

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

**AIR FORCE INSTRUCTION 11-2CAP-USAF,
VOLUME 3**



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Flying Operations

CAP-USAF OPERATIONS PROCEDURES

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This instruction implements AFD 11-2, *Aircrew Operations*, AFI 11-200, *Aircrew Training, Standardization/Evaluation, and General Operations Structure*, and AFI 11-202, Volume 3, *General Flight Rules*. This instruction prescribes standard procedures to be used by all pilots operating Civil Air Patrol-US Air Force (CAP-USAF) aircraft regardless of aircraft type. This instruction is not applicable to the Air National Guard or Air Force Reserve Command. File a copy of all approved waivers with this instruction. The use of the name or trademark of any specific manufacturer, commercial product, commodity, or service in this publication does not imply endorsement by the Air Force.

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In accordance with AFI 11-200, Major commands (MAJCOM) will coordinate MAJCOM-level supplements to this volume through HQ AETC/A3VS and HQ AFFSA/XOF prior to publication. Field units below MAJCOM level will coordinate their supplements with their parent MAJCOM prior to publication. See **paragraph 1.5** of this volume for guidance on submitting comments and suggesting improvements to this publication.

Ensure that all records created as a result of processes prescribed in this publication are maintained in accordance with Air Force Manual (AFMAN) 33-363, *Management of Records*, and disposed of in accordance with (IAW) Air Force Records Disposition Schedule (RDS) located in the Air Force records Information Management System (AFRIMS). **Attachment 1** contains a glossary of references and supporting information used in this publication.

SUMMARY OF CHANGES

This document has been substantially revised and must be completely reviewed. This revision updates the releasability paragraphs, references and removes helicopter oxygen exemption; removes requirement to use Flight Star Flight planning software only; changes requirements of unit-developed pilot aids; and removes the exception allowing LR/CC to approve flight into areas of forecast severe turbulence.

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Chapter 1

GENERAL INFORMATION

1.1. Scope. This instruction outlines the procedures applicable to the safe operation of CAP-USAF contract rental aircraft. This instruction prescribes standard operational procedures to be used by all pilots operating any CAP-USAF aircraft. Units may provide local operating procedures in a supplement to this publication.

1.2. Pilot's Responsibility. In conjunction with other governing directives, this instruction prescribes CAP-USAF procedures under most circumstances but is not to be used as a substitute for sound judgment or common sense. The pilot in command (PIC) is ultimately responsible for the safe and effective operation of the aircraft and will ensure all occupants of the aircraft comply with this directive. (T1)

1.3. Deviations. Do not deviate from the procedures and guidance in this publication except when necessary to preserve safety or protect lives. In that case, the PIC has ultimate authority and responsibility for the course of action to be taken and will take the appropriate action to safely recover the aircraft. Report all deviations without waiver through channels to the MAJCOM office of primary responsibility. (T2)

1.4. References. The primary references for CAP-USAF operations are this instruction and either the pilot's operating handbook (POH) or the aircraft flight manual (AFM) for the aircraft being flown. (**Note:** The terms POH or AFM may be used interchangeably in this instruction.) HQ CAP-USAF and CAP-USAF liaison regions (LR) may expand these basic procedures with publications detailing maneuvers and instructional techniques. These publications may be used to augment and expand qualification and continuation training but will not be less restrictive.

1.5. Crew Requirements. The minimum crew complement for CAP-USAF aircraft is the certified crew complement for the aircraft.

1.6. Maximum Flight Duty Period (FDP) and Flight Time. AFI 11-202, Volume 3, lists maximum FDPs.

1.6.1. For normal operations, consider CAP-USAF aircraft as trainer-type aircraft.

1.6.2. Maximum FDP for training missions is 12 hours. Flight examiners administering evaluations will not exceed training FDP for initial and requalification evaluations and will not exceed two-pilot FDP for recurring evaluations. (T2)

1.7. Clothing Requirements. AFI 11-301, Volume 1, *Aircrew Flight Equipment (AFE) Program*, prescribes minimum aircrew clothing requirements. In the absence of specific guidance:

1.7.1. Active duty aircrew will wear the aircrew uniform as outlined in AFI 36-2903, *Dress and Personal Appearance of Air Force Personnel*, on all missions, unless otherwise authorized by the CAP-USAF commander (CC).

1.7.2. Civil service aircrew will wear conservatively styled civilian clothing, personally procured flight suits, or other utility-type attire.

1.7.3. Each unit commander will determine extra clothing to be worn or carried aboard all flights commensurate with mission, climate, and terrain involved.

1.7.4. Crewmembers will remove all rings, scarves, and neckties before performing aircrew duties.

1.8. Seatbelts and Shoulder Harnesses:

1.8.1. All occupants will have a designated seat with a seatbelt. (T2)

1.8.2. All aircrew members will wear seatbelts at all times while operating the aircraft (engine start to engine shutdown). Aircrews will wear seatbelt and shoulder harnesses during taxi, takeoff, and landing.

1.8.3. Passengers will remain seated with seatbelts fastened during taxi, takeoff, landing, flight operations below 1,500 feet above ground level (AGL), and any other time as determined by the PIC.

1.9. Oxygen Requirements. The PIC will ensure oxygen is supplied to occupants IAW AFI 11-202, Volume 3. (T2)

1.10. Cargo Restrictions. Transportation of pets and hazardous cargo is not authorized.

1.11. Interfly. Flights by qualified aircrew assigned to other MAJCOMs in CAP-USAF aircraft require LR/CC approval.

1.12. Aerial Events. CAP-USAF pilots will not participate in aerial reviews or aerial demonstrations.

Chapter 2

MISSION PLANNING

2.1. Responsibilities. The individual pilots and the operations functions of the organizations jointly share responsibility of mission planning. The PIC is ultimately responsible for mission planning.

2.2. General Procedures. The aircrew will: (T2)

2.2.1. Accomplish sufficient flight planning to ensure safe mission accomplishment. AFI 11-202, Volume 3, specifies minimum requirements.

2.2.1.1. CAP-USAF missions are conducted as official military flights and do not require individual civil aircraft landing permits according to AFI 10-1001, *Civil Aircraft Landing Permits*. Include the remark "Air Force Contract Rental Aircraft" in the remarks section of the flight plan and use only the assigned CAP-USAF call sign to preclude confusion with CAP aircraft or civilian aircraft.

2.2.1.2. Pilots may use Direct User Access Terminal System (DUATS) or any commercially procured flight planning software for general aviation aircraft approved by CAP-USAF.

2.2.2. Compute takeoff and landing data for each flight. CAP-USAF/XO-approved tabulated data may be used when available. When aircrews use less than the entire runway for takeoff, base takeoff data calculations on the actual runway remaining from the point where takeoff starts.

2.2.3. Ensure all passengers are manifested IAW AFI 11-202, Volume 3. CAP-USAF passenger transportation requirements are for oversight, liaison, and assistance of the CAP. This provision is not intended to provide space available transportation. Passengers must be performing duties at the sortie destination on behalf of the CAP or CAP-USAF.

2.2.4. Ensure all flights are authorized IAW AFI 11-401, *Aviation Management*.

2.2.4.1. Designate a CAP-USAF pilot as the PIC on all flights with CAP pilots. **Exception:** Units may designate CAP pilots as PIC when observing or evaluating a CAP training mission. **Note:** The LR director of operations (LR/DO) must approve designation of other than CAP-USAF pilots as aircrew members on CAP-USAF flights.

2.2.4.2. Mission-essential personnel status is not authorized on CAP-USAF contract rental aircraft.

2.2.5. Ensure all flights are approved IAW AFI 11-202, Volume 3. All CAP-USAF flights exiting or originating outside the continental United States (to include flights to or from Puerto Rico or Alaska) must receive prior approval from CAP-USAF/CC.

2.3. Briefings and Debriefings. The PIC is responsible for presenting a logical briefing that will promote safe, effective mission accomplishment. All pilots will attend the flight briefing. The PIC will structure the flight briefing to accommodate the capabilities of each pilot in the flight. Passengers will be briefed on their specific duties and responsibilities related to safe mission accomplishment. All missions will be debriefed. (T2)

2.3.1. **Minimum Briefing Times.** Begin briefings at least 30 minutes before the scheduled takeoff. On subsequent flights with the same crew on the same day, the PIC must brief only those items that have changed from the previous flights.

2.3.2. **Briefing Guides:**

2.3.2.1. Aircrews will refer to the appropriate briefing guides located in Attachment 2 and Attachment 3, and brief applicable items before each mission. **Note:** Briefing guides are reference lists of items that may apply to particular missions. The flight manual contains the passenger briefing guide.

2.3.2.2. Items listed may be briefed in any sequence. Those items covered by written standards and understood by all participants may be briefed as standard. Each guide may be expanded as necessary to cover other important items of the flight. Brief only those items applicable to the particular mission and in sufficient detail to prevent any misunderstanding between crewmembers.

2.3.3. **Alternate Missions.** If applicable, brief an alternate mission for each flight.

2.4. Maps and Charts. A local sectional or equivalent product, appropriate visual flight rules (VFR) terminal area charts (class B airspace), and charts covering the route of flight must be on board the aircraft.

2.5. Required Documents and Publications. The following documents and publications must be on board for flight:

2.5.1. Aircraft weight and balance.

2.5.2. Airworthiness certificate.

2.5.3. Aircraft registration.

2.5.4. CAP aircraft information file (*CAP aircraft only*).

2.5.5. Passenger manifest, if required (according to AFI 11-202, Volume 3).

2.5.6. An AFM or POH.

2.5.7. A mission kit. CAP-USAF/XO will determine contents of mission kits.

2.5.8. A navigation kit. As a minimum, the navigation kit will include:

2.5.8.1. Flight information publication (FLIP) instrument flight rules (IFR) supplement.

2.5.8.2. FLIP flight information handbook.

2.5.8.3. FLIP instrument approach procedures (Low), or US terminal procedures.

2.5.8.4. FLIP standard terminal arrival routes (STAR).

2.5.8.5. FLIP VFR supplement.

2.5.8.6. National Oceanic and Atmosphere Administration airport/facility directory.

2.6. Unit-Developed Pilot Aids:

2.6.1. Any Unit-developed pilot aids will include as a minimum the following items:

2.6.1.1. Briefing guides (reference Attachments 2 and 3 this instruction).

- 2.6.1.2. Supplemental emergency information, including emergency action checklists, lost communications procedures, and pitot static malfunctions.
- 2.6.1.3. Other information deemed necessary by the pilot.

Chapter 3

NORMAL OPERATING PROCEDURES

3.1. General:

3.1.1. Checklists: (T2)

3.1.1.1. Aircrew will accomplish all checklists with strict discipline. A checklist is not complete until all items have been accomplished. Momentary hesitations for coordination items, air traffic control interruptions, and deviations specified in the POH, etc., are authorized.

3.1.1.2. CAP-USAF units will not develop their own aircraft checklists. Pilots will utilize aircraft owner/operator provided checklists on all CAP-USAF flights.

3.1.2. Communications:

3.1.2.1. CAP-USAF/XO will designate aircraft call signs.

3.1.2.2. In terminal areas, both pilots will monitor the primary air traffic control frequency.

3.1.2.3. The pilot operating the radios will inform the other pilot when the primary radio is changed.

3.1.2.4. The aircrew will limit conversation to that essential for crew coordination and mission accomplishment during taxi, takeoff, approach, and landing.

3.2. Preflight: (T2)

3.2.1. Required Aircrew Equipment:

3.2.1.1. A survival kit is required for all operations. CAP-USAF/XO will determine the minimum survival kit contents. LR/CCs may require additional items.

3.2.1.2. An operable flashlight is required for all night operations.

3.2.2. **Aircraft Airworthiness.** The PIC is responsible for ensuring the airworthiness of the aircraft. CAP-USAF pilots must thoroughly review any pertinent aircraft maintenance records prior to accepting an aircraft for flight. Pilots should be aware that aircraft rented from commercial sources may not be as thoroughly maintained as aircraft from CAP or Air Force Aero Club sources.

3.2.3. **Aircraft Systems.** Chapter 4 specifies the minimum equipment required for flight.

3.2.4. **Propeller Operations.** Hand-propping is prohibited. The propeller may be turned to facilitate ground handling provided the pilot confirms the master, magneto, and ignition switches are in the OFF position with the ignition key removed. This does not constitute "hand-propping."

3.2.5. **External Power Starts.** Use of external power for engine start with a dead battery or for charging a "dead" battery is prohibited. Do not accept an aircraft for flight unless the malfunction requiring the use of external power is determined and corrected, e.g., bad battery, drained battery, or other electrical malfunction. Remove the battery from the aircraft

for servicing. Use of external power for cold weather starting and during lengthy maintenance work is permitted.

3.2.6. Instrument Cockpit Check. Complete an instrument cockpit check prior to initial takeoff on every sortie. **Exception:** An instrument cockpit check is not required when no instrument approaches are planned during a day local sortie. **Note:** LR/CCs may define local flying areas.

3.3. Ground and Taxi Operations: (T2)

3.3.1. Refueling Operations. Pilots will:

3.3.1.1. Ensure personnel not actively involved in refueling will remain at least 50 feet away from an aircraft refueling operation. In addition, do not operate the engine, taxi, or radiate electromagnetic energy within the 50-foot safety zone.

3.3.1.2. Not refuel or service aircraft with any personnel inside the aircraft.

3.3.1.3. Ensure all magneto switches and the master switch are in the OFF position, and the ignition key is removed from the switch prior to any aircraft servicing.

3.3.1.4. Check fuel samples for impurities and proper type after every refueling and before the first flight of the day. Fuel should be allowed to settle for at least 30 minutes to obtain the most valid sampling. If the sample is bad, immediately contact local refueling and maintenance personnel.

3.3.1.5. Visually check fuel quantity prior to every flight. If taking off with less than a full fuel load, pilots will use an aircraft manufacturer or commercially procured dipstick to check fuel quantity. The dipstick must be produced and calibrated for the specific aircraft make and model.

3.3.2. Ground Handling and Towing. Pilots will:

3.3.2.1. Use extreme caution when ground handling aircraft. Improper procedures may result in structural damage.

3.3.2.2. Not use the empennage to ground handle or turn the aircraft.

3.3.2.3. Review aircraft nose gear turning limits in the AFM or POH prior to towing operations.

3.3.3. Foreign Object Damage. To reduce the risk of foreign object damage during ground operations:

3.3.3.1. Do not allow unauthorized personnel to approach an operating engine.

3.3.3.2. Avoid using excessive power during ground operations.

3.3.3.3. Avoid prop or jet blast from other aircraft.

3.3.3.4. Ensure loose items are secure in the cockpit before opening the doors or windows.

3.3.3.5. Ensure a minimum of 10 feet nose-to-tail separation when starting behind another aircraft.

3.3.4. Aircraft Start. The PIC will:

3.3.4.1. Ensure the area around the propeller is clear before starting the engine.

3.3.4.2. Not allow an individual who is not qualified or not in training leading to qualification to start engines or taxi the aircraft.

3.3.4.3. Report all engine failures or abnormalities, including the total time the engine ran, to the CAP-USAF flying safety officer and the aircraft owner or operator. If the engine stops after warmup for no apparent reason, abort the aircraft.

3.3.4.4. Qualified CAP-USAF aircrew may emplane or deplane with engine running (engine running on/off-load) to facilitate crew transfer and limit engine wear. Passengers are not authorized to perform this procedure. A qualified crewmember must be at a pilot position at all times.

3.3.5. **General Taxi Restrictions and Considerations:**

3.3.5.1. Do not taxi through snowdrifts and significant accumulations of ice.

3.3.5.2. Plan to taxi around water drains and other low spots, gravel, and puddles of water to lessen the chance of prop damage.

3.3.6. **Minimum Obstacle Clearances.** Comply with the minimum taxi clearances in AFI 11-218, *Aircraft Operation and Movement on the Ground*, as supplemented.

3.3.6.1. Taxi speed within 10 feet of an obstacle will not exceed a slow walk.

3.3.6.2. The marshaler or wingwalker must maintain visual contact with the aircraft wingtips and obstacle at all times while remaining constantly visible to the pilot.

3.3.7. **Minimum Taxi Interval.** Maintain at least 75 feet behind light single-engine aircraft. Maintain at least 200 feet behind multi-engine or small jet aircraft and 500 feet behind taxiing helicopters and large jet aircraft.

3.3.8. **Engine Runup.** Accomplish an engine runup before every flight. During engine runup, the crewmember not in control of the aircraft will guard and be ready to assume control of the brakes in case of rudder pedal linkage failure.

3.4. **Takeoff and Landing: (T2)**

3.4.1. **Runway Requirements.** Minimum runway length is 2,000 feet or the sum of the takeoff and landing rolls, whichever is greater. Pilots may accomplish intersection takeoffs provided the available runway length meets this requirement. Touch-and-go landings require a hard surfaced runway at least 3,000 feet in length or the sum of the takeoff and landing rolls, whichever is greater.

3.4.1.1. Do not land over any raised web barrier. Do not roll over any cables or arresting gear during taxi, takeoff, or landing.

3.4.1.2. CAP-USAF pilots may take off and land on non-hard surface runways listed in the US Government FLIP airport/facility directory provided the conditions in paragraph 3.4.1 are met, and the pilot is current and qualified.

3.4.2. **Wind Limitations.** Do not takeoff, land, or taxi if the wind velocity exceeds 30 knots. This speed restriction is reduced to 25 knots when operating on a wet runway and 15 knots when operating on ice or snowpacked surfaces. Do not takeoff or land if the crosswind

component exceeds the aircraft manufacturer's maximum demonstrated crosswind velocity or 15 knots, whichever is less. Include maximum reported gust when determining wind velocity.

3.4.3. Raising the Landing Gear. When airborne and before moving the gear handle, the pilot flying the aircraft will make an advisory intercockpit "gear up" and "gear down" call and pause momentarily before moving the gear handle. On initial qualification training sorties, the instructor pilot (IP) will acknowledge "gear up" and "gear down" before the student moves the gear handle.

3.4.4. Aircraft Lighting. Use all exterior lights at all times unless restricted by the POH. Use the landing or taxi light during all flight operations in airport traffic patterns or other congested airspace. If available, use the pulse light system during daylight operations.

3.4.5. Weather Requirements:

3.4.5.1. For an IFR takeoff, existing weather must be at or above compatible IFR landing minimums at the departure airfield.

3.4.5.2. For IFR landings, pilots will use a 200-foot ceiling and 1/2-mile visibility (runway visual range of 2,400 feet) or published minimums (whichever is higher) to determine IFR landing minimums.

3.4.6. Reduced Same-Runway Separation. All operations require full runway separation.

3.5. Fuel Requirements: (T2)

3.5.1. Plan all missions to land with a minimum of 1 hour of usable fuel remaining (calculated at 75 percent power at planned cruise altitude).

3.5.2. Takeoffs with less than a full fuel load are permitted provided the fuel load can be determined per the guidance in paragraph 3.3.1.5. and all other fuel requirements for the mission are met.

3.6. Minimum Altitudes: (T2)

3.6.1. Minimum en route altitude is 1,000 feet AGL.

3.6.2. Minimum altitude during simulated off-airfield forced landings is 400 feet AGL with an IP on board, or 500 feet AGL without an IP on board the aircraft.

3.6.3. Perform all portions of stalls, slow flight, steep turns, and unusual attitude recoveries above 1,500 feet AGL or as directed by the POH, whichever is higher.

3.7. In-Flight Weather Requirements: (T2)

3.7.1. Flight into areas of forecast or reported freezing rain or icing is prohibited. If severe turbulence is reported, cease operations in the affected area. **Note:** Aircraft damage may occur 20 miles or more from any thunderstorm.

3.7.2. Flight into areas of known or reported turbulence greater than moderate is prohibited.

3.7.3. Conduct all stalls, slow flight, and unusual attitude recoveries in day VMC.

3.8. Instrument and Navigation Procedures:

3.8.1. **Global Positioning System.** GPS operations are approved IAW the AFM. Refer to AFI 11-202, Volume 3, and AFMAN 11-217, Volume 1, *Instrument Flight Procedures*.

3.8.2. **Simulated Instrument Flight:**

3.8.2.1. Current and qualified CAP pilots may act as safety observers for CAP-USAF pilots to practice simulated instrument approaches on CAP-USAF sorties. CAP pilots are authorized to perform safety observer duties if they possess a private pilot certificate with category and class ratings appropriate to the aircraft being flown.

3.8.2.2. Practice instrument approaches under VFR are authorized according to AFI 11-202, Volume 3.

3.8.2.3. Vision-restricting devices to simulate instrument meteorological conditions (IMC) are approved for use provided an instrument rated (Air Force or Federal Aviation Administration [FAA]) safety observer is at a set of controls. The only authorized vision-restricting devices are opaque-type glasses (foggles) and hoods. These devices are not approved for use during takeoff and must be removed at or prior to the decision height (DH) or missed approach point (MAP) during an approach to landing.

3.9. Passenger Transport Procedures: (T2)

3.9.1. Only qualified and current pilots will occupy the left seat with passengers aboard the aircraft. Under actual instrument conditions with passengers on board, all takeoffs, initial climb out, and approaches will be made by the pilot in the left seat. The following maneuvers are prohibited with passengers on board the aircraft:

3.9.1.1. Simulated emergency procedures.

3.9.1.2. Intentional stalls.

3.9.1.3. Touch-and-go landings.

3.9.2. All passengers will be provided with a passenger briefing, hearing protection, and if available, a headset. Under no circumstances will a passenger be authorized to fly the aircraft. Passengers will not occupy the PIC seat during any phase of operation. Passengers may occupy seats with flight controls in aircraft designated for single-pilot operations by the POH.

3.10. Simulated Emergency Procedures. The PIC will ensure the preflight briefing includes all airborne simulated emergencies. (T2)

3.10.1. Conduct simulated emergency training only during day VMC.

3.10.2. Do not practice simulated emergencies in-flight without an operable interphone.

3.10.3. Do not practice compound or multiple simulated emergencies in-flight.

3.10.4. Do not perform actual engine shutdowns.

3.10.5. Do not practice takeoff emergency procedures below 500 feet AGL.

3.10.6. Simulated Forced Landings (SFL) may be continued to touchdown on hard surface runways, and at least 3,000 feet long with an IP on board or 5,000 feet long without an IP on board.

3.11. Mandatory Advisory Calls. On missions crewed by more than one crewmember, the pilot flying the aircraft should periodically announce intentions when flying departures, arrivals, approaches, and when circumstances require deviating from normal procedures. Crewmembers will announce when heading or airspeed deviations are observed or an altitude variation of 100 feet or more occurs. Mandatory advisory calls for the crewmember not flying are as follows:

3.11.1. Nonprecision Approaches:

3.11.1.1. "One hundred feet above" MDA.

3.11.1.2. "'Minimums" at MDA.

3.11.1.3. "Runway in sight" when the runway environment is in sight.

3.11.1.4. "Go-around" at MAP if the runway environment is not in sight or if the aircraft is not in a safe position to land.

3.11.2. Precision Approaches:

3.11.2.1. "One hundred feet above DH/DA."

3.11.2.2. "Land" at DH/DA if the runway environment is in sight and the aircraft is in a safe position to land.

3.11.2.3. "Go-around" at DH/DA if the runway environment is not in sight or if the aircraft is not in a safe position to land.

3.11.3. Climb Out. "One hundred feet below level-off altitude."

3.11.4. Descent. "One hundred feet above intermediate level-off, procedure turn and final approach fix" altitudes.

3.12. Knock-It-Off Procedures:

3.12.1. "Knock it off" is the common assertive statement for use by all crewmembers. Use the "Knock it off" to:

3.12.1.1. Provide a clear warning sign of a deviation or loss of situational awareness.

3.12.1.2. Provide an opportunity to break the error chain before a mishap occurs.

3.12.1.3. Notify all crewmembers that the aircraft or crew is departing from established guidelines, the briefed scenario, or that another crewmember is uncomfortable with the developing conditions.

3.12.1.4. Any instructions following the knock-it-off call should be *directive*, then *descriptive*. Example: "Knock it off. CLIMB. Altitude below minimums."

3.12.2. As soon as possible after a knock it off has been called, the aircrew will take the following actions:

3.12.2.1. Stabilize the aircraft on a safe flight vector.

3.12.2.2. Discuss specific concerns.

3.12.2.3. Continue the current maneuver or take a new course of action after direction by the PIC. **Note:** The PIC is the final decision authority.

3.13. Transfer of Aircraft Control. Both pilots must know at all times who has control of the aircraft. In all cases, the pilot assuming control of the aircraft will state, "I have the aircraft." The pilot relinquishing control will state, "You have the aircraft." Once assuming control of the aircraft, maintain control until relinquishing it as stated above.

3.14. Postflight:

3.14.1. Pilots will lock and chock the aircraft if it will be left unattended for any period of time. Pilots will install an avionics lock (if available) when remaining off station overnight. **Exception:** An avionics lock is not required on military installations with controlled or limited access parking areas or ramps.

3.14.2. The PIC will ensure that adequate security of the aircraft is provided at all times. This includes ensuring responsible personnel on both military and civilian airfields are advised as to the length of stay and where the crew may be contacted.

3.14.3. When not in a position to have continuous physical or visual contact with the aircraft, all cowlings and access panels will be properly installed and locked (where applicable) and all doors and windows will be closed and locked.

3.14.4. Primary crew members will maintain control of the aircraft keys and/or combinations at all times when away from the aircraft.

Chapter 4

OPERATING RESTRICTIONS

4.1. General. The PIC is responsible for exercising the necessary judgment to ensure no aircraft is dispatched with multiple items inoperative that may result in an unsafe degradation and/or an undue increase in crew workload. The PIC will consider the possibility of additional failures during continued operation with inoperative systems or components. Missions originating from home stations will not normally launch with a known malfunction. Any item the PIC considers essential to mission completion will be fixed or corrected prior to flight. Consult LR supervisors for additional guidance if necessary.

4.2. Flight Manual Precedence. These procedures do not supersede procedures contained in the AFM/POH.

4.3. Equipment and Systems Decision Matrix. [Table 4.1](#) provides the PIC with the go/no-go decision concerning the minimum operational equipment and systems considered essential for safe flight. CAP-USAF pilots will consult the “Kinds of Operations Equipment List” in Section 2 of the POH. Also refer to AFI 11-202, Volume 3, for equipment required for flight.

4.3.1. Do not perform functional or acceptance check flights.

4.4. Waivers. CAP-USAF/XOV may waive the requirements of para [4.3](#) for an operational necessity.

Table 4.1. Equipment and Systems Decision Matrix.

| I T E M | A | B | C | D | E | F | G |
|------------------|--|---------------|--------------|------------|--------------|-------------------|-------|
| | With Inoperative Equipment or System | In Conditions | | | | | Notes |
| | | Day VMC | Night VMC | Day IMC | Night IMC | Cross- Country | |
| 1 | Automatic direction finder and marker beacon | Go | Go | Go | Go | As required | 1 |
| 2 | Airspeed indicator (indicated or calibrated) | No-go | No-go | No-go | No-go | No-go | |
| 3 | Alternator/generator | No-go | No-go | No-go | No-go | No-go | |
| 4 | Altitude indicator | No-go | No-go | No-go | No-go | No-go | |
| 5 | Attitude indicator | No-go | No-go | No-go | No-go | No-go | |
| 6 | Clock/watch | Go | Go | No-go | No-go | As required | |
| 7 | Distance measuring equipment | Go | Go | Go | Go | As required | 1 |
| 8 | Flashlight | Go | No-go | Go | No-go | As required | |
| 9 | GPS | Go | Go | Go | Go | Go | |
| 10 | Gyroscopic direction indicator | Go | Go | No-go | No-go | No-go | 2 |
| 11 | Interior lights | Go | No-go | Go | No-go | As required | 3 |

| I T E M | A | B | C | D | E | F | G |
|------------------|--|---------------|--------------|------------|--------------|-------------------|-------|
| | With Inoperative Equipment or System | In Conditions | | | | | Notes |
| | | Day VMC | Night VMC | Day IMC | Night IMC | Cross- Country | |
| 12 | Instrument landing system | Go | Go | Go | Go | As required | 1 |
| 13 | Navigation lights | Go | No-go | Go | No-go | As required | |
| 14 | Pitot heat | Go | Go | No-go | No-go | As required | |
| 15 | Radio | Go | Go | No-go | No-go | No-go | 4 |
| 16 | Rate of turn indicator | Go | Go | No-go | No-go | As required | |
| 17 | Slip/skid indicator | Go | Go | No-go | No-go | As required | |
| 18 | Very high frequency omnidirectional range | Go | Go | No-go | No-go | As required | |

Notes:

1. Unless required in operating airspace.
2. An alternative heading must always be available.
3. Cockpit lighting must allow crewmembers to view all cockpit instrument panels, controls, and read instrument approach plates.
4. At least one operable aircraft radio (transmit and receive capable) required for IFR.

TOD D. WOLTERS, Lt Gen, USAF
DCS, Operations

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

AFI 10-1001, *Civil Aircraft Landing Permits*, 1 September 1995

AFPD 11-2, *Aircrew Operations*, 19 January 2012

AFI 11-200, *Aircrew Training, Standardization/Evaluation, and General Operations Structure*, 19 January 2012

AFI 11-202, Volume 3, *General Flight Rules*, 22 October 2010

AFI 11-215, *USAF Flight Manuals Program (FMP)*, 22 December 2008

AFMAN 11-217, Volume 1, *Instrument Flight Procedures*, 22 October 2010

AFI 11-218, *Aircraft Operations and Movement on the Ground*, 28 October 2011

AFI 11-301, Volume 1, *Aircrew Flight Equipment (AFE) Program*, 25 February 2009

AFI 11-401, *Aviation Management*, 10 December 2010

AFI 36-2903, *Dress and Personal Appearance of Air Force Personnel*, 18 July 2011

AFMAN 33-363, *Management of Records*, 1 March 2008

Adopted Form

AF Form 847, *Recommendation for Change of Publication*

Abbreviations and Acronyms

AFM—aircraft flight manual

AGL—above ground level

CAP—Civil Air Patrol

CAP-USAF—Civil Air Patrol-US Air Force

CC—commander

DH—decision height

DO—director of operations

DUATS—Direct User-Access Terminal System

FAA—Federal Aviation Administration

FDP—flight duty period

FLIP—flight information publications

GPS—global positioning system

IFR—instrument flight rules

IMC—instrument meteorological conditions

IP—instructor pilot

LR—liaison region

MAJCOM—major command

MAP—missed approach point

MDA—minimum descent altitude

PIC—pilot in command

POH—pilot's operating handbook

VFR—visual flight rules

VMC—visual meteorological conditions

Terms

Air Force Aircraft—US Government aircraft under US Air Force jurisdiction. (AFI 11-401).

CAP-USAF Aircraft—An Air Force aircraft operated by HQ CAP-USAF or one of its LRs.

CAP-USAF Pilot—An active duty or civil service pilot operating CAP-USAF aircraft.

Contract Rental Aircraft—An aircraft operated by CAP-USAF under a valid government contract. The aircraft is considered an Air Force asset during the period of its control.

Attachment 2
CREW BRIEFING GUIDE

A2.1. General:

- A2.1.1. Time hack.
- A2.1.2. PIC/call sign/tail number.
- A2.1.3. Medical status, crew rest, rings, jewelry, scarf, required clothing.
- A2.1.4. Flight crew information file.
- A2.1.5. Aircraft fuel state, weight and balance, maintenance status.

A2.2. Mission:

- A2.2.1. Mission/flight requirements.
- A2.2.2. Takeoff time.
- A2.2.3. Weather—existing, forecast, required.
- A2.2.4. Notices to Airmen
- A2.2.5. Bird conditions

A2.3. Takeoff/Departure:

- A2.3.1. Planned runway.
- A2.3.2. Departure routing.
- A2.3.3. Assigned area.
- A2.3.4. Satellite airfield operations.

A2.4. Area Work:

- A2.4.1. Maneuver profile.
- A2.4.2. Parameters.

A2.5. Recovery:

- A2.5.1. Corridor/arrival routing.
- A2.5.2. Pattern entry.

A2.6. Pattern Work:

- A2.6.1. Pattern profile.
- A2.6.2. Wake turbulence/spacing.
- A2.6.3. Pattern altitudes.

A2.7. Additional Information:

- A2.7.1. Clearing/areas of potential conflict.
- A2.7.2. Checks/radio procedures.

A2.7.3. Transfer of aircraft control.

A2.7.4. BINGO/JOKER or required fuel for mission.

A2.8. Emergency Procedures:

A2.8.1. Crew responsibilities.

A2.8.2. Takeoff emergencies.

A2.8.3. Emergency ground egress.

A2.8.4. Physiological incident.

A2.8.5. Emergency divert airfields.

A2.9. Risk Management Considerations.

A2.10. Questions.

Attachment 3**PASSENGER CHECKLIST AND BRIEFING GUIDE****A3.1. Prior to Flight:**

- A3.1.1. Flight authorized.
- A3.1.2. Complete hold harmless agreement.
- A3.1.3. Complete medical forms.
- A3.1.4. Personal considerations:
 - A3.1.4.1. Current medical status.
 - A3.1.4.2. Prohibited electronic devices.
 - A3.1.4.3. Clothing (glasses, rings, scarves, gloves, coats, etc.).
- A3.1.5. Seat assignments, and strap-in procedures.
- A3.1.6. Ramp safety.
- A3.1.7. Foreign object debris.

A3.2. Mission:

- A3.2.1. Passenger flying, and authorized or restricted maneuvers.
- A3.2.2. Flight instruments and their uses.
- A3.2.3. Clearing.
- A3.2.4. In-flight checks and radio procedures.
- A3.2.5. Transfer of aircraft control.
- A3.2.6. Mission overview:
 - A3.2.6.1. Takeoff.
 - A3.2.6.2. Departure.
 - A3.2.6.3. Area work.
 - A3.2.6.4. Arrival.
 - A3.2.6.5. Additional information.

A3.3. Emergency Procedures:

- A3.3.1. Ground egress.
- A3.3.2. Abort.
- A3.3.3. Fire (engine or electrical).
- A3.3.4. Airborne emergencies.
- A3.3.5. Bird strike.
- A3.3.6. Physiological episodes (eyes, ears, sinus, airsickness, etc.).

A3.4. Questions.