NAVAL AIR TRAINING COMMAND

NAS CORPUS CHRISTI, TEXAS
(TW-4) Q-2A-1960, (TW-5) Q-2A-1961

CNATRAINST 1542.196
17 Nov 2022

CHIEF OF NAVAL AIR TRAINING

T-6B JOINT ADVANCED PILOT TRAINING (JAPT) MASTER CURRICULUM GUIDE

2022

DEPARTMENT OF THE NAVY
CHIEF OF NAVAL AIR TRAINING
250 LEXINGTON BLVD SUITE 179
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CNATRAINST 1542.196
N716
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CNATRA INSTRUCTION 1542.196

From: Chief of Naval Air Training

Subj: T-6B JOINT ADVANCED PILOT TRAINING

Ref: (a) OPNAVINST 5215.17A

1. Purpose. To publish the curriculum for training USN, USMC, USCG, and foreign military student aviators in the T-6B Advanced phase of training.

2. Action. This curriculum is effective on receipt. No changes will be made without written authorization by the Chief of Naval Air Training (CNATRA).

3. Records Management. Records created as a result of this notice, regardless of media or format, must be managed per Secretary of the Navy Manual 5210.1 of September 2019.

4. Review and Effective Date. Per reference (a), CNATRA N7 will review this instruction annually around the anniversary of its effective date to ensure applicability, currency, and consistency with Federal, DOD, SECNAV, 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 cancelled 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 reference (a), paragraph 9. Otherwise, if the instruction is no longer 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.

5. Forms. The CNATRA forms utilized with this instruction are automated in the Training Learning Management System (T/LMS) computer program. Additional copies of CNATRA forms are available on the CNATRA Web site https://www.cnatra.navy.mil/pubs-forms.asp.

J. RIFAS
Chief of Staff

Releaseability and distribution:
This instruction is cleared for public release and is available electronically only via CNATRA Issuances Web site,
https://flankspeed.sharepoint-mil.us/sites/CPF-CNATRA/SitePages/Instructions.aspx

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CHAPTER IX. COURSE TRAINING STANDARDS

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SUMMARY OF CHANGES

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COURSE DATA

1. Course Title. T-6B Joint Advanced Pilot Training (JAPT).

2. Course ID Number (CIN). T-6B Joint Advanced Pilot Training, (TW-4) Q-2A-1960 and (TW-5) Q-2A-1961.

3. Locations. NAS Corpus Christi and NAS Whiting Field.

4. Course Status. Active.

5. Course Mission. The mission of T-6B Joint Advanced Pilot Training (JAPT) syllabus is to develop proficiency in T-6B flight and advanced instruments. At the successful completion of this phase of aviation training, the student will be designated a Naval Aviator, qualified in T-6B aircraft and will have earned a standard instrument rating.

6. Prerequisite Training. Successful completion of T-6B Joint Primary Pilot Training (Q-2A-3166 or Q-2A-2566).

7. Security Clearance Requirements. None.

8. Follow-on Training. T-6B Primary Flight Instructor Training

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.

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 FIVE (COMTRAWING FIVE).

13. Quota Management Authority. Chief of Naval Air Training.

14. Quota Control. Chief of Naval Operations.

15. Course Training Subjects

a. Administration

ADMINISTRATION		
Subject	**Symbol**	**Hours**
Indoctrination	G01	2.5
Totals		**2.5**

b. Ground Training

GROUND TRAINING		
Stage	**Symbol**	**Hours**
Meteorology	G02	11.0
Crew Resource Management	G03	3.0
Instrument Flight Rules – Phase I	G04	36.0
Instrument Flight Rules – Phase II	G05	21.5
Totals		**71.5**

c. Flight Support

FLIGHT SUPPORT		
Stage	**Symbol**	**Hours**
Safe-for-Solo	C1201	1.0
Totals		**1.0**

d. Flight Training. The programmed times for each phase, stage, and media are:

Block	Flight/Device Event	OFT		T-6B			
				Dual		Solo	
		Flts	Hrs	Flts	Hrs	Flts	Hrs
C31	Contact	2	2.6				
C41	Day Contact			6	10.2		
C42	Contact Check Flight			1	1.7		
C43	Day Contact Solo Flight					1	1.5
C32	Night Contact	1	1.3				
C44	Night Contact			2	3.0		
I31	Radio Instruments	4	5.2				
I41	Radio Instruments			6	10.2		
I32	Radio Instruments	4	5.2				
I42	Radio Instruments			6	10.2		
I43	Radio Instruments			6	10.2		
I44	NATOPS Instrument Check Flight			1	1.7		
I45	Airways Navigation Solo Flight					2	3.0
N31	Day Navigation	1	1.3				
N41	Day Navigation			1	1.6		
N42	Night Navigation			1	1.6		
Total		**12**	**15.6**	**30**	**50.4**	**3**	**4.5**

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

ADDITIONAL FORMAL TRAINING TIME PER EVENT			
Training Area	**Brief/Preflight/Taxi**	**Taxi/Debrief**	**Total**
Flight	1.0	.5	1.5
Simulator	1.0	.5	1.5

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 Instructional Methods. Self-study, lecture, CAI, simulator, and in-flight instruction.

20. Preceding Curriculum Data. N/A.

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

ABBREVIATIONS

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

AGL	-	Above Ground Level
AGSM	-	Anti-Gravity Straining Maneuver
AIM	-	Aeronautical Information Manual
ALSS	-	Aviation Life Support System
AMS	-	Aerospace Medicine Specialist
AOA	-	Angle of Attack
AOB	-	Angle of Bank
ASI	-	Aviation Student Indoctrination
ASR	-	Airport Surveillance Radar
ATC	-	Air Traffic Control
ATF	-	Aviation Training Form
ATIS	-	Automated Terminal Information Service
ATJ	-	Aviation Training Jacket
ATS	-	Aviation Training Summary or Approach Turn Stall
AWOS	-	Automated Weather Observing System
BAC	-	Basic Approach Configuration
BASH	-	Bird/Animal Strike Hazard
BAW	-	Basic Air-work
BFI	-	Backup Flight Instrument
CAI	-	Computer-Aided Instruction
CDI	-	Course Deviation Indicator
CFS	-	Canopy Fracturing System
CNATRA	-	Chief of Naval Air Training
CNO	-	Chief of Naval Operations

CO	-	Commanding Officer
CO-PC	-	Commanding Officer Progress Check
CRM	-	Crew Resource Management
CTS	-	Course Training Standard
DA	-	Decision Altitude
DCON	-	Day Contact
DCONFP	-	Day Contact Flight Procedures
DME	-	Distance Measuring Equipment
DOR	-	Drop on Request
DTD	-	Desktop Device
ELP	-	Emergency Landing Pattern
EOB	-	End of Block
EP	-	Emergency Procedure
EPT	-	Emergency Procedures Trainer
EST	-	Ejection Seat Trainer
ET	-	Extra Training
FAF	-	Final Approach Fix
FAWP	-	Final Approach Waypoint
FDC	-	Flight Data Center
FDO	-	Flight Duty Officer
FF	-	Flying Fundamentals
FFP	-	Formation Flight Procedures
FIH	-	Flight Information Handbook
FLIP	-	Flight Information Publication
FMS	-	Flight Management System
FSS	-	Flight Service Station

FTI	-	Flight Training Instruction
FWB	-	Flight Weather Briefer
GCA	-	Ground-Controlled Approach
GLOC	-	G-Induced Loss of Consciousness
GPS	-	Global Positioning System
GTIP	-	G-Tolerance Improvement Program
H/X	-	Hours per Event
HEFOE	-	Hydraulic, Electrical, Fuel, Oxygen, Engine
HILO	-	Holding-in-Lieu-of
HSI	-	Horizontal Situation Indicator
HUD	-	Head-up Display
IAF	-	Initial Approach Fix
IAP	-	Initial Approach Procedure
IAW	-	In Accordance With
IFR	-	Instrument Flight Rules
IFS	-	Initial Flight Screening
IFT	-	Instrument Flight Trainer
ILS	-	Instrument Landing System
IMC	-	Instrument Meteorological Conditions
IMS	-	International Military Student
IMSO	-	International Military Student Officer
IP	-	Instructor Pilot
IPC	-	Initial Progress Check
JPATS	-	Joint Primary Aircraft Training System
JPPT	-	Joint Primary Pilot Training
KIAS	-	Knots Indicated Airspeed

LDG	-	Landing
LOC	-	Localizer
LP	-	Local Procedures
MAP	-	Missed Approach Point
MDA	-	Minimum Descent Altitude
MIF	-	Maneuver Item File
MIL	-	Mediated Interactive Lecture
MOA	-	Military Operating Area
MR	-	Mixed Reality
NAS	-	Naval Air Station
NASA	-	National Aeronautics & Space Administration
NATOPS	-	Naval Air Training and Operating Procedures Standardization
NAVAID	-	Navigational Aid
NCONFP	-	Night Contact Flight Procedures
NDB	-	Non-Directional Beacon
NFS	-	Naval Flight Student
NIFE	-	Naval Introductory Flight Evaluation
NM	-	Nautical Mile(s)
NORM	-	Normal
NOTAMs	-	Notices to Air Missions
NSS	-	Navy Standard Score
NTAP	-	Notice to Airmen Publication
OBOGS	-	On-Board Oxygen Generating System
OCF	-	Out-of-Control Flight
ODO	-	Operations Duty Officer
OFT	-	T-6B Operational Flight Trainer (2F208B)

OIC	-	Officer in Charge
OLF	-	Outlying Field
OPNAV	-	Office of the Chief of Naval Operations
P/P	-	Pen or Pencil and Paper
PAR	-	Precision Approach Radar
PAS	-	Phase Aggregate Score
PATE	-	Proficiency Advance Trigger Event
PCL	-	Power Control Lever
PEL	-	Precautionary Emergency Landing
PEL/P	-	Precautionary Emergency Landing/Pattern
PMSV	-	Pilot to METRO Service
PPEL	-	Practice Precautionary Emergency Landing
PR	-	Procedures
RDO	-	Runway Duty Officer
RRU	-	Ready Room UNSAT
RVFAC	-	Radar Vectors to Final Approach Course
SCATFACE	-	Straight and Level, Coordination Exercise, Adverse Yaw, Torque and Turns, Steep Turns, Abrupt Control Movement, Flap Retraction, Effectiveness of Controls
SFS	-	Safe-for-Solo
SID	-	Standard Instrument Departure
SNA	-	Student Naval Aviator
SOP		Standard Operating Procedure
SSR	-	Special Syllabus Requirement
STAR	-	Standard Terminal Arrival Route
SY	-	Systems
TACAN	-	Tactical Aid to Navigation

TAD	-	Trim Aid Device
TAP	-	Training Acceleration Program
TCAS	-	Traffic Collision Avoidance System
TMS	-	Training Management System
TOLD	-	Takeoff Landing Data
TOT	-	Time-on-Target
TRB	-	Training Review Board
TTO	-	Training Time Out
TTT	-	Time to Train
UFCP	-	Up Front Control Panel
UHF	-	Ultra High Frequency
UNSAT	-	Unsatisfactory
USMC	-	United States Marine Corps
USN	-	United States Navy
UTD	-	T-6B Unit Training Device (2F207B) (IFT and MR)
VDP	-	Visual Descent Point
VFR	-	Visual Flight Rules
VHF	-	Very High Frequency
VMC	-	Visual Meteorological Conditions
VOR	-	VHF Omnidirectional Range
VT	-	Virtual Trainer
WU	-	Warmup
XO	-	Executive Officer

GLOSSARY

1. Advancing X. Completed event within the normal syllabus flow. Excludes events with last characters in the range 84-89.

2. Aviation Training Jacket. The ATJ is the NFS's training record. It contains ATFs, calendar card, grade reports, and all other associated training information. It is filed in student control and follows the NFS through all phases of training.

3. Aviation Training Summary. A tabular sheet listing the MIF and maneuver grades within a training stage.

4. Block of Training. A sequential series of lessons within a training stage sharing an identical MIF. The second numerical character in the lesson designator identifies a block.

5. Check Flight (SXX90). A flight check in any stage of training.

6. Contact. The stage of training that combines day and night flight familiarization, aerobatic maneuvers, and out-of-control flight procedures.

7. Course of Training. The entire program of preflight, flight, simulation, academics, and officer development conducted in all media during the programmed training days.

8. Course Training Standard (CTS). A description of required behaviors and standards of performance for a specific maneuver. These standards are in Chapter IX.

9. Courseware. The technical data, FTIs, audio, video, film, CAI, instructor guides, student study guides, and other training material developed to support and implement the syllabus of instruction.

10. Critical Item. Any maneuver coded with a plus sign (+). This symbol indicates the maneuver is required and must be accomplished to the specified standard in that block of training.

11. Commanding Officer Progress Check (SXX89). A special check normally given by the CO or XO. The CO may designate, in writing, CO-PC duty to a qualified O-4 or above. This is only done if the CO or XO is unqualified or unavailable to instruct in the required stage. A satisfactory CO-PC returns the NFS to normal syllabus flow. An UNSAT CO-PC results in a TRB.

12. Deliverables. A CNATRA (Chief of Naval Air Training) 1542/1827 (Rev. 4-04) Training Review Board Summary Form, generated by the TRB, that summarizes a specific NFS's progress in a given syllabus and provides detailed information on the application of MPTS training for that NFS. Deliverables indicate whether the quality and continuity of training provided was IAW CNATRAINST 1542.196 and indicate the degree of influence by "human factors" on the NFS's performance.

13. Demonstrate. Instructor performs the maneuver with precision and accompanying description. NFS is responsible for knowledge of the procedures prior to event brief and observes the maneuver.

14. Emergency Procedure. Any degradation of aircraft systems or flight conditions requiring pilot action or intervention.

15. End of Block. Last event in block. In order to progress past EOB, the NFS must meet or exceed MIF on all critical items, and all optional items attempted, by the end of the block. Flight shall consist of a cross-section of critical items; however, all critical items do not have to be accomplished on the last flight in block as long as MIF had been previously met.

16. Extra Training (SXX87). Additional NFS training flights ordered by the Commanding Officer.

17. Flight Training Instruction. A CNATRA-approved manual describing flight procedures and techniques for each training stage.

18. Hours per X (H/X). The average length for each event in a block, rounded to the nearest tenth of an hour.

19. Initial Progress Check (SXX88). A special check given by a senior O-3 or above designated in writing by the squadron CO. A satisfactory IPC returns the NFS to normal syllabus flow. An UNSAT IPC results in a CO-PC.

20. Introduce. Instructor coaches the NFS through the maneuver as necessary and/or may demonstrate the maneuver again. The NFS is responsible for knowledge of the procedures prior to the event brief and for performing the maneuver with coaching.

21. Lesson Designator. All syllabus events have a five- to six-character lesson designator in the following format:

Char	Meaning	Remarks
1st-2nd	Stage	C - Contact G - Ground I - Instrument N - Navigation
3rd	Media	0 - Ground Training 1 - Flight Support 2 - T-6B UTD 3 - T-6B OFT 4 - T-6B
4th	Block	Sequential, indicating block within stage.
5th & 6th	Event/Check Identifier	Sequential, indicating event within block, or other event types as shown below: 84 - Adaptation 85 - Practice Sim 86 - Warmup 87 - Extra Training 88 - Initial Progress Check 89 - CO Progress Check 90 - Check Flight/Exam

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

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

24. Operating Procedures Manual. A training wing or squadron directive describing standard operating procedures for local fixed-wing aircraft.

25. Phase of Training. A major division in the course of training. MPTS consists of three phases: Primary, Intermediate, and Advanced.

26. Pink ATF. A standard ATF that is printed on pink paper. The pink ATF is used to denote an UNSAT event.

27. Practice. Instructor observes NFS with minimal coaching; may also demonstrate the maneuver if necessary. The NFS must perform maneuver with minimal coaching.

28. Ready Room UNSAT (RRU). An UNSAT grade given for inadequate knowledge of flight procedures, systems, discuss items, emergency procedures, or deficient preflight planning.

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

30. Stage of Training. A subdivision of a Phase, comprised of events leading to a single set of objectives, designated by a common symbol (e.g., Contact, Instruments, Navigation). The first letter in the lesson designator identifies the stage of each lesson (Example: C4101 is in the Contact stage).

31. Supplementary ATF. A form inserted into a student's ATJ that contains non-syllabus information.

32. Training Media. JAPT media include aircraft, UTDs, OFTs, ground training, FMS Trainers, and CAI. The first numerical character in the lesson identifier designates the training medium.

33. Training Review Board. A fact-finding board generated by a failed CO-PC that considers the circumstances relevant to the NFS's training, such as quality and continuity of training, outside influences, and extenuating circumstances. The TRB does not make attrition/retention recommendations.

34. Warmup Event (SXX86). Additional events given to allow an NFS to regain a level of proficiency previously demonstrated which has diminished due to an extended break in training.

Chapter I

General Instructions

1. Syllabus Management

a. Distribution. Participating squadron personnel.

b. Interpretation. The syllabus is directive. Should circumstances create situations not covered within the scope of this syllabus, or specific course of action appears to conflict with other directives, consult CNATRA (N71).

c. Deviations. Document all deviations on the event's ATF or a supplementary ATF if found after the event.

d. Changes. Recommended changes shall be submitted IAW CNATRAINST 1550.6F.

e. Execution. Other than noted exceptions all students execute Chapters II through VIII.

f. Syllabus Description. T-6B JAPT is flown in the T-6B and is divided into stages. Stages are grouped by like flight training regimes such as Contact, Instrument, and Navigation. Each stage is subdivided into training blocks. The training blocks consist of a specified number of flights. MIFs identify the minimum acceptable level of performance in relation to the CTS that must be achieved at the completion of each training block.

g. Grade Calculation

(1) Phase Aggregate Score (PAS). An NFS's PAS is a comparative ranking based on the previous population of completers for a specific phase or portion of a phase of aviation training. PAS indicates only NFS performance relative to a normative population of other recent NFSs. Under the JAPT system, PAS is not by itself an indication of whether an NFS has met the criteria necessary for winging or continuation in aviation training.

(2) JAPT SNA Calculations. See CNATRAINST 1500.4K.

(3) Stage Weighting. Contact 25%, VNAV 10%, Instrument 65%.

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.

(2) Where clearly identified, students may be in different stages simultaneously and must complete all events. The flowchart on page I-3 delineate the sequence of flying events and their ground training prerequisites. System training management is designed to facilitate up to two graded events (flight, simulator, exam, or a combination thereof) per student per day. A maximum of three events per day is allowed for cross-country purposes only.

(3) The first event in stage must be completed within 14 calendar days of the associated flight support lecture. The associated flight support lecture must be redone if 14 or more days have elapsed.

(4) The first event in stage cannot be completed the same day as the associated flight support lecture.

b. Proficiency Advance. Proficiency Advance shall not be administered to any SNA in this syllabus.

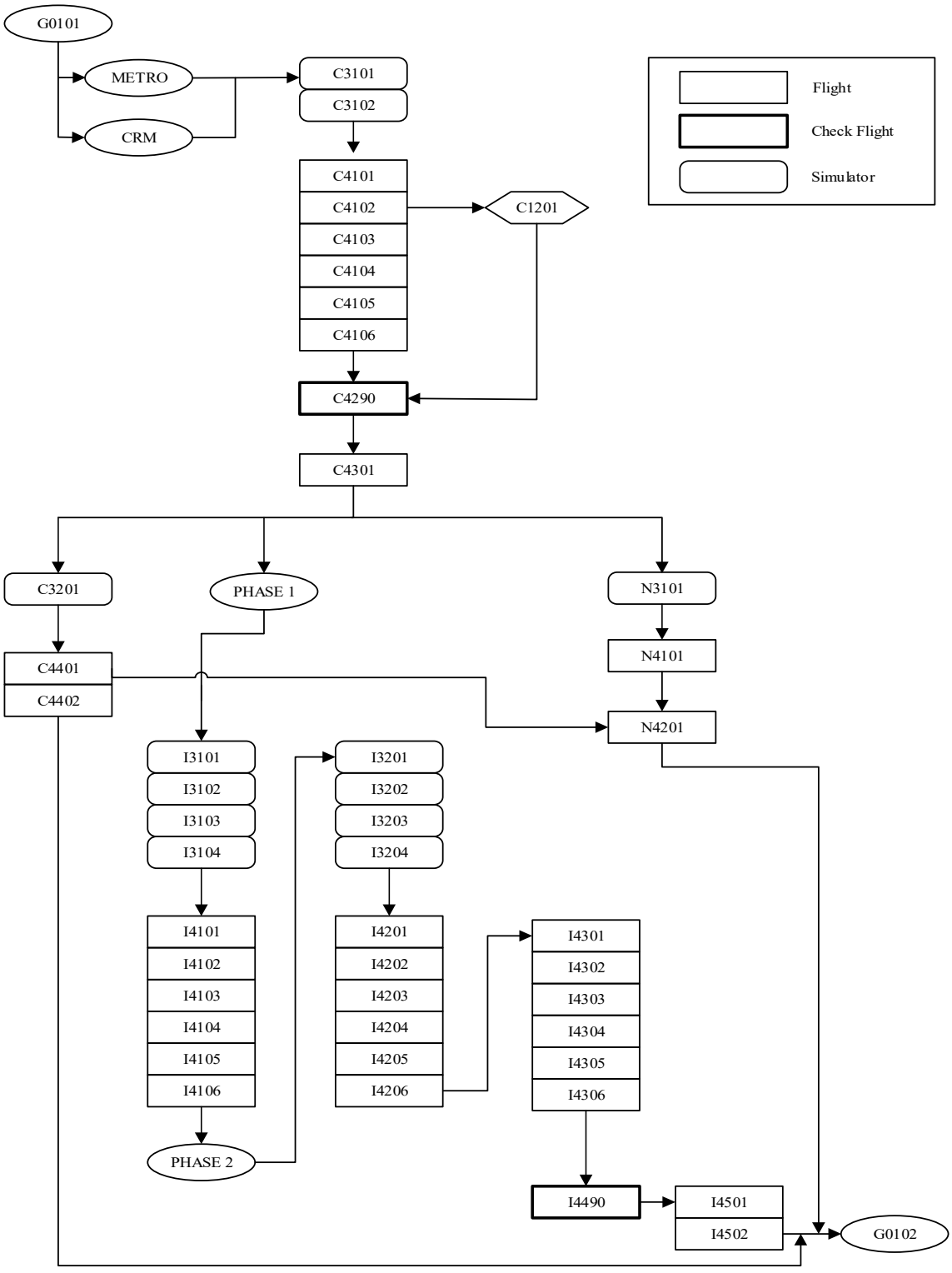
c. Maneuver Continuity. Students must accomplish previously introduced maneuvers frequently enough to ensure required proficiency is maintained.

d. Landing Proficiency. Students should land any time they occupy the front cockpit. Students shall not land from the rear cockpit.

e. Hours/X (H/X). Instructor pilots shall plan and execute missions to meet H/X as closely as practical. If actual event length varies from the programmed H/X by more than 0.3 hrs, annotate reason(s) in ATF's general comments section. An SNA's deficiency is not an acceptable reason to exceed H/X by more than 0.3 hours.

f. Head Up Display (HUD). Shall be used to the maximum extent possible unless otherwise stated in this MCG.

T-6B JAPT COMPLETE COURSE FLOW



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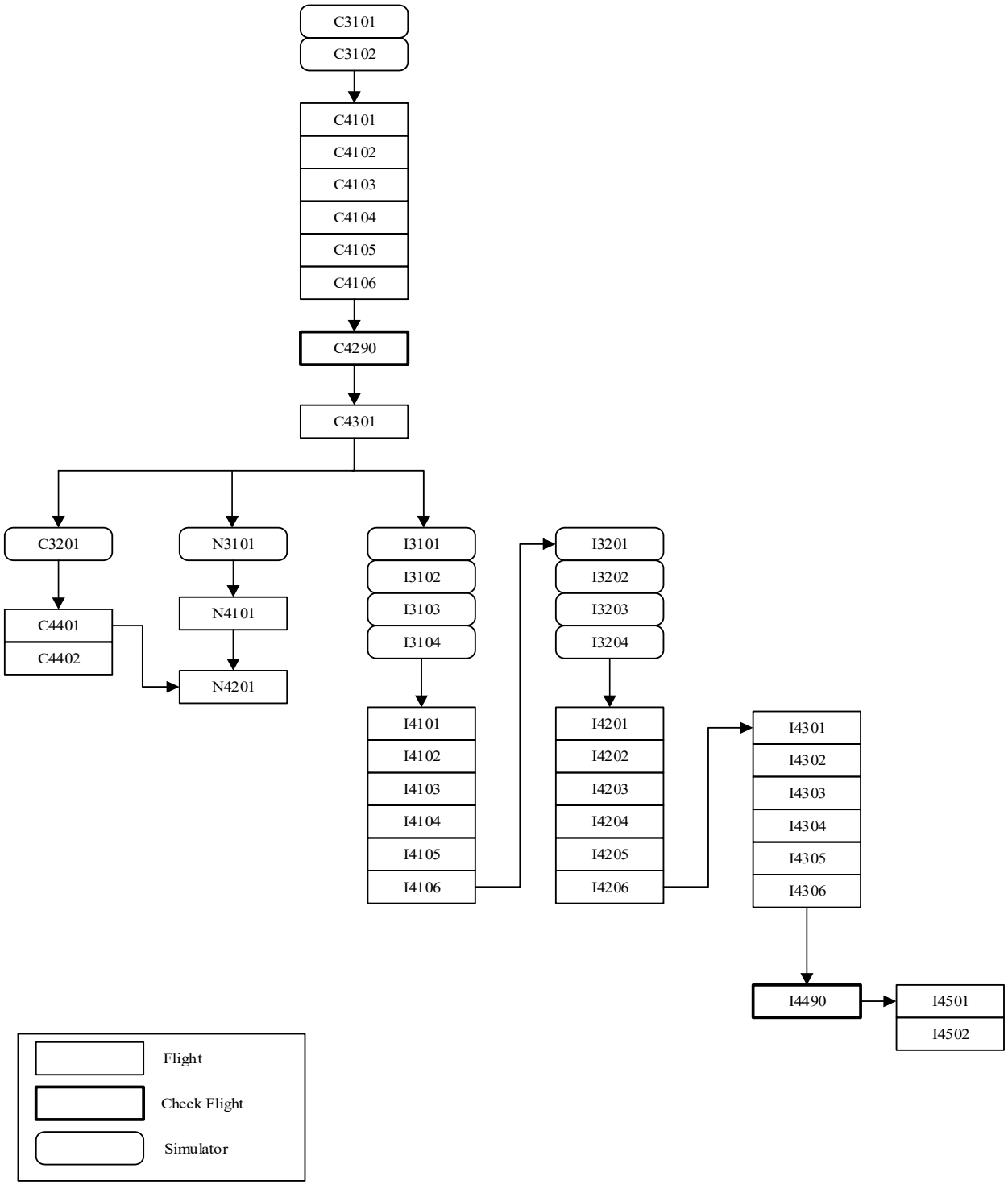
T-6B JAPT FLIGHT/DEVICE COURSE FLOW



3. Warmup Events (SXX86). Warmup event is defined in CNATRAINST 1500.4K.

a. Warmups Between Stages. Warmup events shall not be given prior to the first event in stage unless more than 14 days have elapsed since any syllabus event has been conducted (refer to CNATRAINST 1500.4K for warmup event guidelines).

Note: A warmup flight is not warranted between contact/radio instrument simulators.

(1) Additional Warmup Events. If the period between events is greater than 30 days, the squadron CO shall determine an appropriate warmup training plan to regain student proficiency. Refer to CNATRAINST 1500.4K for specific guidance.

(2) Safe for Solo Warmup Events. Award an additional safe-for-solo flight if greater than five calendar days have elapsed since last safe-for-solo check flight. This additional safe-for-solo flight will be coded as an XX86, unless a "count" UNSAT is awarded for flagrant safety or flight rule violations, unsatisfactory procedural knowledge, or grossly unsafe performance that is not delay-related.

(3) Not Safe for Solo. If the student is not safe for solo:

(a) Count the flight as a warmup due to the student's loss of proficiency.

(b) The next flight shall be another safe-for-solo check and should be flown in the next six calendar days.

(c) An IPC/CO-PC shall follow failure of the second safe-for-solo if the flight is flown within the six-day window described above. If more than six days elapse between failed safe-for-solo checks, the flight shall be treated as a mandatory warmup flight.

(4) Warmup Event Not Required

(a) A warmup event is not required between events within the night contact or navigation blocks of training regardless of the length of delay between events, unless 14 days have elapsed since flying any syllabus flight, Refer to CNATRAINST 1500.4K. In this case, a daytime contact warmup is required.

4. Additional Flights/Simulators

a. Extra Training Events (SXX87). All ETs shall be dual (other than noted exceptions) and coded as SXX87 (e.g., C4187). Refer to CNATRAINST 1500.4K.

b. Additional Events to Meet Minimum Syllabus Time

(1) Events flown to meet minimum night or instrument time shall meet MIF for the block in which the ET is flown. Minimum night time may be waived by the TRAWING Commander. This shall be documented in the ATJ with a waiver letter.

(2) Squadron CO/OIC are responsible for ensuring that ETs flown to meet curriculum minimums provide the SNA with worthwhile training.

c. Adaptation Events (SXX84). The Squadron Commanding Officer/OIC may grant events required for adaptation to the flying environment when requested in writing by the flight surgeon, e.g., airsickness, eyeglasses, etc.

5. Ground Training and Briefing Requirements

a. Mission Preparation, Briefings, and Debriefings

(1) EOB Events. The IP shall carefully review the ATFs in planning the EOB event to ensure the profile includes opportunities to reach MIF on all critical items and optional items attempted in the block.

(2) Preparation. Students shall arrive for each flight with:

(a) Thorough knowledge of:

1. The flight's Discuss Items and special syllabus requirements, as listed in Chapters III-VIII.

2. Procedural knowledge of all items for the event's training block.

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

(3) Briefing

(a) The instructor shall review the SNA's previous applicable ATFs before each event. Thoroughly cover the current mission's:

1. Discuss Items, as listed in Chapters III-VIII.

2. Specific objectives.

3. Required procedures for accomplishing those objectives.

4. Planned profile and contingencies.

(b) Duty officers/qualified IP shall provide a safety of flight brief to each solo SNA.

(4) Debriefing

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

(b) Mission complexity and student progress will govern the time required for the debrief.

(c) Debriefing must be detailed and comprehensive. The ATF shall be completed prior to the SNA's next event. Exceptions may be made for out-and-ins or cross-country flights. In such instances, the SNA will be provided feedback on performance as soon as possible following the event.

b. Emergency Procedures Briefing and Training

(1) Emergency procedures training builds the student's confidence in the aircraft. The IP shall conduct emergency procedures training on all dual aircraft events, either on the ground or in the aircraft. Correct procedural deficiencies through additional instruction and study assignments.

(2) Incorporate emergency procedures training into simulator events when practical; however, instructional block objectives take precedence.

(3) Grade the student's overall emergency procedures knowledge and performance under Emergency Procedures.

6. Mission Grading Procedures and Evaluation Policies. Refer to CNATRAINST 1500.4K.

7. Special Instructions and Restrictions

a. Flight Hour/Event Requirements and Restrictions

(1) Programmed Hours and Events. Syllabus-programmed flight hours are 54.9 hours. Event lengths, SXX86, SXX87, SXX88, and SXX89 events will cause variation. Accomplish all syllabus events.

(2) Minimum Night Hours. 10.0 hours in the aircraft.

(3) Maximum Daily Student Activities (Aircraft, Simulator, or Academic). Students shall not exceed two flight, simulator, and/or exam events during one duty day, or three graded activities during cross-country flights. The third event/activity shall not be a solo flight.

(4) Minimum Student Turn-Times. The student must have at least 30 minutes between debriefing a dual event and briefing a follow-on solo event. One hour is required between debriefing of a dual event or a simulator event and the brief for a follow-on dual event or simulator event. This requirement does not apply to out-and-in or cross-country profiles; however, the instructor shall ensure adequate debrief and brief time is allocated.

(5) Crew Day. The period from the beginning of the student's first event or official duty of the day until the completion of the last event of the day, including associated debrief and paper work. Crew day shall not exceed 12 hours.

(6) Crew Rest. A minimum of 12 hours shall elapse between the conclusion of the student's last scheduled event of the day (including associated debrief) and their first scheduled instructional event of the following day. After six consecutive scheduled days, students shall receive a minimum of one day off. Official duty, Squadron training, and standby scheduling do not qualify as a day off.

b. Source Documents. Students are responsible for reviewing applicable source documents (NATOPS, FTIs, local SOPs, etc.) prior to commencing each stage of training.

c. Maneuver Demonstrations. The student shall not perform a maneuver for the first time until the IP demonstrates the maneuver, unless previous training adequately fulfills this role. This does not apply to simulator events.

d. Airspace Utilization. Conduct contact events in designated areas. These events may be out-and-ins with Operations Officer approval.

e. Solo Restrictions

(1) Documentation. For an event preceding a SNA solo, the instructor shall document either "Safe for Solo" or "Not Safe for Solo" on the ATF. A "Safe for Solo" comment should also be included in the Remarks section of the associated NAVFLIR.

(2) Maneuvers Allowed. Solos may only perform maneuvers graded F/3 or better on the previous event.

(3) Maneuvers Not Allowed. Solos may not perform spins, stalls, split-S, Immelmann, combination maneuver, simulated emergency procedures, or any maneuver not previously introduced.

(4) Currency. Students shall not fly solo unless they have had their safe-for-solo flight within the preceding five calendar days. Safe-for-solo brief is not required for the INAV solo O/I.

(5) Daylight Restriction. Solo students shall not fly solo earlier than sunrise and shall be on deck no later than 30 minutes before sunset.

(6) Brief. The Flight/Operations Duty Officer shall brief the solo student. The flight briefing must cover mission profile, objectives, and contingencies.

f. Aircraft/Simulator Interchangeability

(1) Simulator events may be conducted in the aircraft when the OFT is unavailable for extended periods of time at the TRAWING Commander's discretion.

(2) Aircraft events may not be conducted in the OFT, unless otherwise stated in this MCG for XX86, XX87, XX88, or XX89 events.

Chapter II

Ground Training

Blk #	Media	Title	Events	Hrs	Blk Name
G01	Sqdn	Administration/ Indoctrination	2	2.5	ASI

1. Prerequisites

   a. C4402 prior to G0102.

   b. N4201 prior to G0102.

   c. I4502 prior to G0102.

2. Events

G0101	Sqdn	Check-In	2.0
G0102	Sqdn	Checkout	0.5

3. Syllabus Notes. G0102 is an administrative event and allows a final check that all requirements for completion of syllabus have been met. G0101 may be waived if the SNA is conducting this syllabus in the same squadron where the SNA completed Primary Flight Training.

4. Discuss Items. None.

Blk #	Media	Title	Events	Hrs	Blk Name
G02	Class	Meteorology	4	11.0	MET

1. Prerequisite. G0101 (unless waived for the reason stated on page II-1).

2. Events

G0201	CAI	Meteorology	4.0
G0202	MIL	Meteorology	3.0
G0203	Lect	Meteorology Review	2.0
G0290	CAI Test	Meteorology Exam	2.0

3. Syllabus Notes. None.

4. Discuss Items. None.

Blk #	Media	Title	Events	Hrs	Blk Name
G03	MIL/ Lect	Crew Resource Management	2	3.0	CRM

1. Prerequisite. G0101 (unless waived for the reason stated on page II-1).

2. Events

G0301	MIL	Seven CRM Skills	2.0
G0302	Lect	Sensory Problems/Spatial Disorientation	1.0

3. Syllabus Notes. None.

4. Discuss Items. None.

Blk #	Media	Title	Events	Hrs	Blk Name
G04	Class	Instrument Flight Rules-Phase I	23	36.0	IFR1

1. Prerequisite. C4301.

2. Events

G0401	Lect	Introduction to Inst. Flight Rules	0.5
G0402	Lect	Introduction to FLIP Publications	0.5
G0403	CAI	Instrument Approaches 1	3.5
G0404	MIL	Navigation Aids	1.0
G0405	MIL	Navigational Aids Lecture	1.0
G0406	MIL	Airspace Lecture	1.0
G0407	MIL	Communications	0.5
G0408	MIL	Clearances Lecture	1.0
G0409	MIL	Departures Lecture	1.0
G0410	MIL	Holding Lecture	1.0
G0411	MIL	Instrument Approaches 2	1.0
G0412	CAI	Flight Planning 1	3.5
G0413	MIL	En route Procedures Lecture	1.0
G0414	MIL	Terminal Procedures Lecture	1.0
G0415	Lect	Flight Planning Lecture	1.0
G0416	P/P Exam	INAV Practice Exam	2.0
G0417	Lect	INAV Review	3.0
G0418	Lect	Flight Rules and Reg's (FRR) Lecture	2.0
G0419	CAI	FRR	3.0
G0420	P/P Exam	FRR Practice Exam	2.0
G0421	Lect	FRR Review	2.0

2. Events (cont.)

G0490	CAI Test	FRR Exam	2.0
G0422	FMS DTD	Flight Management System Practical Application	1.5

3. Syllabus Notes. None.

4. Discuss Items. None.

Blk #	Media	Title	Events	Hrs	Blk Name
G05	Class/ SS	Instrument Flight Rules-Phase II	10	21.5	IFR2

1. Prerequisite. I4106.

2. Events

G0501	Lect	DD-1801 Lecture and Fuel Log Review	1.0
G0502	Lect	Introduction to Advanced Flight Planning	1.0
G0503	SS	FLIP Review	3.0
G0504	SS	CR-2 Exercises	1.5
G0505	SS	Metro Review	1.5
G0506	SS	DD-1801 Flight Plans	1.0
G0507	SS	Fuel Logs	1.0
G0508	SS	Practice Flight Planning	5.0
G0509	MIL	IFR Final Exam Review	2.5
G0590	P/P Exam	IFR Final Exam	4.0

3. Syllabus Notes. None.

4. Discuss Items. None.

Chapter III

NATOPS Training

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

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Chapter IV

Contact Training

1. Pre-Solo Training Philosophy. The fundamental flight skills required of each student in order to safely solo in the T-6B are critical, not only to solo, but also to successfully complete JAPT. Initial instruction should focus on determining the instructional approach best suited for each student's problem areas so that mission profiles can be flown to correct deficient areas.

2. Pattern Training. Utilize the overhead/break traffic pattern as much as possible for pattern training.

3. Navigation. When possible, home and outlying field departures and recoveries should be visual with the assistance of the local area chart and FMS.

4. Seating. Students shall occupy the front seat for all events in the stage.

5. Matrices. The following matrices are an overview of the entire Contact stage. The purpose of these matrices is to provide the student and IP the easiest way to track progress and overall status in relation to the MIF. In addition, there is a single matrix following each block description throughout this chapter.

6. Contact Stage MIF

Simulator/Device Event
Check Flight Event

CONTACT STAGE MANEUVER ITEM FILE							
CTS REF	**MANEUVER**	**C3102**	**C3201**	**C4106**	**C4290**	**C4301**	**C4402**
1	General Knowledge/Procedures	4+	4+	4+	4+	1	4+
2	Emergency/Procedures	3+	4+	4+	4+	1	4+
3	Headwork/ Situational Awareness	3+	4+	4+	4+	1	4+
4	Basic Air-work	3+	4+	4+	4+	1	4+
5	In-flight Checks/Fuel Management	3+	4+	4+	4+	1	4+
6	In-flight Planning/Area Orientation	3+	4+	4+	4+	1	4+
7	Task Management	3+	4+	4+	4+	1	4+
8	Communication	3+	4+	4+	4+	1	4+
9	Mission Planning	3+	4+	4+	4+	1	4+
10	Ground Operations	3+	4+	4+	4+	1	4+
11	Takeoff	3+	4+	4+	4+	1	4+
11	Crosswind Takeoff	3+					
12	Departure	3+	4+	4+	4+	1	4+
13	G–Warm			4+	4+	1	
14	Turn Pattern	1	1	4+	1		1
15	Level Speed Change	1	1	4+	1		1
16	Slow Flight	1		3+	1		
17	Power-On Stall	1		4+	4+		
18	Landing Pattern Stalls	1		4+	4+		
19	Power-Off Stall	1		4+	1		
20	Spin	1		4+	4+		
21	Contact Unusual Attitudes	1		4+	4+		
22	Loop			4+	4+	1	

MIF continued on next page.

CONTACT STAGE MANEUVER ITEM FILE							
CTS REF	**MANEUVER**	**C3102**	**C3201**	**C4106**	**C4290**	**C4301**	**C4402**
23	Aileron Roll			4+	4+	1	
24	Split-S			3+	1		
25	Barrel Roll			4+	4+	1	
26	Immelmann			3+	1		
27	Half Cuban Eight			4+	4+	1	
28	Wingover			4+	4+	1	
29	Slip	3+		3+	1		
30	Power Loss	3+		3+	1		
31	Precautionary Emergency Landing	3+	3+	4+	4+		3+
32	PEL/P	3+	3+	4+	4+		3+
33	ELP Landing	3+	3+	4+	4+		3+
34	Arrival/Course Rules	3+	3+	4+	4+	1	4+
35	Landing Pattern	3+	4+	4+	4+	1	4+
36	No-Flap Landing	3+	3+	4+	4+	1	3+
36	Takeoff Flap Landing	3+	3+	4+	4+	1	3+
36	LDG Flap Landing	3+	3+	4+	4+	1	3+
36	Full-stop Landing	3+	3+	4+	4+	1	3+
37	AOA Approach			3+	1		
38	Wave-off	3+	4+	4+	4+	1	4+
	Special Syllabus Requirements	1		1			1

Blk #	Media	Title	Events	Hrs	Blk Name
C12	MIL	Contact Flight Procedures	1	1.0	SFS

1. Prerequisite. C4102.

2. Events

C1201	Offline MIL	Safe-for-Solo		1.0	SFS

3. Syllabus Notes. None.

4. Discuss Items. None.

Blk #	Media	Title	Events	Hrs	H/X
C31	OFT	Contact	2	1.3	2.6

1. Prerequisites

   a. G0101 (unless waived for the reason stated on page II-1).

   b. G0290.

   c. G0302.

2. Syllabus Notes. The following procedures will be performed by the student on the indicated event:

   C3101
   Engine Failure During Flight, Immediate Air-start (PMU NORM), Forced Landing, PEL, PEL/P, ELP.

   C3102
   With crosswinds at maximum solo limits: Crosswind takeoff, Crosswind Landings, Crosswind T&Gs, Crosswind Full-stops, Aborted Takeoff, Aircraft Departs Prepared Surface, Power Loss (Engine Failure), PEL, PEL/P, ELP.

3. Special Syllabus Requirements

   C3102
   At least one pattern and landing with the TAD off.

4. Discuss Items

   C3101
   ELP Pattern, PEL, PEL(P), Engine Failure Indications, Engine Failure During Flight, Immediate air-start (PMU NORM).

   C3102
   Crosswind limits, Crosswind computations, Crosswind takeoff, Pattern adjustments for crosswinds, Crosswind Landings, Crosswind T&Gs, Crosswind Full-stops, Aborted Takeoff, and Aircraft Departs Prepared Surface.

5. Block MIF

CTS REF	MANEUVER	C3102
1	General Knowledge/Procedures	4+
2	Emergency Procedures	3+
3	Headwork/Situational Awareness	3+
4	Basic Air-work	3+
5	In-flight Checks/Fuel Management	3+
6	In-flight Planning/Area Orientation	3+
7	Task Management	3+
8	Communication	3+
9	Mission Planning	3+
10	Ground Operations	3+
11	Takeoff	3+
11	Crosswind Takeoff	3+
12	Departure	3+
14	Turn Pattern	1
15	Level Speed Change	1
16	Slow Flight	1
17	Power-On Stall	1
18	Landing Pattern Stalls	1
19	Power-Off Stall	1
20	Spin	1
21	Contact Unusual Attitudes	1
29	Slip	3+
30	Power Loss	3+
31	Precautionary Emergency Landing	3+
32	PEL/P	3+
33	ELP Landing	3+
34	Arrival/Course Rules	3+
35	Landing Pattern	3+

MIF continued on next page.

CTS REF	MANEUVER	C3102
36	No-Flap Landing	3+
36	Takeoff Flap Landing	3+
36	LDG Flap Landing	3+
36	Full-stop Landing	3+
38	Wave-off	3+
	Special Syllabus Requirements	1

Blk #	Media	Title	Events	Hrs	H/X
C41	T-6B	Day Contact	6	10.2	1.7

1. Prerequisite. C3102.

2. Syllabus Notes

a. Instructors will provide each student with ample opportunity to practice basic maneuvers such as turns, changes of airspeed, use of trim, local area familiarization, etc.

b. Students are required to review NATOPS Flight Manual, Chapter 6, Flight Characteristics, prior to C4103.

c. All spin maneuvers shall be done with a clearly defined horizon, clear of clouds. Spin maneuvers may be performed over an under-cast cloud layer that does not exceed 4,500 ft AGL.

d. A minimum of three spins shall be successfully completed in the C4100 block of training.

e. Unusual Attitude Recoveries. The instructor will instruct and enter unusual attitudes from normal aerobatic maneuvers, and pass the controls for the student to recover above 90 KIAS. Students must be able to associate cause and effect of unusual attitude situations and apply proper recovery procedures.

3. Special Syllabus Requirements

C4102
Student will execute a spin with anti-spin recovery procedures.

C4103
Student executes a visual straight-in approach.

C4106
Securing rear cockpit for solo.

4. Discuss Items

C4101
IMSAFE checklist, CRM, ejection seat and CFS, abnormal starts, brake failure, strike of ground object, takeoff, departure, basic transitions, trim, turn pattern, level speed change, slow flight, see-and-avoid principle, and cloud clearances, HUD.

C4102
Tire failures, aborted takeoff, working area/outlying field operations, power-on stalls, landing pattern stalls, power-off stalls, landing pattern, no-flap landing, takeoff flap landing, LDG flap landing, and wave-off.

C4103
Crosswind takeoff/approach/landing, and landing irregularities, OCF, SCATSAFE maneuver, and Contact unusual attitudes.

C4104
OLF Arrival and Departure, Local Course Rules, and Home-field Arrival.

C4105
Unauthorized solo maneuvers, lost aircraft procedures, unintentional instrument flight, any EP.

C4106
Safe-for-solo and securing the rear cockpit, local course rules, any EP.

5. Block MIF

CTS REF	MANEUVER	C4106
1	General Knowledge/Procedures	4+
2	Emergency Procedures	4+
3	Headwork/Situational Awareness	4+
4	Basic Air-work	4+
5	In-flight Checks/Fuel Management	4+
6	In-flight Planning/Area Orientation	4+
7	Task Management	4+
8	Communication	4+
9	Mission Planning	4+
10	Ground Operations	4+
11	Takeoff	4+
12	Departure	4+
13	G-Warm	4+
14	Turn Pattern	4+
15	Level Speed Change	4+
16	Slow Flight	3+
17	Power-On Stalls	4+
18	Landing Pattern Stalls	4+
19	Power-Off Stall	4+
20	Spin	4+
21	Contact Unusual Attitudes	4+
22	Loop	4+
23	Aileron Roll	4+
24	Split-S	3+
25	Barrel Roll	4+
26	Immelmann	3+
27	Half Cuban Eight	4+
28	Wingover	4+

MIF continued on next page.

CTS REF	MANEUVER	C4106
29	Slip	3+
30	Power Loss	3+
31	Precautionary Emergency Landing	4+
32	PEL/P	4+
33	ELP Landing	4+
34	Arrival/Course Rules	4+
35	Landing Pattern	4+
36	No-Flap Landing	4+
36	Takeoff Flap Landing	4+
36	LDG Flap Landing	4+
36	Full-stop Landing	4+
37	AOA Approach	3+
38	Wave-off	4+
	Special Syllabus Requirements	1

Blk #	Media	Title	Events	Hrs	H/X
C42	T-6B	Contact Check Flight	1	1.7	1.7

1. Prerequisites.

   a. C4106.

   b. C1201 (Safe-for-Solo).

2. Syllabus Notes. All spin maneuvers shall be done with a clearly defined horizon, clear of clouds. Spin maneuvers may be performed over an under-cast cloud layer that does not exceed 4,500 ft AGL.

3. Special Syllabus Requirements. None.

4. Discuss Items. Any previously discussed items, unauthorized solo maneuvers, lost aircraft procedures, unintentional instrument flight, local course rules, and emergency procedures.

5. Block MIF

CTS REF	MANEUVER	C4290
1	General Knowledge/Procedures	4+
2	Emergency Procedures	4+
3	Headwork/Situational Awareness	4+
4	Basic Air-work	4+
5	In-flight Checks/Fuel Management	4+
6	In-flight Planning/Area Orientation	4+
7	Task Management	4+
8	Communication	4+
9	Mission Planning	4+
10	Ground Operations	4+
11	Takeoff	4+
12	Departure	4+
13	G-Warm	4+

MIF continued on next page.

CTS REF	MANEUVER	C4290
14	Turn Pattern	1
15	Level Speed Change	1
16	Slow Flight	1
17	Power-On Stalls	4+
18	Landing Pattern Stalls	4+
19	Power-Off Stalls	1
20	Spin	4+
21	Contact Unusual Attitudes	4+
22	Loop	4+
23	Aileron Roll	4+
24	Split-S	1
25	Barrel Roll	4+
26	Immelmann	1
27	Half Cuban Eight	4+
28	Wingover	4+
29	Slip	1
30	Power Loss	1
31	Precautionary Emergency Landing	4+
32	PEL/P	4+
33	ELP Landing	4+
34	Arrival/Course Rules	4+
35	Landing Pattern	4+
36	No-Flap Landing	4+
36	Takeoff Flap Landing	4+
36	LDG Flap Landing	4+
36	Full-stop Landing	4+
37	AOA Approach	1
38	Wave-off	4+

Blk #	Media	Title	Events	Hrs	H/X
C43	T-6B	Day Contact Solo Flight	1	1.5	1.5

1. Prerequisite. C4290.

2. Syllabus Notes

a. The student shall not perform stalls, spins, AOA approach, split-S, Immelmann, inverted flight, or combination maneuvers.

b. The student should accomplish a minimum of four touch-and-go landings and may only accomplish maneuvers listed in the MIF table.

c. SNA shall have completed a spin within five days of solo flight.

3. Special Syllabus Requirements. None.

4. Discuss Items. IAW ODO/FDO solo brief.

5. Block MIF

CTS REF	MANEUVER	C4301
1	General Knowledge/Procedures	1
2	Emergency Procedures	1
3	Headwork/Situational Awareness	1
4	Basic Air-work	1
5	In-flight Checks/Fuel Management	1
6	In-flight Planning/Area Orientation	1
7	Task Management	1
8	Communication	1
9	Mission Planning	1
10	Ground Operations	1
11	Takeoff	1
12	Departure	1
13	G-Warm	1
22	Loop	1
23	Aileron Roll	1
25	Barrel Roll	1
27	Half Cuban Eight	1
28	Wingover	1
34	Arrival/Course Rules	1
35	Landing Pattern	1
36	No-Flap Landing	1
36	Takeoff Flap Landing	1
36	LDG Flap Landing	1
36	Full-stop Landing	1
38	Wave-off	1

Blk #	Media	Title	Events	Hrs	H/X
C32	OFT	Night Contact	1	1.3	1.3

1. Prerequisite. C4301.

2. Syllabus Notes. None.

3. Special Syllabus Requirements. None.

4. Discuss Items.

   C3201
   Night flying environment, field lighting, aircraft and cockpit lighting, outside scan techniques, see and avoid.

5. Block MIF

CTS REF	MANEUVER	C3201
1	General Knowledge/Procedures	4+
2	Emergency Procedures	4+
3	Headwork/Situational Awareness	4+
4	Basic Air-work	4+
5	In-flight Checks/Fuel Management	4+
6	In-flight Planning/Area Orientation	4+
7	Task Management	4+
8	Communication	4+
9	Mission Planning	4+
10	Ground Operations	4+
11	Takeoff	4+
12	Departure	4+
14	Turn Pattern	1
15	Level Speed Change	1
31	Precautionary Emergency Landing	3+
32	PEL/P	3+
33	ELP Landing	3+

MIF continued on next page.

CTS REF	MANEUVER	C3201
34	Arrival/Course Rules	3+
35	Landing Pattern	4+
36	No-Flap Landing	3+
36	Takeoff Flap Landing	3+
36	LDG Flap Landing	3+
36	Full-stop Landing	3+
38	Wave-off	4+

Blk #	Media	Title	Events	Hrs	H/X
C44	T-6B	Night Contact	2	3.0	1.5

1. Prerequisite. C3201.

2. Syllabus Notes

a. Night landings shall be executed no earlier than 30 minutes after official sunset.

b. Instructor demonstrates at least one landing pattern prior to the student attempting night landings.

c. Events shall be at least 1.4 hours and student shall accomplish at least five landings.

d. Events should visit more than one airfield.

3. Special Syllabus Requirements

C4402
Visual straight-in.

4. Discuss Items

C4401
Night flying considerations, airport night lighting, aircraft and cockpit lighting, and local night SOP.

C4402
Applicable night emergencies, electrical system malfunctions, aircraft operating limits.

5. Block MIF

CTS REF	MANEUVER	C4402
1	General Knowledge/Procedures	4+
2	Emergency Procedures	4+
3	Headwork/Situational Awareness	4+
4	Basic Air-work	4+
5	In-flight Checks/Fuel Management	4+
6	In-flight Planning/Area Orientation	4+
7	Task Management	4+
8	Communication	4+
9	Mission Planning	4+
10	Ground Operations	4+
11	Takeoff	4+
12	Departure	4+
14	Turn Pattern	1
15	Level Speed Change	1
31	Precautionary Emergency Landing	3+
32	PEL/P	3+
33	ELP Landing	3+
34	Arrival/Course Rules	4+
35	Landing Pattern	4+
36	No-Flap Landing	3+
36	Takeoff Flap Landing	3+
36	LDG Flap Landing	3+
36	Full-stop Landing	3+
38	Wave-off	4+
	Special Syllabus Requirements	1

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Chapter V

Instrument Training

1. Matrices. The following matrices are an overview of the entire Instrument stage. The purpose of these matrices is to provide the student and IP the easiest way to track progress and overall status in relation to the MIF.

2. Radio Instruments Stage MIF

Simulator/Device Event
Check Flight Event

RADIO INSTRUMENTS STAGE MANEUVER ITEM FILE								
CTS REF	**MANEUVER**	**I3104**	**I4106**	**I3204**	**I4206**	**I4306**	**I4490**	**I4502**
1	General Knowledge/Procedures	3+	3+	3+	4+	4+	4+	1
2	Emergency Procedures	3+	4+	4+	4+	4+	4+	1
3	Headwork/Situational Awareness	3+	3+	3+	3+	4+	4+	1
4	Basic Air-work	3+	3+	3+	4+	4+	4+	1
5	In-flight Checks/Fuel Management	3+	3+	3+	4+	4+	4+	
6	In-flight Planning/Area Orientation	3+	3+	3+	4+	4+	4+	
7	Task Management	3+	3+	3+	4+	4+	4+	
8	Communication	3+	3+	3+	3+	3+	4+	1
9	Mission Planning	1	3+	3+	4+	4+	4+	1
10	Ground Operations	1	4+	1	4+	4+	4+	1
11	Takeoff	4+		4+	4+	4+	4+	
12	Departure	3+	3+	3+	4+	4+	4+	1
41	Radial Intercepts	3+	3+	3+	4+	4+	1	
42	Point-to-Point	3+	3+	3+	3+	3+	1	

MIF continued on next page.

	RADIO INSTRUMENTS STAGE MANEUVER ITEM FILE							
CTS REF	**MANEUVER**	**I3104**	**I4106**	**I3204**	**I4206**	**I4306**	**I4490**	**I4502**
45	Holding	3+	3+	3+	3+	3+	4+	
46	En route Procedures	3+	3+	3+	4+	4+	4+	
47	En route Descent	3+	3+	3+	4+	4+	4+	
48	High-Altitude Approach	1	1	3+	1	1	1	
49	Teardrop Approach	3+		3+				
50	Arcing Approach	3+		3+				
51	HILO Approach	3+		3+				
52	Procedure Turn Approach	3+		3+				
53	RVFAC Approach	3+		3+				
54	GPS Approach	3+		3+				
55	PAR Approach	3+		3+				
55	ASR Approach	3+		3+				
56	VOR Final	3+		3+				
57	ILS Final	3+		3+				
58	LOC Final	3+		3+				
59	GPS Final	3+		3+				
48-55	Approach #1		3+		3+	3+	4+	
48-55	Approach #2		3+		3+	3+	4+	
48-55	Approach #3		3+		3+	3+	4+	
56-59	Approach #1 Final		3+		3+	3+	4+	
56-59	Approach #2 Final		3+		3+	3+	4+	
56-59	Approach #3 Final		3+		3+	3+	4+	
60	Backup Flight Instrument Approach	3+	1	3+	1	1	1	
61	Circling Approach	3+	1	3+	3+	3+	1	
62	Missed Approach	3+	3+	3+	4+	4+	4+	
63	Transition to Landing/Landing	1	3+	3+	3+	4+	4+	

Blk #	Media	Title	Events	Hrs	H/X
I31	OFT	Radio Instruments	4	5.2	1.3

1. Prerequisite. G0422.

2. Syllabus Notes

   a. All events shall be flown in the OFT.

   b. Students shall bring a completed DD-1801 for all RI events.

3. Special Syllabus Requirements. None.

4. Discuss Items

   I3101
   Clearance and departure procedures, VOR procedure turn and teardrop approaches, FAF-to-MAP timing adjustments, ILS/LOC procedures, and missed approach.

   I3102
   HILO approaches, Circling approach, Holding, GPS approaches, intersections and oil system malfunctions.

   I3103
   PAR, PAR W/O GS, ASR, Recommended altitudes, IMC emergencies, and propeller malfunctions.

   I3104
   RVFAC, SID/STAR, obstacle departure procedure, Trouble T, obtaining IFR clearance from uncontrolled airports, and fuel system malfunctions.

5. Block MIF

CTS REF	MANEUVER	I3104
1	General Knowledge/Procedures	3+
2	Emergency Procedures	3+
3	Headwork/Situational Awareness	3+
4	Basic Air-work	3+
5	In-flight Checks/Fuel Management	3+
6	In-flight Planning/Area Orientation	3+
7	Task Management	3+
8	Communication	3+
9	Mission Planning	1
10	Ground Operations	1
11	Takeoff	4+
12	Departure	3+
41	Radial Intercepts	3+
42	Point-to-Point	3+
45	Holding	3+
46	En route Procedures	3+
47	En route Descent	3+
48	High-Altitude Approach	1
49	Teardrop Approach	3+
50	Arcing Approach	3+
51	HILO Approach	3+
52	Procedure Turn Approach	3+
53	RVFAC Approach	3+
54	GPS Approach	3+
55	PAR Approach	3+
55	ASR Approach	3+

MIF continued on next page.

CTS REF	MANEUVER	I3104
56	VOR Final	3+
57	ILS Final	3+
58	LOC Final	3+
59	GPS Final	3+
60	Backup Flight Instrument Approach	3+
61	Circling Approach	3+
62	Missed Approach	3+
63	Transition to Landing/Landing	1

Blk #	Media	Title	Events	Hrs	H/X
I41	T-6B	Radio Instruments	6	10.2	1.7

1. Prerequisite. I3104.

2. Syllabus Notes

a. All events shall be flown from the front cockpit. A minimum of three approaches, a point-to-point, and holding should be completed on each event.

b. Minimum of two events from this block should be flown at night.

c. Flights should be accomplished as an out-and-in to the max extent practicable.

d. Students shall contact their instructor the day prior to brief to determine the route of flight to plan.

e. Students shall bring a copy of a completed DD-1801 and jet log to the brief for instructor use during flight.

f. Students should attempt the following approach type requirements: RVFAC, Teardrop, Arcing, HILO, and Procedure Turn. Students shall meet or exceed these approach-type requirements. A minimum of 12 approaches are required for this block.

GCA	2
ILS	2
Localizer	1
VOR	3
GPS	3

3. Special Syllabus Requirements. None.

4. Discuss Items

I4101
CRM, holding, Point-to-Point navigation, VOR approach procedures, and HILO approach procedures.

I4102
ILS/LOC approach procedures, RVFAC, circling procedures, and icing considerations.

I4103
PAR, ASR, and no-gyro approaches; hypoxia/hyperventilation; and OBOGS malfunctions.

I4104
Inadvertent thunderstorm penetration, icing, wind-shear, and any emergency procedure.

I4105
Visual approach, pilot-controlled lighting, lost communications (FIH/LOA), weather minimums (takeoff, destination, alternate).

I4106
En route weather facilities (FSS/METRO), STARS, and DPs (SID/ODP/vector/diverse).

5. Block MIF

CTS REF	MANEUVER	I4106
1	General Knowledge/Procedures	3+
2	Emergency Procedures	4+
3	Headwork/Situational Awareness	3+
4	Basic Air-work	3+
5	In-flight Checks/Fuel Management	3+
6	In-flight Planning/Area Orientation	3+
7	Task Management	3+
8	Communication	3+
9	Mission Planning	3+
10	Ground Operations	4+
12	Departure	3+
41	Radial Intercepts	3+
42	Point-to-Point	3+
45	Holding	3+
46	En route Procedures	3+
47	En route Descent	3+
48	High-Altitude Approach	1
48-55	Approach #1	3+
48-55	Approach #2	3+
48-55	Approach #3	3+

MIF continued on next page.

CTS REF	MANEUVER	I4106
56-59	Approach #1 Final	3+
56-59	Approach #2 Final	3+
56-59	Approach #3 Final	3+
60	Backup Flight Instrument Approach	1
61	Circling Approach	1
62	Missed Approach	3+
63	Transition to Landing/Landing	3+

Blk #	Media	Title	Events	Hrs	H/X
I32	OFT	Radio Instruments	4	5.2	1.3

1. Prerequisite. G0590.

2. Syllabus Notes

   a. I3204 shall be under simulated night conditions.

   b. All events shall be flown in the OFT.

   c. Student shall fly one GCA as a no-gyro approach in the block.

   d. Full use of the FMS is available to the student.

   e. Flight planning for all events in this block shall include a completed jet log and DD-1801.

   f. HUD shall not be used.

3. Special Syllabus Requirements. None.

4. Discuss Items

   I3201
   GPS procedures, GPS allowable operations (GPS waypoints in lieu of NDB, and VOR fixes), GPS approaches, GPS holding, and GPS flight modes.

   I3202
   FMS flight plan usage (SID/STAR, holding, and approach) and FMS arrivals.

   I3203
   NATOPS Procedures and situations not covered by NATOPS, No-gyro approach and BFI approach.

   I3204
   High-altitude approach and non-radar environment communications, avionics failures, obstacle departure procedures, and Trouble T.

5. Block MIF

CTS REF	MANEUVER	I3204
1	General Knowledge/Procedures	3+
2	Emergency Procedures	4+
3	Headwork/Situational Awareness	3+
4	Basic Air-work	3+
5	In-flight Checks/Fuel Management	3+
6	In-flight Planning/Area Orientation	3+
7	Task Management	3+
8	Communication	3+
9	Mission Planning	3+
10	Ground Operations	1
11	Takeoff	4+
12	Departure	3+
41	Radial Intercepts	3+
42	Point-to-Point	3+
45	Holding	3+
46	En route Procedures	3+
47	En route Descent	3+
48	High-Altitude Approach	3+
49	Teardrop Approach	3+
50	Arcing Approach	3+
51	HILO Approach	3+
52	Procedure Turn Approach	3+
53	RVFAC Approach	3+
54	GPS Approach	3+
55	PAR Approach	3+
55	ASR Approach	3+
56	VOR Final	3+
57	ILS Final	3+

MIF continued on next page.

CTS REF	MANEUVER	I3204
58	LOC Final	3+
59	GPS Final	3+
60	Backup Flight Instrument Approach	3+
61	Circling Approach	3+
62	Missed Approach	3+
63	Transition to Landing/Landing	3+

Blk #	Media	Title	Events	Hrs	H/X
I42	T-6B	Radio Instruments	6	10.2	1.7

1. Prerequisite. I3204.

2. Syllabus Notes

a. All events shall be flown from the front cockpit. A minimum of three approaches, a point-to-point, and holding should be completed on each event.

b. Minimum of two events from this block should be flown at night.

c. Student shall fly one GCA as a no-gyro approach in the block.

d. Flights may be conducted as an out-and-in or cross country. At least one segment should be flown above FL180 to emphasize high altitude en route navigation.

e. Students should attempt the following approach type requirements: RVFAC, Teardrop, Arcing, HILO and Procedure Turn. Students shall meet or exceed these approach-type requirements. A minimum of 12 approaches are required for this block.

GCA	2
ILS	2
Localizer	1
VOR	2
GPS	2

f. Full use of the FMS is available to the student on I4201-2. On I4203-6, students should practice maneuvers and approaches without the use of the FMS, excluding GPS approaches.

g. Flight planning for all events in this block shall include a completed jet log, DD-1801, DD-175-1 weather brief, NOTAMS, and BASH conditions. Students should contact the IP prior to the flight (or Duty Officer after hours) to obtain guidance for the required flight plan.

h. A visual approach shall be flown at least once during the block.

3. Special Syllabus Requirements. None.

4. Discuss Items

I4201
Clearance and departure procedures, stereo routes (canned flight plans), airway navigation, and lost communications (local/FIH).

I4202
FMS flight plan usage (SID/STAR, holding, and approach) and FMS arrivals.

I4203
No-gyro approach, visual approach, emergency field selection, and fuel management.

I4204
FAA flight plan, CNAF M-3710.7 takeoff and approach minimums and alternate filing minimums.

I4205
Electrical system malfunctions, other discussion items at the discretion of the IP.

I4206
Filing in flight, wake turbulence.

5. Block MIF

CTS REF	MANEUVER	I4206
1	General Knowledge/Procedures	4+
2	Emergency Procedures	4+
3	Headwork/Situational Awareness	3+
4	Basic Air-work	4+
5	In-flight Checks/Fuel Management	4+
6	In-flight Planning/Area Orientation	4+
7	Task Management	4+
8	Communication	3+
9	Mission Planning	4+
10	Ground Operations	4+
11	Takeoff	4+
12	Departure	4+
41	Radial Intercepts	4+
42	Point-to-Point	3+
45	Holding	3+

MIF continued on next page.

CTS REF	MANEUVER	I4206
46	En route Procedures	4+
47	En route Descent	4+
48	High-Altitude Approach	1
48-55	Approach #1	3+
48-55	Approach #2	3+
48-55	Approach #3	3+
56-59	Approach #1 Final	3+
56-59	Approach #2 Final	3+
56-59	Approach #3 Final	3+
60	Backup Flight Instrument Approach	1
61	Circling Approach	3+
62	Missed Approach	4+
63	Transition to Landing/Landing	3+

Blk #	Media	Title	Events	Hrs	H/X
I43	T-6B	Radio Instruments	6	10.2	1.7

1. Prerequisite. I4206.

2. Syllabus Notes

a. All events shall be flown from the front cockpit. A minimum of three approaches, a point-to-point, and holding should be completed on each event.

b. Minimum of two events from this block should be flown at night.

c. Student shall fly one GCA as a no-gyro approach in the block.

d. Flights may be conducted as an out-and-in or cross country. At least one segment should be flown above FL180 to emphasize high altitude en route navigation.

e. Students should attempt the following approach type requirements: RVFAC, Teardrop, Arcing, HILO and Procedure Turn. Students shall meet or exceed these approach-type requirements. A minimum of 12 approaches are required for this block.

GCA	2
ILS	2
Localizer	1
VOR	2
GPS	2

f. Full use of the FMS is available to the student on I4301-2. On I4303-6, students should practice maneuvers and approaches without the use of the FMS, excluding GPS approaches.

g. Flight planning for all events in this block shall include a completed jet log, DD-1801, DD-175-1 weather brief, NOTAMS, and BASH conditions. Students should contact the IP prior to the flight (or Duty Officer after hours) to obtain guidance for the required flight plan.

h. A visual approach shall be flown at least once during the block.

3. Special Syllabus Requirements. None.

4. Discuss Items

I4301
TERPS (FAA Order 8260.3B), Trouble T.

I4302
Instrument publications (DoD (NGA), FAA (NACO/AeroNav Services), Jeppesen/other), DPs (ODP/SID/vector/diverse, and uncontrolled field).

I4303
Wake turbulence, windshear, other discussion items at the discretion of the IP.

I4304
Airspace and RVSM

I4305
EP/Limits quiz, other discussion items at the discretion of the IP.

I4306
At the discretion of the IP.

5. Block MIF

CTS REF	MANEUVER	I4306
1	General Knowledge/Procedures	4+
2	Emergency Procedures	4+
3	Headwork/Situational Awareness	4+
4	Basic Air-work	4+
5	In-flight Checks/Fuel Management	4+
6	In-flight Planning/Area Orientation	4+
7	Task Management	4+
8	Communication	3+
9	Mission Planning	4+
10	Ground Operations	4+
11	Takeoff	4+
12	Departure	4+
41	Radial Intercepts	4+
42	Point-to-Point	3+
45	Holding	3+

MIF continued on next page.

CTS REF	MANEUVER	I4306
46	En route Procedures	4+
47	En route Descent	4+
48	High-Altitude Approach	1
48-55	Approach #1	3+
48-55	Approach #2	3+
48-55	Approach #3	3+
56-59	Approach #1 Final	3+
56-59	Approach #2 Final	3+
56-59	Approach #3 Final	3+
60	Backup Flight Instrument Approach	1
61	Circling Approach	3+
62	Missed Approach	4+
63	Transition to Landing/Landing	4+

Blk #	Media	Title	Events	Hrs	H/X
I44	T-6B	NATOPS Instrument Check Flight	1	1.7	1.7

1. Prerequisite. I4306.

2. Syllabus Notes

a. This event will be a comprehensive evaluation of IFR procedures, involving a representative cross section of instrument approaches and emergency procedures.

b. Complete a minimum of three approaches to include one precision and one non-precision approach, and holding.

c. NFSs are required to bring a completed instrument rating request form to the brief.

d. IFR final exam must be within previous 60 days.

e. IP shall include "Safe for Solo" on the ATF for a satisfactory complete event.

f. Event shall be flown IAW CNAF-M 3710.7 and the NATOPS Instrument Flight Manual. Successful completion shall lead to issuance of CNAF-M 3710.7 initial Standard Instrument Rating.

3. Special Syllabus Requirements. None.

4. Discuss Items. Instrument rating request form CNAF-M 3710.7, Trouble T, alternate routing, minimum fuel requirements, and additional discussion items at the discretion of the IP.

5. Block MIF

CTS REF	MANEUVER	I4490
1	General Knowledge/Procedures	4+
2	Emergency Procedures	4+
3	Headwork/Situational Awareness	4+
4	Basic Air-work	4+
5	In-flight Checks/Fuel Management	4+

MIF continued on next page.

CTS REF	MANEUVER	I4490
6	In-flight Planning/Area Orientation	4+
7	Task Management	4+
8	Communication	4+
9	Mission Planning	4+
10	Ground Operations	4+
11	Takeoff	4+
12	Departure	4+
41	Radial Intercepts	1
42	Point-to-Point	1
45	Holding	4+
46	En route Procedures	4+
47	En route Descent	4+
48	High-Altitude Approach	1
48-55	Approach #1	4+
48-55	Approach #2	4+
48-55	Approach #3	4+
56-59	Approach #1 Final	4+
56-59	Approach #2 Final	4+
56-59	Approach #3 Final	4+
60	Backup Flight Instrument Approach	1
61	Circling Approach	1
62	Missed Approach	4+
63	Transition to Landing/Landing	4+

Blk #	Media	Title	Events	Hrs	H/X
I45	T-6B	Airways Navigation Solo Flight	2	3.0	1.5

1. Prerequisite. I4490.

2. Syllabus Notes

a. Shall be flown from the front cockpit.

b. I4501-2 must be accomplished within three calendar days of I4490. If break is greater than three days, an I4490 shall be completed and student must be determined again to be "Safe for Solo" prior to I4501.

c. Conduct airways navigation solo brief with the CDO/ODO.

d. I4501-2 should be conducted as an out-and-in.

3. Special Syllabus Requirements. None.

4. Discuss Items. Lost communications (FIH), CNAF M-3710.7 takeoff/approach minimums, flight planning (submit a completed DD-1801 and jet log), NOTAMs, en route weather, and any emergency procedure.

5. Block MIF

CTS REF	MANEUVER	I4502
1	General Knowledge/Procedures	1
2	Emergency Procedures	1
3	Headwork/Situational Awareness	1
4	Basic Air-work	1
8	Communication	1
9	Mission Planning	1
10	Ground Operations	1
12	Departure	1

Chapter VI

Navigation Training

1. Seating. Students shall occupy the front seat for all events in the stage.

2. Matrices. The following matrices presents an overview of the entire Navigation (VFR) Stage. The purpose of these matrices is to provide the student and IP the easiest way to track progress and overall status in relation to the MIF.

3. Navigation Stage MIF

Simulator/Device Event

NAVIGATION STAGE MANEUVER ITEM FILE				
CTS REF	**MANEUVER**	**N3101**	**N4101**	**N4201**
1	General Knowledge/Procedures	3+	4+	4+
2	Emergency Procedures	4+	4+	4+
3	Headwork/Situational Awareness	3+	4+	4+
4	Basic Air-work	4+	4+	4+
5	In-flight Checks/Fuel Management	3+	4+	4+
6	In-flight Planning/Area Orientation	3+	4+	4+
7	Task Management	3+	4+	4+
8	Communication	3+	4+	4+
9	Mission Planning	3+	4+	4+
10	Ground Operations	1	4+	4+
11	Takeoff	4+	4+	4+
12	Departure	3+	4+	4+
34	Arrival/Course Rules	3+	3+	3+
35	Landing Pattern	4+	4+	4+
36	No-Flap Landing	1	1	1
36	Takeoff Flap Landing	1	1	1
36	LDG Flap Landing	1	1	1
65	Route Management	3+	4+	4+
66	Standard Time Corrections	3+	3+	3+
67	Standard Course Corrections	3+	3+	3+
68	ATIS/PMSV/FSS/Weather	3+	4+	4+

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

1. Prerequisite. C4301.

2. Syllabus Notes. Flight planning for this event shall include a completed jet log, DD-1801, DD-175-1 weather brief, NOTAMS, and BASH conditions.

3. Special Syllabus Requirements. None.

4. Discuss Items. VFR chart preparation, emergency field selection, airspace classification, VFR field entry/departure (AIM), HUD, route management, standard time corrections, and standard course corrections.

5. Block MIF

CTS REF	MANEUVER	N3101
1	General Knowledge/Procedures	3+
2	Emergency Procedures	4+
3	Headwork/Situational Awareness	3+
4	Basic Air-work	4+
5	In-flight Checks/Fuel Management	3+
6	In-flight Planning/Area Orientation	3+
7	Task Management	3+
8	Communication	3+
9	Mission Planning	3+
10	Ground Operations	1
11	Takeoff	4+
12	Departure	3+
34	Arrival/Course Rules	3+
35	Landing Pattern	4+
36	No-Flap Landing	1

MIF continued on next page.

CTS REF	MANEUVER	N3101
36	Takeoff Flap Landing	1
36	LDG Flap Landing	1
65	Route Management	3+
66	Standard Time Corrections	3+
67	Standard Course Corrections	3+
68	ATIS/PMSV/FSS/Weather	3+

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

1. Prerequisite. N3101.

2. Syllabus Notes

a. Flight planning for these events shall include a completed jet log, DD-1801, DD-175-1 weather brief, NOTAMS, and BASH conditions. Students shall provide charts with route appropriately depicted and jet logs for the IP and one for themselves.

b. Fly VFR no lower than 1,000 feet AGL.

3. Special Syllabus Requirements. None.

4. Discuss Items.

N4101
VFR chart preparation, route management, standard time corrections, standard course corrections, airspace classification, and VFR field entry-departure (AIM).

5. Block MIF

CTS REF	MANEUVER	N4101
1	General Knowledge/Procedures	4+
2	Emergency Procedures	4+
3	Headwork/Situational Awareness	4+
4	Basic Air-work	4+
5	In-flight Checks/Fuel Management	4+
6	In-flight Planning/Area Orientation	4+
7	Task Management	4+
8	Communication	4+
9	Mission Planning	4+
10	Ground Operations	4+
11	Takeoff	4+
12	Departure	4+
34	Arrival/Course Rules	3+
35	Landing Pattern	4+
36	No-Flap Landing	1
36	Takeoff Flap Landing	1
36	LDG Flap Landing	1
65	Route Management	4+
66	Standard Time Corrections	3+
67	Standard Course Corrections	3+
68	ATIS/PMSV/FSS/Weather	4+

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

1. Prerequisites.

a. N4101.

b. C4401.

2. Syllabus Notes

a. Flight planning for these events shall include a completed jet log, DD-1801, DD-175-1 weather brief, NOTAMS, and BASH conditions. Students should contact the IP prior to the flight (or Duty Officer after hours) to obtain guidance for the required route. Students shall provide charts with route appropriately depicted and jet logs for the IP and one for themselves.

b. Fly VFR no lower than 2,000 feet AGL.

3. Special Syllabus Requirements. None.

4. Discuss Items. Night visual navigation procedures, night VFR chart interpretation, local night SOPs, and HUD, BASH, night emergency field selection, and any applicable night emergency.

5. Block MIF

CTS REF	MANEUVER	N4201
1	General Knowledge/Procedures	4+
2	Emergency Procedures	4+
3	Headwork/Situational Awareness	4+
4	Basic Air-work	4+
5	In-flight Checks/Fuel Management	4+
6	In-flight Planning/Area Orientation	4+
7	Task Management	4+
8	Communication	4+
9	Mission Planning	4+
10	Ground Operations	4+
11	Takeoff	4+
12	Departure	4+
34	Arrival/Course Rules	3+
35	Landing Pattern	4+
36	No-Flap Landing	1
36	Takeoff Flap Landing	1
36	LDG Flap Landing	1
65	Route Management	4+
66	Standard Time Corrections	3+
67	Standard Course Corrections	3+
68	ATIS/PMSV/FSS/Weather	4+

Chapter VII

Formation Training

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

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Chapter VIII

Tactical Training

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

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Chapter IX

Course Training Standards

1. Purpose. These standards outline the tasks and proficiency required of student aviators during Primary training. This training prepares an officer to perform the duties of a rated pilot.

2. Student Duties and Responsibilities

a. Plan the mission.

b. Ensure the 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 student progression to meet required standards prior to phase completion. Instructor pilots shall evaluate student performance against these standards.

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

BEHAVIOR STATEMENT	STANDARDS
Graded Item	
● A brief description of the behavior, required action, and/or conditions.	● The specific standards for the action. May be read as "The student…"

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 Contact, each stage's MIF table is listed followed by the CTSs unique to that stage. Once the standard for a graded item has been established, the description will be omitted from later stages where it is also graded.

7. Course Training Standards

UNIVERSALLY GRADED ITEMS

BEHAVIOR STATEMENT	STANDARDS
1. General Knowledge/Procedures	
● Demonstrate satisfactory knowledge of aircraft systems, procedures, flight training instructions, and directives.	● Demonstrate a thorough understanding of aircraft system capabilities, aircraft directives, and applicable instructions. ● Demonstrate the ability to apply procedures from all applicable sources of guidance.
2. Emergency Procedures	
● Maintain in-depth knowledge of NATOPS and appropriate directives. ● Perform critical/noncritical action emergency procedures.	● Correctly analyzes situation. ● Performs/recites critical action steps from memory. ● Uses checklist when conditions permit. ● Completes procedures in a timely manner.

BEHAVIOR STATEMENT	STANDARDS
3. Headwork/Situational Awareness	
● Maintain situational awareness to include the following: ►Awareness – Correlates and keeps track of what is happening on the ground, in own aircraft, or with other flight members, and copes with subsequent mission impact as a result of their happenings. ►Flexibility – Copes with rapidly changing situations or conditions in flight or on the ground, and adjusts mission as needed to obtain desired objectives. ►Capacity – Cognizant of how large a task loading they can cope with before becoming saturated, confused, or frustrated to the point safety is jeopardized or the mission is rendered ineffective. ►Flight Discipline – Follows orders and carries out all required steps in a procedure in the proper order.	● Demonstrates the ability to minimize the effects of adverse factors and capitalizes on opportunities to avoid mission degradation. Factors to be considered may include, but are not limited to, weather conditions, airspace and approach restrictions, high-density traffic, aircraft capabilities and limitations, and fuel conservation. ● Correctly assesses all possible factors bearing on the situation and selects the best course of action. ● Makes correct decisions based on complete or incomplete knowledge of the situation. Foresees the outcome(s) of present actions and modifies those actions as necessary to obtain the best outcome. ● Decisions enhance mission effectiveness and do not hinder others from completing their missions. ● Never exceeds capabilities to control the aircraft safely. Selects an alternative course of action, when needed, to reduce task loading and allow for effective mission accomplishment. ● Has complete knowledge of all rules and regulations and carries out all duties with minimum supervision.
4. Basic Air-work	
● Establish and maintain desired altitude, airspeed, and heading during flight.	● Maintains aircraft within 100 feet, 10 KIAS, 10° of heading. ● Appropriately uses power, attitude, and trim. ● Levels off within 100 feet of desired altitude. ● Maintains smooth/positive control consistent with flight conditions. ● Correctly uses trim system to maintain aircraft control.

BEHAVIOR STATEMENT	STANDARDS
5. In-Flight Checks/Fuel Management	
● Complete checks as required.	● Performs: ►Operations checks at least every 20 minutes. ►Before landing checklist at required configuration points. ►Pre-stalling, spinning, and aerobatics checklist when required. ● Does not go below Joker or Bingo fuel without informing the flight leader as applicable.
6. In-Flight Planning/Area Orientation	
● Perform in-flight planning to include maintaining area orientation, profile management, energy management, and remaining within area limits.	● Efficiently sequences maneuvers. ● Adjusts mission profile for external factors (weather, traffic, etc.). ● Maintains positional awareness using ground references, navigational aids, VFR charts, or FLIPs. ● Maintains appropriate boundaries and altitude block within a working area as required.
7. Task Management	
● Prioritize and manage tasks, based on existing and new information, while maintaining constructive behavior under stress.	● Correctly prioritizes multiple tasks. ● Uses all available resources to manage workload. ● Asks for assistance when overloaded. ● Clearly states the problem and proposed solutions. ● Uses facts to come up with solutions.
8. Communication	
● Perform verbal and visual communication to include: ►Use of UHF/VHF radio. ►Inter-cockpit and formation intra-flight communications.	● Understands and responds to 90 percent of incoming calls. ● Correctly formulated, timely response with proper radio discipline and concise terminology. ● Required radio calls made IAW FLIP requirements. ● Visual signals IAW applicable directives.

BEHAVIOR STATEMENT	STANDARDS
9. Mission Planning	
● Perform mission planning to include takeoff, climb, en route, descent, approach, and landing data: planning mission profile and alternate course of action where appropriate. ● Prepare flight log/chart/DD1801.	● Uses required directives and forms. ● Plans mission in a timely manner to meet requirements. ● Completes all forms correctly. ● Complies with all directives.
10. Ground Operations	
● Inspect and wear personal equipment. ● Prepare aircraft for flight. ● Move aircraft to and from parking area to runway. ● Perform post-flight duties.	● Correctly inspects and wears personal equipment. ● Correctly and expeditiously performs exterior inspection, prestart, start, taxi, before takeoff, lineup, and shutdown checklists. ● Taxies safely via prescribed routing within three feet of centerline.
11. Takeoff/Crosswind Takeoff	
● Perform takeoff to include: ►Checking aircraft performance by means of precomputed takeoff data. ►Retracting gear/flaps. ►Accelerate to climb airspeed.	● Does not allow aircraft to move prior to brake release for takeoff. ● Applies appropriate crosswind controls. ● Maintains runway centerline within 10 feet. ● Rotates to and maintains proper takeoff attitude, becomes airborne at appropriate airspeed for existing conditions. ● Retracts gear and flaps when safely airborne and prior to exceeding aircraft limitations. ● Transitions to cross-check scan.
12. Departure	
● Perform VFR, IFR, or simulated IFR departure.	● Maintains altitudes, ground tracks, headings, and airspeeds as required. ● Complies with valid controller instructions or departure procedure.

CONTACT

BEHAVIOR STATEMENT	STANDARDS
13. G-Warm	
● Ensure proper anti-G suit operation. Perform G-Warm and AGSM. Maintain awareness of G-loading through all maneuvers.	● Performs G-Warm turns IAW directives. ● Performs proper AGSM. ● Avoids exceeding aircraft G-limitations.
14. Turn Pattern	
● Perform turn pattern IAW FTI.	● Perform within Basic Air-work CTS.
15. Level Speed Change	
● Perform level speed change IAW the FTI.	● Perform within Basic Air-work CTS.
16. Slow Flight	
● Perform slow flight IAW FTI.	● Airspeed +5,-0 KIAS. ● Maintains BAW.
17. Power-On Stall	
● Perform power-on stall IAW FTI.	● Initiate recovery with un-commanded nose drop and/or unplanned rolling motion. ● Recovers to wings level with two positive rates of climb with minimum altitude loss by maintaining 14-17.9 units AOA. ● Avoids secondary stall.
18. Landing Pattern Stalls	
● Perform simulated landing pattern stalls in various configurations.	● Initiates recovery at first indication of stall (airframe buffet or stick shaker). ● Recovers to wings level with two positive rates of climb with minimum altitude loss by maintaining 14-17.9 units AOA. ● Avoids secondary stall.
19. Power-Off Stalls	
● Perform emergency landing pattern stalls and recoveries in authorized configurations IAW FTI.	● Initiates recovery at first indication of stall (airframe buffet or stick shaker). ● Recovers by lowering pitch attitude as appropriate. ● Maintains the turn or ground track profile as appropriate.

BEHAVIOR STATEMENT	STANDARDS
20. Spin	
● Spin and recover per FTI.	● Performs clearing turn and check list. ● Properly enters spin IAW FTI. ● Initiates proper recovery utilizing FTI Spin recovery (emphasizing departure recognition and recovery) procedures. Students will be graded on Spin Recovery using the "inadvertent departure from controlled flight" procedure. ● Recovers from ensuing unusual attitude without exceeding aircraft limitations.
21. Contact Unusual Attitudes	
● Recover from nose-high unusual attitude IAW FTI. ● Recover from nose-low unusual attitude IAW FTI. ● Recover from an inverted unusual attitude.	● Nose-High: ►Minimizes airspeed loss during recovery. ►Does not: ■ Overstress or stall aircraft. ■ Enter subsequent unusual attitude. ● Nose-Low: ►Minimizes altitude loss and airspeed buildup during recovery. ►Does not: ■Overstress or stall aircraft. ■Enter subsequent unusual attitude. ● Inverted: ►Minimizes altitude loss and airspeed buildup during recovery. ►Does not: ■Overstress or stall aircraft. ■Enter subsequent unusual attitude. ■Split-S.
22. Loop	
● Perform a loop IAW FTI.	● Initiates using 4 ±1 G. ● Airspeed 100-120 KIAS at the top of the loop. ● Completes within: ►200 feet of entry altitude. ►±10° of entry heading.
23. Aileron Roll	
● Perform an aileron roll IAW the FTI.	● Maintains minimum yaw during roll. ● Rolls out with less than 5° AOB.

BEHAVIOR STATEMENT	STANDARDS
24. Split-S	
● Perform a split-S per the FTI.	● Initiates at: ►120-140 KIAS. ►5-10 degrees nose high. ● Recovers within: ►2500-3000 feet below entry altitude. ►20° of reciprocal heading.
25. Barrel Roll	
● Perform a barrel roll per the FTI.	● Does not exceed 2.5 Gs. ● Arrives at 45° position: ►80-100 degrees AOB. ►55-60 degrees nose high. ● Arrives at 90° position: ►Nose 10-20 degrees above the horizon. ►170-190 degrees AOB. ►100-120 KIAS. ►80-90 degrees of entry heading. ● Completes within: ►200 feet of entry altitude. ►10° of entry heading.
26. Immelmann	
● Perform Immelmann per the FTI.	● Initiates using 4 ±1 G. ● Completes within: ►100-120 KIAS. ►20° of reciprocal heading. ►2500-3000 feet above entry altitude.
27. Half Cuban Eight	
● Perform Half Cuban eight per the FTI.	● Initiates using 4 ±1 G. ● Completes within: ►200 feet of entry altitude. ►20° of reciprocal heading.

BEHAVIOR STATEMENT	STANDARDS
28. Wingover	
● Perform a wingover IAW FTI.	● Does not exceed: ►2.5 Gs. ►90° AOB. ● Arrives at 90° position: ►80-90 degrees AOB. ►85-95 degrees from entry heading. ● Arrives at level-flight position within: ►200 feet of entry altitude. ►10° of reciprocal heading.
29. Slip	
● Perform a slip IAW FTI.	● Uses proper cross-control procedures. ● Terminates slip after dissipating excess energy level necessary to continue profile.
30. Power Loss (Engine Failure)	
● Perform simulated emergency IAW NATOPS/FTI.	● Performs timely procedural execution and diagnosis of engine failure mode. ● Executes NATOPS memory items to 100 percent accuracy. ● Correctly executes zoom/glide. ● Formulates plan to intercept ELP profile and executes successfully. ● Flies correct checkpoints and airspeeds on ELP. ● Establishes aircraft on final in position to make a safe landing at the selected site. ● If no suitable site for forced landing is available, verbalizes controlled ejection procedures.

BEHAVIOR STATEMENT	STANDARDS
31. Precautionary Emergency Landing	
● In response to simulated emergency procedure, proceed to high key for the nearest suitable runway, then intercept the ELP.	● Performs timely procedural execution. ● Selects nearest suitable runway and appropriate high key. ● Maintains no less than 125 KIAS until intercepting ELP. ● Uses power rather than delaying configuration to maintain ELP profile. ● If conditions permit, lowers flaps to Takeoff at low-key and to LDG when landing is assured. ● Establishes aircraft on final in position to make a safe landing.
32. PEL/P	
● In response to simulated emergency procedure, proceed to appropriate ELP position for the nearest suitable runway, then intercept the ELP. ● Perform from initiation to crossing runway threshold.	● Performs timely procedural execution. ● Selects nearest suitable runway and intercepts appropriate ELP position. ● Uses power rather than delaying configuration to maintain ELP profile. ● If conditions permit, lowers flaps to Takeoff at low-key and to LDG when landing is assured. ● Establishes aircraft on final in position to make a safe landing.
33. ELP Landing	
● Perform landing in proper ELP configuration.	● Touches down at proper pitch attitude while maintaining ground track using wing-low procedures as appropriate. ● Touches down in prescribed landing zone.
34. Arrival/Course Rules	
● Operate to and from OLF and home field using local course rules.	● Complies with the FTI, local course rules. ● Navigation: ►Proceeds under own navigation to OLF/home field entry point. ►Asks for, and successfully complies with, radar vectors to OLF/home field entry point.

BEHAVIOR STATEMENT	STANDARDS
35. Landing Pattern	
● 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.	● Complies with BAW parameters except: ►Maximum 45° AOB. ►TO Flap: ■115 +10/-0 KIAS from 180 until straightaway. ■105 +10/-0 KIAS until beginning landing flare. ►LDG Flap: ■110 +10/-0 KIAS from 180 until straightaway. ■100 +10/-0 KIAS until beginning landing flare. ►No-Flap: ■120 +10/-0 KIAS from 180 until straightaway. ■110 +10/-0 KIAS until beginning landing flare. ►Rolls out on final: ■Within 75 feet of runway centerline. ■With 1200-1500 feet of straightaway from the threshold. ■Between 200 ±50 feet AGL.
36. Landing (No-Flap, Takeoff Flap, LDG Flap, Full-stop, Crosswind)	
● Execute normal landing per the FTI. ● From crossing runway threshold until: ►Touch-and-go, commencing crosswind turn. ►Full stop, aircraft is at taxi speed.	● Maintains: ►Correct glide-path until flare initiation. ►No-Flap: Minimum 110 KIAS until landing transition. ►Takeoff Flap: Minimum 105 KIAS until landing transition. ►LDG Flap: Minimum 100 KIAS until landing transition. ● Touches down with: ►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. ● Full-stop: Maintain directional control through proper use of aileron and rudder. Reduces to safe taxi speed prior to clearing runway.

BEHAVIOR STATEMENT	STANDARDS
37. Angle-of-Attack Approach	
● Perform AOA approach to a normal flared landing.	● Transitions to AOA when established on downwind. ● Maintains AOA ±2 units. ● Rolls out on final: ►1200-1500 feet of straightaway from the threshold. ►200 ±50 feet AGL. ►Within 75 feet of runway centerline. ● Executes normal flared landing or a wave-off.
38. Wave-off	
● Discontinue approach to landing.	● Expeditiously executes wave-off procedures IAW the FTI. ● Initiates wave-off when: ►Conflicting with PEL traffic. ►Stall warning system actuates (stick shaker). ►Aircraft requires more than 45-degree AOB to avoid overshooting final. ►Directed. ►Aircraft is not in a safe position to make a safe landing. ● Maintains course rules requirements.

INSTRUMENT

BEHAVIOR STATEMENT	STANDARDS
39. IFR Unusual Attitudes	
● Perform unusual attitude recovery using full panel references.	● Nose low: Recovers minimizing altitude loss and airspeed buildup. ● Nose high: ►Does not stall aircraft. ►Does not overstress aircraft. ►Does not enter subsequent unusual attitude.
40. Timed-turns	
● Perform Timed Turns IAW FTI.	● Maintains BAW parameters and on time ±10 seconds.

BEHAVIOR STATEMENT	STANDARDS
41. Radial Intercepts	
● Perform radial intercepts IAW FTI or ATC direction.	● Establishes aircraft ±3° of desired radial.
42. Point-to-Point	
● Proceed direct to an assigned fix using only VOR/DME point-to-point per FTI.	● Applies FTI procedures to expeditiously establish a correct initial heading. ● Continuously updates heading to: ►Avoid sudden, large, heading changes. ►Arrive within 1 NM of desired point.
43. GCA Pattern	
● Perform the GCA pattern IAW FTI.	● Maintains BAW parameters.
44. Approach Pattern	
● Perform the approach pattern IAW FTI.	● Maintains BAW parameters.
45. Holding	
● Perform holding IAW FTI.	● Computes proper entry and subsequent turns. ● Estimates wind direction and applies appropriate corrections. ● Establishes and maintains aircraft within holding airspace.
46. En route Procedures	
● Maintain aircraft's track on appropriate radial or airway. ● Identify an intersection using appropriate NAVAID(s).	● Maintains ±3 radials of centerline. ● Estimates approximate wind direction and applies proper crosswind correction. ● Positions the aircraft at a required intersection or leads the turn at an intersection to roll out on the required radial ±3°. ● Gives position report as required. ● For GPS, maintains ±2 NM of centerline.
47. En route Descent	
● Perform IFR descent from en route altitude or MOA.	● Maintains altitudes, ground tracks, headings, and airspeeds as required. ● Complies with BAW standards.
48. High-Altitude Approach	
● Perform high-altitude approach procedure from IAF to MAP.	● Plans descent rate consistent with approach requirements. ● Maintains standards for appropriate IAP layout.

BEHAVIOR STATEMENT	STANDARDS
49. Teardrop Approach	
● Perform a teardrop approach IAW FTI.	● IAF to FAF: Maintains course ±5 degrees or valid intercept. ● By the FAF or initiating descent to MDA: ►Completes before landing checklist. ►Has aircraft trimmed and at final approach airspeed +10/-0 KIAS.
50. Arcing Approach	
● Perform an arcing approach per FTI.	● Adheres to standards for arcing. ● By the FAF or initiating descent to MDA: ►Completes before landing checklist. ►Has aircraft trimmed and at final approach airspeed +10/-0 KIAS.
51. HILO Approach	
● Perform a holding pattern approach per FTI.	● Computes proper entry turn. ● IAF to FAF: Maintains course ±5° or valid intercept. ● By the FAF or initiating descent to MDA. ►Completes before landing checklist. ►Has aircraft trimmed and at final approach airspeed +10/-0 KIAS.
52. Procedure Turn Approach	
● Perform a procedure turn approach per FTI.	● IAF to FAF: Maintains course ±5° or valid intercept. ● By the FAF or initiating descent to MDA: ►Completes before landing checklist. ►Has aircraft trimmed and at final approach airspeed +10/-0 KIAS.
53. RVFAC Approach	
● Perform an approach using radar vectors to final approach course IAW FTI.	● Responds quickly and correctly to controller instructions. ● Maintains headings ±5°.

BEHAVIOR STATEMENT	STANDARDS
54. GPS Approach	
● Perform a GPS approach IAW FTI.	● Initial approach waypoint to FAWP: Maintains course ±0.25 NM or valid intercept. ● At 3 NM from FAWP, ensures FAWP is active waypoint. ● At 2 NM from FAWP, ensures GPS is in active mode.
55. GCA Approach	
● Perform PAR approach IAW FTI.	● Responds quickly and correctly to controller instructions. ● Prior to beginning descent to DH/DA: ►Completes before landing checklist. ►Has aircraft trimmed and at final airspeed +10/-0 KIAS. ● On final: ►Maintains ±3° of assigned heading. ►Maintains airspeed +10/-0 KIAS. ►Reaches DH/DA. ►Can safely land from approach.
● Perform ASR approach IAW FTI	● Responds quickly and correctly to controller instructions. ● Prior to beginning descent to MDA: ►Completes before landing checklist. ►Has aircraft trimmed and at final airspeed +10/-0 KIAS. ● On final ►Maintains ±3° of assigned heading. ►Maintains airspeed +10/-0 KIAS. ►Reaches and maintains MDA +100/-0 feet. ►Can safely land from approach
56. VOR Final	
● Perform VOR final from FAF to MAP.	● Maintains ±3° of desired course. ● Maintains airspeed +10/-0 KIAS. ● Reaches and maintains MDA +100/-0 feet. ● Can safely land from approach.

BEHAVIOR STATEMENT	STANDARDS
57. ILS Final	
● Perform ILS final from glideslope intercept to DH/DA.	● Maintains airspeed +10/-0 KIAS. ● Maintains CDI within 1 dot. ● Maintains GSI within 1 dot. ● Reaches DH/DA. ● Can safely land from approach.
58. Localizer Final	
● Perform LOC final from FAF to MAP.	● Maintains airspeed +10/-0 KIAS. ● Maintains CDI within 1 dot. ● Reaches and maintains MDA +100/-0 feet. ● Can safely land from approach
59. GPS Final	
● Perform GPS final from FAWP to MAWP.	● Maintains airspeed +10/-0 KIAS. ● Maintains CDI within 1 dot. ● Reaches and maintains MDA +100/-0 feet. ● Can safely land from approach.
60. Backup Flight Instrument Approach	
● Perform final approach from descent point to DH/MDA using PAR/ASR for guidance.	● Responds quickly and correctly to controller instructions. ● By starting descent to DH/MDA: ►Completes before landing checklist. ►Has aircraft trimmed and at final airspeed. ● Maintains airspeed +10/-0 KIAS on final. ● Can safely land from approach.
61. Circling Approach	
● Visually align the aircraft for landing on a runway other than that to which the approach was flown, or from a circling IAP IAW FTI.	● Properly orients circling instructions to the landing runway. ● Selects appropriate MDA for aircraft category. ● Maintains at/above MDA consistent with weather. ● Remains within the clear zone for the approach category. ● Executes missed approach instructions for the approach flown.

BEHAVIOR STATEMENT	STANDARDS
62. Missed Approach	
● Perform a missed approach.	● Complies with FTI procedures. ● Initiates when field not in sight and ►Non-precision, ■Inside FAF and full scale CDI deflection, ■At specified MAP DME, ■At expiration of timing in the absence of DME. ►Precision, first of ■Decision altitude, ■Controller-directed, ►Or, not in position for safe landing.
63. Transition to Landing/Landing	
● Execute normal landing IAW FTI. ● From crossing runway threshold until: ►Touch-and-go, commencing crosswind turn. ►Full stop, aircraft is at taxi speed.	● Maintains: ►Correct glide-path until flare initiation. ►TO flap: Minimum 105 KIAS until landing transition. ►LDG flap: Minimum 100 KIAS until landing transition. ● Touches down with: ►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.

NAVIGATION

BEHAVIOR STATEMENT	STANDARDS
64. Route Entry/Exit	
● Perform route entry procedures.	● Accomplishes required ATC coordination, visually identifies route entry, complies with all entry time requirements, effectively maneuvers aircraft into route structure, arrives at entry point ±1 NM.

BEHAVIOR STATEMENT	STANDARDS
65. Route Management	
● Navigate from point-to-point using dead reckoning and visual references.	● Establishes chart position using clock-chart-ground. ● Identifies chart significant landmarks along route. ● Overflies each checkpoint ±1 NM.
66. Standard Time Corrections	
● Navigate from point-to-point using dead reckoning and visual references.	● Makes airspeed adjustments to arrive on target ±1 minute.
67. Standard Course Corrections	
● Navigate from point-to-point using dead reckoning and visual references.	● Makes adjustments to maintain a visual course given a specified course ±2 NM.
68. ATIS/PMSV/FSS/Weather	
● Use ATIS/PMSV to update destination conditions. ● Use FSS as required to open, change, and close flight plans.	● Checks ATIS prior to contacting destination approach control. ● Updates destination and alternate weather with PMSV/AWOS/FSS en route, when required. ● Contacts FSS to: ►Open flight plans after departure. ►Change flight plans en route. ►Close flight plans after landing.