

COMTRAWINGSIXINST 3710.1H
Code 37000

COMTRAWING SIX INSTRUCTION 3710.1H

Subj: STANDARD OPERATING PROCEDURES (SOP)

Ref: (a) OPNAVINST 3710.7S
(b) OPNAVINST 4631.2D
(c) OPNAVINST 1542.7C
(d) CNATRAININST 3710.2R
(e) CNATRAININST 3710.8G
(f) CNATRAININST 3710.13E
(g) CNATRAININST 5720.24E
(h) NAVAIR A1-T6AAA-NFM-100
(i) NAVAIR 01-T34AAC-1
(j) NAVAIR 01-60GAB-1
(k) NAVAIR 01-60GBE-1
(l) NAVAIRSYSCOM N00019-98-D-0140
(m) TO IT-1A-1
(n) T-1 Contract
(o) AFI 11-202 VIII
(p) AFI 11-202 v2
(q) AFI 11-2T-1 v1
(r) AFI 11-2T-1 v2
(s) COMTRAWINGSIXINST 3740.2L
(t) COMTRAWINGSIXINST 13700.1K
(u) COMTRAWINGSIXINST 3710.16
(v) NASPCLAINST 3140.5
(w) NASPCLAINST 3722.1U

Encl: (1) Standard Operating Procedure Change Form
(2) NATOPS Instructor Designation Request
(3) Associate Instructor Applicant Personal Data
(4) Authorization to Fly Request
(5) Observer - Passenger Matrix

1. Purpose. To issue Standard Operating Procedures (SOP) for flight operations under the cognizance of Commander, Training Air Wing Six (CTW-6) in order to improve flight standardization and safety.

2. Cancellation. COMTRAWINGSIXINST 3710.1G and COMTRAWINGSIXINST 3710.15C.

3. Scope. This instruction encompasses detailed requirements for the safe and efficient operations of all Training Air Wing Six (TW-6) aircraft flown by both military and contract aircrew

while accomplishing the TW-6 mission. This instruction supplements references (a) through (w) and applies to instances where there are no governing directives. Should a conflict exist between this and other directives, higher directives will apply.

4. Action

a. All personnel involved with the operation of TW-6 aircraft shall be thoroughly familiar with the contents of this instruction and comply with the directives and policies stated herein.

b. All TW-6 activities and associate instructors affected by the contents of this SOP are charged with the responsibility of submitting recommendations, additions, corrections, or constructive suggestions to ensure continual improvement of the standardization process. Enclosure (1) shall be used to submit changes to the Wing Operations Officer.

c. The TW-6 Operations Officer will chair an annual SOP board to review changes and recommend corrective action(s).

C. L. MITCHELL

Distribution:

COMTRAWINGSIXINST 5216.1Q

List I (C,D,E,H,I), II, III (B,F), and IV (F,I,M,O,P,CC)

L-3 AeroTech (2)

Harris (2)

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CHAPTER ONE

GENERAL

100. OBJECTIVE. The objective of this instruction is to ensure the standardization of all flight operations within Training Air Wing SIX (TW-6). This SOP instruction supplements references (a) through (w) providing all aircrew operating TW-6 aircraft with uniform procedures for flight operations and training.

101. SCOPE. This instruction is applicable to all flight operations involving TW-6 assets. It is not intended to restrict sound judgment where safety of flight is concerned. Individual TW-6 squadrons may prescribe more specific restrictive SOPs for their operations.

102. REQUIRED READING. All aircrew members shall be familiar with this instruction prior to flying TW-6 aircraft. Additionally, aircrews shall keep current with the latest changes to their squadron's SOP and policies. In order to ensure currency, a Crew Information Folder (CIF) of required reading shall be maintained in individual squadron/contractor ready rooms. Stan notes and Wing directives will be routed from the TW-6 Operation Officer to the Squadron Operations Officers for distribution to the squadrons.

103. CHANGE PROCEDURES. Change recommendations to this instruction shall be submitted to the TW-6 Operations Officer using enclosure (1).

104. REVIEW. This instruction shall be reviewed annually via the annual change review board chaired by the TW-6 Operations Officer.

CHAPTER TWO

AIRCREW TRAINING

200. GENERAL. All squadron aircrew, associate aircrew, and contractor pilots shall obtain and maintain the highest level of proficiency possible in order to safely and efficiently carry out the mission of training Undergraduate Military Flight Officers (UMFO).

201. PHYSIOLOGICAL EPISODES

a. Definition. Physiological episodes are physical, pathological, or psychological problems that manifest before, during, or after simulated or actual flight. These problems include but are not limited to hypoxia, hyperventilation, decompression sickness, spatial disorientation, loss of consciousness, airsickness, simulator sickness, etc.

b. Physiological Episode Evaluation Procedures

(1) Self-evaluation. Individuals with first-hand knowledge of the circumstances accomplish the most efficient and direct detection of hazards. Students and staff receive basic education in physiological stressors during Naval Aviation Physiology Training. Additionally, each TW-6 member is provided a Flight Surgeon in-brief which describes available clinical follow-up services. It is the individual's responsibility to report suspected physiological episodes to their chain-of-command.

(2) Instructor-student evaluation. Instructors shall document physiological episodes on grade sheets in every instance. Except for airsickness, all physiological episodes shall be referred to the Flight Surgeon/Aero Medical Safety Officer (AMSO) for evaluation, and a physiological episode hazard report shall be completed. On the first airsickness episode, the instructor may use his judgment and discretion as to whether or not to refer the student to the Flight Surgeon. If a second airsickness episode occurs, evaluation by the Flight Surgeon is mandatory prior to the next training flight. In addition, instructors should present the case of the student with problems to the attention of the Human Factors Board if required.

(3) Flight Surgeon Evaluation. The Flight Surgeon shall monitor and follow-up on students with physiological episodes who have been referred, and make appropriate disposition of the aero medical factors.

c. G-Induced Loss of Consciousness (GLOC). All instructors will receive G-awareness training (including anti-G straining maneuver (AGSM) training) prior to flight in TW-6 aircraft. The TW-6 AMSO or the Flight Surgeon will conduct this training at the beginning of the Instructor Under Training (IUT) syllabus. Instructors will be scheduled by the phase IUT coordinator. A G-warm up maneuver should be conducted prior to performing BFM or acrobatic maneuvers requiring in excess of 3 G's.

d. Aero Medical Support. Commanding Officers (COs) should optimize opportunities to include Wing aero medical personnel on the flight schedule. This will maximize their exposure to the physiological and psychological problems of flight and ensure their accessibility to students and instructors.

202. AIRCREW NATOPS QUALIFICATIONS. Minimum qualifications for each aircraft are set forth in the respective aircraft Naval Air Training and Operating Procedures Standardization (NATOPS) manual. Initial qualification shall be in accordance with (IAW) references (a), (e), (p), and (s). Specific requirements are further defined in the appropriate aircraft specific chapter.

203. INSTRUMENT RATING/QUALIFICATIONS. Instrument rating/qualification shall be issued and renewed IAW reference (a) to include:

a. Attend the TW-6 instrument refresher ground training course.

b. Successfully complete a written end-of-course exam.

c. Pilots shall also successfully complete an instrument evaluation flight with a designated instrument check pilot IAW ref (a), (p), and (r). The check flight:

(1) May be flown in an approved high fidelity simulator (except T-1).

(2) May be a dedicated flight.

(3) May be combined with a NATOPS check flight.

(4) Shall not be in conjunction with a student training flight.

204. NATOPS INSTRUMENT RATING DOCUMENTATION. Documentation for military personnel shall be IAW reference (a) and their respective squadron SOP.

205. CONTRACTOR PILOT-IN-COMMAND CHECK PILOTS. T-1 Contract Pilot-In-Command check pilot nominees must be approved by the Government Flight Representative (GFR) IAW the applicable sections of reference (n).

206. NATOPS INSTRUCTOR PILOTS. The TW-6 staff and squadron instructor pilots who have been evaluated by their respective NATOPS model managers and designated by their Commanding Officers or the Wing Commander as "NATOPS Instructors" constitute the TW-6 NATOPS training cadre. The following requirements apply:

a. A minimum of 1,000 hours total flight time and 100 hours in type.

b. Completion of NATOPS Instructor Designation Request letter (enclosure (2)).

207. UMFO NATOPS EVALUATOR QUALIFICATIONS. CTW-6 will designate NFO/Navigator instructors as NATOPS evaluators and shall oversee the training and designation program to ensure the highest level of experience and compliance with reference (a).

208. ASSOCIATE INSTRUCTOR PROGRAM. An associate instructor is a designated pilot/NFO/NAV stationed in the Pensacola area at a command other than TW-6, or a unit subordinate to TW-6, that is allowed to instruct in TW-6 aircraft. To fly TW-6 aircraft, the individual must be on duty in a flying status involving operations (DIFOPS) orders. CTW-6 will approve individuals on a case-by-case basis. Individuals must have an appropriate operational background and be available to instruct at a minimum of twice per week. To apply for the program, forward enclosure (3) to CTW-6. A letter is also required from the individual's parent command recommending him/her for a position as an associate instructor and guaranteeing the candidate's availability to instruct on a weekly basis. Associate instructors shall be required to participate in all safety-related training with the squadron to which they are assigned. Reserve personnel are assigned to their respective squadrons and are not considered associates.

209. HUMAN FACTORS COUNCIL. Chief of Naval Air Training (CNATRA) directs that Human Factors Councils be established within each squadron to provide the Commanding Officer with an assessment of the safety climate and to make recommendations concerning flight crewmembers of the unit and their performance in the training environment. TW-6 squadrons shall include their respective associate instructors as designated by CTW-6 notice 3710 for review during Human Factors Council meetings.

210. CREW RESOURCE MANAGEMENT (CRM) TRAINING

a. GENERAL: IAW references (a), (c) and (u), all TW-6 pilots, mission commanders, and student NFO/NAV's shall receive aircraft specific CRM training. CTW-6 shall designate a CRM Curriculum Manager who is responsible for implementing this CRM training program Wing wide.

b. CRM Facilitators: Squadron commanders will designate only highly qualified STAN instructors to be CRM Facilitators, IAW reference (u).

c. CRM Instructors: Squadron commanders will nominate only highly qualified CRM facilitators to be designated as CRM instructors.

d. Annual CRM Refresher Training: A designated CRM Instructor or Facilitator will instruct the monthly CRM refresher-training course for pilots and mission commanders. If the course instructor is not dual qualified, two instructors, one from each platform, will be present to instruct the course.

The CRM Curriculum Manager shall maintain a library of aircraft video and audiotape scenarios that illustrate the application of CRM skills. CRM refresher training shall include a review of this SOP, the "Sterile cockpit" concept, and Training Timeout (TTO) application.

e. Annual CRM Evaluation Flights: Annual CRM evaluation flights for pilots shall be conducted concurrent with an annual instrument or NATOPS check flight. Annual CRM evaluation flights for Mission Commanders shall be conducted concurrent with an annual STAN check flight. Log evaluation flights on the CRM Training/Evaluation Record in section II, part C of the NATOPS jacket and in the individual's flight logbook. A copy of the ATF, with comments citing successful completion of the CRM evaluation flight, shall be filed in section II, part C of the NATOPS.

f. IUT Training: Aircraft specific CRM shall have a high priority in IUT training. Squadron STAN instructors should assess an IUT's crew coordination (CRM) and comment on each ATF. New instructors will attend the CRM Training course in conjunction with Instrument Ground School while in the IUT program. IUTs will receive training on safe and effective management of student training coupled with the instructor's role in that process.

g. Student Training: Students shall receive aircraft specific CRM training during ground school, prior to flying in the aircraft for the first time. A qualified CRM Facilitator will instruct the course along with an invited pilot when available. Specific topics will include "Sterile cockpit" concept, SOP (emergencies, crew duties/responsibilities), checklists, radio procedures, lookout doctrine, directive commands, TTO application, general interaction between crew members.

h. Safety Stand-Downs: Contract T-1/T-39 pilots are encouraged to attend quarterly CTW-6 safety stand-downs. Additionally, Wing CRM Instructors shall invite instructors and contract pilots to present "true confession" case studies at each safety stand-down in order to keep awareness at the forefront.

CHAPTER 3

AIRCRAFT OPERATIONS GENERAL

300. GENERAL REGULATIONS. CTW-6 flight operations shall be conducted in compliance with the provisions of applicable Chief of Naval Operations (OPNAV), Air Force Instructions (AFI), Chief of Naval Air Training (CNATRA), Air Education and Training Command Instructions (AETCI), CTW-6 and individual squadron instructions. Additional requirements follow:

a. A complete NATOPS briefing with all aircrew present shall be conducted prior to walking to the aircraft.

b. Callsigns. The following callsign system shall be used for all TW-6 aircraft:

(1) Aircraft will be identified by a squadron callsign and a three-digit number. This unique three-digit block of numbers will easily identify each platform. Platform blocks will be as follows:

(2) ATC identification purposes:

100-199	T-1
200-299	T-2
300-399	T-6
400-499	T-39 (Intermediate)
500-599	T-39 (Advanced)
600-699	T-6
700-799	T-34
800-899	T-34
900-999	Maintenance flights

(3) Squadron Distribution Plan:

<u>VT-4</u>	<u>Callsign</u>
T-34	BUCK 703-789
T-1	BUCK 103-149
T-39	BUCK 403-449
T-6	BUCK 303-389

VT-10

T-34	KATT 803-889
T-1	KATT 150-199
T-39	KATT 450-499
T-6	KATT 603-689

VT-86

T-2	ROKT 203-299
T-39	ROKT 503-599

(4) The Commodore and Squadron CO/XO will have unique, permanent callsigns:

(a) CTW-6 will always be X00 (i.e. BUCK 100/300/400/700, KATT 100/400/600/800, and ROKT 200/500).

(b) VT CO's will always be X01 (i.e. BUCK 101/301/401/701, KATT 101/401/601/801, and ROKT 201/501).

(c) VT XO's will always be X02 (i.e. BUCK 102/302/402/702, KATT 102/402/602/802, and ROKT 202/502).

(5) The T-34/T-6 FITU will use X9X of the appropriate platform and squadron callsign. Example: KATT 690 would be a FITU T-6 line charged to VT-10 and BUCK 790 would be a FITU T-34 line charged to VT-4.

(6) All FCF flights.

- (a) T-1 - BUCK/KATT 910-919
- (b) T-2 - ROKT 920-929
- (c) T-39 - ROKT 950-959
- (d) T-6 - BUCK/KATT 930-939
- (e) T-34 - BUCK/KATT 970-979

301. WEATHER CRITERIA. Weather minimums required for filing, launch, and recovery of all TW-6 aircraft shall be IAW references (a), (d), (e) and (o) as applicable. Additional requirements for specific aircraft types are listed later in this instruction. Use of a special instrument qualification for take-off in conditions less than standard instrument qualification minimums is not authorized unless waived by CTW-6.

a. In addition to Weather Warning (WW) restrictions, squadron aircraft are restricted by reference (d) from conducting training flight operations in designated CNATRA

Aviation Weather Warning (CAWW) or Significant Meteorological Conditions (SIGMET) sectors.

b. Instructors are cautioned that when filing from other than U.S. Naval Air Stations, information on CAWWs may not be available. Aircrew may obtain a weather brief via phone at the toll free Naval Air Station (NAS) Pensacola weather office number: 1-866-878-8867. A close evaluation of effective military weather warnings shall be made to determine if the flight can be conducted within the spirit of the restrictions imposed by (a), (d), and (o).

c. TW-6 flights shall not file into or enter airfields with: known or forecast RCR of less than 12, braking action less than "fair", or snow or ice present or forecast on the runway or taxiways within plus or minus one hour of intended landing time.

d. Cold Weather Operations. Over-water training flights in the warning areas are prohibited when the wind-chill corrected outside air temperature is 32 degrees F or below or when the water temperature is 60 degrees F or below due to unavailability of anti-exposure suits in TW-6. The water temperature restriction may be waived to a minimum of 50 degrees F at commanding officer's discretion. Over-water flight during the normal approach phase of a sortie with the above weather conditions is permitted due to the low probability of ditching, the warm average temperature of the water and the local availability of SAR assets; however, time over water should be minimized.

e. Aircraft Lighting. In order to maximize visibility of TW-6 aircraft to other aircraft and tower personnel, landing/taxi lights and all other aircraft specific lights shall be used as much as practicable.

302. TAXIING AIRCRAFT

a. When taxiing on centerline, minimum taxi interval for TW-6 aircraft is 500 feet.

b. Formation flights may alternate sides of the taxiway during daylight hours. Taxi interval shall be IAW appropriate NATOPS flight manuals.

c. All TW-6 aircraft shall taxi on the centerline at night. Taxi lights shall be used to the greatest extent practicable during night operations, taking care to not adversely affect the vision of other aircrew or ground personnel.

d. Aircraft shall call for taxi clearance with ground control prior to leaving the ramp area. The aircraft should have intent to leave the ramp area and must receive clearance prior to taxiing out of the ramp space. The call should be made as soon as practicable after leaving the chocks.

303. AUTHORIZED AIRFIELDS. IAW ref (d), military airfields shall be used to the maximum extent possible. However, TW-6 aircraft (except T-1s) may take-off, land, or remain overnight at any civilian airfield that fulfills the following requirements:

- a. Contract fuel.
- b. No landing, parking, or overnight fees paid at government expense.
- c. Reasonable security for the aircraft. Civilian airfield security must be considered on a case-by-case basis.
- d. Special consideration and risk management analysis by the squadron shall be accomplished prior to authorizing ejection seat aircraft to RON at an airfield that does not have a military tenant.

304. STATIC DISPLAYS AND AERIAL DEMONSTRATIONS

- a. Approval authority:
 - (1) CTW-6 is authorized to approve participation at static display events in the Continental United States (CONUS) when these events are sanctioned by the Chief of Information (CHINFO) and Headquarters (HQ), 19th AF, as applicable. All requests must be prepared IAW reference (g).
 - (2) CNATRA/HQ 19th AF approval must be obtained for all flight demonstrations and for static display participation outside CONUS. All requests must be prepared IAW reference (g) and submitted 37 days prior via CTW-6.
 - (3) Requests for local static displays shall be forwarded to the Training Air Wing SIX Operations Officer for coordination.

- b. Regulations:

(1) Participation in a static/aerial display shall be conducted IAW references (a) and (o).

(2) Participants in static displays shall strictly observe physical security and safety guidelines. The public shall be prohibited from access to the interior of Naval Air Training Command (NATRACOM) aircraft.

(3) Placards with appropriate performance criteria and mission data will be displayed with the aircraft.

(4) Aircrew shall be present during the display and maintain a neat, well-groomed appearance and be attired in uniform (flight suit) whenever the public is present. Aircrew shall not consume alcohol while manning static displays.

c. Specific aircraft requirements for local PAO static displays:

(1) Chocks in place.

(2) Tiedowns in place.

(3) Pins in canopy, seat, gear, and stores.

(4) Hook down or pinned (if applicable).

(5) No one permitted inside aircraft that are ejection seat equipped.

d. Specific aircraft requirements for off-station static displays:

(1) Section 304 C requirements

(2) Tape over external canopy jettison handles.

(3) No one on or in aircraft.

(4) Aircraft roped off from public (if ropes are available).

(5) Canopy/door closed and locked or circuit breaker pulled (if applicable)

e. Engine start for airfield departure following a static display shall not occur until an appropriate foreign object debris (FOD) walkdown has been conducted.

305. FORMATION FLIGHTS. IAW reference (a), Squadron Commanders shall ensure issuance of, and compliance with, specific SOPs for all aspects for formation flights. Flight leads shall ensure that the formation is briefed to include, but not be limited to loss of sight, lost communication, inadvertent instrument meteorological conditions (IMC), and emergency procedures. All formation flights shall be scheduled events with the lead pilot designated on the flight schedule.

306. AIRBORNE VISUAL CHECKS. Airborne visual checks (e. g. for unsafe landing gear indications) may be performed by CTW-6 aircraft for emergency purposes only. Formation qualified pilots should perform airborne visual checks if available. However, all NATOPS qualified pilots are allowed to perform airborne visual checks. Dissimilar formations are strongly discouraged and shall be used only after all other options have been exhausted. All checks should be conducted in the 2500 foot Delta pattern, if possible. Positive, two-way radio communication between aircraft shall be established on tower frequency or as assigned by tower, and maintained throughout the check from join-up to break-up and safe separation of aircraft. The rendezvous and breakup shall be briefed by the emergency aircraft prior to accomplishment of visual checks.

307. CREW RESPONSIBILITIES.

a. Crew duty day. The crew duty day for instructors and students is 12 hours, from ½ hour prior to first scheduled event (ground or flight) to one hour after landing time or completion of scheduled official duty, whichever occurs last. Twelve hours of continuous crew rest should be afforded following completion of duty day. The Commodore, Squadron Commander, Squadron Executive Officer, or Wing or Squadron Operations Officer may waive the instructor duty day to a maximum of 18 hours on a case-by-case basis.

b. Maximum number of flight events per day. The maximum number of flight events per day at TW-6 is three. The maximum number of flight hours per day is 6.5. The Commodore or Squadron Commander may waive the instructor number of flight hours per day on a case-by-case basis.

c. Flight hour limitations. IAW reference (a), pilots exceeding 65 flight hours in a 30 day period, or 165 hours in a 90 day period, shall be closely monitored and specifically

cleared by the Squadron Commander on the advice of the Flight Surgeon.

d. Tobacco. The use of any tobacco product is prohibited in TW-6 aircraft.

e. Cameras. Cameras are not permitted in the cockpit unless specifically authorized by squadron commander.

f. Aircraft control. In the interest of building instrument scan and appreciation of pilot in command (PIC) task loading, the PIC may at his/her discretion allow non-rated crew members to manipulate the flight controls in flight. The PIC will retain the controls for taxi, takeoff, landing and when training with another aircraft. These restrictions shall not apply where a syllabus event directs the non-rated crewmember control the aircraft.

308. FUEL DEFINITIONS. The following definitions will be used to reference all fuel planning for training missions.

a. Mission Completion Fuel: The fuel required for recovery using pre-planned recovery parameters. It is the pre-briefed fuel state that is required for mission completion as planned, arriving at the intended destination with CTW-6 SOP minimum fuel.

b. Joker Fuel: The fuel state at which separation/bug out/event termination should begin using a normal profile to land at the intended destination with CTW-6 SOP minimum fuel.

c. Bingo Fuel: An emergency fuel level that is required to return to base or divert by the most direct route at maximum range airspeed/altitude and land with emergency fuel (NATOPS Bingo profile).

309. CREW RESOURCE MANAGEMENT (CRM) ROLES AND RESPONSIBILITIES

a. This paragraph covers the normal training mission. It outlines the roles and responsibilities of each crew member.

b. Pilot-in-Command (Contract). The PIC is responsible for the safe flight of the aircraft. The PIC is responsible for physically flying the aircraft during all phases of flight. The PIC has the authority to cease training at any time during a flight when safety of flight is an issue.

c. Pilot-in-Command (Instructor). The PIC shall be responsible for all phases of the assigned mission. The PIC will be charged with the authority and responsibility to provide appropriate direction to students to ensure safe and successful completion of each training mission. Termination of the training or evaluation portions of the flight for reasons of safety, unsatisfactory performance, or material discrepancy shall be the PICs prerogative. The PIC shall ensure that weather along the entire route, destination and alternate meets the Wing/Squadron SOP, CNATRA and OPNAV 3710 requirements. The PIC shall intervene at times when the student's performance is jeopardizing the safe, orderly conduct of the flight, when the student is overwhelmed, or when a dangerous or rapidly deteriorating situation is occurring.

d. Mission Commander (Instructor). The Mission Commander (MC) shall be responsible for all phases of the assigned mission except those aspects of safety of flight that are related to the physical control of the aircraft and fall within the prerogatives of the PIC. The MC will be charged with the authority and responsibility to provide appropriate direction to the PIC and student(s) to ensure safe and successful completion of each training mission. Termination of the training or evaluation portions of the flight for reasons of safety, unsatisfactory performance, or material discrepancy shall be the MC's prerogative. The MC shall ensure that weather along the entire route, destination and alternate meets the Wing/Squadron SOP, CNATRA and OPNAV 3710 requirements. The MC is responsible for backing up the pilot and monitoring aircraft performance, navigation, and all communications. The MC shall intervene at times when the student's performance is jeopardizing the safe, orderly conduct of the flight, when the student is overwhelmed, or when a dangerous or rapidly deteriorating situation is occurring. The MC has the authority to give the copilot duties back to the student with concurrence of the PIC.

e. Student Under Instruction. The student under instruction (SUI) is responsible for procedures delineated in the Flight Training Instruction (FTI) and all copilot duties to include: navigation, communication, checklists, and backing up the pilot by monitoring aircraft performance. The student shall control navigation aids, radios, transponder, and perform other duties as assigned. If the Instructor ceases training, the student will acknowledge and cease copilot duties until given back to him/her by the Instructor.

f. Brief/Debrief. Prior to every flight, the Instructor and student will complete the ORM Checklist found in the TW-6 In-

flight Guide to assess the risks associated with the mission. If any acceptable risks are deemed moderate or greater, controls will be developed and briefed to minimize those risks. Prior to each flight, the entire crew will brief utilizing the Aircrew Briefing Guide from the TW-6 In-flight Guide. The PIC (when applicable) may add any particulars that are not covered in the brief or this SOP.

g. Emergencies. All emergencies will be handled IAW NATOPS/Dash 1. The following roles/responsibilities are a starting point for any emergency. The crew may deviate if briefed/directed by the PIC.

(1) Pilot in Command. During an actual emergency, the PIC will execute immediate action items (BOLDFACE) and fly the aircraft. He/she will then delegate responsibilities to other crewmembers as the situation dictates.

(2) Mission Commander. During an actual emergency, the mission commander will take over copilot duties to include communication, navigation, and copilot responsibilities. He/she will delegate responsibilities to the student as required.

(3) Student Under Instruction. During an actual emergency, the student (where applicable) will transfer copilot duties to the mission commander/instructor, open the pocket checklist to the appropriate page and when prompted by the PIC, begin reading each step to include notes, warnings, and cautions. When directed, the student shall carry out additional duties. The student will not move any switches without concurrence from the PIC.

h. Critical Phases of Flight. During critical phases of flight to include taxi, takeoff, climb out and upon commencing the approach, the cockpit will be a sterile environment. There should be no communications that are not pertinent to the mission or safety of flight. Simulated emergencies will not be given during these phases of flight to students unless prebriefed between pilot and instructor (T-1/T-39). Instructors will provide minimum instruction to the student during these phases of flight. The PIC may direct the student to accomplish tasks and provide assistance/ instruction to the student to ensure the crew's situational awareness. During actual instrument approaches, the pilot will stay focused on the instruments and the student or MC will scan both inside and outside the aircraft and call the runway environment in sight with location as appropriate. If the runway environment is not in sight at MAP/DH, the student or MC will direct the pilot to go around and execute missed approach procedures.

310. MISSION COMPLETION CRITERIA

a. Purpose. To establish procedures and guidelines for determining the Mission Completion Rate (MCR) For The Airborne Training Portion Of The Undergraduate Military Flight Officer Training System.

b. Definitions

(1) Sortie - A sortie is a take-off and landing to engine shutdown which accomplishes student NFO/NAV or Instructor Under Training curriculum events including, but not limited to: target (bogey) flights; Instructor NATOPS and instrument check flights; standardization; transition training; familiarization training and currency flights. The training sorties may be performed as single leg flights, which are flown from off-site locations and return to the originating site on the same day or overnight missions.

(2) Mission - The event(s) (training, currency, instrument flights, etc.) that are scheduled to be completed during a sortie.

(3) Training "X" - A completed student mission that advances the student in the syllabus.

(4) Target Flight - When a training aircraft flies as the dedicated (bogey) aircraft during a radar intercept training mission.

(5) First Pass Yield - Determined by dividing the number of sorties scheduled by the number of sorties flown.

(6) Mission Completion Rate (MCR) - The number of completed missions divided by the number of sorties scheduled.

CHAPTER FOUR

GENERAL POLICIES AND PROCEDURES

400. INSTRUMENT FLIGHT QUALIFICATIONS. Reference (a) gives the standards for the maintenance of instrument qualifications by Naval Aviators, Naval Flight Officers, and Contract Pilots and sets forth the procedures for the conduct of instrument flights in military and contract aircraft. Air Force T-1 pilots shall use reference (q).

a. CTW-6 is designated as the Instrument Course Coordinator and shall:

(1) Establish an instrument ground-training syllabus IAW reference (a).

(2) Publish a quarterly course schedule.

(3) Annually review the course content and examinations.

b. All TW-6 squadrons shall:

(1) Provide one Instrument Ground School Instructor.

(2) Establish instrument flight boards IAW reference (a). These boards shall be composed of highly qualified and experienced aviators who are designated instrument check pilots by the Squadron Commanding Officers.

(3) Ensure standardization among instrument check pilots.

401. QUALIFICATION CRITERIA FOR FLIGHT IN TW-6 AIRCRAFT

a. For flight in TW-6 aircraft all aircrew shall comply with the requirements of reference (a). In addition, those aircrew not assigned to squadrons as an IUT, instructor, associate instructor, student, flight surgeon, physiologist or AMSO shall submit a request to TW-6 using the format in enclosure (4), Authorized To Fly Request. Upon approval, those individuals shall be placed on the Authorized to Fly list and are responsible for maintaining currency as set forth in reference (a) and squadron SOP.

b. In accordance with reference (a), and enclosure (5), flight requests for all non-designated individuals, or those without required flight clearances will be considered for one time flight waivers and be approved as follows:

(1) Military personnel may be approved by CTW-6 for flights in non ejection seat equipped TW-6 aircraft as observers.

(2) All other requests require CNATRA approval for flight, with the exception of maintenance personnel as addressed in section 402.

c. To ensure compliance with the above requirements the TW-6 Operations Officer shall:

(1) Administer and monitor the authorization to fly in TW-6 aircraft program.

(2) Screen all initial requests and verify that all necessary requirements/qualifications are current.

(3) Publish a monthly notice designating those aircrew/passengers that are authorized to fly in TW-6 aircraft.

402. AIRCRAFT MANAGEMENT

a. Aircraft assets are assigned to TW-6 for the express purpose of conducting student flight training. CNATRA allocates funds based on approved syllabus flight hours plus an overhead factor to account for mission support as well as student attrition's extra time, and incomplete flights. Any flight, which does not produce the programmed number of student sortie completions, increases the overhead borne by each student, thus increasing the average cost to train a SNFO/NAV. Certain flights, including IUT, NATOPS, standardization, aircrew proficiencies, instrument check, and post maintenance/functional check flights are required and authorized to support student flight training. It is realized that administrative/logistical requirements will be generated by higher authority as well as by CTW-6 for flights where no resource other than Wing aircraft are available. CTW-6 policy is to reduce administrative/logistical use of training aircraft to an absolute minimum. The fact that an aircraft is available and not immediately required for student flight training is not sufficient justification for expending flight hours for administrative/logistical purposes.

The use of aircraft for non-essential flights addressed in reference (a) is prohibited.

b. In the event that aircraft break off station, and require maintenance action to return to an up status, the Wing CDO will be notified. All rescue missions utilizing TW-6 aircraft will be coordinated through the TW-6 Operations Officer.

c. CTW-6 will authorize all administrative/logistical flights directed by higher authority.

d. Commanding Officers of TW-6 squadrons will minimize the use of their aircraft and/or reduce operating costs associated with administrative/logistical flights through:

(1) Use of existing logistics assets available throughout Naval Air Logistics Office (NALO) by submission of transportation/airlift requests IAW reference (b).

(2) Maximize student/IUT training in combination with administrative/logistical requirements.

(3) Use of the lowest cost-per-flight-hour aircraft capable of performing the required task.

(4) Referring all requests generated by commands outside of TW-6 via the TW-6 Operations Officer for consideration by CTW-6

403. FOD. All CTW-6 personnel, including civilian contractors, should make every effort to maintain the highest level of FOD awareness and prevention. All aircrew shall treat the flight line area as they would a flight deck. Prior to entering the flight line area, pockets zipped up, loose gear stowed, and helmets/hearing protection shall be worn when aircraft are turning. Additionally, all aircrew shall:

a. Include FOD prevention as part of the preflight brief.

b. Preflight their personal survival gear prior to walking.

c. Inspect the immediate area around their aircraft and at least 50 feet in front of the intakes prior to starting the engines.

d. Conduct thorough pre- and post-flight inspections of their aircraft for cockpit FOD and for evidence of aircraft FOD and/or birdstrike.

e. Students and instructors should participate in weekly FOD walk-downs as much as scheduling will allow.

404. DESTRUCTIVE WEATHER (WX) PLAN. The Pensacola area is frequently subjected to adverse weather conditions. Although these phenomena are varied and seasonal in nature, the occurrence of any one may cause damage to aircraft and facilities as well as personal injuries which adversely impact readiness. Due to the conditions, a high level of readiness is required during day-to-day operations.

a. Destructive Weather Terminology

(1) Thunderstorms. Rain storms with winds of 25 knots or greater. Thunderstorms are frequently accompanied by gusts of 35-40 knots, occasionally gusts may exceed 65 knots.

(2) Small Craft Warning. Wind velocities of 22 to 33 knots are expected. This term denotes the lower limits of destructive winds over coastal and inland water areas.

(3) Gale. Wind velocity limits are from 34 to 47 knots inclusive.

(4) Storm. Wind velocities of 48 knots or greater are expected.

(5) Tornadoes and Waterspouts. Although conditions are generally unfavorable for the formation of tornadoes in the Pensacola area, they do occasionally occur. Conditions are frequently favorable for the formation of waterspouts. Wind velocities of 50 knots may be expected, and wind velocities up to 200 knots are possible.

(6) Major Cyclonic Storm. Characterized by severe winds, torrential rains, and sometimes tornadoes, and tropical cyclones are classified based on wind velocity as follows:

(a) Tropical Depression: Sustained surface winds of 33 knots or less.

(b) Tropical Storm: Sustained winds in the range of 34 to 63 knots inclusive.

(c) Hurricane: Maximum sustained surface winds of 64 knots or greater.

b. Time-frames during which Hazardous Weather is expected:

(1) Thunderstorm, tornado, and small craft warnings

(a) Thunder Condition (TC) I: Hazardous WX imminent.

(1) TC 1A: Wind velocity to 35 KTS

(2) TC 1B: Wind velocity to 36-47 KTS

(3) TC 1C: Wind velocity > 47 KTS

(b) Condition II: Hazardous WX report/expected in the general area.

(2) Storm and Major Cyclonic Storm Warnings:

(a) Condition I: Hazardous WX expected within 12 hours.

(b) Condition II: Hazardous WX expected within 24 hours.

(c) Condition III: Hazardous WX expected within 48 hours.

(d) Condition IV: Hazardous WX expected within 72 hours.

c. Responsibility

(1) VT-4, VT-10, VT-86, and all civilian contractors shall maintain and comply with reference (v). This instruction contains direction for the safety of personnel during hazardous weather.

(2) Integrity of aircraft is the responsibility of the PIC or maintenance contractor. In addition to normal measures, when actual/forecast winds are in excess of 35 kts, for the T-2, T-6 and T-34; or in excess of 40 kts for the T-1 and T-39; or on weekends, or holidays the contractor shall:

(a) Tie-down (six point - T-2; four point - T-6,

T-34; three point - T-1, T-39) and double chock.

(b) Secure all doors and panels.

(c) Close and lock canopies.

(d) Raise flaps, close speed brakes and set gust locks.

(e) Fuel to maximum weight possible.

(f) Ensure all ground support equipment is properly secured.

(3) When winds are forecast to exceed 55 kts, the contractor shall hangar aircraft and GSE to the maximum extent possible.

405. CROSS COUNTRY PLANNING AND PROCEDURES. CTW-6 has final approval on all cross countries. A cross country schedule for each squadron shall be submitted to the TW-6 Operations Officer no later than 0900 Wednesday of each week. The Operations Officer shall in turn forward the TW-6 cross country plan to CTW-6 for approval. For five or more squadron aircraft at one cross country destination a 5050 must also be drafted and briefed to CTW-6 with an Officer-in-Charge (OIC) identified. Cross countries are recognized as an integral part of the UMFO training syllabi and it is extremely important that they are thoroughly planned and executed. The Mission Commander/PIC is ultimately responsible for all aspects of cross country preflight planning and ensuring that his/her flight is conducted professionally and safely. Additionally, the following specifics apply to cross country or out/in events:

a. Pick-up and drop-off of personnel shall only be for official business on funded orders.

b. All red ink changes/add on's on the smooth flight schedule shall be approved by the squadron Commanding Officer, Executive Officer, or Operations Officer. (NOT the Command Duty Officer).

c. Civilian clothes are not authorized to be worn in TW-6 aircraft by military members.

d. Ensure all non-crewmembers have received the appropriate waiver prior to flight.

e. The MC/PIC shall update the flight schedule (with CO/XO/OPSO approval) if passengers are added to the manifest.

f. The MC/PIC shall update the DD-175 if passengers are added to the manifest.

g. The MC/PIC shall obtain a PPR when required

h. The PIC that signs for the aircraft shall remain the PIC for that aircraft until it is reissued by maintenance control.

406. TRAINING TIME-OUT. All crewmembers are essential to the safe completion of the mission. It is the responsibility of every member of the crew to notify the other crewmembers any time an unsafe situation is perceived. This notification may be in the form of a TTO or by simply stating the area of concern. The TTO policy will apply to all flights conducted within TW-6 including non-training and transit flights.

407. OVERHEAD/TOWER PATTERN. To ensure safety of flight, the following procedures shall be adhered to when conducting a carrier break at NAS Pensacola:

a. "Normal" break traffic will comply with reference (w)

b. Low Break.

(1) Aircraft will check-in with NPA Tower requesting "low break."

(2) Aircraft shall comply with course rules until 3nm.

(3) At 3nm, the flight will descend to 1,000 feet AGL.

(4) All single or multi-plane formations shall lineup on the appropriate taxiway and ensure the last aircraft in formation remains clear of the IFR runway.

(5) Aircraft shall execute a level, 1,000 foot break, followed by an 800 foot downwind pattern.

c. While the break is executed in the Tower's traffic pattern, it is incumbent upon the flight lead to ensure the traffic pattern is clear before entering the break pattern. Additionally, all flight leads entering the VFR pattern must ensure the airspace is clear prior to turning downwind.

d. VFR traffic entering the tower pattern will climb straight ahead to 500 feet AGL. After being cleared by tower to turn downwind, continue climb to 800 feet.

e. IFR handoff traffic entering the tower pattern will execute the published procedures until positive communication is established with NPA tower.

f. IFR/VFR traffic departing the field after a missed approach, touch and go or option will climb straight ahead to 500 feet AGL until clear of the traffic pattern or cleared downwind by the tower.

408. LOCAL AREA LOW LEVEL (LL) FLIGHT PROCEDURES

a. Low Level Scheduling Procedures.

(1) TW-6 operates an electronic scheduling system consisting of a TMS2 software program that each TW-6 squadron will access via station LAN. This database shall be used to coordinate and de-conflict TW-6 and any other aircraft on/in IR/VR routes, MOAs and Warning areas.

(2) Squadrons will be allowed to input their callsign in the appropriate time block of the spreadsheet.

(3) By 1430L on the day PRIOR to the event, FACSFAC and Base Operations will review the inputs and issue the appropriate NOTAMs to cover the next day's requirements.

(4) At 1430L, FACSFAC/Base Operations will apply a yellow background to the time blocks that require NOTAMs for the next day. Any changes in entry/exit times that fall outside the NOTAM window will require two hour prior notification to base operations to re-issue a NOTAM to cover the new entry/exit times.

(5) Low Level entry times will be made in ten-minute blocks (+/- five minutes). Base operations will NOTAM the route 30 minutes prior to the first entry time to one hour after the last exit time of the day for each route. Any scheduling changes inside of the two-hour window prior to the NOTAM block start time cannot place the entry or exit time outside the NOTAM window.

(6) FACSFAC will monitor the rescheduling of LL entry times on the day of the event and ensure the new times (if applicable) fall within the NOTAM window.

(7) FACSFAC will schedule non TW-6 aircraft in the normal manner via telephone or fax. FACSFAC will then add any non TW-6 aircraft to the TMS2 scheduling page.

b. TW-6 Squadrons Shall:

(1) Enter all desired flights into the electronic spreadsheet by 1430L on the day prior to the event. The squadron scheduling officer shall enter the flight callsign into the desired entry time-block.

(2) Any changes to the electronic schedule can be made until 1430L on the day prior. After the backgrounds are applied by FACSFAC, schedulers or CDOs are free to change entry and exit times as necessary but shall remain within the NOTAM window. Any changes that place the entry or exit time outside the established NOTAM block shall be coordinated directly with base operations.

(3) Changes to entry/exit times on the day of the flight shall be made directly by the CDO/SDO as long as the new requested time falls within the NOTAM'd block for that route. MC and/or students will coordinate all entry time changes with the CDO. In the event a MC needs to change the VR/IR route times while airborne, due to delays (MX, WX, etc.), the MC shall coordinate the request through the squadron CDO on their squadron's base frequency. The CDO will enter the callsign of the MC into an available open slot on the scheduling screen and then inform the MC that the new entry time has been secured.

c. Weekend Scheduling Procedures: IR/VR routes for weekend flights must be scheduled by COB Friday per normal weekly scheduling procedures. No add-ons can be made after the NOTAMS are set UFN pending a letter of agreement with FACSFAC and the FAA.

d. Jet IR/VR route Execution Procedures

(1) Student/MC shall brief their VR/IR route entry time as well as any potential conflicts, i.e. any other flight that is before or after them on the route.

(2) Students/MC shall coordinate with the squadron CDO to make any changes to their scheduled entry time before walk time or via squadron base radio.

(3) Aircraft may enter the LL route any time within their scheduled ten minute block (+/- five minutes) but should strive to be on time. MCs shall ensure they have no less than five minutes separation between aircraft on the route at all times. Aircraft entering near the back of their block will have right of way over aircraft entering near the front of theirs. In the case where the first aircraft is running late but will enter inside his scheduled window (+/- five minutes) and another aircraft is early, the early aircraft will delay as necessary (slow down, turn 360 degrees, etc.) to achieve at least a five minute separation.

(4) MCs are solely responsible for ensuring they meet their scheduled entry time (+/- five minutes) or for coordinating a schedule change through the CDO.

(5) All aircraft performing student swaps on the LL after a target attack shall exit above the route structure (generally 1500' AGL). Aircraft will not reenter the route structure until the crew swap is complete and route reentry deconfliction is assured.

(6) No re-attacks or 180-degree aborts are permitted within the route structure. If an abort due to weather or other circumstance is required, the aircraft will exit the route structure and comply with all FAR/AIM procedures.

(7) The primary method of deconfliction on a VR route is "see and avoid."

e. Low Level Communication Procedures

(1) Entry point communication procedures: The student or MC shall make a call to FSS on 255.4 prior to arriving at the entry point. Aircrew will strive to make the call as early as possible within five minutes of the entry point to give others approaching the same point as much situational awareness as possible.

(2) Mandatory calls. All aircraft utilizing published VR/IR routes will make a call on 255.4 UHF:

(a) Prior to entering the route

(b) At any designated FLIP crossing points

(c) At the target

(d) Exiting the route

(e) FLIP points (A, B, C, etc.) will be used for commonality to build SA among the A/C on the routes.

f. MOA Transitions. All A/C will monitor 255.4 UHF to the max extent possible. When transiting a MOA, aircraft will make an advisory call on the MOA control frequency and monitor that frequency until clear of the MOA. After exiting, switch back to 255.4. When possible, monitor 123.52 VHF for continued deconfliction.

409 TW-6 ALERT AREA 292 OPERATING PROCEDURES. Pilots will refer to and comply with COMTRAWINGFIVEINST 3710.2N to ensure safe operation in Area 292.

CHAPTER FIVE

**FUNCTIONAL CHECK FLIGHT/MAINTENANCE
RECOVERY PROGRAM**

500. PURPOSE. To establish minimum requirements for the qualification of Functional Check Crewmembers (FCC) in TW-6 aircraft per references (a) through (d), and to establish the policy and procedures for the organization and operation of the Functional Check Flight (FCF) and Maintenance Recovery Programs for TW-6.

501. FCF Program. The FCF Program is an essential element in the TW-6 mission. Through the FCF Program, CTW-6 is assured aircraft are functionally ready and safe for flight. Maintenance recovery flights are conducted to retrieve aircraft that made a Precautionary Emergency Landing (PEL) or aircraft that have incurred downing discrepancies during normal operations at sites or airfields other than NAS Pensacola. FCF crew will include both military and civilian contractor personnel.

a. CTW-6 shall:

(1) Designate in writing all TW-6 FCC, with the exception of T-2 FCC. IAW reference (d), the authority to designate T-2 FCC is delegated to the Commander, Training Squadron (TRARON) EIGHT SIX.

(2) Designate two TW-6 Senior Maintenance Pilots to oversee the T-34 and T-6 FCF programs.

b. Squadron Commanders shall:

(1) Recommend military FCCs to be designated by CTW-6.

c. Squadron Senior Functional Check Pilots (FCPs) shall:

(1) Maintain an effective FCF Training/Standardization/Qualification Program per references (a) through (d).

(2) Serve as liaison for the Squadron Commanders and the maintenance contractor via the OIC, CNATRA Detachment (DET) Pensacola, on maintenance-related issues.

(3) Report discrepancies or unauthorized maintenance practices to CNATRA DET Pensacola Quality Assurance (QA) for investigation and resolution.

(4) Assist CNATRA DET Pensacola Quality Assurance Representatives (QARs) and civilian contractors as appropriate on maintenance-related concerns, research, or reports.

(5) Be responsible to TW-6 Senior Maintenance Pilot for the overall operation of the FCF Program.

(6) Compile a FCF schedule to meet CTW-6 requirements. FCPs may fly student syllabus flights and FCFs as available.

(7) Ensure squadron FCPs are scheduled frequently enough to remain current in qualifications.

502. ADMINISTRATIVE

a. Aircraft Mishap. In the event of a mishap during an FCF, CTW-6 will convene the Mishap Board and delegate responsibility for reporting purposes to the applicable squadron. In the event of a T-2 mishap involving an FCC during an FCF, TRARON EIGHT SIX will convene the Mishap Board

b. Publications. The civilian maintenance contractor will supply all publications and provide the maintenance and auditing of the maintenance technical library.

c. Quality Assurance. No FCF shall be flown until all safety-of-flight discrepancies have been cleared by the contractor QAR. The FCF shall be briefed and debriefed by a contractor QAR.

d. Flight time limitations. Due to the short duration of maintenance flights and the large number of flights that may be required, contract FCPs are permitted to fly no more than five maintenance flights per day. If combinations of maintenance and syllabus flights are flown on the same day by a military FCC, no more than three total daily flights may be flown. In no case shall a FCC fly more than 6.5 hours daily.

e. Weather Restrictions

(1) In addition to weather minimums imposed by reference (b), the airfield from which the FCF is launching must be

conducting VFR launches and recoveries before a T-2C/T-34C/T-6A FCF will be permitted to launch.

(2) The below listed evaluation flights are authorized to operate VMC in conditions requiring IMC departures and Instrument (IMC) recoveries:

- (a) Angle of Attack Evaluation
- (b) Fuel Split Evaluation
- (c) Transponder Evaluation (dual only)
- (d) Excessive Cockpit Noise Evaluation
- (e) Aircraft Transfer/Acceptance (ferry only)

(3) The above listed evaluations are flown in "up" status aircraft with no safety of flight discrepancies. Flights flown during these conditions would not encounter any undue risk while under temporary IFR conditions due to the nature of the evaluations being flown.

f. Maintenance Evaluation Flights. Occasionally, there are maintenance discrepancies that do not clearly fit an FCF profile. In these cases, it is prudent to obtain an evaluation of the discrepancy and to determine if the discrepancy has been repaired. Contractor QA personnel will prepare these aircraft for flight and put them on the FCF board to be flown by a qualified FCP. The flight shall be conducted under the same guidelines/requirements as an FCF, including the flight purpose code and minimum crew.

g. Local FCFs will not be flown in a "Pro and go" mission profile. Upon completion of all FCF profiles, the aircraft shall return to base or proceed to NPA per applicable maintenance instructions.

CHAPTER SIX

T-39 OPERATIONS

600. T-39 AIRCRAFT OPERATIONS. T-39 aircraft shall only be used for UMFO/Nav syllabus training by aircrew designated on the squadron flight schedules. Any individual flying as an observer other than a UMFO, UMFO instructor, or individual on the TW-6 cleared to fly list, must be approved by CTW-6. All requests for deviation shall be coordinated by the GFR.

601. FUEL REQUIREMENTS.

a. All T-39 flights shall be planned so as to land with not less than 1,100 pounds of indicated fuel remaining at destination and within OPNAVINST 3710.7 alternate fuel requirements.

b. Minimum fuel shall be declared whenever the estimated usable fuel at the point of landing will be less than 1,000 pounds.

c. Emergency fuel shall be declared whenever the estimated usable fuel at the point of landing will be less than 800 pounds. The Pilot/Mission Commander shall declare an emergency and report fuel remaining in minutes.

602. PROHIBITED MANEUVERS. Aircraft maneuvers specifically prohibited in NATOPS as well as the following are prohibited:

a. Use of autopilot below 1,500 feet AGL on low level NAV flights.

b. For T-39G models, intentional "G" loading greater than 3 positive "G"s to preserve wing life.

c. No equipment shall be intentionally failed for the purpose of practicing in-flight emergency procedures except in daylight VMC.

621. AIRCREW NATOPS QUALIFICATIONS.

a. Contract pilot's initial qualification shall consist of:

(1) Contract approved course at an approved facility culminating in a type rating.

(2) Open and closed book NATOPS examinations administered by the TW-6 T-39 Curriculum Manager.

(3) NATOPS evaluation flight conducted by the GFR.

b. Contract pilot's annual qualification shall consist of open and closed book NATOPS examinations administered by the TW-6 T-39 Curriculum Manager and a check flight conducted by the GFR or his representative. Qualification of the GFR or alternate GFR NATOPS instructor will be IAW enclosure (2).

c. Mission Commander NATOPS Check requires a minimum of 7.5 hours in type.

622. AIRCREW CURRENCY REQUIREMENTS.

a. Pilots shall meet the following requirements:

(1) Hold a current NATOPS model rating.

(2) Hold a valid instrument rating.

(3) Have a minimum of five hours PIC within the previous 30 days.

(4) Have performed a minimum of five take-offs and landings within the previous 30 days.

(5) Fly at least one flight every 22 calendar days.

b. Pilot currency may be re-established as follows:

(1) If currency was not maintained per either (1) or (2) above, completion of those requirements will reestablish currency.

(2) If currency was lost due to (3), (4), or (5) above, one flight shall be flown with a NATOPS qualified pilot in the right seat. In addition if currency was lost due to (5), the pilot shall review open and closed book NATOPS examinations and complete an emergency procedures quiz.

(3) Pilots who have not flown the T-39 in 31 or more days must re-qualify IAW requirements set forth in the T-39 Flight Manual.

- c. Instructors/MC shall meet the following requirements:
 - (1) Hold a current NATOPS model rating.
 - (2) Hold a valid instrument rating.
 - (3) Hold a TW-6 instructor designator for the specific training flight scheduled.
 - (4) Complete one flight as an instructor and/or MC every 30-calendar days.
- d. MC currency shall be re-established as follows.
 - (1) 23-30 days: Complete a bold-faced emergency procedures exam.
 - (2) 31-60 days: Complete a bold face emergency procedures examination and open book NATOPS exam.
 - (3) 60 days or greater: Complete a bold face emergency procedures examination, an open and closed book NATOPS exam and an instructor proficiency flight.

623. NFO/NAV Proficiency Flights. T-39 MCs shall fly a right seat proficiency flight once every 90 days. Flights require one takeoff and one landing with the MC the right seat. FCF satisfy the proficiency flight requirement. Annual evaluation flights will count as 90 day proficiency flights.

631. WEATHER REQUIREMENTS.

- a. Flights shall be planned to circumvent areas of forecast atmospheric icing and thunderstorm conditions whenever practicable.
- b. Single piloted minimums shall be used by all T-39 aircraft for filing, launch, recovery, and alternate operations unless two NATOPS qualified and current aircrew are at the controls.
- c. T-39 aircraft shall not be flown in areas where greater than moderate turbulence is forecast. Additionally in the low-level environment, aircrew shall obtain a thorough weather brief of low level turbulence conditions and if greater than moderate turbulence is experienced, low level flight shall be discontinued.

d. Icing conditions:

(1) T-39 aircraft shall not file into or enter areas with known or forecast severe icing conditions.

(2) T-39 aircraft may climb or descend through areas of forecast or reported moderate icing. However, continuous flight operation in moderate icing is not permitted.

(3) T-39 aircraft may operate in trace to light icing conditions but will change altitude to prevent the accumulation of ice.

e. SIGMETS. Onboard radar equipment aircraft capable of detecting thunderstorms, may file into/through SIGMETS issued by the National Weather Service provided existing/forecast conditions are within the operating limits of the aircraft and conducive to applicable command directives. The crew must be able to comfortably and safely navigate around any severe weather.

632. FORMATION FLIGHTS. Formation flights are not authorized

633. RUNWAY REQUIREMENTS. The minimum T-39 runway length shall be 5,000 ft. or the critical field length plus 500 feet, whichever is greater.

634. INTERCEPT PATTERN. The use of two T-39 aircraft to conduct STK/F intercept training warrants particular precautions to ensure safe utilization of the same airspace, yet provide realistic and challenging flight profiles. Operating parameters regarding altitude separation, airspeed, and maneuvering restrictions shall be established by TRARON EIGHT SIX and published in their STAN notes. Additionally, the following safety considerations shall apply:

a. Each aircraft will be positively designated as either the fighter (aircraft conducting the intercept) or bogey (target training mission) prior to each intercept training evolution.

b. Positive two-way radio communications between the fighter and bogey aircraft will be maintained at all times. Additionally, pilots should maintain separate two-way communications for immediate contact should the need arise.

c. Advanced intercepts shall not be flown at night.

d. All aircraft conducting intercepts between one hour before sunset and one hour after sunrise shall ensure that strobe lights are on and operating.

635. CREW RESOURCE MANAGEMENT.

a. T-39 airborne emergencies require acknowledgment from at least one other crewmember before securing either throttle, engine master switch, DC generator switch, overhead hydraulic power switch, electrical master switch, or pulling a fire T-handle.

b. A designated CRM Instructor or Facilitator will instruct the monthly CRM refresher-training course for pilots and MCs. A contract pilot will be invited to attend if none are in the class for refresher training.

c. The student shall operate electrical panel switches the radar, and perform other duties as assigned.

641. CROSS COUNTRY OPERATIONS. All pilots and MCs shall be familiar with squadron SOPs concerning cross country operations. MCs are responsible for verifying waivers for all passengers. The PIC retains the right to refuse boarding of passengers IAW FAR/AIM.

642. LOW LEVEL OPERATIONS. In addition to the FSS call, pilots or MCs will also make an entry call on VHF base common (123.52) to ensure deconfliction SA. If limited to single UHF (T-39G), it will be the primary radio for deconfliction purposes.

651. FUNCTIONAL CHECK FLIGHTS. A FCF designated NFO/NAV or pilot will occupy the right seat of a T-39N/G during FCF flights.

652. FUNCTIONAL CHECK PILOT PROGRAM DESIGNATION REQUIREMENTS. T-39 civilian contractor FCPs shall be qualified by CTW-6 and designated in writing by CTW-6 after successful completion of the FCF syllabus.

653. FUNCTIONAL CHECK NFO/NAV DESIGNATION REQUIREMENTS. T-39 NFO/NAV Aircrew shall have 100 hours in the aircraft prior to flying a check flight.

654. TRAINING AND STANDARDIZATION OF CTW-6 T-39G/N QUALIFIED MILITARY PILOTS. The CTW-6 GFR and one alternate NATOPS

instructor will be qualified to fly the T-39G/N Sabreliner. They shall conduct annual NATOPS/Instrument check flights on designated contract instructor pilots per governing directives. The alternate NATOPS instructor shall remain proficient in the T-39G/N aircraft and assume the duties of GFR, as required.

a. Initial training for T-39G/N pilot qualification of TW-6 personnel shall consist of a contractor provided, ten flight hour familiarization syllabus and the Initial Sabreliner Training Course at Flight Safety International. The familiarization syllabus should be conducted as follows:

<u>FLIGHT</u>	<u>DURATION</u>	<u>POSITION</u>	<u>REMARKS</u>
(1) FAM-1	2.0	RIGHT SEAT	STALLS, PPEL
(2) FAM-2	2.0	RIGHT SEAT	PPEL
(3) FAM-3	2.0	LEFT SEAT	STALLS, PPEL
(4) FAM-4	2.0	LEFT SEAT	PPEL
(5) *NATOPS CHECK	2.0	LEFT SEAT	OPEN/CLOSED BOOK EXAM COMPLETE

* EQUIVALENT OF TYPE RATING AT COMMERCIAL LEVEL

b. The Sabreliner 40/60 Pilot Initial Course shall be completed prior to an individual functioning as GFR and will result in a T-39 type rating. Follow-on training for the GFR and alternate NATOPS instructor should consist of annual T-39 refresher training at Flight Safety International. The GFR and alternate NATOPS instructor shall remain proficient in the T-39 aircraft and should fly a minimum of six flights per month as pilot at controls.

655. T-39 OFF-SITE MAINTENANCE RESCUE. Reference (1) states: "When off-site maintenance is required, the pilot will notify his home station OSC (On-site Support Center) Manager of the problem. The OSC Manager will notify, discuss, and coordinate recovery/repair of the aircraft with the Official Government Representative (OGR). Once notified of a downed aircraft, the contractor shall respond to the aircraft no later than 24 hours from notification with: The required test equipment, parts, and personnel to perform the required maintenance; or effect the necessary repairs to ferry the aircraft to the home-site or an FAA repair facility; or arrange for a Fixed Base Operator or other FAA licensed technician to effect the repairs. The government may provide transportation in lieu of commercial transportation, and the choice is the government's option. The government bears the cost of travel regardless of the means of

travel. Commercial air is costly and inconvenient, inefficient, and poses logistical problems. Therefore, if ground transportation is not optimal, in most cases the option to use TW-6 T-39 aircraft should be given favorable consideration.

a. Although it is impossible to provide guidance for every situation requiring off-site maintenance, the following procedures are provided as guidance to TW-6 Squadron Operations Officers when a T-39 aircraft requires off-site maintenance:

(1) In all situations, the squadron with the broken aircraft on its flight schedule will be required to do the initial coordination and notification to affect a rescue of aircraft and crew requiring off-site maintenance.

(a) The MC shall notify his/her squadron of the location of the aircraft, problem, and how many people are on the aircraft.

(b) The squadron will coordinate with the contractor to determine how many maintainers will be required to fix the problem and what is a reasonable time they will be ready to depart to the aircraft location, and a best estimate of how long it will take to fix.

(1) During Normal Working Hours: The squadron will determine if an X producing sortie (low level sortie not authorized for transportation of maintenance personnel) is available to transport the maintenance personnel to the aircraft location. If an X producing sortie is not available, the squadron CDO will coordinate with other TW-6 squadron CDO's to determine if they have any X producing sorties available to accomplish the mission. If no X producing sorties are available, the squadron with the downed aircraft will provide a NATOPS qualified Instructor NFO/Nav to occupy the right seat.

(2) After Normal Working Hours/Weekend/Holidays. The Operations Officer or representative will notify the TW-6 Operations Officer and/or GFR. The GFR will coordinate a rescue plan with the contractor and the TW-6 Operations Officer to determine the most effective means of getting maintenance personnel to the off-site maintenance location.

(c) Once a plan is formulated, the squadron with the broken aircraft will notify TW-6 Operations for approval to launch a rescue mission or for TW-6 tasking of another squadron

with an X producing sortie. CTW-6, CSO or TW-6 Operations Officer approval is required for rescues.

b. The contractor will provide a realistic estimate of on deck time for maintainers to fix the problem and provide a pilot to affect the rescue flight if a scheduled flight is not available. Only CTW-6, CSO, or Wing Operations Officer may task squadrons to fly sorties in response to off-site maintenance requirements. GFR approval for non-scheduled flights and personnel is required. The contractor will submit a SF 644 to the GFR for signature/approval.

c. The TW-6 Operations Officer or CDO will be notified when the mission is complete and aircraft is safe on deck at home base.

CHAPTER SEVEN

T-1 OPERATIONS

700 T-1 AIRCRAFT OPERATIONS

a. General. T-1 aircraft will be flown IAW applicable Air Force regulations and directives. T-1 aircraft shall only be used for syllabus training by aircrew designated on the squadron flight schedule or aircrew continuity training required by AFI 11-2T-1 V1. Sorties will not be generated for carrying passengers or cargo. Fly-bys and air shows are flown IAW applicable AETC and 19 AF directives. Per AFI 11-401 AETC Sup., passengers are not authorized on student training sorties. However, familiarization sorties may be flown under rare circumstances, with prior approval, provided they are accomplished on non-student proficiency sorties with all aircrew members qualified in the T-1. Requests for familiarization flights in the T-1 will be coordinated through the T-1 GFR.

701. FUEL REQUIREMENTS.

a. All T-1 flights shall be planned so as to land with no less than 700 lbs of indicated fuel remaining at the IAF, and within reference (a) alternate fuel requirements.

b. Minimum fuel shall be declared whenever the estimated usable fuel at the point of landing will be less than 500 lbs.

c. Emergency fuel shall be declared whenever the estimated usable fuel at the point of landing will be less than 300 lbs.

d. ICS Usage. HOT MIC will be utilized at all times.

702. T-1 PROHIBITED MANEUVERS. Aircraft maneuvers specifically prohibited in TO 1T-1A-1 (NATOPS)/AFI 11-2T-1V3/AFI 11-247 as well as the following are prohibited in all T-1 aircraft:

a. Use of autopilot below 1,500 feet AGL on low level navigation training routes.

b. No equipment shall be intentionally failed.

c. Circuit breakers shall not be pulled in the T-1 unless necessary for safety of flight.

721. AIRCREW NATOPS QUALIFICATIONS.

a. Contract T-1 pilots will be qualified IAW AFI 11-202 VII and maintain qualification IAW AFI 11-401, 11-202 VII and AETCI 36-2211 and associated 19th Air Force (AF) supplement.

b. T-1 MC NATOPS Check requires a minimum of 7.5 hours in type.

722. T-1 AIRCREW CURRENCY. Contractor pilots and Instructors/MCs shall meet the following requirements:

a. Hold a current 11-202 VII model rating.

b. Hold a valid instrument rating.

c. Hold a CTW-6 instructor designation.

d. Maintain proficiency and currency requirements as listed in reference (q). Contract pilots will have their documentation maintained by the GFR. T-1 pilots will document instrument qualifications in the flight evaluation folder maintained by the CTW-6 GFR IAW AFI 11-202 VII.

723. NFO/NAV PROFICIENCY FLIGHTS. T-1 MCs shall fly a right seat proficiency flight once every 90 days. Flights require one takeoff and one landing with the MC in the right seat. FCF satisfy the proficiency flight. Annual evaluation flights will count as 90-day proficiency flights.

731. WEATHER REQUIREMENTS.

a. T-1 aircraft shall not file or fly into areas of forecast or known severe turbulence. Additionally, in the low-level environment, aircrew shall obtain a thorough weather brief of low level turbulence conditions and if greater than moderate turbulence is experienced, low level flight shall be discontinued.

b. Icing conditions.

(1) T-1 aircraft shall not file or fly into areas with known or forecast severe icing conditions or freezing rain or drizzle. T-1 aircraft shall not cruise or conduct multiple landing patterns in actual moderate icing conditions.

(2) If icing conditions are encountered, T-1 aircraft should not be operated in such conditions except as may be required to transit or exit the icing conditions, and then only for the minimum time necessary.

c. SIGMETS. Onboard radar equipment aircraft capable of detecting thunderstorms, may file into/through SIGMETS issued by the National Weather Service provided existing/forecast conditions are within the operating limits of the aircraft and conducive to applicable command directives. The crew must be able to avoid thunderstorms by ten miles below FL 230 and 20 miles above FL 230.

732. FORMATION FLIGHTS. Formation flights are not authorized.

733. RUNWAY REQUIREMENTS. Minimum runway length shall be 6,000 feet provided all AFI 11-2T-1 V3 and TO1T-1A-1-1 performance restrictions are met. T-1A aircraft will not land or remain overnight at any civilian airfield unless the field is on an AETC approved list, or specifically approved by CTW-6.

734. CREW RESOURCE MANAGEMENT.

a. Airborne emergencies require acknowledgment from at least one other crewmember before securing either throttle, DC generator switch, bottle arm switch, or pushing an engine fire switch.

b. A designated CRM Instructor or Facilitator will instruct the monthly CRM refresher-training course for pilots and MCs. A contract pilot from the appropriate platform will be invited to attend if none are in the class for refresher training.

741. CROSS COUNTRY OPERATIONS. All pilots and MCs shall be familiar with squadron SOPs concerning cross-country operations.

742. LOW LEVEL OPERATIONS. T-1 pilots or MCs will also make an entry call on VHF base common (123.52) to ensure deconfliction SA.

751. FUNCTIONAL CHECK FLIGHTS. A FCF qualified NFO/NAV or pilot will occupy the right seat of a T-1 during FCF flights.

752. FUNCTIONAL CHECK PILOT PROGRAM DESIGNATION REQUIREMENTS. T-1 civilian contract FCPs shall be qualified by CTW-6 and designated in writing by CTW-6 after successful completion of the FCF syllabus.

CHAPTER EIGHT

T-6 OPERATIONS

800. T-6 AIRCRAFT OPERATIONS. T-6 aircraft shall only be used for UMFO/NAV syllabus training by aircrew designated on the squadron flight schedules. Because it is an ejection seat aircraft, any individual flying as an observer other than an UMFO or UMFO instructor with the appropriate survival qualifications, must be approved by CNATRA.

801. FUEL REQUIREMENTS.

a. Minimum fuel shall be declared whenever the estimated usable fuel at the point of landing will be 200 pounds or less.

b. Emergency fuel shall be declared whenever usable fuel at the point of landing will be 120 pounds or less. The aircrew shall declare an emergency and report the fuel remaining in minutes.

802. PROHIBITED MANEUVERS. Aircraft maneuvers specifically prohibited in NATOPS as well as the following are prohibited:

a. Intentional "G" loading greater than 5 positive "G"s is prohibited.

821. AIRCREW CURRENCY. The following currency requirements shall be met based on the date of the last flight:

a. 14-20 days: Complete a bold-faced emergency procedures exam.

b. 21-30 days: Complete a bold face emergency procedures examination and complete an emergency procedures trainer or warm-up flight to include two instrument approaches.

c. 31-60 days: Complete a bold face emergency procedures examination, an emergency procedures trainer and a warm-up flight with a qualified pilot to include two instrument approaches, five landings, and a PPEL. The emergency procedures trainer and the warm-up flight may be combined into one flight if flown with a NATOPS instructor.

d. Greater than 60 days: Complete a bold face emergency procedures exam, a NATOPS open and closed book examination,

emergency procedures trainer, and a NATOPS warm-up flight with a NATOPS instructor pilot.

831. WEATHER CRITERIA. T-6 aircraft may launch into SIGMET areas provided no hazardous weather exists at the field, VMC can be maintained, and a qualified weather forecaster declares that the weather has not progressed as forecast along the proposed route of flight. Squadron CO/XO/OPSO approval is required. T-6 aircraft shall be considered single piloted for weather minimum purposes regardless of the crew composition.

a. Icing.

(1) Aircrew will not file into forecast or reported icing conditions.

(2) Cruising or holding in reported icing conditions is prohibited.

(3) Climbing and/or descending through forecast or reported icing conditions greater than light rime ice is prohibited.

(4) Climbing and/or descending through forecast or reported icing greater than a 5,000 ft band of light rime ice is prohibited.

(5) Any time icing is actually encountered, change the aircraft course and/or altitude immediately to avoid prolonged operation in icing conditions.

832. RUNWAY REQUIREMENTS.

a. The minimum runway length for normal T-6 operations is 4,000 ft.

b. Consideration should be given to ejection prior to attempting an emergency landing on less than 3,000 feet of prepared surface.

c. All operations on runways with an RCR of other than DRY may significantly increase the stopping distance required and corrections to the minimum runway required shall be added to the above minimums.

833. FORMATION FLIGHTS. T-6 formation flights will be planned and flown IAW applicable OPNAV and CNATRA instructions.

Formation flights are limited to one section or division unless specifically approved by CTW-6 and published on the squadron flight schedule. Night formation flight in the T-6 is prohibited. Additionally:

a. T-6 interval take-offs will allow at least five seconds between aircraft on take-off roll. The lead aircraft will not begin a departure turn until reaching a minimum of 400 ft AGL.

b. T-6 section take-offs are authorized. Once both aircraft are safely airborne, the flight leader shall signal for gear retraction. No turns shall be initiated below 140 knots or 400 ft AGL. Maximum crosswind for section take-off is 10 knots (05 knots if wet runway). Section takeoffs will not be performed when standing water, ice, or snow is on the runway.

834. OVER WATER OPERATIONS. Except for takeoff, landing and instrument approach procedures, over water operations outside of gliding distance of land shall be minimized.

835. CROSSWIND LANDINGS. Until sufficient data is available to determine the worst case crosswind limitations, an interim restriction of 20 knots max crosswind will apply.

836. MINIMUM ALTITUDES.

a. The minimum altitude to begin OCF training or a spin entry is 13,500 ft AGL.

b. Spin/OCF recovery's shall be complete prior to reaching 10,000 ft AGL.

c. Stalls and slow flight recoveries shall be completed above 6,000 ft AGL.

d. All aerobatic maneuvers, unusual attitudes and formation cruise maneuvering with the exception of formation tactical turns and wing dips to see low level points, shall be performed above 5,000 ft AGL.

837. PMU OFF STARTS. PMU-off starts are not authorized for TW-6 aircraft, except for a qualified T-6 FCF pilot with prior coordination with T-6 Maintenance Control.

838. FITU OIC AUTHORITY. The FITU OIC is delegated the authority of verifying and signing the daily FITU flight schedule.

841. CROSS COUNTRY FLIGHTS. T-6 flights scheduled for cross country missions shall have no greater than two tire cords exposed prior to departure from home station.

842. OFF STATION AIRCRAFT SECURITY. Due to the explosive charges in the canopy fracturing system and ejection seats, the external canopy fracture system (CFS) handle access doors and the canopy shall be locked anytime the aircraft is not under the direct supervision of the assigned aircrew.

843. OFF STATION SERVICING. JP-8+100 is not an authorized fuel for the T-6.

851. FUNCTIONAL CHECK FLIGHTS. Only egress/survival qualified aircrew may occupy the rear seat of a T-6 during FCF flights.

852. FUNCTIONAL CHECK PILOT PROGRAM DESIGNATION REQUIREMENTS.

a. Military FCPs shall:

(1) Meet all requirements of references (a) through (d). Additionally, each new FCP shall have a minimum of six months remaining prior to their projected rotation date.

(2) Be recommended by the Squadron Commanding Officer.

(3) Successfully complete a TW-6 approved FCF written examination administered by the squadron.

(4) Observe an Alpha profile FCF from the rear cockpit with an FCP in the front cockpit.

(5) Conduct an Alpha profile FCF from the front cockpit with an FCP in the rear cockpit.

(6) Conduct an Alpha profile from the front cockpit with a squadron Senior FCP or designated representative in the rear cockpit.

b. Squadron Senior FCP shall be a qualified FCP and designated in writing by the Commanding Officer.

CHAPTER NINE

T-2 OPERATIONS

900. T-2 AIRCRAFT OPERATIONS. T-2 aircraft shall only be used for UMFO/NAV syllabus training by aircrew designated on the squadron flight schedules. Because it is an ejection seat aircraft, any individual flying as an observer other than an UMFO or UMFO instructor with the appropriate survival qualifications, must be approved by CNATRA.

901. FUEL REQUIREMENTS.

a. All T-2 flights shall be planned so as to land with not less than 1,000 pounds of fuel remaining at the destination, and within OPNAVINST 3710.7 (Series) alternate fuel requirements.

b. Minimum fuel shall be declared whenever the estimated usable fuel at the point of landing will be 800 pounds or less unless already established in the VFR landing pattern.

c. Emergency fuel shall be declared whenever the estimated fuel remaining at the point of landing will be 600 pounds or less. The pilot shall declare an emergency and report the fuel remaining in minutes.

921. AIRCREW CURRENCY.

a. If 14 to 20 days have elapsed since the instructor's last flight, he/she must complete a bold-faced emergency procedures exam.

b. If 21 to 30 days have elapsed since the instructor's last flight, he/she must complete a bold face emergency procedures examination and complete a warm-up emergency procedures trainer (simulator or flight) to include two instrument approaches.

c. If 31 to 60 days have passed since the instructor's last flight, he/she must complete a bold face emergency procedures examination, an emergency procedures trainer and a warm-up flight with a qualified pilot to include an instrument approach, five landings, and a PPEL. The emergency procedures trainer and the warm-up flight may be combined into one flight if flown with a NATOPS instructor.

d. If more than 60 days have passed, he/she must complete a bold face emergency procedures exam, a NATOPS open and closed book examination, emergency procedures trainer, and a NATOPS warm-up flight with a NATOPS instructor pilot.

931. WEATHER REQUIREMENTS.

a. Flights shall be planned to circumvent areas of forecast atmospheric icing and thunderstorm conditions

(1) If icing conditions are encountered, the T-2 aircraft shall not be operated in such conditions except as may be required to transit or exit the icing conditions, and then only for the minimum time necessary.

(2) Aircraft may launch into SIGMET areas provided no hazardous weather exists at the field, VMC can be maintained, and a qualified weather forecaster declares that the weather has not progressed as forecast along the proposed route of flight. Squadron CO/XO/OpsO approval is required.

932. FORMATION FLIGHTS. T-2 formation flights shall be planned and flown IAW applicable OPNAV and CNATRA instructions. Formation flights are limited to one section or division, unless specifically approved by CTW-6 and published on the squadron flight schedule. Additionally:

a. T-2 formation interval take-offs will allow at least eight seconds or 500 ft between aircraft on take-off roll.

b. For T-2 section take-offs, once both aircraft are safely airborne and at 100 feet or greater, the flight leader shall signal for gear and flaps retraction (minimum flap retraction is 135 kts). The flight leader shall ensure both aircraft are "clean" prior to 165 kts.

933. MINIMUM RUNWAY LENGTH. Minimum T-2 runway will be 5,000 ft. or the critical field length plus 500 feet, whichever is greater.

934. MINIMUM ALTITUDES

a. The minimum altitude to begin Spin training is 23,000 feet AGL. The minimum altitude to begin OCF training is 17,000 feet AGL.

b. Spin/OCF recoveries shall be initiated prior to reaching 15,000 feet AGL, stalls and slow flight recoveries shall be complete prior to reaching 10,000 feet AGL.

c. All acrobatic maneuvers, unusual attitudes and formation cruise maneuvering, with the exception of formation tactical turns, target attacks or wing dips to see low level points, shall be performed above 10,000 feet AGL.

941. CROSS COUNTRY OPERATIONS. All pilots will be familiar with squadron SOPs concerning cross country operations.

942. LOW LEVEL OPERATIONS. T-2s will make the entry call as soon as practicable prior to entering the route.

951. FUNCTIONAL CHECK FLIGHT. An egress/survival qualified aircrew may occupy the rear seat of a T-2 during FCF flights.

CHAPTER TEN

T-34 OPERATIONS

1000. T-34 AIRCRAFT OPERATIONS. T-34 aircraft shall only be used for UMFO/Nav syllabus training by aircrew designated on the squadron flight schedules. Any individual flying as an observer other than UMFO or UMFO instructor must be approved by CTW-6.

1001. FUEL REQUIREMENTS.

a. Minimum fuel shall be declared whenever the estimated usable fuel at the point of landing will be 180 pounds or less.

b. Emergency fuel shall be declared whenever the estimated usable fuel at the point of landing will be 100 pounds or less. The pilot shall declare an emergency and report the fuel remaining in minutes.

1021. AIRCREW CURRENCY.

a. If 14 to 20 days have elapsed since the instructor's last flight, he/she must complete a bold-faced emergency procedures exam.

b. If 21 to 30 days have elapsed since the instructor's last flight, he/she must complete a bold face emergency procedures examination and complete a warm-up emergency procedures trainer (simulator or flight) to include two instrument approaches.

c. If 31 to 60 days have passed since the instructor's last flight, he/she must complete a bold face emergency procedures examination, an emergency procedures trainer and a warm-up flight with a qualified pilot to include two instrument approaches, five landings, and a PPEL. The emergency procedures trainer and the warm-up flight may be combined into one flight if flown with a NATOPS instructor.

d. If more than 60 days have passed, he/she must complete a bold face emergency procedures exam, a NATOPS open and closed book examination, emergency procedures trainer, and a NATOPS warm-up flight with a NATOPS instructor pilot.

1031. WEATHER REQUIREMENTS. T-34 aircraft are prohibited from filing into or entering any area with known or forecast icing conditions.

a. Aircraft may launch into SIGMET areas provided no hazardous weather exists at the field, VMC can be maintained, and a qualified weather forecaster declares that the weather has not progressed as forecast along the proposed route of flight. Squadron CO/XO/OpsO approval is required.

b. Aircraft shall be considered single piloted for weather minimum purposes regardless of the crew composition

1032. FORMATION FLIGHTS. T-34 formation flights shall be planned and flown in accordance with applicable OPNAV and CNATRA instructions. Formation flights are limited to one section or division unless specifically approved by CTW-6 and published on the squadron flight schedule. Additionally:

a. T-34 interval take-offs will allow at least five seconds between aircraft on take-off roll. The lead aircraft will not begin a departure turn until a minimum of 400 feet AGL.

b. T-34 section take-offs are authorized. Once both aircraft are safely airborne, the flight leader shall signal for gear retraction. No turns shall be initiated below 120 knots (kts) or 400' AGL. Maximum crosswind for section take-off is 10 kts; 05 kts for wet runway take-off. If standing water is reported on the duty runway, section take-offs are not permitted.

1033. MINIMUM RUNWAY LENGTH. Minimum T-34C runway will be 2,850 feet.

1034. AIRBORNE VISUAL CHECKS. T-34 aircraft are prohibited from descending below 2,000 feet AGL while performing visual checks

1035. MINIMUM ALTITUDES.

a. The minimum altitude to begin OCF training is 9,000 ft AGL and for a spin entry is 10,000 ft AGL.

b. Spin/OCF, stalls and slow flight recoverys shall be complete prior to reaching 5,000 ft AGL.

c. All aerobatic maneuvers, unusual attitudes and formation cruise maneuvering with the exception of formation tactical

turns and wing dips to see low level points, shall be performed above 5,000 ft AGL.

1036. FITU OIC AUTHORITY. The FITU OIC is delegated the authority of verifying and signing the daily FITU flight schedule.

1051. FUNCTIONAL CHECK FLIGHTS. Only egress/survival qualified aircrew may occupy the rear seat of a T-34 during FCF flights.

1052. FUNCTIONAL CHECK PILOT PROGRAM DESIGNATION REQUIREMENTS.

a. Military FCPs shall:

(1) Meet all requirements of references (a) through (d). Additionally, each new FCP shall have a minimum of six months remaining prior to their projected rotation date.

(2) Be recommended by the Squadron Commanding Officer.

(3) Successfully complete a CTW-6 approved FCF written examination administered by the squadron.

(4) Observe an Alpha profile FCF from the rear cockpit with an FCP in the front cockpit.

(5) Conduct an Alpha profile FCF from the front cockpit with an FCP in the rear cockpit.

(6) Conduct an Alpha profile from the front cockpit with a squadron Senior FCP or designated representative in the rear cockpit.

b. Squadron Senior FCP shall be a qualified FCP and designated in writing by the Commanding Officer.

c. T-34 Civilian contract FCPs shall be qualified by CTW-5 and designated in writing by CTW-6 after successful completion of the FCF syllabus at Whiting Field.

STANDARD OPERATING PROCEDURE

CHANGE FORM

Date: _____

Person/Command or Organization Submitting:

POC and Phone number: _____

Category: URGENT _____ ROUTINE _____

Agenda item/recommendation (be specific):

Specific incident (if any) prompting the agenda item (time/date/justification, etc):

SIGNATURE: _____ **RANK:** _____
TITLE: _____

ACTION TAKEN: _____

Note: Attach additional sheets as necessary.

NATOPS INSTRUCTOR DESIGNATION REQUEST

3710
Ser **xxxx/xxxx**
dd Mmm yy

From: Commanding Officer, Training Squadron _____
To: Commander, Training Air Wing SIX
Subj: REQUEST FOR NATOPS EVALUATOR DESIGNATION FOR
Rank Name (First MI Last), SSN/Designator

1. Request that the above named flight instructor be designated as an NATOPS Evaluator for the ___ aircraft. The Instructor training, check flights, and written exam have been administered and satisfactorily completed.

- 2. Flight experience:
 - a. Total time _____
 - b. Time in type _____

Commanding Officer's Signature

Date: _____

APPROVAL ENDORSEMENT

From: Commander, Training Air Wing SIX
To: Commanding Officer, Training Squadron _____

1. Above named Instructor is designated a NATOPS Evaluator in the ___ aircraft.

Copy to:
CO VT-_____
NATOPS VT-_____

NATOPS MODEL Manager
(Individual being designated)

ASSOCIATE INSTRUCTOR
APPLICANT PERSONAL DATA

NAME _____
RANK _____
SSN/DESIG _____

FLIGHT HOURS :

TOTAL _____
BY MODEL _____

PIC/HAC/MC _____

CAREER HISTORY :

DATE OF RANK _____
DATE WINGED _____
COMMANDS/JOBS HELD _____

AVIATION QUALIFICATIONS/DATE _____

INSTRUCTOR EXPERIENCE _____

CURRENT ASSIGNMENT _____

SCHEDULE _____
FLEXIBILITY/AVAILABILITY _____

AUTHORIZATION TO FLY REQUEST

From:

To: Commander, Training Air Wing SIX

Subj: REQUEST AUTHORIZATION TO FLY IN TRAINING AIR WING
AIRCRAFT

1. Request the following individual be granted clearance to fly
in Training Wing SIX aircraft:

NAME: _____

RANK: _____

DESIGNATION: _____

RECALL PHONE NUMBER: _____

TOTAL FLIGHT HOURS: _____

PREVIOUS AIRCRAFT EXPERIENCE: _____

FLIGHT PHYSICAL EXPIRATION DATE: _____

PHYSIOLOGY TRAINING EXP. DATE: _____

WATER SURVIVAL TRAINING EXP. DATE: _____

DWEST EXP. DATE: _____

EJECTION SEAT TRAINING EXP. DATE (IF APPLICABLE): _____

JUSTIFICATION: _____

2. This individual has been informed that he must hand carry
this request along with his NATOPS training jacket and a copy of
his/her DIFOPS orders to the TW-6 AMSO Officer.

3. This individual shall complete an emergency data form.

APPROVAL AUTHORITY FOR NON-CREW MEMBERS

Category	T-1	T-2	T-6	T-34	T-39
Active duty	AETC	CNATRA (2)	CNATRA (2)	Commodore (1)	Commodore (1)
GS	AETC	NETC (5)	NETC (5)	Commodore (3) CNATRA (6)	Commodore (3) CNATRA (6)
Contractor	AETC	NETC (5)	NETC (5)	Commodore (3) CNATRA (6)	Commodore (3) CNATRA (6)
Maint (rescue)	Commodore (10), (11), (12)	NETC (5)	NETC (5)	NETC (5) GFR (12)	NETC (5) GFR (10), (11), (12)
Retired	AETC	NETC (5)	NETC (5)	NETC (5)	NETC (5) CNATRA (6)
FAA	AETC	CNATRA (4)	CNATRA (4)	CNATRA (4)	CNATRA (4) Commodore (4)
Family member	AETC	NETC (5)	NETC (5)	NETC (5)	NETC (5) CNO (7)
US Civilian	AETC	NETC (5)	NETC (5)	NETC (5)	NETC (5) CNATRA (6)
Foreign Mil	AETC	NETC (5)	NETC (5)	NETC (5)	NETC (5) CNATRA (8)
Foreign Civ	AETC	NETC (5)	NETC (5)	NETC (5)	NETC (5) CNO (9)

* Crewmember is defined as: Active duty military or contractor in a flying status with the appropriate medical, AV PHYS and NATOPS requirements current for flight.

References:

- (a) OPNAVINST 3710.7S
- (b) OPNAVINST 4630.25
- (c) DOD 4515.13-R
- (d) DOD contract N00019-98-D-0140 (T-39)
- (e) DOD contract N00019-98-D-0107 (T-2)
- (f) DOD contract N00019-00-D-0179 (T-34)

Note:

(1) reference (a) 3.2.5.b.1, Reporting custodian for orientation flights for active duty observer

(2) reference (a) 3.2.5.b.2, Type wing (CNATRA) for ejection seat aircraft for active duty observer

(3) reference (a) 3.2.5.b.3, Reporting custodian for orientation flights for observer. Flight must terminate at origin, and remain in local area.

(4) reference (a) 3.2.5.b.7, Type wing (CNATRA) for ATC. Reporting custodian for flight examinations. Flight must terminate at origin, and remain in local area

(5) reference (a) 3.2.5.a, NETC for orientation flights

note per reference (a) 3.1.1.10.a, all passengers will be approved in accordance with ref (b)

(1) references (b), (c) 10.e.3.a.3 TYCOM as desig by CNO, for passenger flights

(2) references (b), (c) 10.e.1.b, CNO, for family member passenger flights

(3) references (b), (c) 10.e.3.a.1, TYCOM as desig by CNO, for foreign military passenger flights

(4) references (b), (c) 10.e.1.d, CNO, for foreign officials for passenger flights

(5) reference (d), 8.8.4 contractor shall utilize flt hrs to support down aircraft rescue missions, 5.25.1, Gov may provide maint pers transportation.

(6) Reference (e), C-14, Gov shall provide maint pers transportation to mil installations

(7) Reference (f), 2.22.1.2, Gov may provide maint pers transportation. Contractor pers meeting 3710 survival requirements may be transported in backseat.