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HEADQUARTERS UNITED STATES AIR  
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MEMORANDUM FOR DISTRIBUTION C

FROM: HQ USAF/A3  
1630 Air Force Pentagon  
Washington, DC 20330-1630

SUBJECT: Guidance Memorandum to AFMAN 11-2T-6 Vol 3, *T-6A Operations Procedures*

By Order of the Secretary of the Air Force, this Air Force Guidance Memorandum (AFGM) immediately implements changes to the Air Force Manual (AFMAN) 11-2T-6 Vol 3, *T-6A Operations Procedures*. Compliance with this memorandum is mandatory. To the extent its directions are inconsistent with other Department of the Air Force publications, the information herein prevails in accordance with DAFMAN 90-161, *Publishing Processes and Procedures*.

This guidance memorandum implements formation approach and removes formation wing landing continuation training requirements.

Please direct any questions to Col Randy Oakland, the Nineteenth Air Force Director of Operations at DSN 487-4341 or [randy.oakland@us.af.mil](mailto:randy.oakland@us.af.mil).

This memorandum becomes void after one year has elapsed from the date of this memorandum, upon publication of an interim change to, or rewrite of AFMAN 11-2T-6V3, whichever is earlier.

JAMES C. SLIFE, Lt Gen, USAF  
Deputy Chief of Staff, Operations

Attachment:  
Guidance Changes

AFMAN11-2T-6V3\_AFGM2023-01  
Guidance Changes

3.4.2.2.4. Formation Approach. Aircrews will not commence formation approach with destination ceiling below 500 feet AGL or compatible published approach minimum (whichever is greater). **(T-2)** Likewise, aircrews will not commence a formation approach with the destination visibility below 1 1/2 miles or compatible published approach minimum (whichever is greater). **(T-2)**

3.4.2.2.4.1. Exception: During an actual emergency requiring a formation approach, it may be necessary to use lower approach minimums to safely recover based on aircrew judgement. In these cases, the supporting aircraft will assume the chase position once VMC and after passing the distressed aircraft the lead for landing.

3.4.2.2.5. Formation Landing. Formation landings are prohibited. **(T-2)**

3.7.5. Formation Approach.

3.7.5.1. The minimum altitude for formation low approaches is 300 feet AGL. **(T-2)**

3.7.5.2. DELETED

3.7.5.3. DELETED

3.7.5.4. The formation VMC drag maneuver may be used to establish spacing for single-ship landings. Aircrews must pre-brief the VMC drag maneuver to include the specific traffic pattern or instrument approach procedure to be flown. **(T-2)**.

3.7.7.6. DELETED

**BY ORDER OF THE  
SECRETARY OF THE AIR FORCE**

**AIR FORCE MANUAL 11-2T-6,  
VOLUME 3**



**16 DECEMBER 2020**

***Flying Operations***

***T-6 OPERATIONS PROCEDURES***

**COMPLIANCE WITH THIS PUBLICATION IS MANDATORY**

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This manual implements Department of the Air Force Policy Directive (DAFPD) 11-2, *Aircrew Operations*, Air Force Instruction (AFI) 11-200, *Aircrew Training, Standardization/Evaluation, and General Operations Structure*, and AFI 11-202, V3, *Flight Operations*. This manual establishes standard operational procedures applicable to all Regular Air Force, Air National Guard, and Air Force Reserve aircrew operating the T-6 aircraft. This publication does not apply to the United States Space Force. This manual requires the collection and or maintenance of information protected by the Privacy Act of 1974 authorized by Title 10, United States Code, Section 9013, Secretary of the Air Force. The applicable System of Records Notice (SORN) F011 AF XO A, Aviation Resource Management System (ARMS) is (are) available at: <https://dpcl.d.defense.gov/privacy/SORNS.aspx>. Ensure that all records created as a result of processes prescribed in this publication are maintained in accordance with Air Force Instruction (AFI) 33-322, *Records Management and Information Governance Program*, and disposed of in accordance with Air Force Records Information Management System (AFRIMS) Records Disposition Schedule (RDS). Refer recommended changes and questions about this publication to 19 AF/DOV using AF Form 847, *Recommendation for Change of Publication*; route AF Forms 847 to the parent major command (MAJCOM) through standardization and evaluation (stan/eval) channels, who will forward approved recommendations to 19 AF/DOV. This publication may be supplemented at any level, but all Supplements must be routed to 19 AF/DOV for coordination prior to certification and approval. **(T-2)**. The authorities to waive wing/unit level requirements in this publication are identified with a Tier ("T-0, T-1, T-2, T-3") number following the compliance statement. See DAFI 33-360, *Publications and Forms Management*, for a description of the authorities associated with the Tier numbers. Submit requests for waivers through the chain of command to the appropriate Tier waiver approval

authority, or alternately, to the requestor's commander for non-tiered compliance items. The use of the name or mark of any specific manufacturer, commercial product, commodity, or service in this publication does not imply endorsement by the Air Force. Compliance with the attachments in this publication is mandatory.

### ***SUMMARY OF CHANGES***

This document has been substantially revised and must be completely reviewed. Major changes include the addition of runway condition assessment matrix (RCAM) guidance, updated global positioning system (GPS) guidance, updated non-towered airfield operations, and an update to the minimum equipment list (MEL). Additional changes include revisions to tiering and to convert this publication to an AFMAN.

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## Chapter 1

### GENERAL INFORMATION

**1.1. Scope.** This publication outlines the procedures applicable to the safe operation of the T-6. With the complementary references cited, this publication prescribes standard operational procedures used by all aircrews operating T-6 aircraft.

**1.2. Roles and Responsibilities.** This publication, in conjunction with other governing directives, prescribes T-6 procedures under most circumstances, but is not to be used as a substitute for sound judgment or common sense.

1.2.1. Commanders. Commanders and their respective tier levels are responsible for complying with guidance in this manual. **(T-1)**. T-6A flying unit wing commanders, delegated no lower than the operations group commander (OG/CC) (or equivalent), are responsible for providing local operating guidance to supplement the requirements of this manual. **(T-2)**.

1.2.2. Pilot in Command (PIC). The PIC is ultimately responsible for the safe and effective operation of the aircraft. **(T-2)**. PIC's for all flights are designated on a flight authorization form, or equivalent, in accordance with DAFMAN 11-401, *Aviation Management*. PICs are:

1.2.2.1. In command of all persons aboard the aircraft and vested with the authority necessary to manage their crew and accomplish the mission. **(T-2)**.

1.2.2.2. Responsible for the welfare of the crew and the safe accomplishment of the mission. **(T-2)**. This begins upon notification of the mission and terminates upon completion of the debrief. If the PIC determines that conditions are not safe to prosecute the mission, the aircraft will not depart until the condition is adequately mitigated. **(T-2)**.

1.2.2.3. The final mission authority and will make decisions not specifically assigned to higher authority. **(T-2)**.

1.2.2.4. Charged with keeping the applicable commander informed concerning mission progress and difficulties. **(T-2)**.

1.2.2.5. The final authority for asking and accepting waivers affecting the crew or mission. **(T-2)**.

1.2.2.6. Responsible for ensuring aircraft security when away from home station. **(T-2)**.

1.2.2.7. The focal point for interaction between aircrew and mission support personnel. **(T-2)**.

**1.3. Deviations.** Personnel will not deviate from the procedures in this publication without specific approval by the major command director of operations (A3) unless an urgent requirement or aircraft emergency dictates otherwise. **(T-2)**. In this case, the PIC may take all actions necessary to safely recover the aircraft and/or aircrew. Aircrews will notify their squadron leadership (i.e., operations supervisor, Director of Operations, commander) within 24 hours of actions taken for any deviations. **(T-2)**.

**1.4. References.** The primary references for T-6 operations are technical order (T.O.) 1T-6A-1, *Flight Manual, USAF/USN Series T-6A Aircraft*; AETCMAN 11-248, *T-6 Primary Flying*; and this publication.

**1.5. Waivers.** See DAFI 33-360, for a description of the authorities associated with tier numbers.

1.5.1. Units will provide MAJCOM stan/eval copies of all issued waivers within 72 hours of approval. **(T-2).**

1.5.2. Units will maintain a copy of approved waivers and track the following information: Waiver type, approval authority, approval date, waiver number, and waiver expiration date. **(T-2).**

**1.6. Definition of Student.** For purposes of this publication, “Student” refers to any undergraduate student pilot, undergraduate combat systems officer, or pilot enrolled in a formal training course who has not successfully completed a T-6A qualification evaluation in accordance with AFMAN 11-2T-6, Volume 2, *T-6 Aircrew Evaluation Criteria*.

## Chapter 2

### MISSION PLANNING

**2.1. Mission Planning Duties.** Mission planning duties will be shared jointly by the individual pilots and the operations function of the organization.

**2.2. General Procedures.**

2.2.1. Aircrews will accomplish sufficient flight planning to ensure safe mission accomplishment. **(T-2).** AFMAN 11-202, Volume 3 specifies the minimum requirements.

2.2.2. Aircrews will complete takeoff and landing data (TOLD) for all flights. **(T-2).**

2.2.2.1. Tab data derived from T.O. 1T-6A-1 approved performance charts is acceptable and may be utilized when available. MAJCOM stan/eval must approve all TOLD programs derived from locally produced algorithms.

2.2.2.2. When necessary, aircrews will use the runway condition assessment matrix (RCAM) to derive the runway condition reading and associated information (i.e., runway surface condition, pilot reported braking action, etc.) from the runway condition code (RCC) described in published Field Condition (FICON) Notice to Airman (NOTAM). **(T-2).** The runway condition assessment matrix (RCAM) is located in the Department of Defence (DoD) Flight Information Publication (Enroute), *Flight Information Handbook*.

2.2.2.2.1. Aircrews will use the lower of RCC, pilot reported braking action or RCR. **(T-2).**

2.2.2.2.2. Aircrews will consider a runway condition code of 3 as a runway condition reading (RCR) of 10. **(T-2).**

2.2.3. T-6 aircrews will only use MAJCOM-approved mission planning software. **(T-2).**

2.2.3.1. Joint Mission Planning Software (JMPS) is the primary mission planning software for the T-6.

2.2.3.2. When JMPS is not available, aircrews will use 1800wxbrief.com or other MAJCOM-approved software. **(T-2).** Refer to the T-6A 1800WXBRIEF Flight Planning User's Guide located at: <https://usaf.dps.mil/sites/aetc-19af/do/dov/Mission%20Planning%20Documents/Forms/AllItems.aspx?viewpath=%2Fsites%2Faetc-19af%2Fdo%2Fdov%2FMission%20Planning%20Documents%2FForms%2FAllItems.aspx>. Aircrews will only use flight performance models validated by MAJCOM stan/eval. **(T-2).**

**2.3. Briefing and Debriefing.**

2.3.1. Minimum Briefing Time. Aircrews will adhere to the following minimum briefing times:

2.3.1.1. The minimum briefing time between the start of the mission briefing and takeoff is 1 hour. **(T-3).**



2.3.1.2. The minimum briefing time for the first navigation sortie of the day beginning or ending off-station and for all off-station, low-level navigation sorties is 1 hour and 45 minutes. **(T-3). Exception:** A dual instructor pilot (IP) crew familiar with the off-station airfield may use 1 hour minimum briefing time.

2.3.2. Briefing Guides. Briefing guides are a reference list of items that may apply to particular missions.

2.3.2.1. The PIC will brief students and orientation passengers on their specific duties and responsibilities related to safe mission accomplishment and appropriate training rules. **(T-2).** Aircrews will refer to the appropriate briefing guides located in this publication (**Attachment 3**, **Attachment 4**, **Attachment 5**, and **Attachment 6**) and will brief applicable items before each mission. **(T-2).** In addition, aircrews will refer to **Attachment 7** for T-6 training rules. **(T-2).** Aircrews may reference a locally generated briefing guide provided it contains all information in the appropriate attachment.

2.3.2.2. Aircrew may brief briefing guide reference items listed in any sequence. It is optional to brief those items covered by written squadron standards and understood by all participants as “standard.” Expand each guide as necessary to cover other important items of the flight. Aircrews will brief only those items applicable to the particular mission and in sufficient detail to prevent any misunderstanding between aircrew members. **(T-2).**

2.3.2.3. When applicable, aircrews will brief an alternate, less complex mission for each flight. **(T-2).** Aircrews will only fly briefed missions and events. **(T-2).** Mission elements or events may be briefed airborne if practical to do so and flight safety is not compromised.

2.3.2.4. Aircrews will brief and debrief all missions using the applicable briefing guide as a reference. **(T-2).**

2.3.2.5. Solo students will not deviate from the briefed primary or alternate mission profile. **(T-2).**

## **2.4. Unit-Developed Checklists, Local Pilot Aids and Inflight Guides (IFGs).**

2.4.1. Unit-developed checklists are approved for use in lieu of T.O. 1T-6A-1CL-1. Units will ensure these unit-developed checklists contain, as a minimum, all items (verbatim and in order) listed in the T.O. checklist. **(T-2).**

2.4.2. Units will ensure that unit-developed pilot aids and IFGs include, as a minimum, the following items:

2.4.2.1. Briefing guides. **(T-2).**

2.4.2.2. Local ultra-high frequency (UHF) and very high frequency (VHF) channelization. **(T-2).**

2.4.2.3. Appropriate airfield diagrams. **(T-2).**

2.4.2.4. Emergency information (for example, emergency action checklists, no-radio procedures, divert information). **(T-2).**

2.4.2.5. Bailout area information. **(T-2).**

2.4.2.6. Cross-country procedures to include command and control, engine documentation, and aircraft servicing. **(T-3)**.

2.4.2.7. Other information as deemed necessary by the unit (for example, stereo flight plans, turnaround procedures, local training areas, and instrument preflight). **(T-2)**.

2.4.2.8. Training rules. **(T-2)**.

2.4.3. Units will forward unit-developed checklists, local pilot aids and IFGs to MAJCOM stan/eval for review prior to release. **(T-2)**.

## Chapter 3

### NORMAL OPERATING PROCEDURES

#### 3.1. Preflight.

3.1.1. Aircraft Forms. Aircraft operational checks are sometimes annotated in the aircraft forms. Students will not fly solo in aircraft requiring an operational check. **(T-2)**. Aircrews will not perform operational checks during dual-student training sorties if doing so would interfere with training objectives. **(T-2)**.

3.1.2. Exterior Inspection. On dual instructional sorties, students will not conduct the exterior inspection without IP supervision. **(T-2)**. **Exception:** A student enrolled in T-6A Pilot Instructor Training, who has successfully completed the aircraft front cockpit (FCP) proficiency block of training or a Qualification evaluation, does not require IP supervision during the exterior inspection.

3.1.3. Ejection Seats. Aircrews will ensure all obstructions are clear of the small space between the aircraft sidewall and ejection seat sidewall prior to lowering the ejection seat. **(T-2)**. Aircrews will lower their seat to the desired height prior to placing anything on the right-side circuit breaker panel. **(T-2)**. Aircrews will not place anything on the left-side circuit breaker panel as it may interfere with the power control lever (PCL), green ring, and emergency firewall shutoff handle. **(T-2)**.

3.1.4. Helmet Visor. Visor will be down any time the canopy is closed in accordance with T.O. 1T-6A-1. Aircrews will wear a clear visor at night and is optional during periods of low visibility conditions. **(T-2)**.

3.1.5. G-suit. Aircrews will don G-suits when anticipating 2 or more Gs during any portion of a sortie. **(T-2)**. Aircrews will have a tethered aircrew flight equipment-approved hook blade knife accessible in case of ejection when G-suit is not worn. **(T-2)**.

3.1.6. Flight gloves. Aircrews will wear flight gloves from engine start until engine shutdown. **(T-2)**. Flight gloves should be worn during exterior inspections.

3.1.7. Foreign Object Damage. To reduce the risk of foreign object damage during ground operations, personnel will:

3.1.7.1. Not approach or allow others to approach an operating engine. **(T-2)**.

3.1.7.2. Avoid using excessive power. **(T-2)**.

3.1.7.3. Avoid prop or jet blast from other aircraft. **(T-2)**.

3.1.7.4. Ensure loose items are secure in the cockpit before opening the canopy. **(T-2)**.

3.1.7.5. Not place objects on the canopy transparency in order to reduce the potential for damaging or scratching the canopy. **(T-2)**.

3.1.8. Ground Communication and Visual Signals. Normally, the pilot and ground crew communicate using visual signals. Use visual signals in accordance with AFMAN 11-218, *Aircraft Operations and Movement on the Ground*. Signals pertaining to operation of aircraft systems will normally originate with the FCP pilot. The pilot should not activate any system that could pose a danger to the aircraft or ground crew prior to receiving proper

acknowledgment from ground personnel. If ground crew intercom connection to the aircraft is desired, signal the crew chief by placing both hands cupped over the ears followed by a pointing motion at the crew chief.

3.1.9. Ejection Seat. Aircrews will comply with the following ejection seat safety pin and inter seat sequencer (ISS) procedures:

3.1.9.1. Solo student pilots will make a radio call to the controlling agency stating that the ejection seat safety pin is removed and stowed prior to being cleared for takeoff. **(T-2)**.

3.1.9.2. After landing, solo students will clear the runway and stop the aircraft prior to reinstalling the ejection seat safety pin. **(T-2)**.

3.1.9.3. When non-rated personnel occupy the rear cockpit (RCP), the PIC will ensure that the RCP occupant removes and stows the RCP ejection seat safety pin and places the ISS mode selector in the CMD FWD position prior to takeoff. **(T-2)**. **Exception:** Students enrolled in a formal training course will remove the pin and select the BOTH position on the ISS when occupying the rear seat. **(T-2)**.

**3.2. Ground and Taxi Operations.** Conduct ground and taxi operations according to AFMAN 11-218.

3.2.1. Taxi Interval. Maintain a minimum of 75 feet when taxiing staggered and 150 feet when in trail. **(T-2)**. Spacing may be reduced when holding short of or entering the runway. Use caution when taxiing in the vicinity of aircraft accomplishing an over speed governor check.

3.2.2. Ice and/or Snow Conditions. Aircrews will not taxi if snow or ice is adhering to taxiways or runways until all portions of the taxi route and runway have been checked for safe operations. **(T-2)**. When ice and/or snow are present on the taxiway, aircrews will taxi on the centerline with a minimum of 300 feet of spacing. **(T-2)**.

**3.3. Takeoff and Landing.**

3.3.1. Fuel. Aircrews will ensure that sufficient fuel exists at takeoff for the planned sortie, to include required reserve and alternate fuel. **(T-2)**. The following definitions and requirements apply to fuel:

3.3.1.1. Joker Fuel. The brevity term for a pre-briefed fuel quantity above bingo at which separation, bug out, or event termination should begin and proceed with the remainder of the mission.

3.3.1.2. Bingo Fuel. The brevity term for a pre-briefed fuel quantity that allows the aircraft to return to the base of intended landing or alternate (if one is required) using preplanned recovery parameters and arriving with normal recovery fuel.

3.3.1.3. Normal recovery fuel is the fuel on initial or at the final approach fix (FAF) at the base of intended landing or alternate, if required. This fuel quantity will be the higher of what is established locally or 200 pounds.

3.3.1.4. Aircrews will declare minimum fuel or emergency fuel to the controlling agency when it becomes apparent the fuel remaining at final touchdown will be less than the requirements indicated in [paragraphs 3.3.1.4.1](#) and [3.3.1.4.2](#), respectively. **(T-2)**. After

declaring minimum or emergency fuel, aircrews will add the fuel status call and the amount of fuel remaining (in minutes) to each new air traffic control (ATC) facility. **(T-2)**. Once established in the local traffic pattern, aircrews will add fuel status with each radio transmission. **(T-2)**. Aircrews will use the following to define emergency and minimum fuel:

3.3.1.4.1. Minimum fuel—150 pounds (200 pounds on solo student syllabus sorties). **(T-2)**.

3.3.1.4.2. Emergency fuel—100 pounds or less. **(T-2)**.

### 3.3.2. Runway Requirements.

3.3.2.1. Minimum runway length and width for normal T-6 operations (takeoff, landing and touch and go's) will provide a landing distance available of 4,000 feet long by 75 feet wide or heavy weight flaps up landing ground roll plus 500 feet, whichever is greater. **(T-2)**.

3.3.2.2. Intersection takeoffs are approved; however, aircrews must ensure the requirements of [paragraph 3.3.2.1](#) are met. **(T-2)**.

3.3.2.3. Operations group commander (OG/CC) may approve the use of 3,000 feet long by 50 feet wide runways for uncontrolled airfield low approaches. Document approval in accordance with [paragraph 3.10.1.1](#)

3.3.2.4. For actual emergency landing situation, pilots should consider all factors (winds, runway condition and environment, aircraft energy state, emergency response availability, etc.) that could affect their ability to safely recover to an airfield less than [paragraph 3.3.2.1](#) requirements.

3.3.3. Rolling Takeoffs. Aircrews will only perform rolling takeoffs during daylight or extended daylight hours. **(T-2)**.

3.3.4. Crosswind Component/Tailwind Limitations. Aircrews will operate within the following wind limitations:

3.3.4.1. Standing water - 5 knots. **(T-2)**.

3.3.4.2. Standing water due to patchy standing water (ponding) as determined by the supervisor of flying (SOF) - 10 knots. **(T-2)**.

3.3.4.3. Solo students - 15 knots. **(T-2)**.

3.3.4.4. Formation wing takeoffs and landings - 15 knots. **(T-2)**.

3.3.4.5. Touch-and-go landings - 20 knots. **(T-2)**.

3.3.4.6. Reference T.O. 1T-6A-1 for tailwind, initial takeoff, landing, wet and icy runway wind limitations.

3.3.5. Landing Gear Handle Operation. When airborne and before moving the gear handle, the pilot flying the aircraft will make an intercockpit "gear clear" call and pause momentarily before moving the gear handle. **(T-2)**. On pre-initial solo student sorties, the IP will acknowledge "clear" before the student moves the gear handle. **(T-2)**. On all other sorties, "gear clear" is an advisory call only.

### 3.3.6. Flaps.

3.3.6.1. To prevent wear and tear on the aircraft, landing (LDG) flap touch-and-go and full stop landings are discouraged when crosswinds (steady state or gusts) exceed 10 knots. This is not intended to limit aircrew when the use of LDG flaps is more appropriate for conditions (i.e., runway length, required training objectives, etc.).

3.3.6.2. The LDG flap setting should be used for full-stop landings when the heavy weight flaps up landing distance is greater than or equal to 80 percent of the actual field length.

3.3.7. Low Approach. Aircrews will not allow the aircraft to touch down when cleared low approach. **(T-2)**. Aircrews will not descend below 500 feet above ground level (AGL) or the altitude specified by the controller when cleared restricted low approach. **(T-2)**.

## 3.4. Maneuvering Parameters.

3.4.1. Aerobatics. Aircrews will only perform aerobatic flight in special use airspace. **(T-2)**.

3.4.2. Weather Requirements. Aircrews will remain clear of clouds, with a minimum of 3 miles in-flight visibility and a discernable horizon when executing visual training maneuvers in a military operating area while on an instrument flight rules (IFR) flight plan. **(T-2)**. Local agreements between ATC (Air Route Control Center, Terminal Radar Approach Control, Radar Approach Control, etc.) and the operational unit could further define any weather requirements for military operating area operations.

3.4.2.1. Contact and Instrument Maneuvers. When accomplishing aerobatics, stalls, out-of-control flight (OCF) recoveries, contact recoveries, slow flight, stab demo, confidence maneuvers and instrument recoveries, aircrews will adhere to the weather requirements in [paragraph 3.4.2 \(T-2\)](#).

3.4.2.1.1. To avoid entering instrument meteorological conditions (IMC) during OCF recovery training, a minimum of 7,000 feet of airspace, clear of clouds, must exist below entry altitude. **(T-2)**.

3.4.2.1.2. For all planned OCF recoveries conducted over clouds, aircrews will complete the OCF recovery (to include dive recoveries) at least 3,000 feet above the clouds. **(T-2)**.

3.4.2.2. Formation Maneuvers.

3.4.2.2.1. When accomplishing wing work (level 2 and 3), extended trail (all levels), practice lost wingman, tactical formation, and fluid maneuvering the aircrew will adhere to the weather requirements in [paragraph 3.4.2 \(T-2\)](#).

3.4.2.2.2. Formation Wing Takeoff. Aircrews will ensure the ceiling and visibility is greater than or equal to circling minimums or 500 feet and 1 1/2 miles (whichever is higher). **(T-2)**. Aircrews will not execute a formation wing takeoff if the runway contains standing water, ice, slush, or snow. **(T-2)**.

3.4.2.2.3. Formation Interval Takeoff. Aircrews will ensure the ceiling and visibility is greater than or equal to 1,500 feet and 3 miles, respectively. **(T-2)**.

3.4.2.2.4. Formation approach and landing. Aircrews will not commence descent nor execute a formation approach with destination ceiling and visibility below 500 feet and 1 1/2 miles or published approach minimums (whichever is greater). **(T-2).** **Exception:** During an actual emergency requiring a formation approach, it is acceptable to use the lowest approach minimums. Aircrews will not execute formation wing landings on a runway with standing water, ice, slush, or snow present. **(T-2).**

3.4.2.3. Solo Sorties. Students executing solo formation syllabus sorties must remain in visual meteorological conditions (VMC) at all times, with sufficient ground references to visually navigate to, from, and within assigned areas. **(T-2).**

3.4.2.4. Emergence Landing Pattern (ELP). When flying practice ELPs (to include practice High Altitude Power Loss), maintain proper visual flight rules (VFR) cloud clearances in accordance with AFMAN 11-202, Volume 3.

3.4.2.5. Functional Check Flight (FCF) and Operational Check Flight Requirements. Aircrews shall adhere to weather restrictions outlined in [Attachment 2](#) and T.O. 1-1-300, *Maintenance Operational Checks and Check Flights*. **(T-2).**

3.4.3. Aircraft Configuration. Unless specifically stated in the exercise or maneuver description, aircrews will perform all maneuvers with gear and flaps in the retracted position. **(T-2).** Aircrews will not extend the flaps in an attempt to improve aircraft performance. **(T-2).**

3.4.4. Minimum Altitudes. Aircrews will abide to the following minimum altitude restrictions:

3.4.4.1. Perform all parts of aerobatic maneuvers, unusual attitudes, abnormal flight recoveries, practice lost wingman, extended trail, stalls, and slow flight above 6,000 feet AGL. **(T-2).**

3.4.4.2. Do not begin OCF spin training below 13,500 feet mean sea level (MSL). **(T-2).** Reference T.O. 1T-6A-1 for full list of OCF limitations.

3.4.4.3. Except while in the traffic pattern or during departure and recovery, the minimum enroute and area altitude for a solo-student syllabus mission is 5,000 feet AGL. **(T-3).**

3.4.4.4. The minimum altitude for VFR non-local, point-to-point navigation missions dictated by operational or training requirements is 3,000 feet AGL. **(T-2).**

3.4.4.5. The minimum altitude to complete configured aircraft slips for training is 300 feet AGL. **(T-2).**

3.4.5. Dual-Only Maneuvers. Solo students will not perform the following unless required during an emergency or to maintain safety of flight:

3.4.5.1. Rolling takeoffs. **(T-2).** **Exception:** Students enrolled in T-6A pilot instructor training may perform rolling takeoffs solo.

3.4.5.2. Stalls. **(T-2).**

3.4.5.3. Slow flight. **(T-2).**

3.4.5.4. Stability demonstration. **(T-2)**.

3.4.5.5. Contact recoveries from abnormal flight (nose-high, nose-low, and inverted). **(T-2)**.

3.4.5.6. Intentional spin entry. **(T-2)**.

3.4.5.7. Simulated emergency procedures (ELPs and flaps up patterns or landings). **(T-2)**.

3.4.5.8. Straight-in approaches. **(T-2)**.

3.4.5.9. Low-closed patterns. **(T-2)**.

3.4.5.10. Uncontrolled airfield operations. **(T-2)**.

3.4.6. Critical Phases of Flight. Aircrews will regard the following flight regimes as critical phases of flight:

3.4.6.1. Terminal area operations including taxi, takeoff, and landing. **(T-2)**.

3.4.6.2. Low-level flight. **(T-2)**.

3.4.6.3. Formation operations. **(T-2)**.

3.4.6.4. All portions of any test or FCF. **(T-2)**.

3.4.6.5. Any aerial demonstration. **(T-2)**.

3.4.6.6. Flight at or below 1,000 feet AGL. **(T-2)**.

3.4.7. Rear Cockpit Landings. Only the following aircrew may perform RCP-landings:

3.4.7.1. RCP qualified IPs. **(T-2)**.

3.4.7.2. Pilots receiving training to gain or regain RCP-landing qualification under the direct supervision of a RCP-landing qualified IP in the FCP. **(T-2)**.

3.4.8. Extended Daylight Operations. Use day rules and procedures during civil twilight (defined in the air almanac or flight weather briefing). **(T-2)**. If environmental conditions reduce illumination and/or visibility during civil twilight consider using night procedures. The PIC, aided by the SOF, should make the determination that normal day maneuvers are safe during this period.

### **3.5. Night Procedures.**

3.5.1. Filing at Night. Aircrews will not file to a base of intended landing (other than the home station) or an alternate unless there is an operable straight-in approach with glidepath guidance. **(T-2)**. Visual descent path indicator or precision guidance approach systems constitute acceptable glidepath guidance.

3.5.2. Aircrews will not execute the following maneuvers during hours of nighttime:

3.5.2.1. Rolling takeoffs. **(T-2)**.

3.5.2.2. Aerobatics. **(T-2)**.

3.5.2.3. Intentional spin entry. **(T-2)**.

3.5.2.4. Stability demonstrations. **(T-2)**.



3.5.2.5. Practice stalls, contact recoveries from abnormal flight, ELPs, and flaps up patterns and landings. (T-2).

3.5.2.6. Low-closed. (T-2).

3.5.2.7. Solo student operations. (T-2).

3.5.2.8. Formation. (T-2).

3.5.2.9. Low level navigation. (T-2).

3.5.3. Night Taxiing. Aircrews will taxi on taxiway centerline and maintain a minimum taxi interval of 300 feet between aircraft. (T-2).

3.5.4. Landing and Taxi Lights. Landing and taxi lights should be used when taxiing at night. They may be turned off when the lights interfere with the vision of the pilot of an arriving or departing aircraft. Aircrews will not taxi into an area that cannot be visually cleared without the landing and taxi lights. (T-2).

3.5.5. Anti-collision Lights. Aircrews may turn off anti-collision lights during the hours of darkness while in the home base traffic pattern (based on local guidance).

3.5.6. Overhead Patterns Including Closed Patterns. Aircrews will only fly overhead patterns including closed patterns only at the home station or as approved by [paragraph 3.10](#) (T-3). **Note:** Kelly Field is included as a home station for the 12th Operations Group.

3.5.7. Night Landings. Night landings at other than the home field require operational glide path guidance. (T-2). Visual descent path indicator or precision guidance systems constitute acceptable glide path guidance. At towered fields meeting these criteria, aircrew are allowed under IFR to receive vectors for visual approaches to increase the frequency and repetition of night landings.

3.5.8. Night Non-precision Approaches. At airfields other than home station, aircrews require glidepath (visual or instrument) guidance to descent below minimum descent altitude on a non-precision approach. (T-2). Performing practice approaches at facilities without glidepath guidance is authorized, however, aircrews will not descend below minimum descent altitude. (T-2).

3.5.9. Night Circling. Aircrews will not practice the visual circling maneuver portion of an instrument approach. (T-2). Aircrews may fly the instrument portion of a designated circling approach but must execute the missed approach at the missed approach point. (T-2).

3.5.10. Unusual Circumstances at Night. In unusual circumstances, such as an aircraft emergency or a facility outage, the PIC will determine the best method of recovery, which may or may not include glide path guidance. (T-2).

### **3.6. Weather Restrictions for Instrument Approaches.**

3.6.1. Filing Weather. Aircrews will not file to a destination unless the ceiling and visibility for the estimated time of arrival (plus or minus 1 hour) meets or exceeds approach minimums. (T-2).

3.6.2. Takeoff Weather. Aircrews will base the decision to launch a local sortie on the existing weather and forecast weather for planned landing plus 1 hour. (T-2). Aircrews will base the decision to launch a non-local sortie on the existing weather at takeoff time. (T-2).

3.6.3. Before Starting Penetration or Enroute Descent. Aircrews will not commence an enroute descent or published approach unless existing ceiling and visibility meet the requirements for the approach to be flown. **(T-2)**. During actual IMC, a precision approach monitored by surveillance radar is the preferred approach. **Note:** This does not prevent instrument practice for other types of approaches if the ceiling and visibility are at or above minimums for the approach being flown.

3.6.4. After Starting Penetration or Enroute Descent. After starting an enroute descent, arrival or published approach (or receiving radars vector for an approach) and subsequently the weather is reported below the published minimums (ceiling or visibility), the pilot may continue the approach to published minimums. The pilot may land if the runway environment is in sight and the aircraft is in a position to make a safe landing. In all cases, the pilot will comply with the last clearance received until obtaining a revised clearance. **(T-2)**. Aircrews will ensure sufficient fuel exists to complete the approach, execute the missed approach and land at the alternate airfield with required reserves. **(T-2)**.

3.6.5. Simulated Instrument Flight. Aircrew will adhere to the following guidance when executing simulated instrument flight:

3.6.5.1. If both cockpits are occupied, the pilot not flying will act as a safety observer when the other pilot is flying simulated instruments. **(T-2)**.

3.6.5.2. Aircrew will not utilize vision restriction devices in the front cockpit. **(T-2)**.

3.6.6. Global Positioning System (GPS).

3.6.6.1. The T-6A KLN 900 GPS is partially approved for enroute, terminal, and non-precision approach operations. T-6A aircrew may use GPS as the primary navigational source for enroute IFR operations, as well as during the following area navigation (RNAV) operations:

3.6.6.1.1. RNAV 2 procedures (i.e., T and Q routes).

3.6.6.1.2. RNAV 1 and RNP APCH procedures (terminal operations). Due to limitations of the KLN-900, aircrews will only accomplish RNP APCH (i.e., RNAV (GPS)) procedures or any RNAV sections of a conventional approach procedure in day VMC conditions. **(T-0)**. Aircrews will utilize only the lateral navigation (LNAV) and circling lines of minima in accordance with AFMAN 11-202, Volume 3. **(T-0)**.

3.6.6.2. Aircrew will check Jeppesen® NAVDATA alerts, change notices and NOTAMs prior to every flight in which the Jeppesen® database will be utilized. **(T-2)**. Aircrews will not use the GPS as a primary source of IFR navigation with an expired database. **(T-0)**.

3.6.6.3. Aircrew will check fault detection and exclusion (FDE) before using GPS as a primary source of IFR navigation. **(T-2)**. A loss of FDE constitutes an unacceptable degradation of system performance. In order to meet the requirements of AFMAN 11-202, Volume 3, aircrews will ensure FDE indicates “YES” before using GPS as a primary source of IFR navigation within the National Air Space system. **(T-2)**.

3.6.6.4. The KLN 900 is a baro-aided GPS system. When below the transition altitude, aircrew should set the local altimeter setting on the altimeter page of the KLN 900 prior

to commencing RNAV instrument approaches and T or Q routes. In some cases, an incorrect altimeter setting may induce an erroneous receiver autonomous integrity monitoring (RAIM) failure indication resulting in an aborted GPS operation.

3.6.6.5. If performing RNAV operations, aircrews will check “terminal” predictive receiver autonomous integrity monitoring (P-RAIM) for their route of flight during preflight planning at <http://sapt.faa.gov> to ensure GPS satellite coverage. (T-2). Aircrew will use the “with baro-aiding” tabs when referencing this site. (T-2). While the KLN 900 GPS has the on-board capability to provide non-precision approach P-RAIM, it does not have an on-board P-RAIM capability for “terminal” or “enroute operations”.

3.6.6.5.1. RNAV alternate and substitution guidance is published in AFMAN 11-202, Volume 3, and FAA AC 90-108, *Use of Suitable Area Navigation (RNAV) Systems on Conventional Routes and Procedures* to aide aircrews when flying a conventional standard instrument departure (SID), standard terminal arrival (STAR), departure procedure (DP), or instrument approach procedure (IAP) using RNAV. Aircrew will set the course deviation index (CDI) to terminal sensitivity (1 nautical mile [nm]) on the Mode page when utilizing RNAV as an alternate or substitute for traditional navigational aids (NAVAIDs). (T-2).

3.6.6.5.2. The KLN-900 is a suitable navigation system certified to fly RNAV segments published on instrument landing system (ILS) procedures in accordance with FAA AC 90-108 with the following restrictions:

3.6.6.5.2.1. When flying RNAV segments on published ILS procedures, aircrew will have an RNAV (GPS) approach loaded for their destination to ensure proper RAIM and CDI sensitivity within 30 nm of the destination. (T-2).

3.6.6.5.2.2. If commencing an RNAV segment on a published ILS procedure outside of 30 nm, aircrews will set the CDI to terminal sensitivity (1 nm) on the Mode page and ensure that the aircraft remains within half-scale deflection. (T-2). Improper RAIM sensitivity beyond 30 nm is permitted under FAA AC 90-100A. **Exception:** For a single RNAV waypoint defining a terminal arrival area (TAA) on an IAP, which does NOT contain a note specifying “RNAV 1”, it is not necessary to load an RNAV approach.

3.6.6.5.2.2.1. Pilots may fly ILS procedures consisting of a single standalone RNAV waypoint, such as a TAA or an RNAV waypoint-to-intersection leg. Aircrews will fly outbound courses from RNAV waypoints to conventional intersections using omnibearing select (OBS) from the RNAV waypoint to the intersection. (T-2). Fly heading-based legs associated with procedures using manual technique (based on indicated magnetic heading). In all cases, aircrews will retrieve all RNAV waypoints from the aircraft database. (T-2). If navigation requires lateral guidance based on a localizer (LOC) course, aircrews must monitor localizer raw data for lateral navigation. (T-2).

3.6.6.5.2.2.2. Pilots will not fly ILS procedures consisting of multiple consecutive RNAV waypoints or a missed approach (point or segment) based solely on RNAV except: (T-2).

3.6.6.5.2.2.2.1. Pilots may navigate to an ILS final via a GPS overlay

approach (e.g., “ILS or RNAV (GPS)” in the title). In this case, pilots must load and fly the overlay RNAV approach from the database and will change the navigation source to LOC once established on the RNAV overlay inbound course prior to 2 NM from the FAF inbound, OR, upon passing the Intermediate Fix, if applicable. **(T-2)**. When flying the ILS portion of the overlay approach and a missed approach is warranted, aircrews should immediately execute missed approach procedures. Once climbing safely away from the ground, if the missed approach is based on RNAV points, select Nav display to GPS mode, press the “GPS approach” button on the multi-function display, and execute the RNAV missed approach procedure in accordance with T.O. 1T-6A-1, or ATC assigned climb out. **(T-2)**.

3.6.6.5.2.2.2.2. Pilots may fly the procedure if the full procedure name is retrievable from the database (e.g. “ILS” or “ILS or LOC” in the title).

3.6.6.5.2.2.2.3. Pilots may fly the approach via vectors to the ILS final approach course and coordinate for alternate missed approach instructions if the missed approach (point or segment) is based solely on RNAV.

3.6.6.5.3. It is not possible to retrieve entire RNAV T and Q routes from the database of the KLN 900; however, extracting individual named fixes from the database is permitted under FAA AC 90-100A, provided all fixes along the published route to be flown are inserted. Aircrews will not manually enter waypoints using latitude and longitude or place, bearing and distance. **(T-2)**. To ensure that the aircraft remains within the expected distance from route centerline, aircrews will ensure a CDI scale of 1 nm is selected from the Mode page and that the aircraft remains within full scale deflection. **(T-2)**.

3.6.6.6. Aircrew must complete MAJCOM-directed training for use of these systems down to LNAV minima before IFR use. **(T-2)**.

3.6.6.6.1. Suitable procedures for the T-6A will state “GPS Required” or “GNSS Required”.

3.6.6.6.2. Aircrews will not fly required navigation performance authorization required approach (RNP AR APCH) procedures (approaches with “RNAV (RNP)” in the title). **(T-0)**.

3.6.6.6.3. Aircrews will not fly SIDs, STARs, and DPs with “RNAV” in the title. **(T-0)**.

3.6.6.6.4. RNAV (GPS) approaches will be flown in accordance with AFMAN 11-202, Volume 3, MAJCOM and local supplements. **(T-2)**. Additionally, the following restrictions apply:

3.6.6.6.4.1. Aircrews should check P-RAIM prior to departure and will check P-RAIM on the STAT 5 page prior to commencing an RNAV (GPS) approach. **(T-2)**. Aircrews will ensure that the estimated time of arrival for the prediction is accurate. **(T-2)**.

3.6.6.6.4.2. Aircrews will not fly radius to fix (RF) legs. **(T-2)**.

3.6.6.6.4.3. Aircrews will remain VMC for the entirety of the RNP APCH (i.e.,

RNAV (GPS)) procedure to include missed approach (if flown using GPS means).  
(T-0).

### 3.7. Formation.

3.7.1. Maximum Size. Units will not plan or schedule formations larger than four T-6 aircraft. (T-2).

3.7.2. Lead Change.

3.7.2.1. Aircrews will not initiate a lead change within a formation below 500 feet AGL. (T-2).

3.7.2.2. Aircrews will not initiate a lead change with the wingman farther back than a normal fingertip or route position or greater than 30 degrees back from line abreast. (T-3). This does not restrict lead changes initiated as a result of an emergency or when other unusual circumstances dictate.

3.7.2.3. Aircrews will not initiate a lead change unless the aircraft assuming the lead is in a position from which the lead change can be safely initiated and visual contact maintained. (T-2).

3.7.3. Formation Takeoff.

3.7.3.1. Runway Width Requirements. Aircrews will adhere to the following runway width minimum requirements when executing formation takeoffs:

3.7.3.1.1. Two-ship formation wing takeoffs – 150 feet wide minimum. (T-2).

3.7.3.1.2. Two-ship formation interval takeoffs – 75 feet wide minimum. (T-2).

3.7.3.1.3. Four-ship slot or echelon lineup takeoffs – 300 feet wide minimum. (T-2).

3.7.3.2. Aircrews will accomplish a formation interval takeoff whenever calculated minimum power by 60 knots indicated airspeed (KIAS) is less than 85% torque. (T-2).

3.7.3.3. When executing four-ship element lineups, aircrews will use 500 feet of spacing between elements on runways less than 300 feet wide. (T-2). If runway length is a factor, aircrews will choose an alternate formation departure method (e.g., interval takeoff, trail departure, splitting elements). (T-2).

3.7.4. Enroute. Four-ship formations will not cruise in IMC, but may climb or descend through IMC. (T-2).

3.7.5. Formation Approach and Landing.

3.7.5.1. Aircrews will initiate planned formation low approaches no lower than 100 feet AGL to reduce the possibility of an inadvertent touchdown. (T-2).

3.7.5.2. Aircrews will not execute formation wing landings when the runway width is less than 150 feet. (T-2).

3.7.5.3. Aircrews are prohibited from accomplishing formation wing touch-and-go landings. (T-2).

3.7.5.4. The formation VMC drag maneuver may be used to establish spacing for single-ship landings when conditions do not permit a formation wing landing. Aircrews must

pre-brief the VMC drag maneuver to include the specific traffic pattern or instrument approach procedure to be flown. **(T-2)**.

3.7.5.4.1. Minimum weather required for the drag maneuver is 1,500 foot ceiling and 3 miles visibility. **(T-2)**. All aircraft will maintain VMC from the drag point to landing. **(T-2)**.

3.7.5.4.2. Prior to directing a VMC drag maneuver while operating under IFR, the flight lead will coordinate with the appropriate ATC agency for non-standard formation for the remainder of the approach in accordance with AFMAN 11-202, Volume 3.

3.7.5.4.3. Aircrews will maintain a minimum spacing of 3,000 feet unless greater spacing is briefed. **(T-2)**. Aircrews will go-around or execute the missed approach anytime spacing from preceding aircraft cannot be maintained. **(T-2)**. Aircrews notify ATC once safely airborne and execute instructions and/or comply with local procedures.

3.7.5.4.4. Wingmen may use pre-briefed power settings and configurations (speed brake, gear, and flaps) to establish and maintain spacing. Wingmen will not fly less than final approach airspeed and S-turns will not be used to gain or maintain separation while on an instrument approach final. **(T-2)**.

3.7.5.4.5. The latest drag point must allow adequate time for the wingman to establish required separation and then for the flight lead to slow to final approach airspeed no later than 3 nm from the runway. **(T-2)**. On instrument approaches, the drag will normally be accomplished in order to establish separation prior to the FAF or glideslope intercept.

3.7.6. Maneuver Limitations. Aircrews will adhere to the following formation maneuvers limitations:

3.7.6.1. Fingertip Formation. Limit maneuvering to 120 knots minimum airspeed, approximately 90 degrees of bank, and 2 to 3 Gs. **(T-2)**.

3.7.6.2. Route. Maximum bank angle is approximately 60 degrees. **(T-2)**.

3.7.6.3. Echelon. Maximum bank angle is approximately 60 degrees. **(T-2)**.

3.7.6.4. Close Trail. Limit maneuvering to turns and modified lazy eights, using 120 knots minimum airspeed, approximately 90 degrees of bank, and 2 to 3 Gs. **(T-2)**.

3.7.6.5. Extended Trail (ET). Aircrews will adhere to the following limitations while executing ET at all levels:

3.7.6.5.1. Limited to two-ship formations. **(T-2)**.

3.7.6.5.2. G-awareness exercise is required prior to any ET maneuvering. **(T-2)**.

3.7.6.5.3. Minimum of 100 KIAS while executing ET maneuvering. **(T-2)**.

3.7.6.5.4. ET maneuvering limited to turns, loops, modified barrel rolls, modified lazy eights, modified cuban eights, and modified cloverleaves. **(T-2)**.

3.7.6.5.5. No abrupt turn reversals or unanticipated rolls into a turn in the opposite direction. (T-2).

3.7.6.6. Practice Lost Wingman. Aircrews will execute practice lost wingman procedures in VMC. (T-2).

3.7.7. Solo Students. Solo students will not fly:

3.7.7.1. Actual or simulated instrument approaches and landings as lead or wing. (T-2).

3.7.7.2. Close trail as wing. (T-2).

3.7.7.3. The fingertip position when accomplishing inflight checks or radio channel changes. (T-2).

3.7.7.4. Practice lost wingman procedures while on the wing. (T-2).

3.7.7.5. ET level 3 as wing. (T-2).

3.7.7.6. Formation landings (wing or lead). (T-2).

3.7.7.7. Formation wing or interval takeoffs from the wing position. (T-2).

3.7.7.8. Student solo formation low-level. (T-2).

3.7.8. Three- and Four-Ship Formations. Squadron Sup's will ensure a 4-ship certified IP will be aboard each aircraft for three- and four-ship formations. (T-2). The flying squadron commander or the operations officer will approve all local three- and four-ship flights. (T-3). The OG/CC (or designated representative) will approve all three- and four-ship flights which depart or recover to any field other than home station. (T-3).

3.7.9. Tactical Formation. The following rules apply for flightpath deconfliction during tactical maneuvering:

3.7.9.1. Wingmen should maneuver relative to the flight lead. The trailing aircraft is primarily responsible for flight path deconfliction with lead aircraft.

3.7.9.2. Aircrew will execute lost sight procedures in accordance with [Attachment 7](#) of this publication and AETCMAN 11-248. (T-2). When the other flight member is also blind, avoid climbs and descents through the deconfliction altitude if possible.

3.7.10. Chase Aircraft Procedures.

3.7.10.1. Any formation-qualified IP may fly safety chase.

3.7.10.2. Aircrews acting as chase may maneuver as necessary to observe, but shall ensure safe aircraft separation with the other aircraft at all times. (T-2). Generally, a chase aircraft will maneuver in a 30- to 60-degree cone out to 1,000 feet allowing effective clearing while providing assistance. Aircrew acting as chase will not stack lower than the lead aircraft below 1,000 feet AGL. (T-2).

3.7.10.3. Unless safety or circumstance dictate otherwise, a chase aircraft will low-approach no lower than 300 feet AGL. (T-3).

### 3.8. Low-Level Routes.

3.8.1. Solo Restrictions. Aircrews will adhere to the following restrictions regarding solo operations in the low-level environment:

3.8.1.1. Fly single-ship low-levels dual. (T-2).

3.8.1.2. Formation low levels may be flown solo provided one aircraft in the formation be flown with a dual crew. (T-2). Students will not occupy the solo aircraft. (T-2).

3.8.2. Daylight Restriction. The possibility of a bird strike and problems associated with visual illusions increase within +/- 30 minutes of sunrise or sunset. To mitigate this risk, aircrews will plan to enter the route no earlier than 30 minutes after sunrise (1 hour for mountainous terrain) and exit the route no later than 30 minutes before sunset (1 hour for mountainous terrain). (T-2).

3.8.3. Minimum Altitudes. Aircrews will fly low-level navigation at an altitude of 500 to 1,500 feet AGL. (T-2). When terrain height varies, aircrews will maintain a minimum of 500 feet above the highest terrain within 2,000 feet of the aircraft. (T-2).

3.8.4. Obstacle Clearances. Towers and other manufactured obstacles are more difficult to see than high terrain. For towers on or near the route, aircrews will plan to fly a minimum of 500 feet above the highest obstacle within 2 nm of the aircraft until acquired visually. (T-2). Once the obstacle is acquired visually and positively identified, aircrew will maintain 2,000-foot lateral clearance. (T-2).

### 3.9. Simulated Emergency Procedures.

3.9.1. Restrictions. Aircrews will adhere to the following guidance regarding simulated emergency procedures:

3.9.1.1. Brief all planned airborne simulated emergencies, to include ELPs and flaps up operations. (T-2).

3.9.1.2. Conduct simulated emergency procedures during day VMC weather conditions in accordance with AFMAN 11-202, Volume 3.

3.9.1.3. Discontinue simulated emergency practice if intercockpit communications cannot be maintained. (T-2).

3.9.1.4. Compound or multiple simulated emergencies are prohibited. (T-2). **Exception:** ELPs may be flown in any flap setting to simulate a malfunctioning Emergency Gear Extension system.

3.9.1.5. Simulated engine failures on takeoff that require a landing straight ahead, a turn back to land opposite direction from the runway just departed, or a teardrop to another crossing or parallel runway are prohibited in the aircraft. (T-2). Aircrew may practice these maneuvers in the simulator.

3.9.2. ELPs. Aircrews will adhere to the following guidance when executing practice ELPs:

3.9.2.1. ELPs may be flown at uncontrolled airfields in accordance with [paragraph 3.10](#) of this publication.

3.9.2.2. When conducted in controlled airspace, ELPs must be coordinated with the ATC agencies responsible for the airspace the ELP will transit. (T-2).

3.9.2.3. ELPs flown at towered airfields require MAJCOM approved letter of agreement in accordance with AFMAN 11-202, Volume 3.



3.9.2.4. Zero torque ELPs will only be flown to a low approach (no lower than 200 feet AGL). (T-2).

3.9.2.5. Instructor development crews are authorized to fly straight-in ELPs at auxiliary fields if no more than two aircraft are in the pattern (no solos). (T-2). Bases will evaluate operational risk management impacts and publish deconfliction procedures (approved by MAJCOM stan/eval) for straight-in ELPs before implementing this training at their auxiliary fields. (T-2).

### 3.10. Uncontrolled Airfield Operations.

3.10.1. With OG/CC approval, aircrews may conduct operations at uncontrolled, civil (not private) airfields.

3.10.1.1. OG/CCs will designate approved uncontrolled airfields for routine use in writing in the unit supplement to this publication or as a stand-alone memorandum. (T-2). The supplement or memorandum will, at a minimum, list the airfield name, International Civil Aviation Organization (ICAO) airfield identifier, runway length and width, field elevation, common traffic advisory frequency (CTAF), pattern direction of turn (if non-standard), and any descriptors or unique characteristics identified during the airfield review. (T-2). Units will describe these approval procedures in the unit supplement to this publication. (T-2).

3.10.1.2. OG/CCs may approve operations into specific uncontrolled airfields not designated in accordance with [paragraph 3.10.1](#), on a case-by-case basis, for non-routine use (i.e., cross-country, out & back sorties, or airfield survey). Units will describe these approval procedures in the unit supplement to this publication. (T-2).

3.10.1.3. The guidance in [paragraphs 3.10.1.1](#) and [3.10.1.2](#) does not restrict aircrew from using any suitable runway during an actual aircraft emergency.

3.10.2. Aircrews are authorized only single-ship operations within patterns at uncontrolled airfields. (T-2). Formations may split-up outside of 1,500 feet AGL and 3 nm from the airfield or anytime during an instrument approach once clear of the weather to comply with this restriction.

3.10.3. Aircrew will ensure surface winds are within limits for the runway of intended use in accordance with [paragraph 3.3.4](#) (T-2). Aircrew should use all available means (e.g., AWOS, ASOS, UNICOM, etc.) to ascertain the surface conditions when identifying the active runway.

3.10.4. Aircrew will fly instrument approaches to the runway most suited for the winds. (T-2). If the only approach to the airfield is opposite the desirable runway for the wind conditions, aircrews may still execute the approach. In this case, aircrew will monitor CTAF and visually clear for any established or departing aircraft to ensure safety of flight and traffic deconfliction. (T-2).

3.10.4.1. Aircrews should plan to either enter the pattern or execute the missed approach prior to the visual descent point.

3.10.4.2. Aircrews will not perform touch and go landings or low approaches opposite the traffic flow direction. (T-2).

3.10.5. Aircrews will fly all patterns and approaches to a low approach. **(T-3)**. Aircrews flying to or from an auxiliary field for the purpose of manning the runway supervisory unit (RSU) may perform full stops and takeoffs. In the event landings or touch and goes are required or desired at an uncontrolled airfield for other than RSU manning, the OG/CC will ensure runway clearing procedures, fire or crash recovery operations, maintenance personnel (necessary for full-stop landings), are established and available for the operations. **(T-2)**.

3.10.5.1. Aircrews will monitor the published CTAF and make all radio calls and position reports in accordance with AFMAN 11-202, Volume 3.

3.10.5.2. Aircrews will not operate within an uncontrolled airfield pattern with more than four aircraft (total), military and/or civilian, present in the pattern at any time. **(T-2)**.

3.10.5.3. Instrument approaches, overheads, rectangular patterns (as depicted in FAA AIM), and ELPs may be flown. Aircrews will make all turns to the left unless the airport displays approved light signals, visual markings, or flight information publications indicates right turns. **(T-0)**. Aircrew will not fly overhead patterns with civilian aircraft in the traffic pattern. **(T-2)**.

3.10.5.4. Aircrews will maintain 200 KIAS or less for pattern and approach operations within 1,500 feet AGL and 3 nm of an uncontrolled airfield. **(T-2)**.

3.10.5.5. Fly instrument approaches in accordance with AFMAN 11-202, Volume 3. The OG/CC or equivalent is the approval authority to allow units to practice instrument approaches under VFR.

3.10.5.6. For entry other than by an instrument approach, aircrews must maintain cloud clearances and visibility appropriate for their type of flight plan (IFR or VFR) and airspace. **(T-0)**. If an aircrew is approaching the airfield on an IFR clearance and not intending to fly an instrument approach, weather conditions must permit a VFR descent from the appropriate IFR enroute altitude. **(T-0)**.

3.10.5.7. Aircrews will immediately notify the SOF if any hazardous conditions exist at an uncontrolled airfield that would prevent normal operations. **(T-2)**.

### **3.11. Operating in High Wind or Sea States.**

3.11.1. Units will restrict their flying operations when high winds or sea states would be hazardous to aircrew members in ejection situations. **(T-2)**.

3.11.2. Units and/or aircrew will not conduct flights over land within their training or operating areas when steady state surface winds (forecast or actual) exceed 35 knots. **(T-2)**.

3.11.3. The following operations require OG/CC approval:

3.11.3.1. Over-water flights with forecast or actual wave heights exceeding 10 feet. **(T-2)**.

3.11.3.2. Surface winds exceed 25 knots in training or operating areas. **(T-2)**.

3.11.3.3. This is not intended to restrict operations when only a small portion of the route or area is affected.

## Chapter 4

## OPERATING RESTRICTIONS

**4.1. General.** **Table 4.1** assists the pilot in determining the minimum systems required for takeoff. Aircraft status is determined according to AFI 21-103, *Equipment Inventory, Status, and Utilization Reporting*.

**Table 4.1. Minimum Equipment List (Excluding FCF).**

Inoperative System or Condition	May I accept this aircraft for flight in:		
	Day VMC Local (Dual)?	Day VMC Local (Solo)?	IMC, Night, or Cross-Country/ Out & Back (O&B) (Dual or Solo)?
Navigation lights	Yes	Yes	Yes (note 1)
Landing and taxi lights	Yes (note 2)	Yes (note 2)	Yes (note 2)
Anticollision strobe	No	No	No
VHF navigation	Yes	Yes	No
Transponder	Yes (note 3)	Yes (note 3,4)	No
GPS	Yes (note 5)	Yes (note 4,5)	No
Trim aid device	No	No	No
Traffic Avoidance System	Yes	Yes (note 4)	Yes (note 4)
UHF comm	No	No	No
VHF comm	Yes	Yes	No
FDR MAINT or FAIL Light Illuminated	No	No	Yes (note 6)
<b>Notes:</b> 1. Acceptable for daytime flight. 2. Acceptable for daytime flight if either landing or taxi light is operational. 3. Acceptable for flight on pattern-only missions at the home field with ATC approval. 4. Acceptable when solo is a rated pilot. 5. Acceptable for local missions other than low-level navigation. 6. If “MAINT” light did not illuminate upon landing on previous sortie, and no over-G is suspected, O&B and Cross-Country missions may continue as planned with either “MAINT” or “FAIL” light illuminated. Aircraft is not acceptable for departure from home station for an O&B or Cross-Country. Aircrews will not plan to fly any unnecessary increased-G maneuvers with an inoperative integrated data acquisition and recording system. <b>LEGEND:</b> Dual –Both cockpits occupied Solo –Front cockpit only occupied			

**4.2. Factors to Consider for Aircraft Malfunctions.** Once airborne, aircraft commanders must weigh all pertinent factors when deciding whether to continue or to abort a sortie for an aircraft malfunction. **(T-2)**. Factors to consider include student mission requirements and

weather conditions at the home base and divert base. Solo students will contact the RSU controller (if in the pattern) or the SOF (if outside the pattern) for instructions. (T-2).

**4.3. Deviation Approval.** OG/CCs may approve deviations from the restrictions listed in [Table 4.1](#) on a flight-by-flight basis if there is no compromise of flight safety or Air Force directives. This authority is delegable no lower than the operations group deputy commander. (T-2).

**4.4. Solo Flying.**

4.4.1. Aircraft may be flown solo with instrument or system malfunctions in the rear cockpit that does not affect safety of flight.

4.4.2. Student pilots will not fly solo in an aircraft with a known malfunction unless approved by the squadron supervisor. (T-2). In addition, a maintenance supervisor must clear the aircraft. (T-2).

4.4.3. With any sort of engine malfunction indication (engine still running), a solo student should fly a precautionary emergency landing.

4.4.4. If a solo student experiences an engine failure (engine shutdown or not producing sufficient power to sustain level flight), serious consideration should be given to ejection. The student may attempt a forced landing with a minimum landing distance available of 4,000 feet or heavy weight flaps up landing distance plus 500 feet, whichever is greater.

JOSEPH T. GUASTELLA, Jr., Lt Gen, USAF  
Deputy Chief of Staff, Operations

**Attachment 1****GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION*****References***

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AFPD 11-2, *Aircrew Operations*, 31 January 2019

AFI 11-200, *Aircrew Training, Standardization/Evaluation, and General Operations Structure*, 21 September 2018

DAFMAN 11-401, *Aviation Management*, 27 October 2020

AFI 21-103, *Equipment Inventory, Status, and Utilization Reporting*, 30 April 2020

AFI 33-322, *Records Management and Information Governance Program*, 23 March 2020

AFMAN 11-202, Volume 3, *Flight Operations*, 10 June 2020

AFMAN 11-218, *Aircraft Operation and Movement on the Ground*, 5 April 2019

AFMAN 11-2T-6, Volume 2, *T-6 Aircrew Evaluation Criteria*, 29 May 2020

AETCMAN 11-248, *T-6 Primary Flying*, 17 August 2016

T.O. 1-1-300, *Maintenance Operational Checks and Check Flights*, 15 March 2012

T.O. 1T-6A-1, *Flight Manual, USAF/USN Series T-6A Aircraft*, 1 December 2017

T.O. 1T-6A-6CF-1, *Functional Check Flight Procedures Manual*, 1 December 2017

T.O. 1T-6A-1CL-1, *Pilot's Abbreviated Flight Crew Checklist*, 1 December 2017

DOD Flight Information Publication (Enroute), *Flight Information Handbook*, Current Edition

FAA, *Aeronautical Information Manual (AIM)*, Current Edition

FAA AC 90-100A, *U.S. Terminal and En Route Area Navigation (RNAV) Operations*, 14 April 2015

FAA AC 90-105, *Approval Guidance for RNP Operations and Barometric Vertical Navigation in the U.S. National Airspace System*, 7 March 2016

FAA AC 90-108, *Use of Suitable Area Navigation (RNAV) Systems on Conventional Routes and Procedures*, 21 April 2015

International Civil Aviation Organization Document 9613, *Performance-based Navigation (PBN) Manual*, 2013

*T-6A 1800WXBRIEF Users Guide*, 1 May 2018

***Adopted Forms***

AF Form 847, *Recommendation for Change of Publication*

AFTO Form 781, *Arms Aircrew/Mission Flight Data Document*

*Abbreviations and Acronyms*

**AC**—advisory circular  
**AFI**—Air Force Instruction  
**AFPD**—Air Force Policy Directive  
**AFMAN**—Air Force Manual  
**AGL**—above ground level  
**ATC**—air traffic control  
**ATIS**—automated terminal information service  
**CDI**—course deviation index  
**CTAF**—common traffic advisory frequency  
**DP**—departure procedure  
**ELP**—emergency landing pattern  
**ETA**—estimated time of arrival  
**FAA**—Federal Aviation Administration  
**FAF**—final approach fix  
**FCF**—functional check flight  
**FCIF**—flight crew information file  
**FCP**—front cockpit  
**FDE**—fault detection and exclusion  
**FICON**—field condition  
**G**—gravitational force  
**GNSS**—Global Navigation Satellite System  
**GPS**—global positioning system  
**ICAO**—International Civil Aviation Organization  
**IFF**—identification, friend or foe  
**IFG**—inflight guide  
**IFR**—instrument flight rules  
**ILS**—instrument landing system  
**IMC**—instrument meteorological conditions  
**IP**—instructor pilot  
**ISS**—inter seat sequencer  
**JMPS**—Joint Mission Planning Software

**KIAS**—knots indicated airspeed  
**LDA**—landing distance available  
**LDG**—landing  
**LOC**—Localizer  
**LNAV**—lateral navigation  
**MAJCOM**—major command  
**MEL**—minimum equipment list  
**MOA**—military operating area  
**MSL**—mean sea level  
**NAVAID**—navigation aid  
**nm**—nautical mile  
**NOTAM**—notice to airmen  
**OBS**—omnibearing select  
**O&B**—out and back  
**OCF**—out-of-control flight  
**OG/CC**—operations group commander  
**OPR**—office of primary responsibility  
**P-RAIM**—predictive receiver autonomous integrity monitoring  
**PCL**—power control lever  
**PIC**—pilot in command  
**RAIM**—receiver autonomous integrity monitoring  
**RCAM**—runway condition assessment matrix  
**RCC**—runway condition code  
**RCP**—rear cockpit  
**RNAV**—area navigation  
**RNP**—required navigation performance  
**RNP APCH**—required navigation performance approach  
**RNP AR APCH**—required navigation performance authorization required approach  
**RSU**—runway supervisory unit  
**SID**—standard instrument departures  
**SIF**—selective identification feature  
**SOF**—supervisor of flying

**stan/eval**—standardization and evaluation

**STAR**—standard terminal arrival

**TAA**—terminal arrival area

**T.O.**—technical orders

**TOLD**—takeoff and landing data

**UHF**—ultra-high frequency

**VFR**—visual flight rules

**VHF**—very high frequency

**VMC**—visual meteorological conditions

### *Terms*

**Aircrew Member**—An individual, designated on the Flight Authorization who is an aircrew member as explained in DAFPD 11-4, Aviation Service, AFMAN 11-402, Aviation and Parachutist Service, is assigned to a position listed in AFI 65-503, US Air Force Cost and Planning Factors, and is designated on orders to fulfill specific aeronautical tasks.

**Area Navigation (RNAV)**—A method of navigation which permits aircraft operation on any desired flight path within the coverage of ground-based or space-based NAVAIDs or within the limits of the capability of self-contained aids, or a combination of these.

**Emergency Fuel**—The point at which it is necessary to proceed directly to the airport of intended landing due to low fuel. Declaration of “emergency fuel” is an explicit statement that priority handling by ATC is both required and expected.

**Fault Detection and Exclusion (FDE)**—A function performed by some GNSS receivers, which can detect the presence of a faulty satellite signal and exclude it from the position calculation [ICAO Doc 9613].

**Global Navigation Satellite System (GNSS)**—GNSS refers collectively to the worldwide positioning, navigation, and timing determination capability available from one or more satellite constellations in conjunction with a network of ground stations [AIM Pilot/Controller Glossary].

**Instrument Approach**—A series of predetermined maneuvers for the orderly transfer of an aircraft under instrument flight conditions from the beginning of the initial approach to a landing or to a point from which a landing may be made visually [AIM Pilot/Controller Glossary].

**Instrument Flight Rules (IFR)**—Rules governing the procedures for conducting instrument flight. Also a term used by pilots and controllers to indicate type of flight plan [AIM Pilot/Controller Glossary].

**Instrument Meteorological Conditions (IMC)**—Meteorological conditions expressed in terms of visibility, distance from cloud, and ceiling less than the minima specified for visual meteorological conditions [AIM Pilot/Controller Glossary].

**Lateral Navigation (LNAV)**—A function of area navigation equipment which calculates, displays, and provides lateral guidance to a profile or path [AIM Pilot/Controller Glossary].



**Minimum Fuel**—Indicates that an aircraft’s fuel supply has reached a state where, upon reaching the destination, it can accept little or no delay. This is not an emergency situation but merely indicates an emergency situation is possible should any undue delay occur. [FAA Pilot/Controller Glossary]

**Navigation Aid (NAVAID)**—Any visual or electronic device airborne or on the surface which provides point-to-point guidance information or position data to aircraft in flight [AIM Pilot/Controller Glossary].

**Predictive RAIM (P-RAIM)**—Using a standard set of algorithms, the availability of RAIM may be determined based on the satellite coverage expected at an aircraft’s ETA. Due to terrain masking and other factors (e.g., satellite fails after RAIM prediction made), P-RAIM does not guarantee there will be sufficient satellite coverage on arrival. P-RAIM does not have to reside in the GPS receiver. It can be provided by FAA Flight Service (US NAS only) and other groundbased RAIM algorithms.

**Required Navigation Performance (RNP)**—A statement of the navigation performance necessary for operation within a defined airspace [AIM Pilot/Controller Glossary]. **RNAV Approach**—An instrument approach procedure which relies on aircraft area navigation equipment for navigation guidance [AIM Pilot/Controller Glossary]. **RNAV Operations**—Operations using area navigation for RNAV applications [ICAO Doc 9613]. **RNAV System**—Navigation system which permits aircraft operation on any desired flight path within the coverage of station-referenced NAVAIDs or within the limits of the capability of self-contained aids, or a combination of these. An RNAV system may be included as part of an FMS [ICAO Doc 9613].

**Receiver Autonomous Integrity Monitoring (RAIM)**—A technique whereby a civil GNSS receiver determines the integrity of the GNSS navigation signals without reference to sensors or non-DoD integrity systems other than the receiver itself. This determination is achieved by a consistency check among redundant pseudo range measurements [AIM Pilot/Controller Glossary].

**RNP APCH**—RNP APCH has a lateral approach accuracy of 1 nautical mile in the terminal and missed approach segments and scales to 0.3 nautical miles in the final approach. “RNAV (GPS)” is equivalent to “RNP APCH” [AIM 1-2-2; ICAO Doc 9613].

## Attachment 2

### FUNCTIONAL CHECK FLIGHTS, OPERATIONAL CHECK FLIGHTS, AND FERRY FLIGHTS

#### A2.1. Restrictions and Requirements.

A2.1.1. Aircrew will not conduct FCF sorties in conjunction with other types of missions. **(T-2). Exception:** FCF pilot continuation training, FCF pilot upgrade training, or FCF pilot certification flights may be conducted during FCF sorties. A qualified FCF pilot or an FCF pilot in training status under direct supervision of FCF IP will accomplish all FCF checks. **(T-2).** Current and qualified T-6 IPs may fly in the RCP as crewmembers on FCF sorties to observe and record data for the qualified FCF pilot.

A2.1.2. Units will ensure FCF sorties take priority over other types of flying. **(T-2).** The qualified FCF PIC for the sortie is the final authority on the appropriate crew complement. **(T-2).** Unless conducting an FCF pilot or FCF IP upgrade, FCFs and operational check flights should be scheduled, in priority order, with the following crew complement:

A2.1.2.1. Two FCF pilots.

A2.1.2.2. One FCF pilot and one T-6 IP.

A2.1.2.3. Solo FCF pilot.

A2.1.2.4. If the desired crew complement is not available; consider delaying the sortie to ensure the desired crew complement is available.

A2.1.3. Operational check flights will normally be flown by FCF pilots, but highly experienced non-FCF IPs may perform operational check flights with OG/CC approval.

A2.1.4. In accordance with T.O. 1-1-300, FCFs may recover at home station when originating from auxiliary fields or from bases within the local flying area.

A2.1.5. OG/CC's may approve a one-time ferry flight for aircraft within the local flying area requiring an FCF or operational check flight to be flown to the home station by an FCF pilot or crew.

A2.1.6. Aircrews will not execute maneuvers not in accordance with T.O. 1T-6A-6CF-1, *Functional Check Flight Procedures Manual*, on FCF missions. **(T-2).**

A2.1.7. Local FCF pilots or aircrews are authorized to perform required FCFs on transient AETC aircraft if approved by the aircraft's owning OG/CC. Only qualified AETC FCF aircrews will conduct FCF's on AETC T-6 aircraft. **(T-2).** AETC FCF aircrews will not perform FCFs on transient aircraft from other services or commands without specific approval from the OG/CC (or equivalent) that has operational control over the aircraft. **(T-2).**

A2.1.8. FCF aircrews will ensure a minimum of 10,000 feet of airspace clear of clouds should exist below OCF or spin entry altitude. **(T-2).** In addition, minimum weather should allow a line of sight to a suitable airfield within engine-out glide range.

**Attachment 3****T-6 MISSION BRIEFING GUIDE**

**A3.1. General.Note:** Brief items applicable to the mission in sufficient detail to prevent any misunderstandings between crewmembers.

A3.1.1. Time hack.

A3.1.2. Mission objectives and requirements.

A3.1.3. Mission overview.

A3.1.4. Mission data card (call sign, engine start, takeoff time, etc.).

A3.1.5. Flight crew information file (FCIF), ops notes, NOTAM, and TOLD.

A3.1.6. Airfield and navigation aid (NAVAID) status.

A3.1.7. Weather:

A3.1.7.1. Takeoff.

A3.1.7.2. Area or route.

A3.1.7.3. Recovery.

A3.1.7.4. Alternate.

A3.1.8. Sign out.

**A3.2. Ground Operations.**

A3.2.1. AFTO Form 781, *Arms Aircrew/Mission Flight Data Document* (review and stowage).

A3.2.2. Gear pin and personal equipment stowage.

A3.2.3. Exterior inspection responsibilities.

A3.2.4. Instrument cockpit check responsibilities.

A3.2.5. Engine start.

A3.2.6. Clearance and taxi procedures.

A3.2.7. End-of-runway procedures.

A3.2.8. Spare aircraft procedures.

**A3.3. Takeoff.** (Including Static, Rolling, and Crosswind Procedures)

**A3.4. Departure.** (Including Routing, Altitudes, and Airspeeds)

**A3.5. Area Work.**

A3.5.1. G-awareness exercise.

A3.5.2. Specific area work and parameters.

A3.5.3. Engine and G envelope.

A3.5.4. Joker and bingo fuels.

**A3.6. Training Rules.** Brief appropriate items from [Attachment 7](#).

**A3.7. Recovery.** (Including Routing, Altitudes, and Airspeeds)

**A3.8. Simulated Emergency Procedures.**

**A3.9. Alternate Mission Profile.** Brief appropriate items from the applicable briefing guide ([Attachments 3](#) through [Attachment 6](#) of this AFMAN).

**A3.10. IMC Procedures.**

A3.10.1. Unusual attitudes.

A3.10.2. Spatial disorientation.

A3.10.3. Icing restrictions.

**A3.11. Night Procedures.**

A3.11.1. Personal equipment (flashlight and clear visor).

A3.11.2. Aircraft and cockpit lighting.

A3.11.3. Taxi procedures.

A3.11.4. Spatial disorientation.

A3.11.5. Visual illusions.

A3.11.6. Pattern procedures (entry, reference, spacing, and breakout).

A3.11.7. Night restrictions.

**A3.12. Crew Coordination.**

A3.12.1. Aircraft commander.

A3.12.2. Transfer of aircraft control, with and without intercom.

A3.12.3. Clearing.

A3.12.4. In-flight checks.

A3.12.5. Radio procedures.

A3.12.6. PCL Movement and/or Hand position.

**A3.13. Emergency Procedures.**

A3.13.1. General aircrew responsibilities during emergencies.

A3.13.2. Emergency ground egress.

A3.13.3. Takeoff emergencies.

A3.13.4. Physiological incident.

A3.13.5. Bird strikes.

A3.13.6. Electrical fire.

A3.13.7. Engine failure.

A3.13.8. Ejection (with and without intercom, controlled and uncontrolled).

A3.13.9. Visual signals with intercom failure (emergency gear extension).

A3.13.10. Lost-communications procedures.

A3.13.11. Lost procedures.

A3.13.12. Emergency divert airfields and procedures.

**A3.14. Personal Items.**

A3.14.1. Rings removed.

A3.14.2. Cell phone off.

**A3.15. Questions.**

## Attachment 4

### T-6 FORMATION BRIEFING GUIDE

**A4.1. General.Note:** Brief items applicable to the mission in sufficient detail to prevent any misunderstandings between crewmembers or flight members.

- A4.1.1. Time hack.
- A4.1.2. Mission objectives and requirements.
- A4.1.3. Mission overview.
- A4.1.4. Mission data card (call sign, engine start, takeoff time, etc.).
- A4.1.5. FCIF, ops notes, NOTAMs, and TOLD.
- A4.1.6. Airfield and NAVAID status.
- A4.1.7. Weather:
  - A4.1.7.1. Takeoff.
  - A4.1.7.2. Area or route.
  - A4.1.7.3. Recovery.
  - A4.1.7.4. Alternate.
- A4.1.8. Formation positions.
- A4.1.9. Sign out.

#### **A4.2. Ground Operations.**

- A4.2.1. Engine start.
- A4.2.2. Automated terminal information service (ATIS).
- A4.2.3. Flight check-in and clearance and taxi procedures.
- A4.2.4. End-of-runway procedures.
- A4.2.5. Maintenance delays.
- A4.2.6. Spare aircraft procedures.

#### **A4.3. Takeoff.**

- A4.3.1. Runway lineup.
- A4.3.2. Takeoff (wing, interval, and combination with four ship).
- A4.3.3. Rejoin.

#### **A4.4. Departure.** (Including Routing, Altitudes, and Airspeeds)

#### **A4.5. Area Work.**

- A4.5.1. G-awareness exercise.
- A4.5.2. Specific exercises (entry and parameters).

A4.5.3. Rejoins (bank angle, airspeed, and position).

A4.5.4. Joker and bingo fuels.

**A4.6. Instrument and Navigation Mission.** (Including Routing, Altitude, and Airspeed)

**A4.7. Recovery and Landing.**

A4.7.1. Split-up.

A4.7.2. Recovery (routing, altitudes, and airspeeds).

A4.7.3. Overhead pattern and landing (pattern entry and spacing).

A4.7.4. Wing approach and landing:

A4.7.4.1. Configuration and airspeed.

A4.7.4.2. Instrument procedures.

A4.7.4.3. Circling procedures.

A4.7.5. After-landing checks and taxi back (single-ship and formation).

**A4.8. Alternate Formation Mission.** Brief appropriate items from the applicable briefing guide (see [Attachments 3](#) through [Attachment 6](#) of this AFMAN).

**A4.9. IMC Procedures:**

A4.9.1. Aircraft lighting.

A4.9.2. Unusual attitudes.

A4.9.3. Spatial disorientation.

A4.9.4. Icing restrictions.

A4.9.5. Lost wingman procedures.

**A4.10. Night Procedures.**

A4.10.1. Personal equipment (flashlight and clear visor).

A4.10.2. Aircraft and cockpit lighting.

A4.10.3. Taxi procedures.

A4.10.4. Takeoff procedures (aircraft lighting and radio calls).

A4.10.5. Formation references.

A4.10.6. Spatial disorientation.

A4.10.7. Visual illusions.

A4.10.8. Pattern procedures (entry, references, spacing, and breakout procedures).

A4.10.9. Night restrictions.

**A4.11. Formation Procedures.**

A4.11.1. Radio procedures.

A4.11.2. In-flight checks.

- A4.11.3. Route position and spacing.
- A4.11.4. Position change.
- A4.11.5. Wake turbulence.
- A4.11.6. Engine and G envelope.
- A4.11.7. Breakout.
- A4.11.8. Overshoot and collision avoidance.
- A4.11.9. Knock-it-off call.
- A4.11.10. Lost sight.
- A4.11.11. Visual signals.

**A4.12. Training Rules.** Brief appropriate items from [Attachment 7](#).

**A4.13. Three- and Four-Ship Procedures.**

- A4.13.1. Runway lineup.
- A4.13.2. Takeoff (wing, interval, and combination).
- A4.13.3. Rejoins.
- A4.13.4. Radio procedures.
- A4.13.5. Phantom wingman position.
- A4.13.6. Position change.
- A4.13.7. Split up and recovery.

**A4.14. Formation Emergencies.**

- A4.14.1. Takeoff.
- A4.14.2. In-flight malfunctions.
- A4.14.3. Element integrity.
- A4.14.4. Midair collision.
- A4.14.5. Radio failure.
- A4.14.6. Hydraulic, electrical, fuel, oxygen, engine.
- A4.14.7. Physiological incident.
- A4.14.8. Bird strike.
- A4.14.9. Ejection.
- A4.14.10. Recovery procedures.
- A4.14.11. Emergency divert airfields.



**A4.15. Questions.****A4.16. Crew Coordination.**

A4.16.1. Aircraft commander.

A4.16.2. Ground operations:

A4.16.2.1. AFTO Form 781 (review and stowage).

A4.16.2.2. Gear pin and personal equipment stowage.

A4.16.2.3. Exterior inspection responsibilities.

A4.16.2.4. Instrument cockpit check responsibilities.

A4.16.2.5. Spare aircraft procedures.

A4.16.3. Transfer of aircraft control, with and without intercom.

A4.16.4. Clearing.

A4.16.5. In-flight checks.

A4.16.6. Radio procedures.

A4.16.7. PCL Movement and/or Hand position.

**A4.17. Emergency Procedures.**

A4.17.1. General aircrew responsibilities during emergencies.

A4.17.2. Emergency ground egress.

A4.17.3. Takeoff emergencies.

A4.17.4. Physiological incident.

A4.17.5. Bird strikes.

A4.17.6. Electrical fire.

A4.17.7. Engine failure.

A4.17.8. Ejection (with and without intercom, controlled and uncontrolled).

A4.17.9. Visual signals with intercom failure (emergency gear extension).

A4.17.10. Lost-communications procedures.

A4.17.11. Lost procedures.

A4.17.12. Emergency divert airfields and procedures.

**A4.18. Alternate Single-Ship Mission.** Brief appropriate items from the applicable briefing guide (see [Attachment 3](#) through [Attachment 6](#) of this AFMAN).

**A4.19. Personal Items.**

A4.19.1. Rings removed

A4.19.2. Cell phone off

**A4.20. Questions.**

**Attachment 5****T-6 INSTRUMENT AND NAVIGATION BRIEFING GUIDE**

**A5.1. General.Note:** Brief items applicable to the mission in sufficient detail to prevent any misunderstandings between crewmembers or flight members.

A5.1.1. Time hack.

A5.1.2. Mission objectives and requirements.

A5.1.3. Mission overview.

A5.1.4. Mission data card (call sign, engine start, takeoff, route entry times, etc.).

A5.1.5. FCIF, ops notes, NOTAMs, and TOLD.

A5.1.6. Airfield and NAVAID status.

A5.1.7. Weather:

A5.1.7.1. Takeoff.

A5.1.7.2. Area or route.

A5.1.7.3. Recovery.

A5.1.7.4. Alternate.

A5.1.8. Sign out.

A5.1.9. Required personal equipment (life preserver unit, flashlight, clear visor, survival kit, etc.).

**A5.2. Ground Operations.**

A5.2.1. AFTO Form 781 (review and stowage).

A5.2.2. Gear pin and personal equipment stowage.

A5.2.3. Exterior inspection responsibilities.

A5.2.4. Instrument cockpit check responsibilities.

A5.2.5. Engine start.

A5.2.6. Clearance and taxi procedures.

A5.2.7. End of runway procedures.

A5.2.8. Spare aircraft procedures.

**A5.3. Takeoff.**

A5.3.1. Static, rolling, and crosswind procedures.

A5.3.2. Transition to vision-restricting device.

**A5.4. Departure.** (Including Routing, Altitudes, and Airspeeds)

**A5.5. Enroute and Cruise.** (Including Route of Flight, Altitudes, Airspeeds, and Groundspeed Check)

**A5.6. Area Work.**

- A5.6.1. Specific area work and parameters.
- A5.6.2. Engine and G envelope.
- A5.6.3. Joker and bingo fuels.

**A5.7. Training Rules.** Brief appropriate items from [Attachment 7](#).

**A5.8. Arrival.**

- A5.8.1. Checks, routing, altitudes, and airspeeds.
- A5.8.2. ATIS and metro.
- A5.8.3. Instrument approach review.

**A5.9. Instrument Approach Procedures.**

- A5.9.1. Holding.
- A5.9.2. Penetration and en route descent.
- A5.9.3. Circling.
- A5.9.4. Transition to landing.

**A5.10. Landing.**

- A5.10.1. Visual illusions from different runways.
- A5.10.2. Barrier locations.

**A5.11. Simulated Emergency Procedures.**

**A5.12. Alternate Mission Profile.** Brief appropriate items from the applicable briefing guide (see [Attachments 3](#) through [Attachment 6](#) of this AFMAN).

**A5.13. VFR Procedures.**

- A5.13.1. Turn points.
- A5.13.2. Headings.
- A5.13.3. Times.
- A5.13.4. Altitudes.
- A5.13.5. Prominent land and manmade features.
- A5.13.6. Obstacles.
- A5.13.7. Flight following.
- A5.13.8. VFR arrival.

**A5.14. IMC Procedures.**

- A5.14.1. Unusual attitudes.
- A5.14.2. Spatial disorientation.
- A5.14.3. Icing restrictions.

**A5.15. Night Procedures.**

- A5.15.1. Personal equipment (flashlight and clear visor).
- A5.15.2. Aircraft and cockpit lighting.
- A5.15.3. Taxi procedures.
- A5.15.4. Spatial disorientation.
- A5.15.5. Visual illusions.
- A5.15.6. Pattern procedures (entry, references, spacing, and breakout).
- A5.15.7. Night restrictions.

**A5.16. Crew Coordination.**

- A5.16.1. Aircraft commander.
- A5.16.2. Transfer of aircraft control, with and without intercom.
- A5.16.3. Clearing.
- A5.16.4. In-flight checks.
- A5.16.5. Radio procedures.
- A5.16.6. PCL movement and/or hand position.

**A5.17. Emergency Procedures.**

- A5.17.1. General aircrew responsibilities during emergencies.
- A5.17.2. Emergency ground egress.
- A5.17.3. Takeoff emergencies.
- A5.17.4. Physiological incident.
- A5.17.5. Bird strikes.
- A5.17.6. Electrical fire.
- A5.17.7. Engine failure.
- A5.17.8. Ejection (with and without intercom, controlled and uncontrolled).
- A5.17.9. Visual signals with intercom failure (emergency gear extension).
- A5.17.10. Lost-communications procedures.
- A5.17.11. Lost procedures.
- A5.17.12. Emergency divert airfields and procedures.

**A5.18. Personal Items.**

- A5.18.1. Rings removed
- A5.18.2. Cell phone off

**A5.19. Questions.**

**Attachment 6****T-6 LOW-LEVEL BRIEFING GUIDE**

**A6.1. General.Note:** Brief items applicable to the mission in sufficient detail to prevent any misunderstandings between crewmembers.

A6.1.1. Time hack.

A6.1.2. Mission objectives and requirements.

A6.1.3. Mission overview.

A6.1.4. Mission data card (call sign, engine start, takeoff, route entry times, etc.).

A6.1.5. FCIF, ops notes, NOTAMs, and TOLD.

A6.1.6. Airfield and NAVAID status.

A6.1.7. Weather:

A6.1.7.1. Takeoff.

A6.1.7.2. Area or low-level route.

A6.1.7.3. Minimum altimeter setting along the route.

A6.1.7.4. Recovery.

A6.1.7.5. Alternate.

A6.1.8. Sign out.

**A6.2. Ground Operations.**

A6.2.1. AFTO Form 781 (review and stowage).

A6.2.2. Gear pin and personal equipment stowage.

A6.2.3. Exterior inspection responsibilities.

A6.2.4. Instrument cockpit check responsibilities.

A6.2.5. Engine start.

A6.2.6. Clearance and taxi procedures.

A6.2.7. End of runway procedures.

A6.2.8. Spare aircraft procedures.

**A6.3. Takeoff.**( Including Static, Rolling, and Crosswind Procedures)

**A6.4. Departure.**( Including Routing, Altitudes, and Airspeeds)

**A6.5. Route Entry.**

A6.5.1. Prominent features.

A6.5.2. Radial and distance measuring equipment.

A6.5.3. Maneuvering to enter route.

A6.5.4. Identification, friend or foe (IFF) and selective identification feature (SIF).

A6.5.5. Flight service station.

#### **A6.6. Flying the Route.**

A6.6.1. Dead reckoning procedures and map-reading techniques.

A6.6.2. Corridor width, minimum and maximum altitudes.

A6.6.3. Altitude control and height assessment techniques.

A6.6.4. Ground track references and correction techniques.

A6.6.5. Planned groundspeed and timing corrections.

A6.6.6. Key obstructions and avoidance procedures.

A6.6.7. Mandatory reporting points.

A6.6.8. Frequencies.

A6.6.9. Continuation and bingo fuels.

A6.6.10. Target area and acquisition.

#### **A6.7. Conflicts Along the Route.**

A6.7.1. Parallel and crossing low levels.

A6.7.2. Airfields (airport traffic areas, airport radar service areas, and instrument approach corridors).

A6.7.3. Civilian VFR routes (major highways, rivers, and local practice areas).

A6.7.4. Cities.

A6.7.5. Noise-sensitive areas.

#### **A6.8. Route Abort.** (Altitude, IMC Procedures, and VMC Procedures)

#### **A6.9. Route Exit and Recovery.**

A6.9.1. Altitude.

A6.9.2. Controlling agency.

A6.9.3. Radio frequency.

A6.9.4. IFF and SIF.

A6.9.5. Route of flight.

A6.9.6. VFR arrival.

#### **A6.10. IMC Procedures.**

A6.10.1. Unusual attitudes.

A6.10.2. Spatial disorientation.

A6.10.3. Icing restrictions.



**A6.11. Instrument Approach Procedures.**

- A6.11.1. Holding.
- A6.11.2. Penetration and en route descent.
- A6.11.3. Precision and non-precision approach review.
- A6.11.4. Circling.
- A6.11.5. Transition to landing.

**A6.12. Simulated Emergency Procedures.**

**A6.13. Alternate Mission.** Brief appropriate items from the applicable briefing guide (see [Attachments 3](#) through [Attachment 6](#) of this AFMAN).

**A6.14. Crew Coordination.**

- A6.14.1. Aircraft commander.
- A6.14.2. Transfer of aircraft control, with and without intercom.
- A6.14.3. Clearing.
- A6.14.4. In-flight checks.
- A6.14.5. Radio procedures.
- A6.14.6. PCL Movement and/or Hand position.

**A6.15. Emergency Procedures.**

- A6.15.1. General aircrew responsibilities during emergencies.
- A6.15.2. Emergencies while flying at low level.
- A6.15.3. Emergency ground egress.
- A6.15.4. Takeoff emergencies.
- A6.15.5. Physiological incident.
- A6.15.6. Bird strikes.
- A6.15.7. Electrical fire.
- A6.15.8. Engine failure.
- A6.15.9. Ejection (with and without intercom, controlled and uncontrolled).
- A6.15.10. Visual signals with intercom failure (emergency gear extension).
- A6.15.11. Lost-communications procedures.
- A6.15.12. Lost procedures.
- A6.15.13. Emergency divert airfields and procedures (low and medium altitude).

**A6.16. Personal Items.**

- A6.16.1. Rings removed
- A6.16.2. Cell phone off

**A6.17. Questions.**

## Attachment 7

### T-6 TRAINING RULES

**A7.1. G-Awareness Exercise.** Fly the G-awareness exercise in airspace that is free from potential conflict and ensure adequate spacing between aircraft in formation.

**Note:** Brief items applicable to your mission in sufficient detail to prevent any misunderstandings between crewmembers.

**A7.2. “Knock-It-Off” Situations.** “Knock it off” will be called when safety of flight is a factor or where doubt or confusion exists. Situations requiring a knock-it-off occur when:

A7.2.1. A dangerous situation is developing.

A7.2.2. Situational awareness is lost.

A7.2.3. A violation of any of the following has occurred or appears imminent:

A7.2.3.1. Area boundaries.

A7.2.3.2. Minimum cloud separation.

A7.2.3.3. Minimum altitude.

A7.2.3.4. Minimum range.

A7.2.4. Weather is below minimums for the area or route.

A7.2.5. Any aircraft exceeds maneuvering limits that compromise safety of flight (e.g., over-G, minimum airspeed).

A7.2.6. A radio failure is recognized or a continuous wing rock is observed.

A7.2.7. Bingo fuel is inadvertently overflowed.

A7.2.8. An unbriefed or unscheduled flight enters the working area and is detrimental to the safe conduct of the mission.

A7.2.9. Any player calls “knock it off.”

A7.2.10. Aircraft flying extended trail breach the minimum range of 300 feet or are forward of the 3/9 line.

**A7.3. “Knock-It-Off” Actions.**

A7.3.1. Clear the flight path.

A7.3.2. Cease maneuvering and climb or descend to a safe altitude.

A7.3.3. Maintain visual.

A7.3.4. Acknowledge with a call sign.

**A7.4. “Terminate” Situations.** When safety of flight is not a factor, “terminate” will be used to discontinue maneuvering.

A7.4.1. Bingo fuel is reached.

A7.4.2. Desired learning objectives are met.

A7.4.3. The aircraft is out of position (extended trail, offset maneuvering cone, wing work, etc.) with no expectation of an expeditious return to position.

A7.4.4. Any player calls “terminate.”

**A7.5. “Terminate” Actions.**

A7.5.1. Clear the flight path.

A7.5.2. Cease maneuvering and climb or descend to a safe altitude.

A7.5.3. Maintain visual.

A7.5.4. Acknowledge with a call sign.

**A7.6. Minimum Altitudes.**

A7.6.1. Extended trail levels I, II, and III: 6,000 feet AGL.

A7.6.2. Aerobatics or confidence maneuvers: 6,000 feet AGL.

A7.6.3. Stalls or slow flight: 6,000 feet AGL.

A7.6.4. Spins: 13,500 feet MSL, ensure spinning stops prior to 10,000 feet pressure altitude.

**A7.7. Minimum Weather.** See [paragraph 3.4.2](#)

**A7.8. Lost Sight or “Blind.”** The pilot flying the aircraft that loses sight will call “blind” and their altitude in MSL. The visual aircraft will assume formation deconfliction. Both aircraft will execute the following procedures:

A7.8.1. If the #1 aircraft is blind, transmit “CS, blind, XXXX feet” and maintain a predictable flight path. The #2 aircraft will either call “continue” and state his or her position, or call “knock-it-off” (as required) and blind with their altitude in MSL.

A7.8.2. If the #2 aircraft is blind, transmit “CS, blind, XXXX feet” and maneuver away from #1’s last known position. If visual, #1 will coordinate for a rejoin.

A7.8.3. If both aircraft have lost sight of each other, #1 must immediately direct a minimum of 1000 feet altitude separation.