any flight in aircraft.
7. Security Clearance Requirements. None.
8. Follow-on Training. As required for T-6A instructor pilots to maintain currency.
9. Course Length. For time-to-train calculations for this MCG please refer to CNATRA N3 Annual Time-to-Train Entitlement Notice for active 1542 series instructions on the CNATRA website: <https://cnatra.navy.mil> under Resources, Publications, CNATRA OPS Documents.

Note: Standardization Instructor (SI) Upgrade-Specific stage flight training times vary depending on SI stage nomination and training. Individual times are listed in table 15. i.
10. Class Capacity. Variable.
11. Instructor Requirements. As established by Chief of Naval Operations (CNO) planning factors.
12. Course Curriculum Model Manager. Commander, Training Air Wing SIX (COMTRAWING SIX).
13. Quota Management Authority. Chief of Naval Air Training (CNATRA).

14. Quota Control. Chief of Naval Operations.

15. Course Training Subjects.

a. Initial IUT Administration

INITIAL IUT ADMINISTRATION		
Stage	Symbol	Hours
T-6A IUT Administration	ADM01-6	7.0
Totals		7.0

b. Initial IUT Ground Training

INITIAL IUT GROUND TRAINING		
Stage	Symbol	Hours
Aviation Student Indoctrination	ASI0101-12	8.25
Systems Engineering	ENG0101-24	27.0
Engineering Exam	ENG0125	1.5
Emergency Procedures	EP0101-2	3.0
Crew Resource Management	CRM0101	2.0
Aircrew Physiology and Swim Refresher Training	SWM0101-2	16.0
CNATRA Flight Instructor Training Course	FTC0101-3	24.0
Totals		81.75

c. Initial IUT Flight Support

INITIAL IUT FLIGHT SUPPORT		
Stage	Symbol	Hours
T-6A NATOPS	NA1101-11	15.5
Course Rules Exam	NA1112	1.0
T-6A NATOPS Open Book Exam	NA1113	1.0
T-6A NATOPS Closed Book Exam	NA1114	1.0
T-6A NATOPS FAM 0 (Zero)	NA1115	1.5
Instrument Ground School	NA1116	4.5
Instrument Ground School Exam	NA1117	2.0
Out-of-Control Flight Procedures	OCF1101	1.0
Out-of-Control Flight Standardization Exam	OCF1102	1.0
Familiarization Flight Brief Observations	FAM1101-2	2.0
Familiarization Standardization Exam	FAM1103	1.0
Instrument Navigation Stage Prep	NAV1101	6.0
Instrument Navigation Standardization Exam	NAV1102	1.0
Instrument Navigation Simulator Event Observation	NAV1103	2.5
Instrument Navigation Flight Event Brief Observation	NAV1104	1.0
Totals		42.0

d. Initial IUT Flight Training

INITIAL IUT FLIGHT TRAINING				
Events	T-6A OFT		T-6A Dual	
	Flts	Hrs	Flts	Hrs
NATOPS	6	9.0	10	18.2
Familiarization	1	1.5	8	14.8
Instrument Navigation	2	3.0	3	6.0
Formation Exposure			1	2.0
Totals	9	13.5	22	41.0

e. IUT Upgrade Operational Navigation Flight Support

IUT UPGRADE OPERATIONAL NAVIGATION FLIGHT SUPPORT TRAINING		
Stage	Symbol	Hours
Operational Navigation	ON1101-3	13.0
Operational Navigation Standardization Exam	ON1104	1.0
Operational Navigation Brief Observation	ON1105	1.0
Totals		15.0

f. IUT Upgrade Formation Flight Support

IUT UPGRADE FORMATION FLIGHT SUPPORT TRAINING		
Stage	Symbol	Hours
Formation	FRM1101-6	13.5
Formation Standardization Exam	FRM1107	1.0
Formation Brief Observation	FRM1108	1.0
Totals		15.5

g. IUT Upgrade Strike Formation Flight Support

IUT UPGRADE STRIKE FORMATION FLIGHT SUPPORT		
Stage	Symbol	Hours
Strike Formation	STK1101	3.0
Strike Formation Standardization Exam	STK1102	1.0
Strike Formation Event Brief Observation	STK1103	1.0
Totals		5.0

h. IUT Upgrade Operational Navigation Flight Training

IUT UPGRADE OPERATIONAL NAVIGATION FLIGHT TRAINING				
Events	T-6A OFT		T-6A Dual	
	Flts	Hrs	Flts	Hrs
Operational Navigation	1	1.5	3	4.8
Operational Navigation Check Flight			1	1.6
Totals	1	1.5	4	6.4

i. IUT Upgrade Formation Flight Training

IUT UPGRADE FORMATION FLIGHT TRAINING				
Events	T-6A OFT		T-6A Dual	
	Flts	Hrs	Flts	Hrs
Formation	1	1.5	5	8.0
Formation Check Flight			1	1.6
Totals	1	1.5	6	9.6

j. IUT Upgrade Strike Formation Flight Training

IUT UPGRADE STRIKE FORMATION FLIGHT TRAINING				
Events	T-6A OFT		T-6A Dual	
	Flts	Hrs	Flts	Hrs
Strike Formation			3	4.8
Strike Formation Check Flight			1	1.6
Totals			4	6.4

k. IUT Upgrade Out-of-Control Flight Training

IUT UPGRADE OUT-OF-CONTROL FLIGHT TRAINING				
Events	T-6A OFT		T-6A Dual	
	Flts	Hrs	Flts	Hrs
OCF Standardization			2	1.6
OCF Standardization Check Flight			1	1.6
Totals			3	3.2

1. Annual Instructor Pilot (IP) Ground Training (Recurring)

ANNUAL INSTRUCTOR PILOT (IP) GROUND TRAINING (Recurring)		
Stage	Symbol	Hours
EP Boldface Exam	EP0102	1.5
Crew Resource Management	CRM0101	2.0
Totals		3.5

m. Annual Instructor Pilot (IP) Flight Support

ANNUAL INSTRUCTOR PILOT (IP) FLIGHT SUPPORT (Recurring)		
Stage	Symbol	Hours
Course Rules Exam	NA1112	1.0
T-6A NATOPS Open Book Exam	NA1113	1.0
T-6A NATOPS Closed Book Exam	NA1114	1.0
Familiarization Standardization Exam	FAM1103	1.0
Out-of-Control Flight Standardization Exam	OCF1102	1.0
Instrument Navigation Standardization Exam	NAV1102	1.0
Instrument Ground School	NA1116	4.5
Instrument Ground School Exam	NA1117	2.0
Operational Navigation Standardization Exam	ON1104	1.0
Formation Standardization Exam	FRM1107	1.0
Strike Standardization Exam	STK1102	1.0
Totals		17.5

n. Annual Instructor Pilot (IP) Flight Training (Recurring)

ANNUAL INSTRUCTOR PILOT (IP) FLIGHT TRAINING (Recurring)				
Events	T-6A OFT		T-6A Dual	
	Flts	Hrs	Flts	Hrs
NATOPS Check Flight			1	1.8
NATOPS Instrument Rating Check Flight			1	2.0
Familiarization Check Flight			1	1.8
Instrument Navigation Check Flight			1	2.0
Operational Navigation Check Flight			1	1.6
Formation Check Flight			1	1.6
Annual Emergency Procedures Simulator	1	1.5		
Totals	1	1.5	6	10.8

o. Standardization Instructor Pilot (IP) Flight Training

STANDARDIZATION INSTRUCTOR PILOT (IP) FLIGHT TRAINING				
Events	T-6A OFT		T-6A Dual	
	Flts	Hrs	Flts	Hrs
NATOPS			3	5.4
Instrument Navigation			1	2.0
Instrument Navigation Check Flight			1	2.0
Familiarization			1	1.8
Night Familiarization			1	2.0
Familiarization Check Flight			1	1.8
Operational Navigation			1	1.6
Operational Navigation Check Flight			1	1.6
Formation			1	1.6
Formation Check Flight			1	1.6
OCF Standardization Instructor Flight			2	1.6
OCF Standardization Instructor Check Flight			1	1.6
Totals			15	24.6

16. Training Time Analysis. In addition to the hours formally planned and scheduled for academic classes and simulator events, significant additional time to prepare and study outside of scheduled training hours should be expected by the Instructor Under Training (IUT). The amount of time will vary depending on the complexity of the material and individual IUT needs, and may be up to several hours per event. For simulator events, specific brief times will be programmed into the Training/ Learning Management System (T/LMS) computer program and accounted for on the flight schedule, per the following table:

ADDITIONAL FORMAL TRAINING TIME PER CURRICULUM HOUR/EVENT			
Training Area	Brief/Preflight/Taxi	Taxi/Debrief	Total
Simulator (CIS)	0.5	0.5	1.0
Flight (IP)	2.0	1.0	3.0

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

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

19. Primary Instruction Methods. Lecture, Mediated Interactive Lecture (MIL), Computer Aided Instruction (CAI), 2F208 T-6A Operational Flight Trainer, 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 (CTS), are used to evaluate performance for all items on all events. Final judgment regarding the satisfactory performance of any item rests with the Standardization Instructor. Refer to CNATRAINST 1500.4J, Chapter 6, for further guidance.

ABBREVIATIONS

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

ADMIN	Administration
AGL	Above Ground Level
AIM	Aeronautical Information Manual
ANI	Assistant NATOPS Instructor
AOA	Angle of Attack
AOB	Angle of Bank
ASI	Aviation Student Indoctrination
ASR	Airport Surveillance Radar
ATC	Air Traffic Control
ATF	Aviation Training Form
ATJ	Aviation Training Jacket
ATIS	Automatic Terminal Information Service
ATS	Approach Turn Stall
AWOS	Automated Weather Observation System
BAW	Basic Air Work
CAI	Computer-Aided Instruction
CDI	Course Deviation Indicator
CNATRA	Chief of Naval Air Training
CO	Commanding Officer
COMTRAWING SIX	Commander, Training Air Wing SIX
CO-PC	Commanding Officer Progress Check
CR	Course Rules
CRM	Crew Resource Management
CTS	Course Training Standard(s)

DA	Decision Altitude
DH	Decision Height
DME	Distance Measuring Equipment
DOR	Drop On Request
ECS	Environmental Control System
EFB	Electronic Flight Bag
ELP	Emergency Landing Pattern
EOB	End of Block
EP	Emergency Procedure
ET	Extra Training
ETA	Estimated Time of Arrival
FAA	Federal Aviation Administration
FAF	Final Approach Fix
FAM/Fam	Familiarization stage; also abbreviation for Familiarization
FITC	Flight Instructor Training Course
FITU	Flight Instructor Training Unit
FLIP	Flight Information Publication
FRM	Formation
FSS	Flight Service Station
FTI	Flight Training Instruction
FWOP	Fixed-Wing Operating Procedures Manual
GCA	Ground-controlled Approach
GPS	Global Positioning System
H/X	Hours per Event
HEFOE	Hydraulic, Electrical, Fuel, Oxygen, Engine
HFE	Home Field Entry

IAF	Initial Approach Fix
IAW	In Accordance With
IFR	In Flight Report
IGS	Instrument Ground School
ILS	Instrument Landing System
IMC	Instrument Meteorological Conditions
IP	Instructor Pilot
IPC	Initial Progress Check
IUT	Instructor Under Training
KIAS	Knots Indicated Airspeed
LDG	Landing
LOC	Localizer
LOP	Loss of Power
MAP	Missed Approach Point
MCG	Master Curriculum Guide
MDA	Minimum Descent Altitude
MIF	Maneuver Item File
MIL	Mediated Interactive Lecture
MILPERSMAN	Military Personnel Manual
MSL	Mean Sea Level
NACWS	Naval Aviation Collision Warning System
NAS	Naval Air Station
NATOPS	Naval Air Training Operating Procedures Standardization
NAV	Instruments Navigation
NAVAID	Navigational Aid
NFO	Naval Flight Officer

NFOTS	Naval Flight Officer Training System
NG	No Grade
NI	NATOPS Instructor
NIFM	NATOPS Instrument Flight Manual
NORDO	No Radio
OBOGS	On-Board Oxygen Generating System
OCF	Out-of-Control Flight
OFT	Operational Flight Trainer
OIC	Officer in Charge
OLF	Outlying Field
ONAV	Operational Navigation
OPNAV	Office of the Chief of Naval Operations
OPS	Operations
OPSO	Operations Officer
ORM	Operational Risk Management
P/P	Pen/Pencil and Paper
PAR	Precision Approach Radar
PCL	Power Control Lever; also Pocket Checklist
PEL	Precautionary Emergency Landing
PEL (P)	Precautionary Emergency Landing (Pattern)
PMSC	Pilot-to-Metro Service
PMU	Power Management Unit
POS	Power-off Stall
PP	Partial Panel
RNAV	Area Navigation
RVFAC	Radar Vectors to Final Approach Course

SI	Standardization Instructor
SIM	Simulator
SIUT	Standardization Instructor Under Training
SNFO	Student NFO
SOP	Standard Operating Procedure
SP	Standardization Pilot
SSR	Special Syllabus Requirement
TAS	True Airspeed; also Traffic Avoidance System
TOLD	Takeoff and Landing Data
TRAWING	Training Air Wing
TRB	Training Review Board
TTO	Training Time Out
UHF	Ultra High Frequency
UNSAT	Unsatisfactory
VFR	Visual Flight Rules
VHF	Very High Frequency
VMC	Visual Meteorological Conditions
VOR	VHF Omnidirectional Range
VR	Visual Route
WX	Weather

GLOSSARY

1. Advancing X. Completed event within the normal syllabus flow. Excludes events with last characters in the range 84-89 unless specified by CNATRAINST 1500.4J.
2. Aviation Training Form (ATF). Any form used to document training performance in the Naval Aviation Training Command pipelines (computer generated grade sheets and supplemental administrative documents).
3. Aviation Training Jacket (ATJ). A complete administrative record of all aviation training received while attending flight training at Naval Aviation Training Command (NATRACOM) activities. It contains ATFs, calendar card, grade reports, and all other associated training information. ATJs are maintained in student control and follows the students through all phases of training.
4. Block of Training. A sequential series of lessons within a training stage sharing identical MIFs. The second numerical character in the lesson designator identifies a block.
5. Blue Supplemental ATF. A document that states the purpose and background for CO-directed ET sortie(s) that is printed on blue paper. This document is filed on the left side of the student ATJ.
6. Check Flight (XX90). A check event in any stage of training. Check flight events shall be coded as XX90, e.g., FAM4190.
7. Class Advisor. A squadron IP assigned to each class as mentor and advisor to monitor student progress, assist when difficulties arise, and instill the Naval Aviation culture.
8. Commanding Officer Progress Check (CO-PC) (XX89). A progress check either directed by the Commanding Officer or triggered by NFS performance. A satisfactory CO-PC returns the student to normal syllabus flow. An UNSAT CO-PC results in a TRB. CO-PC events shall be coded as XX89, e.g., FAM4189
9. Course of Training. The entire program of simulation, academics, and officer development conducted in all media during the programmed training days.
10. Course Training Standard (CTS). CTS define the behavior associated with each maneuver and standards or tolerances recommended for successful stage completion. These standards are defined in Chapter IX.
11. Courseware. The technical data, FTIs, audio, video, film, CAI, MIL, instructor guides, student study guides, and other training material developed to support and implement the syllabus of instruction.

12. Drop on Request (DOR). The self-initiated termination of training. Anytime a student makes a statement such as “I quit” or “DOR,” they shall be immediately removed from the training environment and referred to the training officer for administrative action.
13. Emergency Procedures (EP). An established procedure used by aircrew to assist in safely controlling the aircraft in the event of a flight control failure or airborne emergency.
14. End of Block (EOB). Last event in a block. The student must meet or exceed MIF on all mandatory items in the block to progress past EOB.
15. Event. A scheduled period of prescribed instruction. It may be in an academic or laboratory classroom, a simulator, or flight environment.
16. Extra Training (ET) (XX87). Extra training may be authorized by the squadron Commanding Officer to allow for correction of a training deficiency, or skillset deficiency. ET events shall be coded as XX87, e.g., FAM4187.
17. Fixed-Wing Operating Procedures Manual. A training air wing directive describing standard operating procedures for local fixed-wing aircraft.
18. Flight Training Instruction (FTI). Training publications that define maneuvers and acceptable performance standards for each maneuver the student is expected to perform. Each FTI may cover one or more stages of instruction.
19. Hours per Event (H/X). The resourced duration for each event, rounded to the nearest tenth of an hour.
20. Initial Progress Check (XX88). A special check given by an experienced instructor (senior O-3 or above) as designated in writing by the CO. A satisfactory IPC returns the student to normal syllabus flow. An IPC can count as a progressing event at the CO’s discretion. An UNSAT IPC results in a CO-PC. IPC events shall be coded as XX88, e.g., FAMXX88.
21. Instructor Training Form. A grade sheet documenting IUT performance for all categories of training regardless of media, phase, or stage.
22. Lesson Designator. All syllabus events have a lesson designator consisting of a stage identifier of up to three letters and an event code of four numbers representing order and required resourcing. Refer to the CNATRA 1550.6F CH-1 for further information.

Char	Meaning	Remarks
1 st - 3 rd	Stage	ADM - Administration ASI - Aviation Student Indoctrination ENG - Engineering SWM - Swim/Phys NA - NATOPS FRM - Formation EP - Emergency Procedures CRM - Crew Resource Management FAM - Familiarization NAV - Instrument Navigation OCF - Out-of-Control Flight FTC - Flight Instructor Training Course ON - Operational Navigation STK- Strike
4 th	Media	0 - Ground Event/ Academic Training 1 - Flight Support 2 - CPT 3 - Simulator 4 - Aircraft
5 th	Block	Sequential, indicating block within stage.
6 th & 7 th	Event/ Check Identifier	Sequential, indicating event within block, or other event types as shown below: 84 - Adaptation Flight 85 - Practice Sim 86 - Warmup 87 - Extra Training 88 - Initial Progress Check 89 - CO Progress Check 90 - Check Flight

23. Mandatory 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.
24. Maneuver Item File (MIF). A chart listing the required maneuvers and associated proficiency levels for a particular block of flight training.
25. Master Curriculum Guide (MCG). A publication tailored to a specific phase of training.
26. Phase of Training. The chief subdivisions of a course. The Naval Flight Officer training is comprised of Primary, Intermediate and Advanced NFO Training System (NFOTS) phases of training.
27. Pink ATF. A standard ATF that is printed on pink paper. The pink ATF is used to denote an UNSAT event.
28. Progress Check (XX88/XX89). A student check event within a given stage of training administered by an experienced instructor IAW the CNATRINST 1500.4J.

29. Progress Check Instructor. An IP authorized by the squadron CO to administer Initial or Command Directed Progress Checks.
30. Ready Room Unsatisfactory (RRU). An UNSAT grade given for inadequate knowledge of flight procedures, systems, discuss items, emergency procedures, or deficient preflight planning or failure of a non-academic examination (e.g., NATOPS quiz/exam). Missing a brief does not constitute an RRU and shall be documented on a supplemental ATF. Refer to CNATRAINST 1500.4J, Ch. 6 for further information on missed briefs.
31. Special Syllabus Requirement (SSR). One-time, ungraded demonstration item(s).
32. Stage. A subdivision of a phase, comprised of events leading to a single set of objectives, designated by a common symbol (e.g., Formation, Instrument Navigation). Refer to CNATRAINST 1550.6F CH-1, Appendix D, for further information.
33. Standardization Instructor (SI). A highly experienced FITU instructor pilot who is designated to provide initial training to IUTs and annual stage check flights to stage qualified IPs. The TRAWING Commander shall designate Standardization Instructors (SIs) for each stage.
34. Standard Operating Procedure (SOP). An instruction or directive that provides guidance on TRAWING or squadron operating rules for local aircraft.
35. Training Media. The T-6A Primary and Intermediate Flight Instructor Under Training (IUT) media include ground training, Operational Flight Training (OFT) simulators, and flight and simulator support lectures. Flight and simulator support lectures may consist of MILs, off-line lectures (LECT), CAI lessons, and exams. The first numerical character in the lesson identifier designates the training media. Refer to CNATRAINST 1550.6F CH-1 for further information.
36. Training Review Board (TRB). A fact-finding board appointed to conduct an administrative review of training following a failed CO-PC. Refer to CNATRAINST 1500.4J for further information.
37. Training Time Out (TTO). A pause in training when a NFS or instructor expresses concern for personal safety or a need exists to clarify procedures or requirements. Either the NFS, IUT or Instructor Pilot may call a TTO.
38. Warmup Event(s) (XX86). Additional event(s) given to allow a student to regain a level of proficiency previously demonstrated which has diminished due to a non-syllabus break in training.

BLANK PAGE

Chapter I

General Instructions

1. Syllabus Management

- a. Distribution. Participating TRAWING and squadron personnel.
- b. Interpretation. The syllabus is directive. Should circumstances create situations not covered within the scope of this syllabus, or specific 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 1550.6F CH-1.
- e. Syllabus Description. T-6A Primary and Intermediate Flight Instructor Under Training (IUT) events are executed in the 2F208 T-6A OFT and T-6A aircraft. Stages are grouped by similar flight training regimes such as Familiarization and Navigation. Each stage may be subdivided into training blocks. If so, the training blocks consist of a specified number of events. MIFs identify the minimum acceptable level of performance in relation to the CTS that must be achieved by the completion of each training block.

2. Training Management

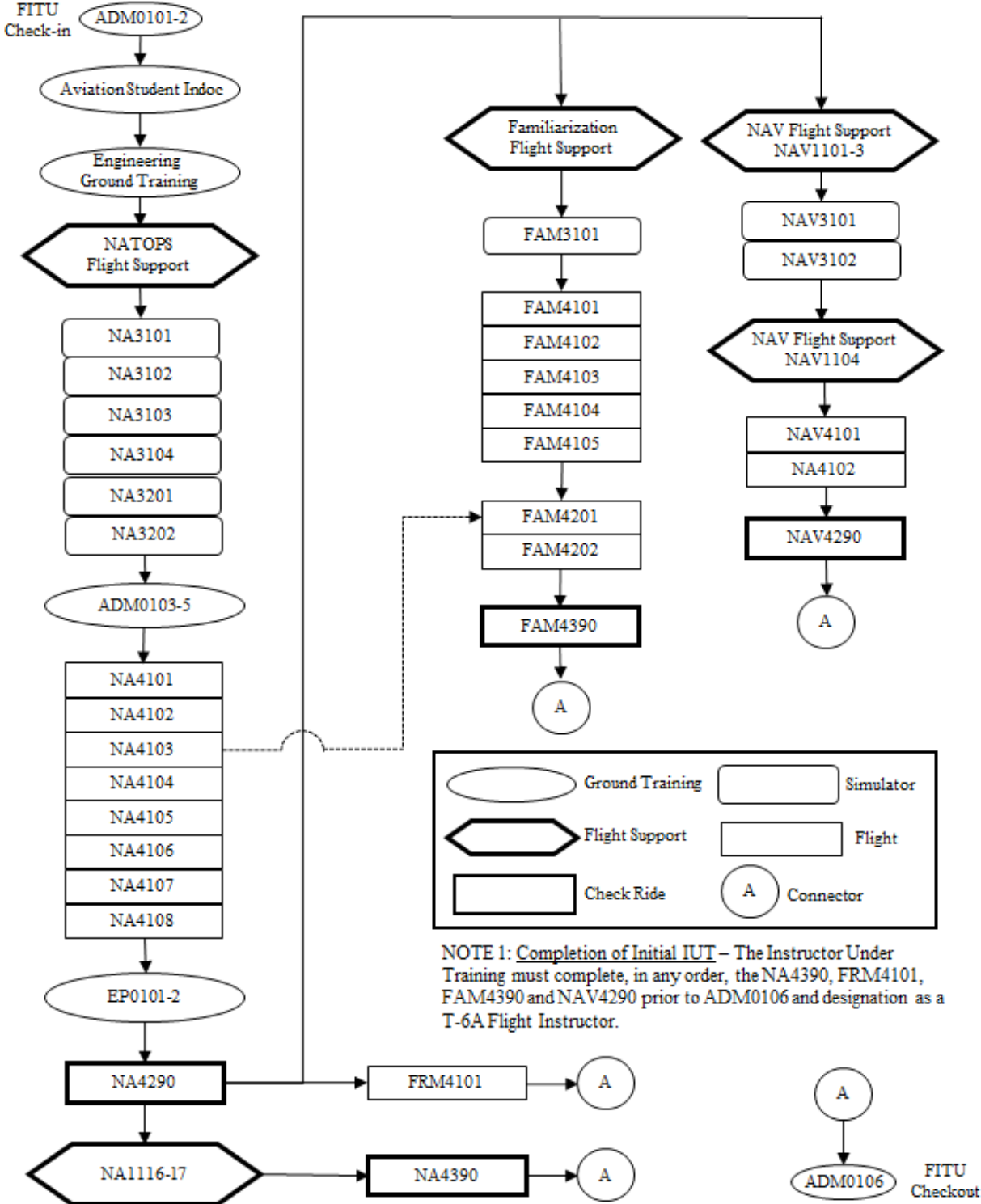
- a. Syllabus Progression
 - (1) Other than noted exceptions, syllabus events shall be flown sequentially within each stage. Blocks shall not be started without all prerequisites completed. IUTs may be enrolled in different stages simultaneously. Where applicable, IUTs shall be prepared, and will be eligible, for both a VFR (Familiarization or Formation) and an IFR (Instrument) syllabus event. IUTs must complete all events unless proficiency advanced by the FITU OIC or TRAWING Commander. System training management is designed to facilitate two graded events (flight, simulator, or exam) per IUT per day.
 - (2) Flowcharts on pages I-3 and I-4 are a depiction of T-6A Primary and Intermediate IUT course flows which delineates the sequence of events and associated ground training prerequisites. System training management is designed to allow the IUT to accomplish up to two graded events per day.
- b. Maneuver Continuity. IUTs must accomplish previously introduced maneuvers frequently enough to ensure required proficiency is maintained.

c. Hours per Event (H/X). Standardization Instructor (SI) pilots shall plan and execute missions to meet H/X as closely as possible. If actual sortie length varies from H/X by more than 0.3 hours, the instructor shall annotate the reason in the ATF general comments section. This only applies to flight events, as simulator events should be conducted for the entire syllabus event H/X stated in the respective MCG. Refer to CNATRAINST 1500.4J, section 605, for further clarification.

d. Location of Training. IUT events may be accomplished at home station, on cross-country flights or on detachments where applicable.

e. Special Syllabus Requirements. U SSRs may be allocated to blocks. Unless noted otherwise, instructors may accomplish SSRs on any flight within the block. The SSRs shall be completed in the specified block. Annotate completed SSRs in the following places on the ATF: specify the SSR completed in the Comments section, assign NG/1 as the SSR maneuver grade, and date/save SSR exposure on the SSR tab.

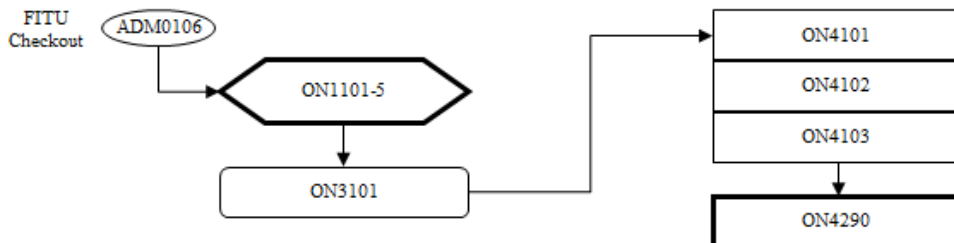
T-6 INITIAL IUT COURSE FLOW



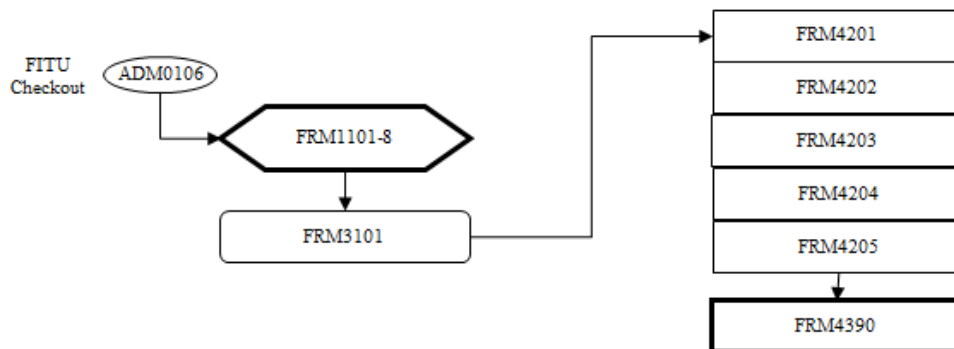
BLANK PAGE

T-6A UPGRADE COURSE FLOW

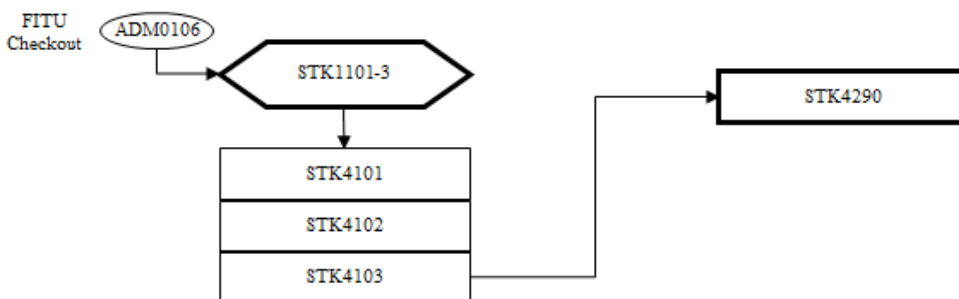
T-6A OPERATIONAL NAVIGATION IUT UPGRADE COURSE FLOW



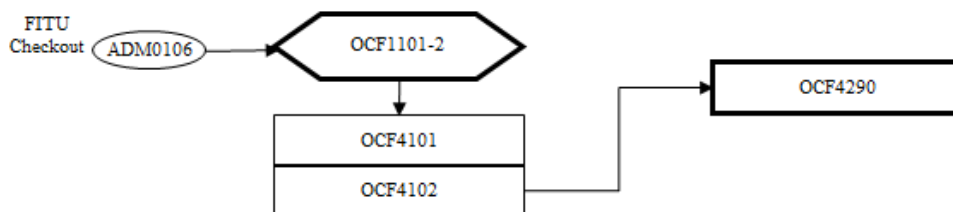
T-6A FORMATION IUT UPGRADE COURSE FLOW



T-6A STRIKE FORMATION IUT UPGRADE COURSE FLOW



T-6A OUT-OF-CONTROL FLIGHT IUT UPGRADE COURSE FLOW



3. Ground Training and Briefing Requirements

a. Mission Preparation, Briefings, and Debriefings

(1) EOB Events. The SI shall carefully review the IUT's ATJ in planning the EOB event to ensure the profile includes opportunities to reach MIF on all mandatory items and demonstration items attempted in the block.

(2) Preparation. The IUT shall arrive for each flight or simulator event with:

(a) A thorough knowledge of:

1. The Discuss Items, as listed in Chapters II-VIII.
2. Procedural knowledge of the mandatory and demonstration items for the event's training block.

(b) An event profile tailored to training requirements, weak areas, and continuity.

(3) Briefing. Thoroughly cover the current mission's:

(a) Discuss Items, as listed in Chapters II-VIII.

(b) Specific objectives.

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

(d) Planned profile, contingencies and ORM considerations.

(4) Debriefing

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

(b) The mission's complexity and IUT's progress will govern the time required for debrief. For simulator events conducted by Contract Instructors, at no time shall the debrief time be less than MCG stated time.

(c) Debriefing must be detailed and comprehensive. The ATF shall be completed prior to the IUT's next event IAW CNATRAINST 1500.4J.

b. Emergency Procedures (EP) Briefing and Training. EP training builds the IUT's confidence in the aircraft. Incorporate EP training into simulator events when practical; however, instructional block objectives take precedence. Grade the IUT's overall EP knowledge and performance under EPs.

4. Mission Grading Procedures and Evaluation Policies

a. General Grading and Evaluation Policy. Course training standards and MIFs listed in this instruction are minimum block completion standards per maneuver. MIF is designed to allow for minimum performance in a specific area, with the understanding that performance in other areas above the minimum MIF, will offset the weak area.

b. Grading Procedures (Aircraft and Training Devices)

(1) Overall Grading. The following scale shall be used to document the IUT's performance on maneuvers attempted during each event. This is an absolute grading scale. It shall be interpreted and used by SIs the same way for all items on all events. IUT performance as referred to in the scale below should be judged only against the CTS provided for a given item in the MCG.

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

(b) The overall grade for the NATOPS Check Flight (NA4290) shall 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) NATOPS Maneuver Grading. During the NATOPS stage of training, grading shall be IAW NATOPS standards. 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 training
- 4 = Q
- 3 = CQ
- 2 = UQ
- 1 = Demonstrate

Note: Corresponding Course Training Standards shall reference NATOPS.

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

(3) Standard Maneuver Grading. The following scale shall be used to document the IUT's performance on maneuvers attempted during each dual event, with the exception of maneuvers done during the NATOPS phase of training. This is an absolute grading scale. It shall be interpreted and used by SIs the same way for all items on all events. IUT performance as referred to in the scale below should be judged only against the CTS provided for a given item in the MCG.

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

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

2. To indicate accomplishing all SSRs for that block or event. Also specify completed SSRs in the ATF's maneuver item content line and document date of exposure via the SSR button on the ATF menu bar.

(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) Excellent (E/5 Level). Surpasses CTS. Performance is correct, efficient, and skillful. Deviations are very minor. Corrections, if required, are initiated by the IUT and are appropriate, smooth, and timely.

(4) Overall Event Grades. Overall event grades represent the IUT's progression through the syllabus. Every training event shall be marked Pass or Unsatisfactory (UNSAT). Use the following definitions to characterize event grades. See ***Overall Event Grades*** for specific rules defining UNSAT performance.

(a) Pass

1. Prior to EOB. Level of performance is generally adequate to meet or exceed levels of expected performance by EOB necessary to continue training.

2. EOB MIF Performance. IUT performance meets or exceeds performance necessary to continue to the next block, stage, or phase training. If the IUT has previously met MIF in the block, they must still meet MIF in the EOB event if the maneuver is reattempted.

(b) UNSAT. IUT exhibits dangerous tendencies or progress toward meeting EOB standards is insufficient. An overall UNSAT is at the SI's discretion. It should be noted that an event may be graded UNSAT without any individual maneuvers graded U/2. If the IUT receives an UNSAT on any event, the ATF shall be printed on pink paper. If an overall UNSAT grade is awarded on any event other than normal syllabus flow events, the SI shall clearly state the justification in the General Comments section of the ATF.

(c) MIF Performance Maintenance. IUTs shall maintain or exceed MIF performance from one block to the next within stage or between media within stage, except as noted below or when MIF on a subsequent block is below the preceding block MIF.

(5) Maneuver Requirements. For each block:

(a) Mandatory Items. Items with a number and a plus sign (+) are mandatory and the student 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 student meets EOB MIF.

(b) Demonstration Items. Items with the number 1, but without a plus (+), are demonstration items. If one or more is flown within a block, the NFS must meet the preparation and knowledge requirements to safely attempt the item; NFSs may receive a U/2 for a Demonstration item if they are not adequately prepared for, or do not have the requisite knowledge to perform the item.

(6) Complete and Incomplete Events.

(a) An event may both complete a previous event and count as an advancing event.

(b) For events flown exclusively to clear an incomplete, grades on maneuvers repeated from the incomplete event do not count toward the student's score, except where the grade assigned for the repeated item is lower than the lowest grade previously assigned on that item from all previous attempts at that event.

(c) Simulator Event Completion. Assess a simulator event complete if the IUT has received the full training period per the MCG. If required, the simulator event may be conducted for a time period greater than that stated in the MCG. If the actual simulator sortie length is greater than stated H/X by more than 0.3 hours, the instructor shall annotate the reason in the ATF's General Comments section. The simulator event shall not be conducted for a time less than stated in the MCG, unless it is completing a previously incomplete event.

c. Policies for Evaluation Flights and Ground Evaluations

(1) Authorized Evaluators. The CO shall designate Standardization Instructors (SI) for each stage.

(2) Check Event (XX90)

(a) Check events are single-event training blocks. Therefore, all expectations regarding progressing out of a block apply, except:

1. IUT should fly a cross section of Demonstration items (NG/1) after all (+) graded items are adequately performed.

2. The IUT should be able to demonstrate required levels of proficiency without instructor assistance. However, instruction is allowed on check events and IUTs may re-attempt maneuvers at the SI's discretion. If the flight profile was incomplete because too much time was dedicated to re-attempting maneuvers, or too much event time utilized for additional training, the item should be graded "U/2" and the flight should be graded UNSAT/incomplete.

3. The entire event duration should be devoted to assessing IUT skill attainment, ability, and readiness to progress to the next block of training. All required maneuvers must be completed to MIF.

(b) Incomplete Check Event

1. A check event shall be graded as incomplete when:

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

b. The SI was unable to observe sufficient examples of a given maneuver to assess overall IUT performance. If the flight profile is incomplete because too much time was dedicated to re-attempting maneuvers, or excessive additional training was required, overall event grade should be UNSAT/Incomplete.

2. The subsequent completion flight need only include maneuvers required to complete the check event.

3. Exceptions. The check event is complete and the overall grade is UNSAT if:

a. Any graded item is below expected performance levels needed to successfully complete the IUT curriculum, or

b. Any NG/1 item was not adequately prepared for, or required item knowledge was insufficient resulting in a grade of U/2 for the Demonstration item, or

c. The SI determines inadequate performance was demonstrated on any item, or items, that will not predicate successful follow-on normal course flow training.

5. Special Instructions and Restrictions

a. Maximum Daily IUT Activities. Schedule limitations for IUTs shall be left to the discretion of the FITU OIC or cognizant Wing Commander, but shall be consistent with CNAF M-3710.7 guidance.

b. IUT Flight Conduct. All IUT flights shall be conducted in accordance with the current T-6A NATOPS, FTIs, and local SOPs. No deviations from standard maneuvers are authorized except in cases of emergency.

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

d. Proficiency Advancement. Reasonable accelerations and decelerations in the curriculum are authorized when warranted by previous experience or demonstrated ability; combination of any two events is authorized. Accelerations of the curriculum require FITU OIC (Proficiency Advance) or TRAWING Commander (Training Acceleration Program) approval and shall be annotated in writing in the ATJ.

e. Introduced Maneuvers. The word “introduction” following the maneuver means the maneuver must be performed with an accompanying description. In those cases requiring a maneuver description, it need not be memorized exactly, but must convey the full meaning.

CNATRAINST 1542.154B
5 Apr 2022

BLANK PAGE

Chapter II

Initial IUT Ground Training

Block#	Media	Title	Events	Hrs	Blk Name
ADM01	Class	Administration	6	7.0	Admin

1. Prerequisites

- a. TRAWING Check-in prior to ADM0101-2 (in order).
- b. ADM0102 and NA3202 prior to ADM0103-5 (any order).
- c. NA4390, FAM4390, FRM4101 and NAV4290 prior to ADM0106.

2. Events

ADM0101	Admin	FITU Admin Check-in		1.0	
ADM0102	Admin	FITU OIC Check-in Brief		1.0	
ADM0103	Admin	Paraloft Flight Gear Check-in		1.0	
ADM0104	Admin	Medical Records Check-in		1.0	
ADM0105	Admin	High Risk Screening/Admin Up-Chit		1.0	
ADM0106	Admin	FITU Check Out Processing		2.0	

3. Syllabus Notes. None.

4. Discuss Items. None.

Block#	Media	Title	Events	Hrs	Blk Name
ASI01	Class	Aviation Student Indoctrination	12	8.25	ASI

1. Prerequisites.

- a. ADM0102 prior to ASI0101-10 (in order).
- b. ASI0110 prior to ASI0111-12 (any order).

2. Events

ASI0101	Lect	Safety Briefing		.25
ASI0102	MIL	Introduction to Safety		.50
ASI0103	MIL	Ground Safety ORM		.50
ASI0104	Lect	Aviation Safety Program		.50
ASI0105	MIL	Navy Flight Policy		.50
ASI0106	MIL	Flight Regulations and Policy		.50
ASI0107	Lect	Academic Welcome Aboard		1.0
ASI0108	Lect	T-SHARP Account Set Up		0.5
ASI0109	Lect	NFO Training System (NFOTS) Brief		1.0
ASI0110	Lect	Pubs/Materials Inventory		1.0
ASI0111	Lect	T-SHARP Testing System Brief		1.0
ASI0112	Lect	Airsickness Management Program		1.0

3. Syllabus Notes. None.

4. Discuss Items. None.

Block#	Media	Title	Events	Hrs	Blk Name
ENG01	Class	Systems Engineering	25	28.5	ENG

1. Prerequisite

- a. ADM0102 prior to ENG0101-24 (any order).
- b. ENG0124 and ASI0111 prior to ENG0125.

2. Events

ENG0101	MIL	Introduction to T-6 Systems		1.0
ENG0102	T-6A	T-6A Aircraft Systems Tour		2.0
ENG0103	CAI	Flight Controls		1.0
ENG0104	CAI	Hydraulic Systems 1		1.0
ENG0105	CAI	Hydraulic Systems 2		2.5
ENG0106	CAI	Flight Instruments 1		1.0
ENG0107	CAI	Flight Instruments 2		1.0
ENG0108	CAI	Communication Systems		1.0
ENG0109	CAI	Navigation Systems		1.0
ENG0110	CAI	GPS		0.5
ENG0111	MIL	Flight Controls and Hydraulics Review		2.0
ENG0112	MIL	Flight Instruments Review		1.0
ENG0113	MIL	Communications and Navigation Systems Review		2.0
ENG0114	CAI	Electrical System		0.5
ENG0115	CAI	Fuel System		0.5
ENG0116	CAI	Propulsion 1		0.5
ENG0117	CAI	Propulsion 2		0.5

2. Events (cont)

ENG0118	CAI	Environmental System 1	0.5
ENG0119	CAI	Environmental System 2	0.5
ENG0120	CAI	Canopy System	1.0
ENG0121	CAI	Ejection System	1.0
ENG0122	MIL	Electrical and Fuel Review	1.5
ENG0123	MIL	Propulsion Review	1.5
ENG0124	MIL	Environmental, Canopy, & Ejection Review	2.0
ENG0125	CAI TEST	Engineering Exam	1.5

3. Syllabus Notes. None.

4. Discuss Items. None.

Block#	Media	Title	Events	Hrs	Blk Name
EP01	Class	Emergency Procedures	2	3.0	EP

1. Prerequisite. ENG0125 prior to EP0101-2 (in order).

2. Events

EP0101	Lect	Emergency Procedures Boldface Review	1.5
EP0102	P/P Exam	EP Boldface Procedures Exam	1.5

3. Syllabus Notes. None.

4. Discuss Items. None.

Block#	Media	Title	Events	Hrs	Blk Name
CRM01	Class	Crew Resource Management	1	2.0	CRM

1. Prerequisite. ENG0125.

2. Events

CRM0101	MIL	T-6A Crew Resource Management		2.0	
---------	-----	-------------------------------	--	-----	--

3. Syllabus Notes. None.

4. Discuss Items. None.

Block#	Media	Title	Events	Hrs	Blk Name
SWM01	Class	Aircrew Physiology and Swim Refresher Training	2	16.0	SWM

1. Prerequisite. None.

2. Events

SWM0101 Lect Aircrew Physiology/Swim Refresher Day 1 8.0

SWM0102 Lect Aircrew Physiology/Swim Refresher Day 2 8.0

3. Syllabus Notes. SWM0101 and SWM0102 are required IAW CNAF M-3710.7 guidance.

4. Discuss Items. None.

Block#	Media	Title	Events	Hrs	Blk Name
FTC01	Class	CNATRA Flight Instructor Training Course (FITC)	3	24.0	FTC

1. Prerequisite. None.

2. Events

FTC0101	MIL	FITC Day 1		8.0	
FTC0102	MIL	FITC Day 2		8.0	
FTC0103	Lect	FITC Day 3		8.0	

3. Syllabus Notes. FTC0101-3 are required prior to designation as a NATRACOM flight instructor. For those having previously attended FITC and returning to NATRACOM, Day 3 shall be attended at a minimum.

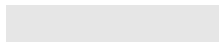

4. Discuss Items. None.

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	NA3104	NA3202	NA3301	NA4108	NA4290	NA4390
1	General Knowledge/Procedures	4+	4+	4+	4+	4+	4+
2	Emergency Procedures	4+	4+	4+	4+	4+	4+
3	Headwork/Situational Awareness	4+	4+	4+	4+	4+	4+
4	Basic Air Work	3+	3+	4+	4+	4+	4+
6	In-Flight Planning/Area Orientation		3+		4+	4+	
7	In-Flight Checks		3+		4+	4+	4+
8	Radio Procedures		3+		4+	4+	4+
9	Ground Operations				4+	4+	4+
10	Takeoff				4+	4+	4+
11	Departure		3+		4+	4+	4+
12	Trim	3+	3+		4+	4+	4+
13	VFR Scan				4+	4+	
17	POS				4+		
18	ATS				4+	4+	
19	Spin				4+	4+	

MIF continued on next page.

NATOPS STAGE MANEUVER ITEM FILE							
CTS REF	MANEUVER	NA3104	NA3202	NA3301	NA4108	NA4290	NA4390
20	Simulated Power Loss (High)				4+	4+	
21	Simulated Power Loss (Low)				4+	4+	
22	PEL				4+	4+	
24	Landing Pattern				4+	4+	
25	AOA Approaches				4+	1	
25	Takeoff Flap Approach				4+	4+	
25	Ldg Flap Approach				4+	4+	
25	No Flap Approach				4+	4+	
26	Ldg Flap Landing				4+	4+	
27	Takeoff Flap Landing				4+	4+	
28	No Flap Landing				4+	4+	
29	Wave-off				4+	1	
30	PEL (P)				4+	4+	
31	Course Rules/HFE				4+	1	
32	VMC Unusual Attitude Recovery				4+	4+	
33	Aileron Roll				4+	1	
34	Loop				4+	1	
35	Wingover				4+	1	
36	Barrel Roll				4+	1	
37	One-Half Cuban Eight				4+	1	
38	Split-S				4+	1	
39	Immelmann				4+	1	
44	IMC Unusual Attitude Recovery		3+		4+		
53	VOR Holding		3+		4+	1	
54	GPS Holding		3+		4+	1	
55	VOR Approach		3+		4+	1	

MIF continued on next page.

NATOPS STAGE MANEUVER ITEM FILE							
CTS REF	MANEUVER	NA3104	NA3202	NA3301	NA4108	NA4290	NA4390
56	GPS Approach		3+		4+	1	
57	Localizer Approach		1		4+	1	
58	ILS Approach		3+		4+	1	
59	Circling Approach				4+	1	
60	PAR Approach		3+		4+	1	
61	No Gyro GCA				4+	1	
66	ASR Approach		3+		4+	1	
84	Control Release Spin				4+		
86	OCF Recovery				4+	4+	
87	Inverted Flight				4+	4+	
90	Aerobatics					4+	
91	Holding					4+	
N	Abort Start	4+		4+			
N	PMU Off Ground Start	4+		1			
N	Fire Warning on Ground (Fire Annunciator Illuminated)	4+		1			
N	Emergency Engine Shutdown	4+		1			
N	Emergency Ground Egress	4+		1			
N	Aborted Takeoff	4+		4+	4+		
N	Aircraft Departs Prepared Surface	4+		1			
N	Engine Failure Immediately After Takeoff	4+		1			
N	Engine Failure During Flight	4+		4+			
N	PMU Norm Air-start	4+		1			
N	PMU Off Air-start	4+		1			
N	Immediate Air-start	4+		4+			
N	Un-commanded Propeller Feather	4+		1			
N	Un-commanded Power Changes/LOP	4+		4+			

MIF continued on next page.

NATOPS STAGE MANEUVER ITEM FILE							
CTS REF	MANEUVER	NA3104	NA3202	NA3301	NA4108	NA4290	NA4390
N	Fire Warning in Flight (Fire Annunciator Illuminated)	4+		1			
N	Smoke and Fume Elimination	4+		1			
N	PMU Failure	4+		1			
N	Chip Detector Warning	4+		1			
N	Oil System Malfunction or Low Oil Press	4+		1			
N	Electrical Failures	4+		1			
N	Avionics Failures	4+		1			
N	Fuel System Failures	4+		1			
N	Hydraulic System Failures	4+		1			
N	OBOGS System Fail	4+		1			
N	Trim System Malfunctions	4+		1			
N	Controlled Ejection	4+		4+			
N	Uncontrolled Ejection	4+		4+			
N	Precautionary Emergency Landing	4+		4+			
N	Landing Gear Emergency Extension	4+		4+			
N	Instrument Takeoff						1
N	Climbing/Descending Timed Turns						1
N	Steep Turns						1
N	Recovery from Unusual Attitudes						1
N	VOR/TACAN Positioning						4+
N	Partial Panel Air Work						1
N	Flight Planning						4+
N	Clearance Compliance						4+
N	Instrument Approaches					4+	4+
N	Communications and Navigation Equipment						4+
N	Voice Procedures						4+
	Special Syllabus Requirements				1		

Block#	Media	Title	Events	Hrs	Blk Name
NA11	Class	NATOPS	17	26.5	NATOPS

1. Prerequisites

- a. ASI0112, ENG0125, and CRM0101 prior to NA1101-5 (any order).
- b. NA1105 prior to NA1106-11 (any order).
- c. NA1111 prior to NA1112-14 (any order).
- d. NA1112-14 prior to NA1115 and NA1116.
- e. NA1116 prior to NA1117.

2. Events

NA1101	CAI	Exterior Inspection		1.0
NA1102	CAI	Preflight Checks		1.0
NA1103	CAI	In-Flight Checks		0.5
NA1104	CAI	Post-flight Checks		0.5
NA1105	CAI	Aircraft Operating Limitations		0.5
NA1106	Lect	FLIP/Flight Planning		1.0
NA1107	Lect	EFB/Cockpit Management/Sim Prep/FITU Guidance		1.0
NA1108	Lect/Lab	GPS Procedures		2.0
NA1109	Lect	T-6A Ejection/Egress Brief and Trainer		4.0
NA1110	Lect	Landing Pattern/EPs		2.0
NA1111	Lect	Course Rules/Area 1/Military Operating Area (MOA)		2.0
NA1112	P/P Exam	Course Rules Exam		1.0
NA1113	P/P Exam	NATOPS Open Book Exam		1.0
NA1114	P/P Exam	NATOPS Closed Book Exam		1.0

2. Events (cont)

NA1115	Lect/Lab	NATOPS FAM 0 (Zero)	1.5
NA1116	Lect	Instrument Ground School	4.5
NA1117	P/P Exam	Instrument Ground School Exam	2.0

3. Syllabus Notes. NA1113-14, NA1116-17 are required to fulfill annual NATOPS currency requirements.

4. Discuss Items.

NA1115

Demonstrate preflight, post-flight, cockpit familiarization (ejection seat procedures, preflight, strap-in, communication cord connections, oxygen mask connections, fittings, and operation), cockpit setup (kneeboard, EFB, pubs use/stowage). Discuss required pubs, MCG, NATOPS syllabus, NATOPS Ch. 8, TOLD and weight and balance charts, brief preparation and setup, scheduling, brief and debrief, flight gear check, aircraft issue, ADBs, NATOPS CTS, FTIs, other reference material.

Block#	Media	Title	Events	Hrs	H/X
NA31	OFT	Cockpit Procedures Training	4	6.0	1.5

1. Prerequisites. NA1112-14 prior to NA3101-4 (in order).
2. Syllabus Notes. The following procedures shall be performed by the IUT on the indicated event:

NA3101

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

NA3102

All normal checklists, aborted takeoff, aircraft departs prepared surface, engine failure during flight (flameout, seized engine, loss of power), immediate air-start, landing gear emergency extension, fire warning in flight, and controlled ejection.

NA3103

All normal checklists, engine failure immediately after takeoff, PMU normal air-start, PMU off air-start, un-commanded prop feather, un-commanded power changes, smoke and fume elimination, electrical failures (bus tie inoperative, battery bus inoperative, generator inoperative), fuel system failures (imbalance on ground in ramp area, low fuel pressure in flight), hydraulic system failures, and uncontrolled ejection.

NA3104

All normal checklists, PMU failure, chip detector warning, oil system malfunction, OBOGS system failures, trim system malfunctions (rudder yaw right, elevator trim failure), PEL, landing gear emergency extension, forced landing via high key, and forced landing from below high key.

3. Special Syllabus Requirements. None.

4. Discuss Items

NA3101

All normal operating procedures and NA3101 required emergency procedures.

NA3102

All NA3102 required emergency procedures.

NA3103

All NA3103 required emergency procedures.

NA3104

All NA3104 required emergency procedures and any additional items required to complete NA31XX block.

5. Block MIF

CTS REF	MANEUVER	NA3104
1	General Knowledge/Procedures	4+
2	Emergency Procedures	4+
3	Headwork/Situational Awareness	4+
4	Basic Air Work	3+
12	Trim	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	Aborted Takeoff	4+
N	Aircraft Departs Prepared Surface	4+
N	Engine Failure Immediately After Takeoff	4+
N	Engine Failure During Flight	4+
N	PMU Norm Air-start	4+
N	PMU Off Air-start	4+
N	Immediate Air-start	4+
N	Un-commanded Propeller Feather	4+
N	Un-commanded 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+

MIF continued on next page.

CTS REF	MANEUVER	NA3104
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+

Block#	Media	Title	Events	Hrs	H/X
NA32	OFT	NATOPS	2	3.0	1.5

1. Prerequisite. NA3104.
2. Syllabus Notes. A minimum of one VOR approach and two VOR/GPS holding entries/patterns shall be flown in the NA32 block.
3. Special Syllabus Requirements. None.
4. Discuss Items

NA3201

Departure procedures, VOR holding procedures, VOR approach procedures, and GPS procedures and approaches.

NA3202

GCA procedures, partial panel flight, ASR approach, GPS approach, ILS approach, and localizer approach.

5. Block MIF

CTS REF	MANEUVER	NA3202
1	General Knowledge/Procedures	4+
2	Emergency Procedures	4+
3	Headwork/Situational Awareness	4+
4	Basic Air Work	3+
6	In-Flight Planning/Area Orientation	3+
7	In-Flight Checks	3+
8	Radio Procedures	3+
11	Departure	3+
12	Trim	3+
44	IMC Unusual Attitude Recovery	3+
53	VOR Holding	3+
54	GPS Holding	3+

MIF continued on next page.

CTS REF	MANEUVER	NA3202
55	VOR Approach	3+
56	GPS Approach	3+
57	Localizer Approach	1
58	ILS Approach	3+
60	PAR Approach	3+
66	ASR Approach	3+

Block#	Media	Title	Events	Hrs	H/X
NA33	OFT	Annual Emergency Procedures Trainer	1	1.5	1.5

1. Prerequisite. ADM0106.
2. Syllabus Notes. This event shall fulfill annual currency requirements. For these requirements, IP shall complete a minimum of ten (10) emergencies.
3. Special Syllabus Requirements. None.
4. Discuss Items. Any emergency procedure.
5. Block MIF

CTS REF	MANEUVER	NA3301
1	General Knowledge/Procedures	4+
2	Emergency Procedures	4+
3	Headwork/Situational Awareness	4+
4	Basic Air Work	4+
N	Abort Start	4+
N	PMU Off Ground Start	1
N	Fire Warning on Ground (Fire Annunciator Illuminated)	1
N	Emergency Engine Shutdown	1
N	Emergency Ground Egress	1
N	Aborted Takeoff	4+
N	Aircraft Departs Prepared Surface	1
N	Engine Failure Immediately After Takeoff	1
N	Engine Failure During Flight	4+
N	PMU NORM Air-start	1
N	PMU OFF Air-start	1
N	Immediate Air-start	4+

MIF continued on next page.

CTS REF	MANEUVER	NA3301
N	Un-commanded Propeller Feather	1
N	Un-commanded Power Changes/LOP	4+
N	Fire Warning in Flight (Fire Annunciator Illuminated)	1
N	Smoke and Fume Elimination	1
N	PMU Failure	1
N	Chip Detector Warning	1
N	Oil System Malfunction or Low Oil Press	1
N	Electrical Failures	1
N	Avionics Failures	1
N	Fuel System Failures	1
N	Hydraulic System Failures	1
N	OBOGS System Fail	1
N	Trim System Malfunctions	1
N	Controlled Ejection	4+
N	Uncontrolled Ejection	4+
N	Precautionary Emergency Landing	4+
N	Landing Gear Emergency Extension	4+

Block#	Media	Title	Events	Hrs	H/X
NA41	T-6A	NATOPS	8	14.4	1.8

1. Prerequisites

- a. ADM0103-5.
- b. NA3202.

2. Syllabus Notes.

- a. IUT shall occupy the front cockpit.
- b. SIUT shall occupy the rear cockpit and events will be flown with emphasis on:
 - (1) NA4101: OCF maneuvers.
 - (2) NA4102: NATOPS instrument procedures.
 - (3) NA4103: Initial IUT NATOPS check flight profile and requirements.

3. Special Syllabus Requirements

NA4101

Stall characteristics and cockpit setup.

NA4102

Spiral characteristics, spiral, spin characteristics, and progressive spin.

NA4103

GPS operation and instrument procedures.

NA4104

OCF/unusual attitude recovery.

4. Discuss Items

NA4101

Local area flying procedures, ground ops/emergencies, engine failure during flight, air-start, un-commanded prop feather, compressor stall, OCF, fire warning during flight, smoke and fume elimination, ejection, ELP, landing gear emergency extension, and takeoff emergencies

NA4101 (SI Upgrade)

IUT instructional techniques and common errors, spiral and spin characteristics.

NA4102

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

NA4102 (SI Upgrade)

IUT instructional techniques and common errors in the instrument environment.

NA4103

Un-commanded power change/loss of power, PMU fault, PMU failure, electrical failure, avionics failure, radio failure (VMC/IMC), lost procedures, and oil system malfunction.

NA4103 (SI Upgrade)

NATOPS phase IUT instructional techniques and common errors.

NA4104

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 malfunction.

NA4105

Local area flying procedures, physiological incident, OBOGS failure, OBOGS over-temp, ECS duct over-temp, cockpit over-pressurization, rapid decompression, diversion, and prohibited maneuvers.

NA4106

Engine oil, propeller, and fuel systems operation, limitations, and associated emergency procedures.

NA4107

Hydraulic system, landing gear, and emergency landing gear and flap operation, limitations, and associated emergency procedures.

NA4108

Electrical system, pressurization, and OBOGS operation, limitations, and associated emergency procedures. NATOPS check requirements and preparation.

5. Block MIF

CTS REF	MANEUVER	NA4108
1	General Knowledge/Procedures	4+
2	Emergency Procedures	4+

MIF continued on next page.

CTS REF	MANEUVER	NA4108
3	Headwork/Situational Awareness	4+
4	Basic Air Work	4+
6	In-Flight Planning/Area Orientation	4+
7	In-Flight Checks	4+
8	Radio Procedures	4+
9	Ground Operations	4+
10	Takeoff	4+
11	Departure	4+
12	Trim	4+
13	VFR Scan	4+
17	POS	4+
18	ATS	4+
19	Spin	4+
20	Simulated Power Loss (High)	4+
21	Simulated Power Loss (Low)	4+
22	PEL	4+
24	Landing Pattern	4+
25	AOA Approaches	4+
25	Takeoff Flap Approach	4+
25	Ldg Flap Approach	4+
25	No Flap Approach	4+
26	Ldg Flap Landing	4+
27	Takeoff Flap Landing	4+
28	No Flap Landing	4+
29	Wave-off	4+
30	PEL (P)	4+
31	Course Rules/HFE	4+

MIF continued on next page.

CTS REF	MANEUVER	NA4108
32	VMC Unusual Attitude Recovery	4+
33	Aileron Roll	4+
34	Loop	4+
35	Wingover	4+
36	Barrel Roll	4+
37	One-Half Cuban Eight	4+
38	Split-S	4+
39	Immelmann	4+
44	IMC Unusual Attitude Recovery	4+
53	VOR Holding	4+
54	GPS Holding	4+
55	VOR Approach	4+
56	GPS Approach	4+
57	Localizer Approach	4+
58	ILS Approach	4+
59	Circling Approach	4+
60	PAR Approach	4+
61	No Gyro GCA	4+
66	ASR Approach	4+
84	Control Release Spin	4+
86	OCF Recovery	4+
87	Inverted Flight	4+
N	Aborted Takeoff	4+
	Special Syllabus Requirements	1

Block#	Media	Title	Events	Hrs	H/X
NA42	T-6A	NATOPS Check Flight	1	1.8	1.8

1. Prerequisites

- a. EP0102 and NA4108, – Initial Check.
- b. EP0102, NA1113 and NA1114 – Annual Check.

2. Syllabus Notes

a. Comprehensive check of introduced maneuvers in accordance with Chapter 3, section 8 of the T-6A NATOPS Flight Manual and the CNATRAINST 3710.13J.

b. Evaluee shall occupy the front cockpit.

c. Initial Check requirements: two aerobatic maneuvers, one holding pattern and two instrument approaches.

d. Annual Check requirements: two aerobatic maneuvers, high speed spiral demonstration, inverted flight, progressive spin, controls neutral recovery spin, and approach turn stall.

e. If annual CRM flight evaluation was conducted in conjunction with the NATOPS Check, it shall be noted in the remarks section of the CNAF M-3710.7/7 NATOPS Rating Request Form.

3. Special Syllabus Requirements. None.

4. Discuss Items

a. Initial Check - Any system, emergency procedure or limitation, weight and balance, takeoff and landing data, publications review and securing the rear cockpit for solo flight.

b. Annual Check - Any system and any emergency procedure.

5. Block MIF

CTS REF	MANEUVER	NA4290
1	General Knowledge/Procedures	4+
2	Emergency Procedures	4+
3	Headwork/Situational Awareness	4+
4	Basic Air Work	4+
6	In-Flight Planning/Area Orientation	4+
7	In-Flight Checks	4+
8	Radio Procedures	4+
9	Ground Operations	4+
10	Takeoff	4+
11	Departure	4+
12	Trim	4+
13	VFR Scan	4+
18	ATS	4+
19	Spin	4+
20	Simulated Power Loss (High)	4+
21	Simulated Power Loss (Low)	4+
22	PEL	4+
24	Landing Pattern	4+
25	AOA Approaches	1
25	Takeoff Flap Approach	4+
25	Ldg Flap Approach	4+
25	No Flap Approach	4+
26	Ldg Flap Landing	4+
27	Takeoff Flap Landing	4+
28	No Flap Landing	4+
29	Wave-off	1
30	PEL (P)	4+

MIF continued on next page.

CTS REF	MANEUVER	NA4290
31	Course Rules/HFE	1
32	VMC Unusual Attitude Recovery	4+
33	Aileron Roll	1
34	Loop	1
35	Wingover	1
36	Barrel Roll	1
37	One-Half Cuban Eight	1
38	Split-S	1
39	Immelmann	1
53	VOR Holding	1
54	GPS Holding	1
55	VOR Approach	1
56	GPS Approach	1
57	Localizer Approach	1
58	ILS Approach	1
59	Circling Approach	1
60	PAR Approach	1
61	No Gyro GCA	1
66	ASR Approach	1
86	OCF Recovery	4+
87	Inverted Flight	4+
90	Aerobatics	4+
91	Holding	4+
N	Instrument Approach	4+

Block#	Media	Title	Events	Hrs	H/X
NA43	T-6A	NATOPS Instrument Rating Check Flight	1	2.0	2.0

1. Prerequisites.

- a. NA4290.
- b. NA1116.
- c. NA1117.

2. Syllabus Notes

a. Non-plus graded items are not required when evaluation is conducted under actual instrument conditions.

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

c. Evaluatee may occupy either cockpit.

3. Special Syllabus Requirements. None.

4. Discuss Items. CNAF M-3710.7 and SOP filing minimums, IFR flight procedures, and departure, and destination weather alternates.

5. Block MIF

CTS REF	MANEUVER	NA4390
1	General Knowledge/Procedures	4+
2	Emergency Procedures	4+
3	Headwork/Situational Awareness	4+
4	Basic Air Work	4+
7	In-Flight Checks	4+
8	Radio Procedures	4+
9	Ground Operations	4+


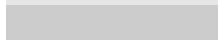
MIF continued on next page.

CTS REF	MANEUVER	NA4390
10	Takeoff	4+
11	Departure	4+
12	Trim	4+
N	Instrument Takeoff	1
N	Climbing/Descending Timed Turns	1
N	Steep Turns	1
N	Recovery from Unusual Attitudes	1
N	VOR/TACAN Positioning	4+
N	Partial Panel Air Work	1
N	Flight Planning	4+
N	Clearance Compliance	4+
N	Instrument Approaches	4+
N	Communications and Navigation Equipment	4+
N	Voice Procedures	4+

Chapter IV

Familiarization Training

1. General. Training in the Familiarization and Instrument Navigation Stages may be conducted concurrently.
2. Matrices. The following matrix is an overview of the entire Familiarization 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.
3. Familiarization Stage MIF

 Simulator/Device Event
 Check Flight Event

FAMILIARIZATION STAGE MANEUVER ITEM FILE					
CTS REF	MANEUVER	FAM3101	FAM4105	FAM4202	FAM4390
1	General Knowledge/ Procedures	4+	4+	4+	4+
2	Emergency Procedures	4+	4+	4+	4+
3	Headwork/Situational Awareness	4+	4+	4+	4+
4	Basic Air Work	4+	4+	4+	4+
6	In-Flight Planning/Area Orientation	4+	4+	4+	4+
7	In-Flight Checks	4+	4+	4+	4+
8	Radio Procedures	4+	4+	4+	4+
9	Ground Operations	4+	4+	4+	4+
10	Takeoff	4+	4+	4+	4+
11	Departure	4+	4+	4+	4+
12	Trim	4+	4+	4+	4+
13	VFR Scan	4+	4+	4+	4+
14	Level Speed Change	4+	4+		4+

MIF continued on next page.

FAMILIARIZATION STAGE MANEUVER ITEM FILE					
CTS REF	MANEUVER	FAM3101	FAM4105	FAM4202	FAM4390
16	Turn Pattern	4+	4+		4+
17	POS	4+	4+		4+
18	ATS	4+	4+		4+
19	Spin		4+		4+
20	Simulated Power Loss (High)	4+	4+		4+
21	Simulated Power Loss (Low)	4+	4+		4+
22	PEL	4+	4+	4+	4+
23	OLF Operations	4+	4+	1	4+
24	Landing Pattern	4+	4+	4+	4+
25	AOA Approaches		4+	1	1
25	Takeoff Flap Approach	4+	4+	4+	4+
25	Ldg Flap Approach	4+	4+	4+	4+
25	No Flap Approach	4+	4+	4+	4+
26	Ldg Flap Landing	4+	4+	4+	4+
27	Takeoff Flap Landing	4+	4+	4+	4+
28	No Flap Landing	4+	4+	4+	4+
29	Wave-off	4+	4+	1	4+
30	PEL (P)	4+	4+	4+	4+
31	Course Rules/HFE	4+	4+	1	1
32	VMC Unusual Attitude Recovery	4+	4+		4+
33	Aileron Roll		1		1
34	Loop		1		1
35	Wingover		1		1
36	Barrel Roll		1		1
37	One-Half Cuban Eight		1		1
38	Split-S		1		1
39	Immelmann		1		1

MIF continued on next page.

FAMILIARIZATION STAGE MANEUVER ITEM FILE					
CTS REF	MANEUVER	FAM3101	FAM4105	FAM4202	FAM4390
42	VFR Straight-In	4+	4+	1	1
55	VOR Approach			1	
56	GPS Approach			1	
57	Localizer Approach			1	
58	ILS Approach			1	
60	PAR Approach			1	
85	Controls Neutral Spin Recovery				4+
86	OCF Recovery	4+	4+		4+
87	Inverted Flight		4+		4+
90	Aerobatics		4+		4+
92	Carrier Break		1	1	1
N	Instrument Approaches			1	
	Special Syllabus Requirement			1	1

Block#	Media	Title	Events	Hrs	Blk Name
FAM11	Class	Familiarization	3	3.0	FAM

1. Prerequisite. NA4290 prior to FAM1101-3 (in order)

2. Events

FAM1101	Lab	Familiarization Flight Brief Observation 1	1.0
FAM1102	Lab	Familiarization Flight Brief Observation 2	1.0
FAM1103	P/P Exam	Familiarization Standardization Exam	1.0

3. Syllabus Notes. FAM1103 is required to fulfill annual currency requirements.

4. Discuss Items. None.

Block#	Media	Title	Events	Hrs	H/X
FAM31	OFT	Familiarization	1	1.5	1.5

1. Prerequisite. FAM1103.
2. Syllabus Notes. Event shall be conducted using the CNATRAINST 1542.162B FAM3105 profile.
3. Special Syllabus Requirements. None.
4. Discuss Items. MOA, entry/exit procedures, simulated power loss (simulated and proactive EP in-flight procedures), ELP, PEL, landing pattern: no flap, takeoff flap, and landing flap touch and go's, full stop landing procedures and course rules/recovery.
5. Block MIF

CTS REF	MANEUVER	FAM3101
1	General Knowledge/Procedures	4+
2	Emergency Procedures	4+
3	Headwork/Situational Awareness	4+
4	Basic Air Work	4+
6	In-Flight Planning/Area Orientation	4+
7	In-Flight Checks	4+
8	Radio Procedures	4+
9	Ground Operations	4+
10	Takeoff	4+
11	Departure	4+
12	Trim	4+
13	VFR Scan	4+
14	Level Speed Change	4+
16	Turn Pattern	4+
17	POS	4+
18	ATS	4+
20	Simulated Power Loss (High)	4+

MIF continued on next page.

CTS REF	MANEUVER	FAM3101
21	Simulated Power Loss (Low)	4+
22	PEL	4+
23	OLF Operations	4+
24	Landing Pattern	4+
25	Takeoff Flap Approach	4+
25	Ldg Flap Approach	4+
25	No Flap Approach	4+
26	Ldg Flap Landing	4+
27	Takeoff Flap Landing	4+
28	No Flap Landing	4+
29	Wave-off	4+
30	PEL (P)	4+
31	Course Rules/HFE	4+
32	VMC Unusual Attitude Recovery	4+
42	VFR Straight-In	4+
86	OCF Recovery	4+

Block#	Media	Title	Events	Hrs	H/X
FAM41	T-6A	Familiarization	5	9.0	1.8

1. Prerequisites. FAM3101.

2. Syllabus Notes.

a. Familiarization and Instrument Navigation training may be conducted concurrently.

b. IUT shall occupy the rear cockpit and practice instructional techniques. SI will perform student procedures and common student errors from the front cockpit.

c. SIUT shall occupy the front cockpit and practice instructional techniques and student simulation.

3. Special Syllabus Requirements. None.

4. Discuss Items

FAM4101

Working area/outlying field operations, CNATRAINST 1542.162B FAM4101/FAM4102 briefing items, profile, and course rules.

FAM4101 (SI Upgrade)

IUT instructional techniques and common errors.

FAM4102

Landing pattern chalkboard brief (IUT brief), CNATRAINST 1542.162B FAM4103/FAM4104 profile and briefing items.

FAM4103

Emergency landing pattern chalkboard brief (IUT brief), emergency field selection, aerobatics (loop, aileron roll, barrel roll, wingover, split-S, Immelmann, one-half Cuban-eight), and OCF recovery.

FAM4104

OCF recognition and recovery, spin versus spiral flight characteristics, common student spin and stall errors, spin and stall defensive positioning, familiarization maneuver defensive positioning, and contact common student errors.

FAM4105

Aborted takeoff, defensive positioning, non-tower and tower-controlled field operations, and student ATFs.

5. Block MIF

CTS REF	MANEUVER	FAM4105
1	General Knowledge/ Procedures	4+
2	Emergency Procedures	4+
3	Headwork/Situational Awareness	4+
4	Basic Air Work	4+
6	In-Flight Planning/Area Orientation	4+
7	In-Flight Checks	4+
8	Radio Procedures	4+
9	Ground Operations	4+
10	Takeoff	4+
11	Departure	4+
12	Trim	4+
13	VFR Scan	4+
14	Level Speed Change	4+
16	Turn Pattern	4+
17	POS	4+
18	ATS	4+
19	Spin	4+
20	Simulated Power Loss (High)	4+
21	Simulated Power Loss (Low)	4+
22	PEL	4+
23	OLF Operations	4+
24	Landing Pattern	4+
25	AOA Approaches	4+
25	Takeoff Flap Approach	4+
25	Ldg Flap Approach	4+
25	No Flap Approach	4+
26	Ldg Flap Landing	4+

MIF continued on next page.

CTS REF	MANEUVER	FAM4105
27	Takeoff Flap Landing	4+
28	No Flap Landing	4+
29	Wave-off	4+
30	PEL (P)	4+
31	Course Rules/HFE	4+
32	VMC Unusual Attitude Recovery	4+
33	Aileron Roll	1
34	Loop	1
35	Wingover	1
36	Barrel Roll	1
37	One-Half Cuban Eight	1
38	Split-S	1
39	Immelmann	1
42	VFR Straight-In	4+
86	OCF Recovery	4+
87	Inverted Flight	4+
90	Aerobatics	4+
92	Carrier Break	1

Block#	Media	Title	Events	Hrs	H/X
FAM42	T-6A	Night Familiarization	2	4.0	2.0

1. Prerequisites

- a. NA4103 prior to FAM4201.
- b. FAM4201 prior to FAM4202.

2. Syllabus Notes

- a. IUT shall occupy the front cockpit and practice instructional techniques.
- b. FAM4201 may be flown any time after NA4103, but prior to NA4290.
- c. FAM4202 may be flown any time after FAM4101, but prior to FAM4390.
- d. SIUT shall occupy the rear cockpit and practice instructional techniques and student simulation.
- e. A minimum of two ELPs and 10 touch-and-go landings shall be flown.

3. Special Syllabus Requirements.

FAM4201
Night break

FAM4201 (SI Upgrade)
Night break

4. Discuss Items

FAM4201
Night flying considerations, cockpit and aircraft lighting.

FAM4201 (SI Upgrade)
IUT instructional techniques and common errors, IUT night break.

FAM4202
Common night flying errors, and CNATRAINST 1542.162B FAM4201 profile/briefing items.

FAM4202 (SI Upgrade)
Instrument scan, common nighttime illusions, non-aided night flying.

5. Block MIF

CTS REF	MANEUVER	FAM4202
1	General Knowledge/Procedures	4+
2	Emergency Procedures	4+
3	Headwork/Situational Awareness	4+
4	Basic Air Work	4+
6	In-Flight Planning/Area Orientation	4+
7	In-Flight Checks	4+
8	Radio Procedures	4+
9	Ground Operations	4+
10	Takeoff	4+
11	Departure	4+
12	Trim	4+
13	VFR Scan	4+
22	PEL	4+
23	OLF Operations	1
24	Landing Pattern	4+
25	AOA Approaches	1
25	Takeoff Flap Approach	4+
25	Ldg Flap Approach	4+
25	No Flap Approach	4+
26	Ldg Flap Landing	4+
27	Takeoff Flap Landing	4+
28	No Flap Landing	4+
29	Wave-off	1
30	PEL (P)	4+
31	Course Rules/HFE	1
42	VFR Straight-In	1
55	VOR Approach	1

MIF continued on next page.

CTS REF	MANEUVER	FAM4202
56	GPS Approach	1
57	Localizer Approach	1
58	ILS Approach	1
60	PAR Approach	1
92	Carrier Break	1
N	Instrument Approaches	1
	Special Syllabus Requirement	1

Block#	Media	Title	Events	Hrs	H/X
FAM43	T-6A	Familiarization Check Flight	1	1.8	1.8

1. Prerequisites

- a. FAM4105 and FAM4202 – Initial Check.
- b. FAM1103 – Standardization Check.

2. Syllabus Notes.

a. IUT shall occupy the rear cockpit and practice instructional techniques. SI/SP will perform student procedures and common student errors from the front cockpit.

b. This event is required annually to fulfill OCF currency requirements and shall be completed in the sixth month (+/- 1 month) after the initial and each subsequent NATOPS evaluation.

c. SIUT shall occupy the front cockpit and practice instructional techniques and student simulation.

3. Special Syllabus Requirement. FAM4390 (Standardization Check): inverted flight, normal spin, approach turn stall.

4. Discuss Items

FAM4390 (Initial Check)

Defensive positioning, common student errors, prohibited student maneuvers, and any Familiarization maneuver/current standardization topic.

FAM4390 (Standardization Check)

Prohibited student maneuvers, any Familiarization maneuver/current standardization topic, defensive positioning, fuel system and engine oil and propeller limitations, out-of-control flight/recovery procedures, high-speed spiral characteristics, progressive spin recovery, controls-release spin recovery, controls neutral spin recovery.

FAM4390 (SI Upgrade)

IUT instructional techniques and common errors.

5. Block MIF

CTS REF	MANEUVER	FAM4390
1	General Knowledge/Procedures	4+
2	Emergency Procedures	4+
3	Headwork/Situational Awareness	4+
4	Basic Air Work	4+
6	In-Flight Planning/Area Orientation	4+
7	In-Flight Checks	4+
8	Radio Procedures	4+
9	Ground Operations	4+
10	Takeoff	4+
11	Departure	4+
12	Trim	4+
13	VFR Scan	4+
14	Level Speed Change	4+
16	Turn Pattern	4+
17	POS	4+
18	ATS	4+
19	Spin	4+
20	Simulated Power Loss (High)	4+
21	Simulated Power Loss (Low)	4+
22	PEL	4+
23	OLF Operations	4+
24	Landing Pattern	4+
25	AOA Approaches	1
25	Takeoff Flap Approach	4+
25	Ldg Flap Approach	4+
25	No Flap Approach	4+
26	Ldg Flap Landing	4+

MIF continued on next page.

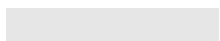
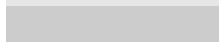
CTS REF	MANEUVER	FAM4390
27	Takeoff Flap Landing	4+
28	No Flap Landing	4+
29	Wave-off	4+
30	PEL (P)	4+
31	Course Rules/HFE	1
32	VMC Unusual Attitude Recovery	4+
33	Aileron Roll	1
34	Loop	1
35	Wingover	1
36	Barrel Roll	1
37	One-Half Cuban Eight	1
38	Split-S	1
39	Immelmann	1
42	VFR Straight-In	1
85	Controls Neutral Spin Recovery	4+
86	OCF Recovery	4+
87	Inverted Flight	4+
90	Aerobatics	4+
92	Carrier Break	1
	Special Syllabus Requirement	1

BLANK PAGE

Chapter V

Instrument Training

1. General. Training in the Instrument Navigation and Familiarization Stages may be conducted concurrently.
2. 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.
3. Instrument Navigation Stage MIF

 Simulator/Device Event
 Check Flight Event

INSTRUMENT NAVIGATION STAGE MANEUVER ITEM FILE				
CTS REF	MANEUVER	NAV3102	NAV4102	NAV4290
1	General Knowledge/Procedures	4+	4+	4+
2	Emergency Procedures	4+	4+	4+
3	Headwork/Situational Awareness	4+	4+	4+
4	Basic Air Work	4+	4+	4+
5	Mission Planning	4+	4+	4+
6	In-Flight Planning/Area Orientation	4+	4+	4+
7	In-Flight Checks	4+	4+	4+
8	Radio Procedures	4+	4+	4+
9	Ground Operations	4+	4+	4+
11	Departure	4+	4+	4+
15	Basic Transitions	4+	4+	1
45	En route Procedures	4+	4+	4+

MIF continued on next page.

INSTRUMENT NAVIGATION STAGE MANEUVER ITEM FILE				
CTS REF	MANEUVER	NAV3102	NAV4102	NAV4290
46	Point-to-Point	4+	4+	1
47	Student Procedures	4+	4+	4+
48	CRM	4+	4+	4+
49	Arcing	4+	4+	1
50	Climbs and Descents	4+	4+	1
51	Radial Intercepts	4+	4+	1
52	Station Passage	4+	4+	1
53	VOR Holding	4+	4+	1
54	GPS Holding	4+	4+	1
55	VOR Approach	4+	4+	1
56	GPS Approach	4+	4+	1
57	Localizer Approach	4+	4+	1
58	ILS Approach	4+	4+	1
60	PAR Approach	4+	4+	1
62	RVFAC	4+	4+	1
63	Missed Approach	4+	4+	4+
64	Use of ATIS/PMSV/FSS	4+	4+	4+
65	In-Flight Computations	4+	4+	4+
66	ASR Approach	4+	4+	1
68	GPS Procedures	4+	4+	4+
91	Holding			4+
N	Instrument Approaches			4+

Block#	Media	Title	Events	Hrs	Blk Name
NAV11	Class	Instrument Navigation	4	10.5	NAV

1. Prerequisites

- a. NA4290 prior to NAV1101-2 (in order).
- b. NAV1102 prior to NAV1103-4 (any order).

2. Events

NAV1101	Lect	Instrument Navigation Stage Prep		6.0
NAV1102	P/P Exam	Instrument Navigation Standardization Exam		1.0
NAV1103	Lab	Instrument Navigation Simulator Event Observation		2.5
NAV1104	Lab	Instrument Navigation Flight Event Brief Observation		1.0

3. Syllabus Notes. For NAV1103, the IUT will observe the entire simulator event conduct. For NAV1104, the IUT will observe the flight event brief only.

4. Discuss Items. None.

Block#	Media	Title	Events	Hrs	H/X
NAV31	OFT	Instrument Navigation	2	3.0	1.5

1. Prerequisite. NA1103 prior to NAV3101-2 (in order).
2. Syllabus Notes IUT will practice all student procedures during NAV3102.
3. Special Syllabus Requirements. None.
4. Discuss Items

NAV3101

Airway navigation NFO responsibilities (briefs/altitude warning calls), leading turns, standard course corrections, turn-point procedures, time estimates, ground speed checks, IMC emergencies, partial panel scan, ILS/LOC and GPS approach procedures, and unusual attitude recoveries.

NAV3102

Airway navigation NFO responsibilities (briefs/altitude warning calls), leading turns, standard course corrections, turn-point procedures, time estimates, and ground speed checks.

5. Block MIF

CTS REF	MANEUVER	NAV3102
1	General Knowledge/Procedures	4+
2	Emergency Procedures	4+
3	Headwork/Situational Awareness	4+
4	Basic Air Work	4+
5	Mission Planning	4+
6	In-Flight Planning/Area Orientation	4+
7	In-Flight Checks	4+
8	Radio Procedures	4+
9	Ground Operations	4+
11	Departure	4+

MIF continued on next page.

CTS REF	MANEUVER	NAV3102
15	Basic Transitions	4+
45	En route Procedures	4+
46	Point-to-Point	4+
47	Student Procedures	4+
48	CRM	4+
49	Arcing	4+
50	Climbs and Descents	4+
51	Radial Intercepts	4+
52	Station Passage	4+
53	VOR Holding	4+
54	GPS Holding	4+
55	VOR Approach	4+
56	GPS Approach	4+
57	Localizer Approach	4+
58	ILS Approach	4+
60	PAR Approach	4+
62	RVFAC	4+
63	Missed Approach	4+
64	Use of ATIS/PMSV/FSS	4+
65	In-Flight Computations	4+
66	ASR Approach	4+
68	GPS Procedures	4+

Block#	Media	Title	Events	Hrs	H/X
NAV41	T-6A	Instrument Navigation	2	4.0	2.0

1. Prerequisites. NAV1104 and NAV3102 prior to NAV4101-2 (in order).

2. Syllabus Notes

a. NAV4101: IUT shall occupy the front cockpit and practice instructional techniques. SI will perform student procedures and common errors from the rear cockpit. SIUT shall occupy the rear cockpit and practice instructional techniques and student simulation.

b. NAV4102: IUT shall occupy the rear cockpit and practice student procedures.

3. Special Syllabus Requirements. None.

4. Discuss Items

NAV4101

Local GCA pattern, GPS procedures and approaches, pre-filed routes, holding, squadron SOP, grading criteria (primary/intermediate), CNAF M-3710.7 procedures/restrictions, SNFO en route procedures, and fuel card usage.

NAV4101 (SI Upgrade)

IUT instructional techniques and common errors.

NAV4102

Leading turns, radar vectors to final, localizer approach, back course localizer, civilian field considerations/FSS, weather briefs/updates off-station, common student errors, student ATFs, and student considerations/responsibilities for outs/ins.

5. Block MIF

CTS REF	MANEUVER	NAV4102
1	General Knowledge/Procedures	4+
2	Emergency Procedures	4+
3	Headwork/Situational Awareness	4+
4	Basic Air Work	4+
5	Mission Planning	4+
6	In-Flight Planning/Area Orientation	4+

MIF continued on next page.

CTS REF	MANEUVER	NAV4102
7	In-Flight Checks	4+
8	Radio Procedures	4+
9	Ground Operations	4+
11	Departure	4+
15	Basic Transitions	4+
45	En route Procedures	4+
46	Point-to-Point	4+
47	Student Procedures	4+
48	CRM	4+
49	Arcing	4+
50	Climbs and Descents	4+
51	Radial Intercepts	4+
52	Station Passage	4+
53	VOR Holding	4+
54	GPS Holding	4+
55	VOR Approach	4+
56	GPS Approach	4+
57	Localizer Approach	4+
58	ILS Approach	4+
60	PAR Approach	4+
62	RVFAC	4+
63	Missed Approach	4+
64	Use of ATIS/PMSV/FSS	4+
65	In-Flight Computations	4+
66	ASR Approach	4+
68	GPS Procedures	4+

Block#	Media	Title	Events	Hrs	H/X
NAV42	T-6A	Instrument Navigation Check Flight	1	2.0	2.0

1. Prerequisite

- a. NAV4102 – Initial Check.
- b. NAV1102 – Standardization Check.

2. Syllabus Notes

- a. IUT shall occupy the front cockpit and practice instructional techniques. SI/SP will perform student procedures and common errors from the rear cockpit.
- b. Initial Check requirements: one RNAV approach, one type of holding, and one precision approach.
- c. Standardization Flight requirements: different approaches and holding.
- d. SIUT shall occupy the rear cockpit and will practice instructional techniques and student simulation.

3. Special Syllabus Requirements. None.

4. Discuss Items

NAV4290 (Initial Check)

Cross-country considerations, GPS usage, approach minimums, CNAF M-3710.7 weather alternate and fuel requirements, servicing (out/in, cross-country), and securing aircraft off-station.

NAV4290 (Standardization Check)

Approach minimums, CNAF M-3710.7 weather alternate and fuel requirements, and securing aircraft off-station.

NAV4290 (SI Upgrade)

IUT instructional techniques and common errors.

5. Block MIF

CTS REF	MANEUVER	NAV4290
1	General Knowledge/Procedures	4+
2	Emergency Procedures	4+
3	Headwork/Situational Awareness	4+
4	Basic Air Work	4+
5	Mission Planning	4+
6	In-Flight Planning/Area Orientation	4+
7	In-Flight Checks	4+
8	Radio Procedures	4+
9	Ground Operations	4+
11	Departure	4+
15	Basic Transitions	1
45	En route Procedures	4+
46	Point-to-Point	1
47	Student Procedures	4+
48	CRM	4+
49	Arcing	1
50	Climbs and Descents	1
51	Radial Intercepts	1
52	Station Passage	1
53	VOR Holding	1
54	GPS Holding	1
55	VOR Approach	1
56	GPS Approach	1
57	Localizer Approach	1
58	ILS Approach	1
60	PAR Approach	1
62	RVFAC	1
63	Missed Approach	4+
64	Use of ATIS/PMSV/FSS	4+

MIF continued on next page.

CTS REF	MANEUVER	NAV4290
65	In-Flight Computations	4+
66	ASR Approach	1
68	GPS Procedures	4+
91	Holding	4+
N	Instrument Approaches	4+

Chapter VI

Operational Navigation Training

1. Matrices. The following matrix is an overview of the entire Operational Navigation 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. Operational Navigation Stage MIF

	Device Event
	Check Flight Event

OPERATIONAL NAVIGATION STAGE MANEUVER ITEM FILE				
CTS REF	MANEUVER	ON3101	ON4103	ON4290
1	General Knowledge/Procedures	4+	4+	4+
2	Emergency Procedures	4+	4+	4+
3	Headwork/Situational Awareness	4+	4+	4+
4	Basic Air Work	4+	4+	4+
5	Mission Planning	4+	4+	4+
6	In-Flight Planning/Area Orientation	4+	4+	4+
7	In-Flight Checks	4+	4+	4+
8	Radio Procedures	4+	4+	4+
11	Departure	4+	4+	
13	VFR Scan	4+	4+	
40	VFR Arrival	4+	4+	4+
41	VFR Pattern			4+
43	VFR Course Maintenance	4+	4+	4+
47	Student Procedures	4+	4+	4+
69	Low-Level Route			4+

Block#	Media	Title	Events	Hrs	Blk Name
ON11	Class	Operational Navigation	5	15.0	ON

1. Prerequisites. ON1101-3 (any order) prior to ON1104-5 (in order).

2. Events

ON1101	MIL	Operational Navigation Flight Planning	3.0
ON1102	MIL	Corrections, Winds and Chart Preparation	4.0
ON1103	MIL	Flight Procedures	6.0
ON1104	P/P Exam	Operational Navigation Standardization Exam	1.0
ON1105	Lab	Operational Navigation Brief Observation	1.0

3. Syllabus Notes

- a. Initial IUTs do not complete this block; events are upgrade only.
- b. ON1104 is required to fulfill annual currency requirements.

4. Discuss Items. None.

Block#	Media	Title	Events	Hrs	H/X
ON31	OFT	Operational Navigation	1	1.5	1.5

1. Prerequisite. ON1104.
2. Syllabus Note. Upgrade event only.
3. Special Syllabus Requirements. None.
4. Discuss Items. Wind analysis, speed/course correction, low altitude engine failure, and low altitude ejection considerations.
5. Block MIF

CTS REF	MANEUVER	ON3101
1	General Knowledge/Procedures	4+
2	Emergency Procedures	4+
3	Headwork/Situational Awareness	4+
4	Basic Air Work	4+
5	Mission Planning	4+
6	In-flight Planning/Area Orientation	4+
7	In-Flight Checks	4+
8	Radio Procedures	4+
11	Departure	4+
13	VFR Scan	4+
40	VFR Arrival	4+
43	VFR Course Maintenance	4+
47	Student Procedures	4+

Block#	Media	Title	Events	Hrs	H/X
ON41	T-6A	Operational Navigation	3	4.8	1.6

1. Prerequisite. ON3101.

2. Syllabus Notes.

a. ON4101: IUT shall occupy the front cockpit and practice instructional techniques. SI will perform student procedures and common errors from the rear cockpit.

b. ON4102-3: IUT shall occupy the rear cockpit and perform student procedures.

c. SIUT shall occupy the front cockpit and practice instructional techniques and student simulation.

3. Special Syllabus Requirements. None.

4. Discuss Items

ON4101

Visual navigation chart interpretation, VFR flight following, GPS procedures, wind analysis, speed/course correction, low altitude engine failure, and low altitude ejection considerations.

ON4101 (SI Upgrade)

IUT instructional techniques and common errors.

ON4102

Wind analysis, speed/course correction, compound wind analysis, low-level route conflicts/overlaps, and hazards.

ON4103

Any Operational Navigation student brief items.

5. Block MIF

CTS REF	MANEUVER	ON4103
1	General Knowledge/Procedures	4+
2	Emergency Procedures	4+
3	Headwork/Situational Awareness	4+
4	Basic Air Work	4+
5	Mission Planning	4+
6	In-Flight Planning/Area Orientation	4+
7	In-Flight Checks	4+
8	Radio Procedures	4+
11	Departure	4+
13	VFR Scan	4+
40	VFR Arrival	4+
43	VFR Course Maintenance	4+
47	Student Procedures	4+

Block#	Media	Title	Events	Hrs	H/X
ON42	T-6A	Operational Navigation Check Flight	1	1.6	1.6

1. Prerequisites

- a. ON4103 – Initial Check.
- b. ON1104 – Standardization Check.

2. Syllabus Notes

a. IUT shall occupy the front cockpit and practice instructional techniques. SI/SP will perform student procedures and common errors from the rear cockpit.

b. SIUT shall occupy the rear cockpit and practice instructional techniques and student simulation.

3. Special Syllabus Requirements. None.

4. Discuss Items

ON4290 (Initial Check)

Course Training Standards (CTS), intermediate checkpoint selection, GPS procedures, spacing between route entries, low level emergencies, and weather minimums.

ON4290 (Standardization Check)

Any standardization topic.

ON4290 (SI Upgrade)

IUT instructional techniques and common errors.

5. Block MIF

CTS REF	MANEUVER	ON4290
1	General Knowledge/Procedures	4+
2	Emergency Procedures	4+
3	Headwork/Situational Awareness	4+
4	Basic Air Work	4+
5	Mission Planning	4+
6	In-Flight Planning/Area Orientation	4+
7	In-Flight Checks	4+
8	Radio Procedures	4+
40	VFR Arrival	4+
41	VFR Pattern	4+
43	VFR Course Maintenance	4+
47	Student Procedures	4+
69	Low-Level Route	4+

CNATRAINST 1542.154B
5 Apr 2022


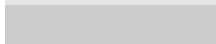
BLANK PAGE

Chapter VII

Formation Training

1. Matrices. The following matrix is an overview of the entire Formation 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. Formation Stage MIF

 Simulator/Device Event
 Check Flight Event

FORMATION STAGE MANEUVER ITEM FILE							
CTS REF	MANEUVER	FRM3101	FRM4101	FRM4205	FRM4390	STK4103	STK4290
1	General Knowledge/Procedures	4+	4+	4+	4+	4+	4+
2	Emergency Procedures	4+	4+	4+	4+	4+	4+
3	Headwork/Situational Awareness	4+	4+	4+	4+	4+	4+
4	Basic Air Work	4+	4+	4+	4+	4+	4+
6	In-Flight Planning/Area Orientation	4+	4+	4+	4+	4+	4+
7	In-Flight Checks	4+	4+	4+	4+	4+	4+
8	Radio Procedures	4+	4+	4+	4+	4+	4+
9	Ground Operations	4+	4+	4+	4+	4+	4+
10	Takeoff	4+	3+	4+	4+	4+	4+
11	Departure	4+	3+	4+	4+	4+	4+
12	Trim	4+	3+	4+	4+	4+	4+
13	VFR Scan	4+	3+	4+	4+	4+	4+
69	Low-Level Route					4+	4+
70	Formation Briefing	4+	3+	4+	4+	4+	4+
71	Visual Signals	4+	3+	4+	4+	4+	4+
72	Breakup and Rendezvous	4+	3+	4+	4+		

MIF continued on next page.

FORMATION STAGE MANEUVER ITEM FILE							
CTS REF	MANEUVER	FRM3101	FRM4101	FRM4205	FRM4390	STK4103	STK4290
73	Section Approach	4+	3+	4+	1	4+	1
74	Running Rendezvous	4+	3+	4+	1	1	1
75	Section Takeoff	4+	3+	4+	1	4+	1
76	Parade Turns	4+	3+	4+	4+	1	1
77	Cross-under	4+	3+	4+	4+	1	1
78	Underrun	4+	3+	4+	4+	1	1
79	Parade	4+	3+	4+	4+	4+	1
80	Lost Wingman	4+		4+	1	1	
81	Lead Change	4+	3+	4+	4+	4+	1
82	Tactical/Extended Formation/ Maneuvering	4+	3+	4+	4+	4+	4+
83	Section Management/Flight Leadership	4+	3+	4+	4+	4+	4+
89	Interval Takeoff	4+	3+	4+	4+	1	1
92	Carrier Break	1	1	1	1	1	1
	Special Syllabus Requirements		1	1		1	

Block#	Media	Title	Events	Hrs	Blk Name
FRM11	Class	Formation	8	15.5	FRM

1. Prerequisites

- a. FRM1101-6 (in order) prior to FRM1107.
- b. FRM1107 prior FRM1108.

2. Events

FRM1101	MIL	Formation Flight Principles		1.0	
FRM1102	MIL	Formation Flight Procedures		2.0	
FRM1103	MIL	Formation Visual Signals		1.0	
FRM1104	MIL	Formation Preparation and Flight Procedures 1		4.0	
FRM1105	MIL	Formation Preparation and Flight Procedures 2		3.0	
FRM1106	Lab	Formation Flight Procedures		2.5	
FRM1107	P/P Exam	Formation Standardization Exam		1.0	
FRM1108	Lab	Formation Brief Observation		1.0	

3. Syllabus Notes

- a. Initial IUTs do not complete this block; events are upgrade only.
- b. FRM1107 is required to fulfill annual currency requirements.

4. Discuss Items. None.

Block#	Media	Title	Events	Hrs	Blk Name
STK11	Class	Strike Formation	3	5.0	STK

1. Prerequisite. FRM4390.

2. Events

STK1101	MIL	Strike Formation		3.0	
STK1102	P/P Exam	Strike Formation Standardization Exam		1.0	
STK1103	Lab	Strike Formation Event Brief Observation		1.0	

3. Syllabus Notes

- a. STK1101 utilizes the CNATRAINST 1542.162B SNFO MIL.
- b. Initial IUTs do not complete this block; events are upgrade only.

4. Discuss Items. None.

Block#	Media	Title	Events	Hrs	H/X
FRM31	OFT	Formation	1	1.5	1.5

1. Prerequisite. FRM1107.
2. Syllabus Notes. Initial IUTs do not complete this block; event is upgrade only. Conduct event utilizing the CNATRAINST 1542.162B FRM3101 format.
3. Special Syllabus Requirements. None.
4. Discuss Items. Time hack, kneeboard card, section maneuvering and positions (parade, cruise, and combat spread), hand signals, lost sight procedures and exercise, and NORDO wingman approach.
5. Block MIF

CTS REF	MANEUVER	FRM3101
1	General Knowledge/Procedures	4+
2	Emergency Procedures	4+
3	Headwork/Situational Awareness	4+
4	Basic Air Work	4+
6	In-Flight Planning/Area Orientation	4+
7	In-Flight Checks	4+
8	Radio Procedures	4+
9	Ground Operations	4+
10	Takeoff	4+
11	Departure	4+
12	Trim	4+
13	VFR Scan	4+
70	Formation Briefing	4+
71	Visual Signals	4+
72	Breakup and Rendezvous	4+
73	Section Approach	4+
74	Running Rendezvous	4+
75	Section Takeoff	4+

MIF continued on next page.

CTS REF	MANEUVER	FRM3101
76	Parade Turns	4+
77	Cross-under	4+
78	Underrun	4+
79	Parade	4+
80	Lost Wingman	4+
81	Lead Change	4+
82	Tactical/Extended Formation/ Maneuvering	4+
83	Section Management/Flight Leadership	4+
89	Interval Takeoff	4+
92	Carrier Break	1

Block#	Media	Title	Events	Hrs	H/X
FRM41	T-6A	Formation Exposure Flight	1	2.0	2.0

1. Prerequisite. NA4290.
2. Syllabus Notes
 - a. IUT shall occupy the front cockpit.
 - b. SIUT shall occupy the rear cockpit and practice instructional techniques.
3. Special Syllabus Requirements. Airborne gear inspection, section takeoff demo, and section approach.
4. Discuss Items

FRM4101

Hand signals, formation checkpoints, section engine failure/PELs, blind procedures, inadvertent IMC, airborne damage, gear inspection, dissimilar formation flight, and section takeoff.

FRM4101 (SI Upgrade)

Airborne gear inspection, IUT instructional techniques and common errors.

5. Block MIF

CTS REF	MANEUVER	FRM4101
1	General Knowledge/Procedures	4+
2	Emergency Procedures	4+
3	Headwork/Situational Awareness	4+
4	Basic Air Work	4+
6	In-Flight Planning/Area Orientation	4+
7	In-Flight Checks	4+
8	Radio Procedures	4+
9	Ground Operations	4+
10	Takeoff	3+

MIF continued on next page.

CTS REF	MANEUVER	FRM4101
11	Departure	3+
12	Trim	3+
13	VFR Scan	3+
70	Formation Briefing	3+
71	Visual Signals	3+
72	Breakup and Rendezvous	3+
73	Section Approach	3+
74	Running Rendezvous	3+
75	Section Takeoff	3+
76	Parade Turns	3+
77	Cross-under	3+
78	Underrun	3+
79	Parade	3+
81	Lead Change	3+
82	Tactical/Extended Formation/ Maneuvering	3+
83	Section Management/Flight Leadership	3+
89	Interval Takeoff	3+
92	Carrier Break	1
	Special Syllabus Requirements	1

Block#	Media	Title	Events	Hrs	H/X
FRM42	T-6A	Formation	5	8.0	1.6

1. Prerequisites

- a. FRM1108.
- b. FRM3101.

2. Syllabus Note. IUT shall occupy the front cockpit, practice instructional techniques, and, at the SI's discretion, perform formation procedures as if solo. SI may perform student procedures and common student errors from the rear cockpit.

3. Special Syllabus Requirements. FRM4201-5: NORDO wingman approach, section drag approach, section missed approach, 3 second break, fan break, navigation rendezvous, geographic rendezvous, speed brake usage, section PEL, and cruise maneuvering.

4. Discuss Items

FRM4201

FTI parade sequence, section emergencies, section PEL, emergency field locations/considerations, visual signals, section approach procedures, and VMC field entry (outlying/home field).

FRM4202

Tail chase geometry/pursuit curves, training rules, cruise maneuvering, tactical formation geometry/maneuvering, aborted takeoff (section/interval).

FRM4203

Section lead responsibilities and visual landing gear inspection.

FRM4204

Common student errors, lost sight, and blind.

FRM4205

Section IMC recovery (CNAF M-3710.7 requirements), warning area operations.

5. Block MIF

CTS REF	MANEUVER	FRM4205
1	General Knowledge/Procedures	4+
2	Emergency Procedures	4+
3	Headwork/Situational Awareness	4+
4	Basic Air Work	4+
6	In-Flight Planning/Area Orientation	4+
7	In-Flight Checks	4+
8	Radio Procedures	4+
9	Ground Operations	4+
10	Takeoff	4+
11	Departure	4+
12	Trim	4+
13	VFR Scan	4+
70	Formation Briefing	4+
71	Visual Signals	4+
72	Breakup and Rendezvous	4+
73	Section Approach	4+
74	Running Rendezvous	4+
75	Section Takeoff	4+
76	Parade Turns	4+
77	Cross-under	4+
78	Underrun	4+
79	Parade	4+
80	Lost Wingman	4+
81	Lead Change	4+
82	Tactical/Extended Formation/ Maneuvering	4+
83	Section Management/Flight Leadership	4+
89	Interval Takeoff	4+
92	Carrier Break	1
	Special Syllabus Requirement	1

Block#	Media	Title	Events	Hrs	H/X
FRM43	T-6A	Formation Check Flight	1	1.6	1.6

1. Prerequisites

- a. FRM4205 – Initial Check.
- b. FRM1107 – Standardization Check.

2. Syllabus Notes

- a. Initial Check: IUT shall occupy the front cockpit and perform formation procedures as if solo.
- b. Standardization Check: IUT shall occupy the front cockpit and practice instructional techniques. SI/SP will perform student procedures and common student errors from the rear cockpit. SI/SP may also evaluate this event while operating in section with the IUT.
- c. IUT shall occupy the rear cockpit and practice instructional techniques and student simulation.

3. Special Syllabus Requirements. None.

4. Discuss Items

FRM4390 (Initial Check)

HEFOE procedures, lost communication procedures, lost sight procedures, simulated power loss for lead and wingman, inadvertent IMC, and any FTI procedure or maneuver.

FRM4390 (Standardization Check)

Any standardization topic.

FRM4390 (SI Upgrade)

IUT instructional techniques and common errors.

5. Block MIF

CTS REF	MANEUVER	FRM4390
1	General Knowledge/Procedures	4+
2	Emergency Procedures	4+
3	Headwork/Situational Awareness	4+
4	Basic Air Work	4+
6	In-Flight Planning/Area Orientation	4+
7	In-Flight Checks	4+
8	Radio Procedures	4+
9	Ground Operations	4+
10	Takeoff	4+
11	Departure	4+
12	Trim	4+
13	VFR Scan	4+
70	Formation Briefing	4+
71	Visual Signals	4+
72	Breakup and Rendezvous	4+
73	Section Approach	1
74	Running Rendezvous	1
75	Section Takeoff	1
76	Parade Turns	4+
77	Cross-under	4+
78	Underrun	4+
79	Parade	4+
80	Lost Wingman	1
81	Lead Change	4+
82	Tactical/Extended Formation/ Maneuvering	4+
83	Section Management/Flight Leadership	4+
89	Interval Takeoff	4+
92	Carrier Break	1

Block#	Media	Title	Events	Hrs	H/X
STK41	T-6A	Strike Formation	3	4.8	1.6

1. Prerequisites. STK1101-3.
2. Syllabus Note.
 - a. STK4101-2 shall be flown as an instrument out/in.
 - b. STK4103 shall be flown on a VR MTR.
 - c. IUT shall occupy the front cockpit, practice instructional techniques and at the SI's discretion, perform formation procedures as if solo. SI may perform student procedures and common student errors from the rear cockpit.
3. Special Syllabus Requirements. STK4103: Shift and crossing target attacks, cold mic usage.
4. Discuss Items

STK4101

Section instrument departures, en route section management (formation, comms), section approach decision making and execution.

STK4102

Wingman considerations (IMC), penetration approach, advanced GPS usage, HSI map mode, ADI composite mode.

STK4103

Formation low-level and MTR procedures.

5. Block MIF

CTS REF	MANEUVER	STK4103
1	General Knowledge/Procedures	4+
2	Emergency Procedures	4+
3	Headwork/Situational Awareness	4+
4	Basic Air Work	4+
6	In-Flight Planning/Area Orientation	4+
7	In-Flight Checks	4+
8	Radio Procedures	4+
9	Ground Operations	4+
10	Takeoff	4+
11	Departure	4+
12	Trim	4+
13	VFR Scan	4+
69	Low-Level Route	4+
70	Formation Briefing	4+
71	Visual Signals	4+
73	Section Approach	4+
74	Running Rendezvous	1
75	Section Takeoff	4+
76	Parade Turns	1
77	Cross-under	1
78	Underrun	1
79	Parade	4+
80	Lost Wingman	1
81	Lead Change	4+
82	Tactical/Extended Formation/ Maneuvering	4+
83	Section Management/Flight Leadership	4+
89	Interval Takeoff	1
92	Carrier Break	1
	Special Syllabus Requirement	1

Block#	Media	Title	Events	Hrs	H/X
STK42	T-6A	Strike Formation Check Flight	1	1.6	1.6

1. Prerequisite. STK4103.

2. Syllabus Notes

a. Shall be flown on VR MTR.

b. Initial Check: IUT shall occupy the front cockpit and perform formation procedures as if solo.

c. Standardization Check: IUT shall occupy the front cockpit and practice instructional techniques. SI/SP will perform student procedures and common student errors from the rear cockpit. SI/SP may also evaluate this event while operating in section with the IUT.

d. SIUT shall occupy the rear cockpit and practice instructional techniques and student simulation.

e. This event fulfills the standardization check requirements for FRM and STK stages.

3. Special Syllabus Requirements. None.

4. Discuss Items

STK4290 (Initial Check)

Contingency decision making (route scheduling, timing, weather) and execution.

STK4290 (Standardization Check)

Any standardization topic.

5. Block MIF

CTS REF	MANEUVER	STK4290
1	General Knowledge/Procedures	4+
2	Emergency Procedures	4+
3	Headwork/Situational Awareness	4+
4	Basic Air Work	4+
6	In-Flight Planning/Area Orientation	4+
7	In-Flight Checks	4+
8	Radio Procedures	4+
9	Ground Operations	4+
10	Takeoff	4+
11	Departure	4+
12	Trim	4+
13	VFR Scan	4+
69	Low-Level Route	4+
70	Formation Briefing	4+
71	Visual Signals	4+
73	Section Approach	1
74	Running Rendezvous	1
75	Section Takeoff	1
76	Parade Turns	1
77	Cross-under	1
78	Underrun	1
79	Parade	1
81	Lead Change	1
82	Tactical/Extended Formation/ Maneuvering	4+
83	Section Management/Flight Leadership	4+
89	Interval Takeoff	1
92	Carrier Break	1

Chapter VIII

Out-of-Control Flight Training

1. Matrices. The following matrix is an overview of the entire Out-of-Control Flight 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. Out-of-Control Flight Stage MIF

 Check Flight Event

OUT-OF-CONTROL FLIGHT STAGE MANEUVER ITEM FILE			
CTS REF	MANEUVER	OCF4102	OCF4290
1	General Knowledge/ Procedures	4+	4+
2	Emergency Procedures	4+	4+
3	Headwork/Situational Awareness	4+	4+
4	Basic Air Work	4+	4+
6	In-Flight Planning/Area Orientation	4+	4+
7	In-Flight Checks	4+	4+
8	Radio Procedures	4+	4+
9	Ground Operations	4+	4+
12	Trim	4+	4+
13	VFR Scan	4+	4+
17	POS	4+	4+
18	ATS	4+	4+
19	Spin	4+	4+
85	Controls Neutral Spin Recovery	4+	4+
86	OCF Recovery	4+	4+
88	Spiral	4+	4+
	Special Syllabus Requirement	1	1

Block#	Media	Title	Events	Hrs	Blk Name
OCF11	Class	Out-of-Control Flight	2	2.0	OCF

1. Prerequisite. ENG0125 prior to OCF1101-2 (in order).

2. Events

OCF1101	Lect	OCF Procedures		1.0	
OCF1102	P/P Exam	OCF Standardization Exam		1.0	

3. Syllabus Notes. None.

4. Discuss Items. None.

Block#	Media	Title	Events	Hrs	H/X
OCF41	T-6A	OCF Standardization Instructor Flight	2	1.6	0.8

1. Prerequisite. OCF1102.
2. Syllabus Notes. None.
3. Special Syllabus Requirements. Spiral and Progressive Spin.
4. Discuss Items. Out-of-control flight/recovery procedures, progressive and controls neutral spin recovery, spin versus spiral, aft stick stall, common IUT errors, and defensive positioning.
5. Block MIF

CTS REF	MANEUVER	OCF4102
1	General Knowledge/Procedures	4+
2	Emergency Procedures	4+
3	Headwork/Situational Awareness	4+
4	Basic Air Work	4+
6	In-Flight Planning/Area Orientation	4+
7	In-Flight Checks	4+
8	Radio Procedures	4+
9	Ground Operations	4+
12	Trim	4+
13	VFR Scan	4+
17	POS	4+
18	ATS	4+
19	Spin	4+
85	Controls Neutral Spin Recovery	4+
86	OCF Recovery	4+
88	Spiral	4+
	Special Syllabus Requirement	1

Block#	Media	Title	Events	Hrs	H/X
OCF42	T-6A	OCF Standardization Instructor Check Flight	1	1.6	1.6

1. Prerequisite. OCF4102.
2. Syllabus Notes. None.
3. Special Syllabus Requirements. Spiral and Progressive Spin.
4. Discuss Items. Out-of-control flight/recovery procedures, progressive and controls neutral spin recovery, spin versus spiral, aft stick stall, common IUT errors, and defensive positioning.
5. Block MIF

CTS REF	MANEUVER	OCF4290
1	General Knowledge/Procedures	4+
2	Emergency Procedures	4+
3	Headwork/Situational Awareness	4+
4	Basic Air Work	4+
6	In-Flight Planning/Area Orientation	4+
7	In-Flight Checks	4+
8	Radio Procedures	4+
9	Ground Operations	4+
12	Trim	4+
13	VFR Scan	4+
17	POS	4+
18	ATS	4+
19	Spin	4+
85	Controls Neutral Spin Recovery	4+
86	OCF Recovery	4+
88	Spiral	4+
	Special Syllabus Requirement	1

Chapter IX

Course Training Standards

1. Purpose. These standards outline the tasks and proficiency required of IUTs during Initial and Upgrade Training.
2. IUT Duties and Responsibilities.
 - a. Plan the mission.
 - b. Ensure aircraft is pre-flighted, 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 progression to meet required standards prior to phase completion. Standardization Instructor pilots shall evaluate IUT 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"> ● A brief description of the behavior, required action, and/or conditions. 	<ul style="list-style-type: none"> ● The specific standards for the action. May be read as “The IUT...”

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, it will be omitted from later stages where it is also graded.

7. Course Training Standards

BEHAVIOR STATEMENT	STANDARDS
1. General Knowledge/Procedures	
<ul style="list-style-type: none"> ● Maintain working knowledge of all appropriate flight training instructions and directives. 	<ul style="list-style-type: none"> ● Recites, discusses, and/or performs all applicable items essential to the operation of the airplane.
2. Emergency Procedures (EP)	
<ul style="list-style-type: none"> ● Maintain in-depth knowledge of NATOPS and appropriate directives. 	<ul style="list-style-type: none"> ● Correctly analyzes situation. ● Performs/recites critical action steps from memory. ● Uses checklist when conditions permit. ● Completes procedures in a timely manner.
3. Headwork/Situational Awareness (SA)	
<ul style="list-style-type: none"> ● Comply with the FTI and NATOPS while maintaining situational awareness sufficient for flight safety. 	<ul style="list-style-type: none"> ● Understands instructions, demonstrations, and explanations. ● Foresees and avoids possible difficulties. ● Remains alert and spatially oriented.
4. Basic Air Work (BAW)	
<ul style="list-style-type: none"> ● Establish and maintain desired altitude, airspeed, and heading during flight. 	<ul style="list-style-type: none"> ● Maintains aircraft within 100 feet, 5 KIAS, 10° of heading. ● Appropriately uses power, attitude and trim. ● Levels off within 100 feet of desired altitude. ● ±10 seconds of correct time as applicable.

BEHAVIOR STATEMENT	STANDARDS
5. Mission Planning	
<ul style="list-style-type: none"> ● Perform mission planning to include takeoff, climb, en route, descent, approach, and landing data. ● Plan alternate course of action. ● Flight log/DD 175 preparation. 	<ul style="list-style-type: none"> ● Uses required directives and forms. ● Plans mission in a timely manner to meet requirements. ● Completes all forms correctly. ● Complies with all directives.
6. In-Flight Planning/Area Orientation	
<ul style="list-style-type: none"> ● Plan and execute a sequence of maneuvers or actions. ● Understand current and required position. 	<ul style="list-style-type: none"> ● Efficiently sequences maneuvers. ● Adjusts mission profile for external factors (weather, traffic, etc.). ● Maintains positional awareness using ground references, navigational aids, VFR charts, or FLIP publications.
7. In-Flight Checks	
<ul style="list-style-type: none"> ● Complete checks as required. 	<ul style="list-style-type: none"> ● Performs: <ul style="list-style-type: none"> ▶ Operations checks at least every 15 minutes. ▶ Climb, Descent, and Landing checklist when appropriate. ▶ Pre-stalling, Spinning, and Aerobatic checklist when required.
8. Radio Procedures	
<ul style="list-style-type: none"> ● Use UHF/VHF radio. 	<ul style="list-style-type: none"> ● Makes all calls when required. ● Responds when addressed. ● Uses correct terminology. ● Does not step on others' transmissions.
9. Ground Operations	
<ul style="list-style-type: none"> ● Prepare aircraft for flight. ● Move aircraft from parking area to runway. 	<ul style="list-style-type: none"> ● Correctly and expeditiously performs before exterior inspection, exterior inspection, interior inspection, engine start, before taxi, taxi, over-speed governor, before takeoff, after landing, engine shutdown, and before leaving aircraft checks. ● Taxies safely via prescribed routing within 3 feet of centerline and at a safe speed.

BEHAVIOR STATEMENT	STANDARDS
10. Takeoff	
<ul style="list-style-type: none"> ● Perform takeoff, starting with clearance for takeoff and ending with landing gear retraction. 	<ul style="list-style-type: none"> ● Executes lineup checklist. ● Checks instruments at military power. ● Applies appropriate crosswind controls. ● Maintains runway centerline within 10 feet. ● Rotates to proper takeoff attitude at NATOPS rotation speed. ● Transitions to crosscheck scan.
11. Departure	
<ul style="list-style-type: none"> ● Perform VFR, IFR, or simulated IFR departure. 	<ul style="list-style-type: none"> ● Complies with departure procedures, controller instructions.
12. Trim	
<ul style="list-style-type: none"> ● Properly trim the aircraft as required by changes in airspeed, power, or configuration. 	<ul style="list-style-type: none"> ● Trims in the correct sequence, i.e., rudder, elevator, aileron.
13. VFR Scan	
<ul style="list-style-type: none"> ● Maintain aircraft control relying primarily on outside references. ● Clear for other aircraft and weather. 	<ul style="list-style-type: none"> ● Visually detects traffic and weather conflicts.
14. Level Speed Change	
<ul style="list-style-type: none"> ● Perform a level speed change per the FTL. 	<ul style="list-style-type: none"> ● Maintains BAW IAW FTI procedures.
15. Basic Transitions	
<ul style="list-style-type: none"> ● Perform basic transitions as per the FTL. 	<ul style="list-style-type: none"> ● Performs basic transitions as per FTI while maintaining BAW.
16. Turn Pattern	
<ul style="list-style-type: none"> ● Perform a turn pattern per the FTL. 	<ul style="list-style-type: none"> ● Commences on cardinal heading. ● Maintains BAW. ● Holds bank angle $\pm 5^\circ$. ● Rolls out $\pm 5^\circ$ of reversal heading.

BEHAVIOR STATEMENT	STANDARDS
17. Power-Off Stall (POS)	
<ul style="list-style-type: none"> ● Perform a power-off stall and recover per the FTI. 	<ul style="list-style-type: none"> ● Commences in the clean configuration. ● Performs clearing turn. ● Trims aircraft for 125 ±5 KIAS glide. ● Initiates recovery at stall entry during Q41XX block and at first indication of stall during C41XX block of training. ● Recovers without secondary stall no lower than 6000 feet AGL.
18. Approach Turn Stall (ATS)	
<ul style="list-style-type: none"> ● Perform an approach turn stall and recover per the FTI. 	<ul style="list-style-type: none"> ● Commences in the full-flap landing configuration. ● Performs clearing turn. ● Enters stall at/above 8000 AGL. ● Initiates recovery at stall entry during Q41XX block and at first indication of stall during C41XX block of training. ● Loses less than 300 feet during recovery. ● Recovers without secondary stall no lower than 6000 feet AGL.
19. Spin	
<ul style="list-style-type: none"> ● Spin and recover per FTI. 	<ul style="list-style-type: none"> ● Performs clearing turn. ● Enters spin at/above 16,000 MSL: <ul style="list-style-type: none"> ▶ PCL idle. ▶ Pitch 20-30°. ▶ AOB less than 5°. ● Performs OCF scan and verbalizes indications IAW NATOPS and the Contact FTI. ● Initiates recovery on confirmation of spin indications. ● Recovers from dive without exceeding 5 G while remaining in the assigned airspace or entering secondary stall.

BEHAVIOR STATEMENT	STANDARDS
20. Simulated Power Loss (High)	
<ul style="list-style-type: none"> ● Intercept the ELP at or inside of high key following a simulated engine failure above 3000 AGL. 	<ul style="list-style-type: none"> ● Maintains airspeed within 5 KIAS of that directed by NATOPS Engine Failure and Forced Landing Procedures. ● Selects suitable landing runway. ● Flies correct checkpoints on the ELP. ● Demonstrates the ability to affect a safe landing at the intended point of touchdown with sufficient runway remaining.
21. Simulated Power Loss (Low)	
<ul style="list-style-type: none"> ● Intercept the ELP at or inside of high key following a simulated engine failure between 800 feet AGL and 3000 AGL. 	<ul style="list-style-type: none"> ● Maintains airspeed within 5 KIAS of that directed by NATOPS Engine Failure and Forced Landing Procedures. ● Selects suitable landing runway. ● Flies correct checkpoints on the ELP. ● Demonstrates the ability to affect a safe landing at the intended point of touchdown with sufficient runway remaining.
22. Precautionary Emergency Landing (PEL)	
<ul style="list-style-type: none"> ● In response to simulated EP, proceed to high key for the nearest runway, then intercept the ELP.(i) 	<ul style="list-style-type: none"> ● Selects nearest suitable runway and appropriate high key. ● Demonstrates the ability to affect a safe landing at the intended point of touchdown with sufficient runway remaining.
23. OLF Operations	
<ul style="list-style-type: none"> ● Perform a VFR entry into the traffic pattern. ● Perform a break turn to downwind. ● Depart pattern per FTI and FWOP. 	<ul style="list-style-type: none"> ● Maintains initial and downwind altitudes as prescribed in local directives. ● Breaks at appropriate point with correct interval. ● Establishes aircraft at the appropriate initial point according to local pattern procedures.

BEHAVIOR STATEMENT	STANDARDS
24. Landing Pattern	
<ul style="list-style-type: none"> ● If from initial, from rolling out on downwind to the straightaway. ● If from takeoff, touch-and-go, or wave-off: Commencing the crosswind turn to the straightaway. 	<ul style="list-style-type: none"> ● Flies 120 ±5 KIAS on downwind. ● Complies with BAW parameters except: <ul style="list-style-type: none"> ▶ LDG Flaps <ul style="list-style-type: none"> ▪ 110 ±5 KIAS from 180 until straightaway. ▪ 100 ±5 KIAS on final. ▶ TO Flaps <ul style="list-style-type: none"> ▪ 115 ±5 KIAS from 180 until straightaway. ▪ 105 ±5 KIAS on final. ▶ No-Flap <ul style="list-style-type: none"> ▪ 120 ±5 KIAS from 180 until straightaway. ▪ 110 ±5 KIAS on final. ▶ Rollout on final: <ul style="list-style-type: none"> ▪ Within 75 feet of runway centerline. ▪ Within 1200-1500 feet of straightaway. ▪ Between 100-150 feet AGL.
25. Angle of Attack Approach (AOA) No Flap/Full Flap/TO Flap	
<ul style="list-style-type: none"> ● Perform AOA approach to a normal flared landing. 	<ul style="list-style-type: none"> ● Transitions to AOA approaching the upwind numbers. ● Maintains AOA ±1 unit. ● Rolls out on final: <ul style="list-style-type: none"> ▶ 1200-1500 feet of straightaway. ▶ 100-150 feet AGL. ▶ Within 75 feet of runway centerline. ● Executes normal flared landing.
26. Landing Flap Landing	
<ul style="list-style-type: none"> ● Execute normal landing per the FTI. ● From crossing runway threshold until: <ul style="list-style-type: none"> ▶ Touch-and-go - commencing crosswind turn. ▶ Full stop - aircraft at taxi speed. 	<ul style="list-style-type: none"> ● Maintains correct glide-path until flare initiation. ● Touches down with: <ul style="list-style-type: none"> ▶ Appropriate crosswind controls. ▶ Main gear first (nose-high attitude). ▶ Nose gear ±10 feet of centerline. ● Touches down in the touchdown zone as defined by Contact FTI and local instructions.

BEHAVIOR STATEMENT	STANDARDS
27. Takeoff (TO) Flap Landing	
<ul style="list-style-type: none"> ● Execute normal landing per the FTI. ● From crossing runway threshold until: <ul style="list-style-type: none"> ▶ Touch-and-go - commencing crosswind turn. ▶ Full stop - aircraft at taxi speed. 	<ul style="list-style-type: none"> ● Maintains correct glide-path until flare initiation. ● Touches down with: <ul style="list-style-type: none"> ▶ Appropriate crosswind controls. ▶ Main gear first (nose-high attitude). ▶ Nose gear ±10 feet of centerline. ● Touches down in the touchdown zone as defined by Contact FTI and local instructions.
28. No Flap Landing	
<ul style="list-style-type: none"> ● Execute normal landing per the FTI. ● From crossing runway threshold until: <ul style="list-style-type: none"> ▶ Touch-and-go - commencing crosswind turn. ▶ Full stop - aircraft at taxi speed. 	<ul style="list-style-type: none"> ● Maintains correct glide-path until flare initiation. ● Touches down with: <ul style="list-style-type: none"> ▶ Appropriate crosswind controls. ▶ Main gear first (nose-high attitude). ▶ Nose gear ±10 feet of centerline. ● Touches down in the touchdown zone as defined by Contact FTI and local instructions.
29. Wave-off/Go-Around	
<ul style="list-style-type: none"> ● Discontinue approach to landing. 	<ul style="list-style-type: none"> ● Expeditiously executes wave-off procedures. ● Initiates wave-off when: <ul style="list-style-type: none"> ▶ Conflicting with PEL traffic. ▶ Stall warning system actuates (stick shaker). ▶ Aircraft requires more than 45° AOB to avoid overshooting final. ▶ Directed. ▶ Aircraft is not in a position to make a safe landing.
30. Precautionary Emergency Landing (PEL)(P)	
<ul style="list-style-type: none"> ● Execute PEL from landing pattern. Procedures comply with the NATOPS Manual and the Contact FTI. 	<ul style="list-style-type: none"> ● Executes timely procedural execution. ● Selects nearest suitable runway. ● Once established on the ELP profile, uses power rather than delaying configuration change to maintain ELP profile if energy state becomes low. ● If conditions permit, lowers flaps at low key. ● Establishes aircraft on final in position to make a safe landing.

BEHAVIOR STATEMENT	STANDARDS
31. Course Rules/Home Field Entry (HFE)	
<ul style="list-style-type: none"> ● Return to home field using local course rules. 	<ul style="list-style-type: none"> ● Complies with the FTI, local course rules, and FWOP as applicable. ● Proceeds under own navigation to HFE point.
32. VMC Unusual Attitude Recovery	
<ul style="list-style-type: none"> ● Recover from the unusual attitude. 	<ul style="list-style-type: none"> ● Recovers with minimal loss of altitude or excessive airspeed. ● Does not overstress or stall aircraft. ● Does not enter OCF.
33. Aileron Roll	
<ul style="list-style-type: none"> ● Perform an aileron roll per the FTI. 	<ul style="list-style-type: none"> ● Maintains minimum yaw during roll. ● Completes roll with less than 5° AOB.
34. Loop	
<ul style="list-style-type: none"> ● Perform a loop per the FTI. 	<ul style="list-style-type: none"> ● Initiates using 3-4 Gs. ● Completes within: <ul style="list-style-type: none"> ▶ 200 feet of entry altitude. ▶ ±10° of entry heading.
35. Wingover	
<ul style="list-style-type: none"> ● Perform a wingover per the FTI. 	<ul style="list-style-type: none"> ● Does not exceed: <ul style="list-style-type: none"> ▶ 2 Gs. ▶ 90° AOB. ● Arrives at 90° position: <ul style="list-style-type: none"> ▶ 80-90° AOB. ▶ 85-95° from entry heading. ● Arrives at level flight position within: <ul style="list-style-type: none"> ▶ 100 feet of entry altitude. ▶ 10° of reciprocal heading.

BEHAVIOR STATEMENT	STANDARDS
36. Barrel Roll	
<ul style="list-style-type: none"> ● Perform a barrel roll per the FTI. 	<ul style="list-style-type: none"> ● Does not exceed 2 Gs. ● Arrives at 45° position: <ul style="list-style-type: none"> ▶ 80-100° AOB. ▶ 55-60° nose-high. ● Arrives at 90° position: <ul style="list-style-type: none"> ▶ Nose 10-20° above the horizon. ▶ 170-190° AOB. ▶ 80-90° of entry heading. ● Completes within: <ul style="list-style-type: none"> ▶ 200 feet of entry altitude. ▶ 10° of entry heading.
37. One-Half Cuban Eight	
<ul style="list-style-type: none"> ● Perform one-half Cuban eight per the FTI. 	<ul style="list-style-type: none"> ● Initiates using 3-4 Gs. ● Completes within: <ul style="list-style-type: none"> ▶ 200 feet of entry altitude. ▶ 20° of reciprocal heading.
38. Split-S	
<ul style="list-style-type: none"> ● Perform a split-S per the FTI. 	<ul style="list-style-type: none"> ● Initiates at: <ul style="list-style-type: none"> ▶ 120-140 KIAS. ▶ 10-20° nose-high. ● Recovers within: <ul style="list-style-type: none"> ▶ 1300-1700 feet below entry altitude. ▶ 10° of reciprocal heading.
39. Immelmann	
<ul style="list-style-type: none"> ● Perform Immelmann per the FTI. 	<ul style="list-style-type: none"> ● Initiates using 3-4 Gs. ● Completes within: <ul style="list-style-type: none"> ▶ 10° of reciprocal heading. ▶ 2000-3000 feet above entry altitude. ● Maintains aircraft control.
40. VFR Arrival	
<ul style="list-style-type: none"> ● Plan and perform arrival and entry into a controlled or uncontrolled field. 	<ul style="list-style-type: none"> ● Safely executes a VFR arrival and pattern entry IAW FTI and appropriate directives.

BEHAVIOR STATEMENT	STANDARDS
41. VFR Pattern	
<ul style="list-style-type: none"> ● Use FAA standard pattern procedures to establish aircraft on final. 	<ul style="list-style-type: none"> ● Uses CTAF or pattern direction indicators to establish pattern direction. ● Maintains FAA standard pattern parameters in accordance with the current AIM.
42. VFR Straight-In	
<ul style="list-style-type: none"> ● Perform approach per the FTI. 	<ul style="list-style-type: none"> ● Aligns with runway on normal 3° glideslope. ● Complies with BAW parameters except: <ul style="list-style-type: none"> ▶ LDG flaps: <ul style="list-style-type: none"> ▪ 100 ±5 KIAS from interception of visual glideslope until beginning landing flare. ▶ TO flaps: <ul style="list-style-type: none"> ▪ 105 ±5 KIAS from interception of visual glideslope until beginning landing flare. ▶ No flap: <ul style="list-style-type: none"> ▪ 110 ±5 KIAS from interception of visual glideslope until beginning landing flare. ▶ On final: <ul style="list-style-type: none"> ▪ Within 75 feet of runway centerline.
43. VFR Course Maintenance	
<ul style="list-style-type: none"> ● Navigate from point-to-point using dead reckoning and visual references. 	<ul style="list-style-type: none"> ● Establishes chart position using clock-chart-ground. ● Identifies chart significant landmarks along route. ● Maintains airspeed to achieve planned leg time ±1 minute, winds permitting.
44. IMC Unusual Attitude Recovery	
<ul style="list-style-type: none"> ● Perform unusual attitude recovery using full panel references. 	<ul style="list-style-type: none"> ● Nose low: Recovers minimizing altitude loss and airspeed buildup. ● Nose-high: <ul style="list-style-type: none"> ▶ Does not stall aircraft. ▶ Does not overstress aircraft. ▶ Does not enter subsequent unusual attitude.

BEHAVIOR STATEMENT	STANDARDS
45. En route Procedures	
<ul style="list-style-type: none"> ● Maintain aircraft's track on appropriate radial or airway. ● Identify an intersection using appropriate NAVAID(s). 	<ul style="list-style-type: none"> ● Maintains ± 3 radials of centerline. ● Determines approximate wind direction and proper crosswind correction. ● Positions the aircraft at a required intersection or leads the turn at an intersection to roll out on the required radial $\pm 3^\circ$.
46. Point-to-Point	
<ul style="list-style-type: none"> ● Proceed direct to an assigned fix using VOR/DME point-to-point per FTI. 	<ul style="list-style-type: none"> ● Applies FTI procedures to expeditiously establish a correct initial heading. ● Continuously updates heading to: <ul style="list-style-type: none"> ▶ Avoid sudden, large, heading changes. ▶ Arrive within 1 mile.
47. Student Procedures	
<ul style="list-style-type: none"> ● To include, but not limited to, briefs, altitude calls, and turn-point procedures. 	<ul style="list-style-type: none"> ● Performs student procedures as per appropriate stage FTI.
48. CRM	
<ul style="list-style-type: none"> ● Demonstrate and use CRM skills. 	<ul style="list-style-type: none"> ● Demonstrates knowledge of CRM critical skills (DAM CLAS) and ability to apply during flight.
49. Arcing	
<ul style="list-style-type: none"> ● Perform per FTI: VOR/DME arc-to-radial intercepts and radial-to-arc intercepts. 	<ul style="list-style-type: none"> ● Maintains the arc ± 0.5 DME. ● Calculates lead points to join: <ul style="list-style-type: none"> ▶ Arc ± 0.5 DME. ▶ Radial $\pm 3^\circ$.
50. Climbs and Descents	
<ul style="list-style-type: none"> ● Perform climbs and descents per FTI or ATC direction. 	<ul style="list-style-type: none"> ● Maintains airspeed as appropriate for airspace.
51. Radial Intercepts	
<ul style="list-style-type: none"> ● Perform radial intercepts per FTI or ATC direction. 	<ul style="list-style-type: none"> ● Establishes aircraft $\pm 3^\circ$ of desired radial.
52. Station Passage	
<ul style="list-style-type: none"> ● Identify station passage per FTI. 	<ul style="list-style-type: none"> ● Identifies station passage for the NAVAID in use.

BEHAVIOR STATEMENT	STANDARDS
53. VOR Holding	
<ul style="list-style-type: none"> ● Perform VOR holding per FTI. 	<ul style="list-style-type: none"> ● Computes proper entry turn. ● Estimates wind direction and applies appropriate corrections. ● Establishes and maintains aircraft within holding airspace.
54. GPS Holding	
<ul style="list-style-type: none"> ● Perform GPS holding per FTI. 	<ul style="list-style-type: none"> ● Properly sets GPS for holding IAW FTI. ● Computes proper entry turn. ● Estimates wind direction and applies appropriate corrections. ● Establishes and maintains aircraft within holding airspace.
55. VOR Approach	
<ul style="list-style-type: none"> ● Perform the approach per FTI. 	<ul style="list-style-type: none"> ● IAF to FAF: <ul style="list-style-type: none"> ▶ Maintains course $\pm 5^\circ$ or valid intercept. ● By the FAF or initiating descent to MDA: <ul style="list-style-type: none"> ▶ Completes landing checklist. ▶ Has aircraft trimmed and at final approach airspeed. ● Final: <ul style="list-style-type: none"> ▶ Maintains 3° of desired course. ▶ Reaches and maintains MDA. ▶ +100/-0 feet. ● Is in position to make safe landing at MDA.

BEHAVIOR STATEMENT	STANDARDS
56. GPS Approach	
<ul style="list-style-type: none"> ● Perform the approach per FTI. 	<ul style="list-style-type: none"> ● Properly sets GPS IAW FTI. ● IAF to FAF: <ul style="list-style-type: none"> ▶ Maintains course $\pm 5^\circ$ or valid intercept. ● By the FAF or initiating descent to MDA: <ul style="list-style-type: none"> ▶ Completes landing checklist. ▶ Has aircraft trimmed and at final approach airspeed. ● Final: <ul style="list-style-type: none"> ▶ Maintains 3° of desired course. ▶ Reaches and maintains MDA. ▶ +100/-0 feet. ● Is in position to make safe landing at MDA.
57. Localizer Approach	
<ul style="list-style-type: none"> ● Perform the approach per FTI. 	<ul style="list-style-type: none"> ● By the FAF: <ul style="list-style-type: none"> ▶ Completes landing checklist. ▶ Has aircraft trimmed and at final approach airspeed. ● Final: <ul style="list-style-type: none"> ▶ Maintains ± 1 dot on localizer. ▶ Reaches and maintains MDA. ▶ +100/-0 feet.
58. ILS Approach	
<ul style="list-style-type: none"> ● Perform the approach per FTI. 	<ul style="list-style-type: none"> ● On initiating descent to DH: <ul style="list-style-type: none"> ▶ Completes landing checklist. ▶ Has aircraft trimmed and at final approach airspeed. ● Final: <ul style="list-style-type: none"> ▶ Maintains ± 1 dot on localizer. ▶ Maintains ± 1 dot on glideslope. ▶ Executes Missed Approach or landing at DH.

BEHAVIOR STATEMENT	STANDARDS
59. Circling Approach	
<ul style="list-style-type: none"> ● Perform a circling maneuver to the landing runway per the FTI and NIFM. 	<ul style="list-style-type: none"> ● Properly orients circling instructions to the landing runway. ● Maintains at/above MDA consistent with weather. ● Remains within the clear zone for the approach category.
60. Precision Approach Radar (PAR) Approach	
<ul style="list-style-type: none"> ● Perform final approach from descent point to DH using PAR for guidance. 	<ul style="list-style-type: none"> ● Responds quickly and correctly to controller instructions. ● Before starting descent to DH: <ul style="list-style-type: none"> ▶ Completes landing checklist. ▶ Has aircraft trimmed and at final approach airspeed. ● Maintains: <ul style="list-style-type: none"> ▶ Airspeed 120 ±5 KIAS on final. ▶ Heading ±3°. ● Is in position to make safe landing at DH.
61. No Gyro GCA Approach	
<ul style="list-style-type: none"> ● Perform final approach from descent point to DH/MDA using PAR or ASR for guidance, but without directional gyro (simulated). 	<ul style="list-style-type: none"> ● Responds quickly and correctly to controller instructions. ● Before starting descent to DH/MDA: <ul style="list-style-type: none"> ▶ Completes landing checklist. ▶ Has aircraft trimmed and at final approach airspeed. ● Turns: <ul style="list-style-type: none"> ▶ Uses standard rate prior to final. ▶ Uses one-half standard rate on final. ● Maintains airspeed 120 ±5 KIAS on final. ● Is in position to make safe landing at decision height/minimum descent altitude.
62. Radar Vectors to Final Approach Course (RVFAC)	
<ul style="list-style-type: none"> ● Perform an approach using radar vectors to final approach course per FTI. 	<ul style="list-style-type: none"> ● Responds quickly and correctly to controller instructions. ● Maintains headings ±5°.

BEHAVIOR STATEMENT	STANDARDS
63. Missed Approach	
<ul style="list-style-type: none"> ● Perform a missed approach. 	<ul style="list-style-type: none"> ● Complies with FTI and NIFM procedures. ● Initiates when field not in sight and <ul style="list-style-type: none"> ▶ Non-precision: <ul style="list-style-type: none"> ▪ Inside FAF and full-scale CDI deflection. ▪ At specified MAP DME. ▪ At expiration of timing in the absence of DME. ▶ Precision, first of: <ul style="list-style-type: none"> ▪ Decision height. ▪ Controller directed. ▶ Or, not in position for safe landing.
64. Use of ATIS/PMSV/FSS	
<ul style="list-style-type: none"> ● Use ATIS/PMSV to update destination conditions. ● Use FSS as required to open, change, and close flight plans. 	<ul style="list-style-type: none"> ● Checks ATIS prior to contacting destination approach control. ● Updates destination and alternate weather with PMSV/AWOS/FSS en route, when required. ● Contacts FSS to: <ul style="list-style-type: none"> ▶ Open flight plans after departure. ▶ Change flight plans en route. ▶ Close flight plans after landing.
65. In-Flight Computations	
<ul style="list-style-type: none"> ● Periodically compute: <ul style="list-style-type: none"> ▶ Ground speed. ▶ ETE. ▶ Fuel at destination. 	<ul style="list-style-type: none"> ● Computes: <ul style="list-style-type: none"> ▶ Ground speed ± 6 knots. ▶ <i>ETA ± 30 seconds.</i> ▶ <i>Fuel ± 50 pounds.</i>
66. Airport Surveillance Radar (ASR) Approach	
<ul style="list-style-type: none"> ● Perform final approach from descent point to MAP using ASR for guidance. 	<ul style="list-style-type: none"> ● Responds quickly and correctly to controller instructions. ● Maintains: <ul style="list-style-type: none"> ▶ Airspeed 120 ± 5 KIAS on final. ▶ Heading $\pm 3^\circ$. ● Is in position to make safe landing at MAP.

BEHAVIOR STATEMENT	STANDARDS
67. VFR Flight Following	
<ul style="list-style-type: none"> ● Use of ATC flight following per FAA procedures. 	<ul style="list-style-type: none"> ● Opens/closes flight following with ATC.
68. GPS Procedures	
<ul style="list-style-type: none"> ● Use GPS per NATOPS. 	<ul style="list-style-type: none"> ● Operates GPS for en route and terminal area IAW NATOPS.
69. Low-Level Route	
<ul style="list-style-type: none"> ● Fly low-level route. 	<ul style="list-style-type: none"> ● Maintains appropriate altitude ± 100 feet IAW route requirements. ● Correctly identifies turn points, checkpoints, and target. ● Utilizes proper entry/exit and route maintenance procedures.
70. Formation Briefing	
<ul style="list-style-type: none"> ● Perform formation briefing. 	<ul style="list-style-type: none"> ● Conducts formation briefing IAW formation FTI.
71. Visual Signals	
<ul style="list-style-type: none"> ● Communicate using hand, head, and aircraft movements. 	<ul style="list-style-type: none"> ● Performs IAW FTI.
72. Breakup and Rendezvous	
<ul style="list-style-type: none"> ● Separate flight and return to parade formation. 	<ul style="list-style-type: none"> ● Performs IAW FTI. ● Lead monitors dash 2's position.
73. Section Approach	
<ul style="list-style-type: none"> ● Execute an instrument or visual straight-in approach as lead or dash 2. 	<ul style="list-style-type: none"> ● Lead: <ul style="list-style-type: none"> ▶ Maintains contact or instrument approach parameters and procedures. ▶ Uses dash 2 consideration. ● Dash 2 maintains parade parameters.
74. Running Rendezvous	
<ul style="list-style-type: none"> ● Perform takeoff as dash 2 from takeoff clearance until in parade position. 	<ul style="list-style-type: none"> ● Performs IAW FTI. ● Dash 2 accomplishes timely running rendezvous.

BEHAVIOR STATEMENT	STANDARDS
75. Section Takeoff	
<ul style="list-style-type: none"> ● Perform takeoff from takeoff clearance through landing gear retraction while in parade formation. 	<ul style="list-style-type: none"> ● Performs IAW FTI. ● Wingman maintains takeoff position until gear retraction, and then expeditiously moves to parade.
76. Parade Turns	
<ul style="list-style-type: none"> ● Dash 2 is on the inside/outside of the turn while in parade. 	<ul style="list-style-type: none"> ● Maintains parade position.
77. Cross-under	
<ul style="list-style-type: none"> ● Dash 2 moves from parade on one side of the formation to parade on the other side. 	<ul style="list-style-type: none"> ● Performs IAW appropriate FTI.
78. Underrun	
<ul style="list-style-type: none"> ● Wingman discontinues rejoin due to excessive overtake or angles. 	<ul style="list-style-type: none"> ● Recognizes requirement for underrun in time to safely execute procedures IAW the appropriate FTI.
79. Parade	
<ul style="list-style-type: none"> ● Parade formation position. 	<ul style="list-style-type: none"> ● Maintains parade parameters IAW FTI. ● Smooth flight control and PCL corrections.
80. Lost Wingman	
<ul style="list-style-type: none"> ● Wingman loses sight of lead. 	<ul style="list-style-type: none"> ● Safely executes procedures IAW the FTI.
81. Lead Change	
<ul style="list-style-type: none"> ● Transfer control of the formation from lead to dash 2. 	<ul style="list-style-type: none"> ● Performs expeditiously IAW the FTI.
82. Tactical/Extended Formation/Maneuvering	
<ul style="list-style-type: none"> ● Wingman maintains position on lead. 	<p>Wingman:</p> <ul style="list-style-type: none"> ● Maintains position using energy maneuverability concepts. ● Fixes position IAW FTI. ● Deconflicts lead's flight path. ● Flies appropriate geometry IAW FTI. <p>Lead:</p> <ul style="list-style-type: none"> ● Provides predictable platform for wingman.

BEHAVIOR STATEMENT	STANDARDS
83. Section Management/Flight Leadership	
<ul style="list-style-type: none"> ● Plan and execute an IFR flight plan (when applicable) as a section. ● Plan and execute a parade/tactical formation sequence of maneuvers (when applicable). ● Understand and direct required section positioning. ● Accomplish/direct ADMIN/TAC ADMIN tasks in a timely manner. 	<ul style="list-style-type: none"> ● Lead <ul style="list-style-type: none"> ▶ Maintains section in compliance with IFR flight plan, ATC clearances, prebriefed approaches, etc. ▶ Maintains section inside the confines of assigned working area (when applicable). ▶ Efficiently sequences and directs maneuvers (when applicable). ▶ Adjusts mission profile for external factors considering wingman (weather, terrain, traffic, etc.).
84. Control Release Spin	
<ul style="list-style-type: none"> ● Perform control release spin IAW OCF FTI. 	<ul style="list-style-type: none"> ● Selects altitude IAW NATOPS that allows dive recovery within the assigned airspace. ● Ensures aircraft is in a steady state spin before releasing the controls. ● Performs recovery procedures IAW NATOPS.
85. Controls Neutral Spin Recovery	
<ul style="list-style-type: none"> ● Spin and recover per the FTI and NATOPS flight manual. 	<ul style="list-style-type: none"> ● Performs clearing turn. ● Enters spin at/above 16,000 MSL: <ul style="list-style-type: none"> ▶ PCL idle. ▶ Pitch 20-30°. ▶ AOB less than 5°. ● Performs OCF scan and verbalizes indications IAW NATOPS and the Contact FTI. ● Initiates recovery on confirmation of spin indications using neutral control inputs. ● Recovers from dive without exceeding 5 G while remaining in the assigned airspace or entering secondary stall.

BEHAVIOR STATEMENT	STANDARDS
86. Out-of-Control Flight (OCF) Recovery	
<ul style="list-style-type: none"> ● Recognize OCF situation and promptly execute recovery procedures. 	<ul style="list-style-type: none"> ● Executes OCF recovery procedures IAW NATOPS and FTI. ● Verbalizes OCF scan in correct sequence. ● Does not overstress the aircraft. ● Recovers within assigned airspace not lower than 10,000 feet MSL.
87. Inverted Flight	
<ul style="list-style-type: none"> ● Establish the aircraft at recommended entry airspeed of 180-200 KIAS in the clean configuration. 	<ul style="list-style-type: none"> ● Performs inverted flight IAW FTI. ● Does not exceed 15 seconds inverted. ● Maintains altitude ± 300 feet. ● Maintains heading $\pm 15^\circ$.
88. Spiral	
<ul style="list-style-type: none"> ● Enter and recover from spiral per FTI. 	<ul style="list-style-type: none"> ● Performs clearing turn. ● Enters high-speed spiral at/above 17,000 and below 22,000 MSL. ● Maintains PCL idle. ● Performs OCF scan IAW NATOPS. ● Initiates recovery on confirming spiral indications and prior to reaching 150 knots. ● Recovers from dive without exceeding 5 Gs or entering secondary stall and remaining within assigned airspace not lower than 10,000 MSL.
89. Interval Takeoff	
<ul style="list-style-type: none"> ● Perform takeoff IAW the FTI. 	<ul style="list-style-type: none"> ● Performs timely procedures IAW FTI. ● Lead conducts a max power takeoff while maintaining their side of the runway. ● Dash 2 accomplishes normal takeoff and climbout allowing for approximately 1,000 feet of aircraft separation.

BEHAVIOR STATEMENT	STANDARDS
90. Aerobatic Maneuvers	
<ul style="list-style-type: none"> ● Performs all aerobatic maneuvers IAW the FTI. 	<ul style="list-style-type: none"> ● Performs aerobatics IAW the FTI. ● Maintains situational awareness of aircraft position, energy state and orientation.
91. Holding	
<ul style="list-style-type: none"> ● Performs holding IAW the FTI. 	<ul style="list-style-type: none"> ● Performs holding procedures IAW the FTI.
92. Carrier Break	
<ul style="list-style-type: none"> ● Performs break IAW the FTI. 	<ul style="list-style-type: none"> ● Performs break procedures IAW the FTI at 800' AGL.
N	NATOPS

BLANK PAGE

Chapter X

Master Materials List

1. Individually Issued Materials

<u>NOMENCLATURE</u>	<u>IDENTIFICATION</u>	<u>QTY PER STUDENT</u>
a. Master Curriculum	CNATRAINST 1542.154B	1
b. Flight Training Instructions	CNATRA Pat-Pubs	Various
c. T-6A NATOPS Flight Manual	NAVAIR A1-T6A AAA-NFM-100	1
d. T-6A NATOPS Pocket Checklist	NAVAIR 01-T6A AAA-NPCL-100	1
e. Flight Crew Checklist		1

2. Aircraft and Major Training Devices

a. T-6A Texan II aircraft.

b. T-6A 2F208 Operational Flight Trainer quantity controlled by NAVAIRWARCENTRASYS DIV, Training Material Management Division, Inventory Control Branch (Code 5204).

CNATRAINST 1542.154B
5 Apr 2022

BLANK PAGE