

CAP STANDARD 73-2  
25 Aug 2020



## Operations Procedures, Glider

NATIONAL HEADQUARTERS CIVIL AIR PATROL  
Maxwell Air Force Base, Alabama

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# Introduction

## 1.1 Scope

This pamphlet outlines standardized operational procedures to be used by CAP aircrew when operating CAP aircraft, as identified in CAPR 70-1, *CAP Flight Management*, paragraph 2.

## 1.2 Pilot Responsibility

Pilots will use these procedures as the CAP standard. However, these procedures do not substitute for sound judgment or common sense. Deviation from these procedures is authorized when necessary for safety of flight and protection of life. Planned deviations from standard shall be pre-briefed or, when unable due to operational necessity, communicated to ensure crew understanding. As always, the pilot in command (PIC) has the ultimate responsibility for the safe operation of the aircraft.

## 1.3 References and Precedence

Pertinent references for CAP flight operations are FAA part 91, CAPR 70-1 and the airframe-specific Aircraft Flight Manual (AFM) or Pilot's Operating Handbook (POH). In the event of a conflict between this publication and the above references, the references will have precedence.

# Program Risk Management

CAPR 70-1 requires Regions and Wings with glider programs to conduct a deliberate risk assessment of their glider operations and produce a Risk Management Plan (RMP) describing selected risk controls. These RMPs shall be reviewed and updated, if required, on an annual basis.

## 2.1 Required Risk Controls

A national-level program risk assessment identified several high-risk factors in CAP glider operations. Accordingly, the following risk controls shall be included in each Region/Wing RMP:

**Staffing.** All glider activities must have at least one person designated to supervise the safety of all operations. Although it is preferable to have a dedicated safety officer, when operations are being conducted with a senior staff of three or less, one of the senior staff may fulfill the duties of the safety officer in addition to their other responsibilities. When more than three staff members are available, a dedicated safety officer must be assigned. If that member will not be continuously present during operations, an alternate safety officer will be designated.

**Daily Risk Assessment and Risk Awareness.** Prior to the first launch of the day, the safety officer will complete a risk assessment to ensure a safe mission and complete a safety briefing with all participants. Minimum considerations will include current and expected weather conditions and its effects on tow and glider performance, available runway and runway conditions, runway obstacles, and status of participants as well as operational and airport conditions, including traffic on and near the airfield. Runway selection and staging areas for glider operations will comply with FAA requirements. Staff and participants will be made aware of the organization's risk tolerance and risk controls relevant to their activities. In addition, everyone will be empowered to call "knock it off" if

they see anything that they believe represents an elevation of risk above the intended level.

**Non-participants.** Parents and other non-participants must be briefed as to the hazards of the operations being conducted. Due to limitations on liability, parents and non-participants must be briefed on areas accessible during operations. An area will be marked/cordoned off to assist non-participants in knowing where they should be when observing operations.

**Initial Solo Flight.** To provide as much of a sterile environment as possible, the active runway will be kept clear and landings will be suspended during initial solo flights.

**Use of Preplanned Landing Locations.** Landing locations will be preplanned, risk assessed, and briefed. Attempting to expedite recovery and launch by landing at unplanned, unbriefed locations, to include intentionally landing long or off centerline, is prohibited. This prohibition is not intended to restrict pilot flexibility in selecting landing location as necessary to ensure a safe recovery in extreme circumstances.

## 2.2 Risk Control Implementation

Glider operations shall employ the risk controls identified in the Region/Wing RMP. If risk levels exceed that approved by the program RMP, operations shall not be conducted without approval from the CAP member identified in the RMP as having the authority to approve operations at a higher risk level. Operations supervisors shall be proactive in performing risk assessment and control as operational conditions change – seeking approval from the appropriate authority when required.

## Mission Planning and Briefing

### 3.1 Briefing / Debriefing

As a default, the crew will be in place and ready to begin the flight briefing no later than 30 minutes before scheduled takeoff. Crew briefing format is at the discretion of the PIC. The PIC is also responsible for providing appropriate passenger briefings to include use of safety belts, canopy operations, entrance/egress, and emergencies. The PIC must brief passengers on the use of sterile cockpit procedures during critical phases of flight. A suggested passenger briefing guide is provided at Attachment 1.

### 3.2 Pre-flight Risk Assessment

The procedures provided in Attachment 2 shall be used to complete the *paper-based* pre-flight risk assessment worksheet (RAW). If a PIC will be flying multiple flights of the same type in a single day, they may elect to complete a single RAW for their flying day using the worst-case conditions for each risk factor. The FRO can then use a *paper-based* release to approve the flights as a block.

## Mission Execution

### 4.1 Preflight

Determination of aircraft airworthiness is supported by reviewing data contained in the Aircraft Information File (AIF). The AIF cover displays a summary of major inspections. The entries on the cover shall be compared to data from the Aircraft Flight Time log, and the current date, to ensure that inspection limits are not overflowed. The AIF Equipment, Inspection, and Document Requirements page lists documents that must be carried on the

aircraft, to include the airworthiness certificate. This page also references 14 CFR Part 91.205 requirements for kinds of operations.

Aircraft tire pressures shall be checked with a gauge prior to the first flight of each day, at a minimum, and whenever tire inflation appears abnormal.

The PIC shall review the Web Mission Information Reporting System (WMIRS) Maintenance Discrepancy Module for open, deferred, and recent discrepancy trends to determine whether equipment required for safe flight is operating properly. PIC knowledge of aircraft's VFR-day/night type certification, 14 CFR 91.205 equipment requirements, mission to be flown, and Kinds of Operations Equipment List (KOEL) limitations is vital. Inoperative instruments and equipment must be removed/deactivated and appropriately placarded. Required maintenance shall be recorded in accordance with 14 CFR Part 43 prior to flight.

Any discrepancies noted during preflight that have not been documented in the WMIRS Maintenance Discrepancy Module shall be immediately reported to the Squadron Maintenance Officer and the airworthiness of the aircraft verified prior to flight. Discrepancies that might impact kind of operations/mission shall be brought to the attention of the FRO. Flying the aircraft with unreported damage could result in the PIC incurring liability for that damage.

#### 4.2 Sterile Cockpit Procedures

The Pilot in Command (PIC) shall ensure that non-essential conversations, activities, and distracting actions do not occur during critical portions of flight as defined in CAPR 70-1.

#### 4.3 Transfer of Aircraft Controls

Pilots shall ensure positive exchange of controls. Both pilots must always know who has control of the aircraft. The pilot assuming control of the aircraft will state "I have the flight controls" The pilot relinquishing control will state "You have the flight controls." Finally, the pilot flying states, "I have the flight controls." Once assuming control of the aircraft, maintain control until relinquishing it as stated above.

#### 4.4 Use of Checklists and Callouts

PICs shall use an approved aircraft checklist for ground and flight operations (ref: CAPR 70-1). CAP does not specify how the checklists shall be used in the cockpit. There are several industry-accepted methods for using checklists, to include: challenge and response, check-do, and do-check. One or more of these may be appropriate depending on crew number, checklist familiarity, and other factors. CAP aircrew should establish how and when they will call for, employ, and signal completion of checklists during the crew resource management portion of their flight brief. Use of mnemonics (ex: CGUMPS) to support checklist flow is permitted; however, an approved checklist must be used to validate completion. During multi-pilot operations, CAP encourages the use of call outs and/or techniques such as fingering pointing/calling as tools for improving crew situational awareness. Even when practiced during single-pilot operations, these techniques can increase crew awareness during critical flight phases and may result in identification of a critical error or oversight.

## **5. Postflight**

### **5.1 Postflight**

Immediately after disembarking, CAP aircrew shall conduct a thorough post-flight inspection of the aircraft using Attachment 3. The PIC is responsible for documenting and entering all discrepancies in WMIRS. Discrepancies shall not be passed down verbally from pilot to pilot as a means of keeping the aircraft in an MC status. If there are any discrepancies that might impact airworthiness, place the Aircraft Grounded Placard on the pilot's seat prior to leaving the aircraft. Notify the Squadron Maintenance Officer immediately thereafter.

### **5.2 Debrief**

Aircrew will complete the debrief process at the end of the mission. Items of interest should include mission success, areas for improvement, crew coordination factors, and hazard identification/reporting.

## **6. Coordination of NOTAMS**

### **6.1 Responsibility**

14 CFR 91.309 requires that notification be provided to Air Traffic Control and other pilots of glider operations in controlled airspace. When operating in Class E around an airport, there is occasionally some debate between airport managers and tow pilots/ground launch supervisors regarding who has responsibility for the notification. Regardless of who performs this task, the CAP Tow Pilot or ground launch supervisor must ensure that a NOTAM is in place prior to the commencement of operations.

### **6.2 Procedure**

On a phone, dial FAA NOTAMS: 1-877-487-6867 (You do not need to dial 1-800-992-7433, 1-800 WXBRIF, as you will just be transferred to the NOTAM number.). When the phone answers, say "Briefer." When the briefer answers, the tow pilot says, "I'd like to notify ATC and issue a NOTAM in accordance with FAR 91.309 involving glider towing operations in Class E airspace at [airport identifier]. (The briefer may ask for the coordinates of the airport to plot it.) Towing operations will begin today (or dates) at [XXXXZ until XXXXZ. Area will be a radius of (5) nautical miles from center of airport up to an altitude of [X,XXX] MSL. Contact is [name of tow pilot], cell phone [XXX-XXX-XXXX]. Ask for the NOTAM number and request the briefers initials."

The NOTAM will self-cancel.

## **Briefing Checklist (Attachment 1)**

### **Passenger Briefing Guide**

#### A.1 Prior to Flight

- Flight authorized
- Hold Harmless Agreement
- Medical status
- Prohibited electronic devices
- Clothing

#### B.2 Mission

- Sterile cockpit procedures
- Restricted maneuvers
- Flight instruments
- Clearing
- Radio procedures
- Transfer of controls
- Takeoff
- Departure
- Arrival

#### B.3 Emergency Procedures

- Ground egress
- Abort
- Airborne emergencies
- Physiological events

#### B.4 Risk Management Considerations

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## **Risk Assessment Instructions (Attachment 2)**

ASSESSMENT, GENERAL: Select a risk factor, then select the descriptor representing the maximum risk anticipated during the flight, or during the flying day if assessing multiple flights (ex: Factor: Time of Day and last landing will occur during civil twilight falls under the "Reduced" column).

OTHER (Specify): It is impossible for any pre-planned risk assessment tool to predict the full range of risks that might present themselves in an operational environment. Accordingly, the PIC shall apply RM principles, knowledge, and judgment, to identify and assess any other significant, known risk factors using the provided space. Risk management plans may provide additional guidance regarding the use of these lines to assess risk factors unique to a program or a specific operating location.

PIC CURRENCY: For initial solo flight, do not mark "181 Days or more." Instead assess the risk based on the number of days since last flight. First Solo risk is generally addressed under the Pilot Experience factor and the timespans listed here are not appropriate for initial or early solo flight. If a significant number of days have elapsed since last flight, additional points can be inserted at Mission > Other (specify).

TOW/LAUNCH RISK: Because all CAP glider operations involve the use of a launch mechanism, this factor has been included in the glider risk assessment. When operating with multiple tow aircraft the highest cumulative risk rating from all tow aircraft is used to make the assessment (0-14 Low, 15-29 Moderate, 30-59 High, and 60+ Extreme). Individual programs may establish risk assessment levels for winch or auto launches. (Ex: winch launched solos)

TOTAL SCORE: Note the number of points for each factor and write that number in the column to the far right to aid in totaling the values. The PIC must seek a release based on the resulting score on the information provided at the bottom of the sheet. For some factors, a specific risk level/descriptor results in an assessment of elevated risk or special conditions. These special conditions must be honored regardless of the cumulative risk score generated by the chart.

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## **Post Flight Checklist (Attachment 3)**

### **POST-FLIGHT CHECKLIST GLIDER**

*This checklist shall be performed after every flight where the pilot disembarks the aircraft*

#### **NOSE**

CONDITION OF ALL COMPONENTS..... CHECK  
PITOT TUBE ..... INSTALL COVER

#### **LEFT WING**

CONDITION OF ALL COMPONENTS..... CHECK

#### **EMPENNAGE**

CONDITION OF ALL COMPONENTS..... CHECK

#### **RIGHT WING**

CONDITION OF ALL COMPONENTS..... CHECK

#### **FINAL CABIN / LOCKUP**

COCKPIT ..... STOW LOOSE ITEMS / REMOVE TRASH  
CANOPY ..... CLOSE AND LOCK  
CONTROL / GUST LOCKS ..... INSTALL, IF REQUIRED

#### **FINAL CABIN / LOCKUP**

AIF ..... ENTER DATA / INSERT GROUNDING CARD, IF REQUIRED  
WING / FUSELAGE / CANOPY COVERS ..... INSTALL, IF AVAILABLE  
SECURE GLIDER ..... USING APPROVED TIE DOWNS / IN TRAILER

**REPORT ANY NEW DISCREPANCIES IN WMIRS**

## Change Record

Issue Date	Change Summary
8 Jun 20	Moved risk assessment instructions to Attachment 2 and renumbered all attachments. Revised Attachment 3 – post-flight checklist. Aligned 5.1 instructions with CAPR 70-1 9.11.11.1. Added para 6. regarding NOTAMS
25 Aug 20	Added requirement to gauge tires