

CIVIL AIR PATROL

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# Cadet Orientation Flight Syllabus

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# Cadet Orientation Flight Syllabus

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## Requirements

*The goal of the cadet orientation flight program is to introduce youth to flying*

The Cadet Orientation Flight Program is designed to introduce our youth to general aviation through hands-on orientation flights in single engine aircraft and gliders. The program is limited to current CAP cadets under 18 years of age. Squadron commanders should try to arrange orientation flights for new CAP cadets as soon as possible after the cadet joins CAP (national headquarters will report on those squadrons that have orientation flights of cadets flying within the first 90 days of joining CAP). The program is voluntary and primarily motivational and it should stimulate an interest in general aviation and aerospace activities. At no time will cadets sustain any costs associated with this program.

Wings can supplement this publication with prior written consent of NHQ CAP/CP.

### FLIGHT REQUIREMENTS

A successful orientation flight will include at least 80% of the syllabus objectives with a flight time less than 1.2 hours in order to be credited to the cadet. The actual flight time depends upon the local conditions and the ability of both the pilot and the cadet. Therefore, the actual flight time for each syllabus flight will vary. However, all flights can safely be accomplished in 0.7 to 1.0 flight hours. National headquarters may limit the reimbursements if flights are over 1.2 hours.

50

Flights flown where less than 80% of the syllabus objectives are obtained will still be reimbursed, but the flight will be recorded as a “50” in the *Syllabus Number* field of the CAPF 7. Code 50 flights, while reimbursed, will not count against the cadet’s syllabus flights. National headquarters may limit the reimbursement if there are deliberate flight terminations (for example, stopping a flight at 75% of the syllabus objectives because the pilot has already flown 1.3 hours).

Sometimes, pilots or squadrons want to fly cadet orientation flights but not seek reimbursement. Since national headquarters is tracking all of the cadet orientation flights flown, please enter the code “75” in the *Syllabus Number* field of the CAPF 7 for orientation flights not seeking reimbursement.

75

National headquarters is also tracking all of the back seat rides, mainly as one of the criteria for the annual outstanding *Squadron of Merit* and *Squadron of Distinction* awards. Cadets are encouraged to fly in the back seat of powered aircraft as weight and balance allows. For cadets flying back seat, simply enter the code “99” in the *Syllabus Number* field of the CAPF 7. Cadets do not lose any of their syllabus flights by flying in the back seat. Cadets can fly as many back seat rides as possible. The back seat rides are observation flights only and are not reimbursable. You must have a cadet in the front seat if back seat rides are flown.

99

The intent of the orientation flight program is for the syllabus flights to be spread out over time and not to be completed in one or two weekends.

Flights will only be accomplished in single engine aircraft and in gliders.

Every flight will conform to the syllabus and be consistent with safety, aircraft/aircrew capabilities, and available resources. Cadet orientation flights will only be conducted in daylight and in visual meteorological conditions (VMC). All flight levels mentioned are AGL.

The pilot of powered aircraft will occupy the left front seat. The pilot of glider aircraft will occupy the rear seat, proficiency permitting (or the left seat of gliders that have side-by-side seating).

Pilots will not perform extreme maneuvers, aerobatic maneuvers, spins or emergency procedures (unless, of course, there’s an emergency).

Cadets are encouraged to handle the flight controls except during the critical phases of the flight (like take-off and landing or in an emergency).

## PILOT REQUIREMENTS

Cadet orientation flight pilots will be qualified and selected in accordance with CAPR 60-1, *CAP Flight Management*. It is the responsibility of the pilot to carefully brief all cadets on the proper ways to operate around aircraft. The pilot is the one who certifies completion of the cadets’ syllabus rides. At all times, SAFETY is the overriding concern.

Pilots need to be familiar with and use the cadet *Aerospace Dimensions* modules as part of their orientation flight. Specific modules are mentioned with each syllabus flight.

## SAFETY REQUIREMENTS

Civil Air Patrol offers cadets a well-organized, wholesome and *safe* environment to experience the fun of flying. The overarching objective with the highest priority is the safety of our members. During all of CAP's cadet activities, parents across the Nation trust our organization with the care and protection of the most cherished treasure of their life – their child. This responsibility cannot be taken lightly. With just a little planning, preparation and vigilance, cadets can experience a safe, rewarding activity.

Everything we do involves risk. While risk cannot always be eliminated, it can be managed through a process known as Operational Risk Management or ORM. ORM is a logic-based, common sense approach to detect, assess and control risk. It is a decision-making tool that can be used in a split-second, or employed by a group in advance of an activity. Your Mother was doing *Time-Critical ORM* when she told you not to run with scissors in your hand. A better process to use in preparation for a cadet activity would be a *Deliberate ORM*. This process usually consists of a small group of people examining the proposed facilities and activities well ahead of the start date to identify hazards, assess the risks and decide on risk controls. These risk controls can then be included in the operational plan and become transparent to the activity participants. To learn more about this process and other safety topics, visit the National Headquarters Safety website at: <http://www.capnhq.gov/nhq/do/dor/index.html>.

Supervision is key to protecting our cadets. Most cadet injuries occur when they are unsupervised or during “horseplay.” It is vitally important to ensure that a sufficient number of senior members are available to guide and assist cadets during all facets of an activity. Our responsibility to the cadets and their parents is a commitment we cannot compromise. **The only way to keep cadets having fun is to keep them safe.**

## CADET REQUIREMENTS

Cadets must carry their actual current CAP ID card with them on the flight (faxes of the card or copies of squadron records are insufficient). Cadets are responsible for carrying the appropriate syllabus sheet (see **attachment 1** or **attachment 2**) for the flight and for delivering the signed syllabus sheets to the squadron commander for processing. Cadets are encouraged to fly as much as possible, but national headquarters will reimburse only five powered and five glider orientation flights.

Cadets who complete their first orientation flight with CAP should be presented with CAP's *Certificate of First Flight* (see **attachment 3**).

## REPORTING REQUIREMENTS

Wing headquarters will audit all flights before national headquarters will reimburse for the flights. CAPR 173-3, *Payment for Civil Air Patrol Support*, determines the reimbursement rates and includes the reasonable ferrying time for the aircraft.

Civil Air Patrol has developed an on-line Flight Management System (see **attachment 4** for details), which is the preferred method of entering the flight information.

A CAPF 7 or CAPF 7T is still required to be sent to the wing for final validation even if the on-line Flight Management System is used. The original gas receipts will need to be attached to the CAPF 7 or CAPF 7T and kept on file at wing headquarters in accordance with CAPR 10-2, *Files Maintenance & Records Disposition*.

If you are not using the on-line Flight Management System, then a new CAPF 7 or CAPF 7T is needed if there is a change in flight release number, pilot, tail number or the date of the flight.

Squadron commanders, or their representative, are responsible for entering the orientation flights into the on-line Flight Management System or for forwarding the CAPF 7 and CAPF 7T to their wing headquarters for auditing.

Squadron commanders, or their representative, are responsible for consolidating the cadets' orientation flight information to the on-line Flight Management System or the CAPF 7, *Cadet Orientation Flight Consolidation Report* (see **attachment 5** for a sample form), or the CAPF 7T, *Tow Flight Consolidation Report*, if gliders are used (see **attachment 6** for a sample form).

The wings are responsible for determining the reasonable ferrying conditions for resources within their wings. Wings should develop and publish a justification matrix indicating the number of orientation flights needed to justify ferrying an aircraft (see **attachment 7** for a sample Justification Matrix).

The wings are responsible for auditing the flight information for accuracy and timeliness, and to avoid potential fraud, waste or abuse. Once audited and signed by the wing, the wing is responsible for faxing or mailing the CAPF 7 and CAPF 7T to national headquarters. Do not both fax and mail the same information to national headquarters.

***Orientation flights submitted to national headquarters after 90 days of the flight date are not reimbursed.***

National headquarters will only reimburse those flights that pass the wing's audit and are signed by the designated wing representatives. Wings are required to submit to national headquarters a list of, at most, three individuals from the wing authorized to sign the audit blocks of CAPF 7 and CAPF 7T. This list will be submitted no later than 1 July annually and anytime there is a change to the list.

Reimbursements are processed daily by national headquarters and reimbursements are posted to the wings usually once per month (typically around the fifth of each month and usually by electronic means). These reimbursements are to be used solely for their intended purpose: To reimburse the original suppliers of the orientation flights. Wings will receive a report from national headquarters, usually monthly, that will give relevant details about the orientation flights that will assist the wings in sending the reimbursements to the original suppliers of the orientation flights.

This is a limited reimbursement program. While national headquarters does its best in estimating the expenses associated with this program, there are factors beyond our control that may cause our available funds to be depleted. While this has not happened before, the potential exists. Therefore, once the orientation flight program funds are exhausted, *reimbursements* for orientation flight activity will cease until additional funds are acquired. Under such conditions, wings are encouraged to continue to fly cadets, even if no reimbursements are available. National headquarters will keep the wings informed if such a rare potential is close to developing.

The fax number for national headquarters orientation flight processing is **334.953.6699** (DSN 493.6699). No cover page is necessary. The address to use is:

**NHQ CAP/CPF  
105 South Hansell Street  
Maxwell AFB AL 36112-6332.**

If you notice an error after the CAPF 7 or CAPF 7T have been submitted to national headquarters for processing, the wing representative can call national headquarters and talk with the person who handles the orientation flight reimbursements (currently NHQ CAP/CPA, 334.953.5315).

## Glider Flights

*The correct term is sailplane, but we will use the common term “glider” throughout this guide.*

**G**lider flight operations are relatively new to CAP’s Cadet Orientation Flight Program. Because of its overwhelming initial success, the program provides for the reimbursement of up to five glider syllabus rides in addition to the usual reimbursement of five powered syllabus rides. Civil Air Patrol has recently expanded the number of corporate owned gliders to help accommodate this great interest in general aviation. National headquarters will reimburse for both the glider and the tow plane, and the reasonable ferrying costs, at the published CAPR 173-3 rates.

If ground launched, launch as necessary to provide at least 80% of the syllabus objectives. Thermal as necessary to provide at least 80% of the syllabus objectives. Gliders will not be thermalled below 1500 feet AGL.

Cadets may, at the glider orientation pilot’s discretion, operate the controls at any time after the orientation pilot has successfully demonstrated the procedures.



## GLIDER FLIGHT ONE

### ***Ground handling, preflight inspection, takeoff and landing***

#### **Syllabus # 1**

*Estimated time: 1 sortie.*

##### 1. Ground handling.

Demonstrate the proper way to ground handle the glider. Emphasize surface areas of the glider that should not be touched during ground handling.

##### 2. Preflight inspection.

a. Using the appropriate checklist, demonstrate a routine preflight inspection of the launch equipment and glider (*Aerospace Dimensions*, Module 1, "Introduction to Flight," Page 25).

b. Explain the towrope or cable requirements and the use of proper tow rings.

c. Discuss the required documents that must be on board the glider. (AROW)

d. During the glider preflight inspection point out specific parts of the glider and their function.

##### 3. Launch procedures (Explain the launch procedure).

###### a. Aero tow:

(1) Explain the duties and purpose of ground launch personnel.

(2) Discuss aero tow launch signals.

###### b. Ground launch:

(1) Explain the duties and purpose of the ground launch personnel.

(2) Discuss ground launch signals.

##### 4. Before takeoff:

a. Using the checklist, show cadets the routine cockpit checks prior to takeoff.

Refer to *Aerospace Dimensions* module 1: Introduction to Flight.



b. Explain the sequence of events prior to takeoff (Example: Tow hook connection and checks, taking up tow line slack, *etc.*).

5. Takeoff:

a. Discuss and demonstrate glider position behind the tow plane during takeoff roll and when airborne (aero tow).

b. Discuss and demonstrate glider position during takeoff roll and initial climb during ground launch as applicable.

c. Describe emergency actions to be taken at different altitudes as discussed during accomplishment of the before takeoff checklist (aero tow and ground launch).

6. Climb out (Point out the position of the glider in relation to the tow plane or ground launch vehicle):

a. Describe the high tow position during aero tow.

b. Discuss glider pitch attitude and position during ground launch.

7. Release. Discuss and demonstrate the release to include clearing, release confirmation, and release procedures (Aero tow and ground launch).

8. In flight:

a. Discuss and demonstrate the use of flight controls in gliding flight to include drag devices.

b. Point out the attitude of the glider in relation to the horizon and different airspeeds.

c. Discuss and demonstrate performance airspeeds such as best lift over drag and minimum sink airspeeds.

d. Point out familiar landmarks, prominent ground features, and the position of the airport with respect to glider altitude and position.

9. Approach to landing:

a. Explain and demonstrate the approach to the traffic pattern. Explain the reasons for a standardized entry procedure and perform the before landing check.

b. Explain and demonstrate the use of a crab to maintain downwind position (if appropriate to the conditions).

c. Discuss and demonstrate the base turn and leg of the traffic pattern.

d. Discuss and demonstrate the final approach, explaining the aim point, touch down point, stop point and the use of drag devices to adjust the angle of approach while maintaining the appropriate airspeed.

10. Landing and rollout:

a. Explain and demonstrate the landing attitude.

b. Point out the correct procedure for landing rollout.

11. Post flight: Answer questions pertaining to the flight and stress safety.

## GLIDER FLIGHT TWO

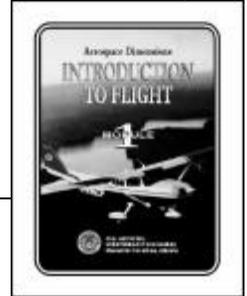
### *Normal glider flight maneuvers*

#### **Syllabus # 2**

*Estimated time: 1 sortie.*

1. Preflight. Discuss previously completed syllabus flights as appropriate.
2. In flight. The glider orientation pilot will perform the following maneuvers at a minimum altitude of 1,500 feet AGL:
  - a. After trimming for level flight, point out the stability of the glider in hands off flight.
  - b. Emphasize attitude flying.
  - c. Emphasize the importance of clearing.
  - d. Discuss the effects of lift, drag, and gravity on the glider (Gravity propels the glider).
  - e. Discuss the relationship of lift, angle of attack, and relative wind.
  - f. Demonstrate straight and turning glides at various airspeeds: minimum sink, best lift over drag, and pattern speed.
  - g. Demonstrate a shallow banked turn and discuss the horizontal component of lift, adverse yaw, turn coordination, slipping and skidding.
  - h. Explain load factor during turns.
3. Post flight. Answer questions pertaining to the flight and stress safety.

Refer to *Aerospace Dimensions* module 1: Introduction to Flight.



## GLIDER FLIGHT THREE

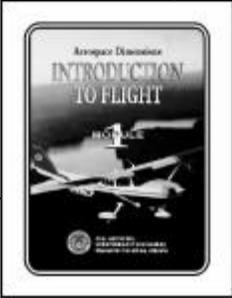
### *Advanced glider flight maneuvers*

#### **Syllabus # 3**

*Estimated time: 1 sortie.*

1. Preflight. Discuss previously completed syllabus flights as appropriate.
2. In flight. The orientation pilot will perform the following maneuvers at a minimum altitude of 1,500 feet AGL:
  - a. Perform clearing turns emphasizing collision avoidance.
  - b. Demonstrate slow flight during straight and turning descents.
  - c. Demonstrate straight ahead and turning stalls as appropriate, emphasizing stall recognition and recovery.
  - d. Demonstrate medium and steep bank turns as appropriate and discuss over banking tendency, proper rudder coordination, and aft control stick requirements to keep the nose up.
  - e. Explain load factor during turns.
  - f. Discuss steep spirals and spins. Emphasize the difference and the dangers of excessive load factors in steep spirals.
  - g. Demonstrate forward and side slips and discuss their purpose.
3. Post flight. Answer questions pertaining to the flight and stress safety.

Refer to *Aerospace Dimensions* module 1: Introduction to Flight.



## GLIDER FLIGHT FOUR

### *Use of instruments in soaring flight*

#### **Syllabus # 4**

*Estimated time: 1 sortie.*

##### 1. Preflight:

- a. Discuss previously completed syllabus flights as appropriate.
- b. Explain the pitot/static system and its relationship to the airspeed indicator, altimeter, and variometer. Explain the magnetic compass and its inherent errors.

##### 2. In flight:

- a. Explain the difference between absolute altitude (AGL), true altitude (MSL), and pressure altitude (PA).
- b. Demonstrate how to read the altimeter.
- c. Demonstrate how to read the airspeed indicator and discuss the difference between indicated airspeed, true airspeed and ground speed.
- d. Point out how attitude and airspeed are related.
- e. Demonstrate how to read the variometer and discuss the indications of rising and/or falling thermal activity (air currents).
- f. Demonstrate turns using the magnetic compass. Discuss compass turning errors: variation, deviation, magnetic dip, and oscillation error.

##### 3. Post flight. Answer questions pertaining to the flight and stress safety.

Refer to *Aerospace Dimensions* module 2: Aircraft Systems & Airports.



## GLIDER FLIGHT FIVE

### *Soaring weather flight*

#### **Syllabus # 5**

*Estimated time: 1 sortie.*

##### 1. Preflight:

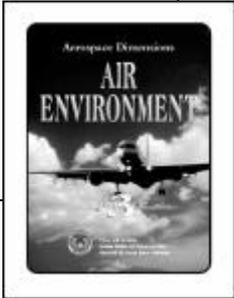
- a. Discuss previously completed syllabus flights as appropriate.
- b. Discuss the effect of high-density altitude on tow plane and glider performance.
- c. Discuss thermal soaring; the effect of heating, thermal structure, locating thermals (cumulus clouds, dust devils, surface dust and smoke, soaring birds, other sailplanes, etc.)
- d. Discuss ridge and slope soaring as appropriate; Wind effects and requirements, soaring in upslope lift, leeside turbulence, slope and ridge requirements.
- e. Discuss sea breeze soaring as appropriate.
- f. Discuss mountain wave soaring as appropriate: Formation, visual indications, and associated turbulence.

##### 2. In flight:

- a. Demonstrate thermal soaring as appropriate. Discuss thermal entry, when to and how to turn into the thermal, thermalling with other sailplanes, best airspeed thermalling airspeed, and flying between thermals.
- b. Demonstrate sea breeze or shear line soaring as appropriate.
- c. Demonstrate ridge or slope soaring as appropriate. Emphasize best speed to fly, general rules for making turns on the ridge, approaching other sailplanes, and other “rules of the road” as appropriate.
- d. Demonstrate wave soaring as appropriate. Explain wave structure, wave crests, and rotor. Point out lenticular clouds if available.

##### 3. Post flight. Answer questions pertaining to the flight and stress safety.

Refer to *Aerospace Dimensions* module 3: Air Environment.



## Powered Flights

*Each year, over 6,000 CAP powered orientation flights are flown.*

Powered flight operations have been a part of CAP's Cadet Orientation Flight Program since its inception. Because of its continued success, the program will provide for the reimbursement of up to five powered syllabus rides in addition to the reimbursement of the five glider syllabus rides mentioned in Section Two. National headquarters will provide reimbursement for the aircraft and its reasonable ferrying costs at the published CAPR 173-3 rates.

Cadets may, at the orientation pilot's discretion, operate the controls at any time after the orientation pilot has successfully demonstrated the procedures.



## POWERED FLIGHT ONE

### ***Ground handling, preflight inspection, takeoff and landing***

#### **Syllabus # 6**

*Estimated time: 0.7 hour.*

##### 1. Ground handling.

Demonstrate the proper way to ground handle the airplane. Emphasize surface areas of the airplane that should not be touched during ground handling.

##### 2. Preflight inspection.

- a. Using the appropriate checklist, demonstrate a routine preflight inspection of the airplane (*Aerospace Dimensions*, Module 1, "Introduction to Flight," Page 25).
- b. Discuss the required documents that must be on board the airplane.
- c. During the airplane preflight inspection, point out specific parts of the airplane and identify its function.

##### 3. Before takeoff:

- a. Using the checklist, show cadets the routine cockpit checks prior to takeoff.
- b. Explain the sequence of events prior to takeoff.

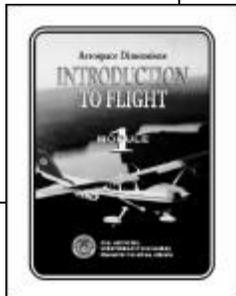
##### 4. Takeoff:

- a. Discuss airplane position during takeoff roll and initial climb and demonstrate rudder controls.
- b. Describe emergency actions to be taken at different altitudes as discussed during accomplishment of the before takeoff checklist.

##### 5. In flight (at least 2,500 feet AGL):

- a. Discuss the use of flight controls in flight.
- b. Point out the attitude of the airplane in relation to the horizon and different airspeeds.

Refer to *Aerospace Dimensions* module 1: Introduction to Flight.



c. Point out familiar landmarks, prominent ground features, and the position of the airport with respect to airplane's altitude and position.

6. Approach to landing:

a. Explain the approach to the traffic pattern. Explain the reasons for a standardized entry procedure and perform the before landing check.

b. Discuss the elements of the traffic pattern.

c. Discuss the final approach and the importance of maintaining the appropriate airspeed.

7. Landing and rollout:

a. Explain the landing attitude.

b. Point out the correct procedure for landing rollout.

8. Post flight: Answer questions pertaining to the flight and stress safety.

## POWERED FLIGHT TWO

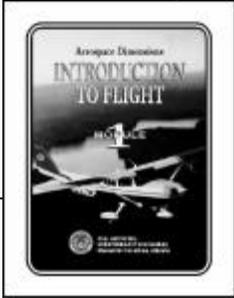
### *Normal flight maneuvers*

#### **Syllabus # 7**

*Estimated time: 1.0 hour.*

1. Preflight. Discuss previously completed syllabus flights as appropriate.
2. In flight. The orientation pilot will perform the following maneuvers at a minimum altitude of 2,500 feet AGL:
  - a. After trimming for level flight, point out the stability of the airplane in hands off flight.
  - b. Emphasize attitude flying.
  - c. Demonstrate use of trim controls and straight flying to a checkpoint using visual references.
  - d. Discuss the effects of lift, drag, and gravity on the airplane.
  - e. Discuss the relationship of lift, angle of attack, and relative wind.
  - f. Demonstrate a shallow banked turn and point out how the airplane will maintain the turn with controls neutral.
  - g. Explain load factor during turns.
3. Post flight. Answer questions pertaining to the flight and stress safety.

Refer to *Aerospace Dimensions* module 1: Introduction to Flight.



## POWERED FLIGHT THREE

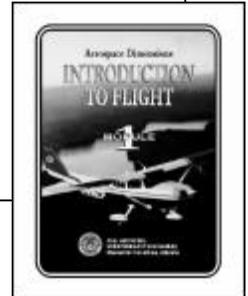
### *Advanced powered flight maneuvers*

#### **Syllabus # 8**

*Estimated time: 1.0 hour.*

1. Preflight. Discuss previously completed syllabus flights as appropriate.
2. In flight. The orientation pilot will perform the following maneuvers at a minimum altitude of 2,500 feet AGL:
  - a. Perform climbing turns emphasizing collision avoidance.
  - b. Demonstrate slow flight (minimum controllable airspeed (MCA)).
  - c. Demonstrate straight ahead and turning stalls as appropriate, emphasizing stall recognition and recovery. All stalls are imminent stalls (first aerodynamic indication of an oncoming stall, which is usually the stall warning alarm). Back seat passengers are not allowed during stall demonstrations.
  - d. Demonstrate medium and steep bank turns as appropriate and discuss proper rudder coordination and control stick requirements to keep the nose up.
  - e. Explain load factor during turns.
  - f. Discuss steep spirals and spins. Emphasize the difference and the dangers of excessive load factors in steep spirals.
  - g. Demonstrate ground reference maneuvers used in search activities (parallel track, S-turns, expanding square).
3. Post flight. Answer questions pertaining to the flight and stress safety.

Refer to *Aerospace Dimensions* module 1: Introduction to Flight.



## POWERED FLIGHT FOUR

### *Use of instruments in flight*

#### **Syllabus # 9**

*Estimated time: 0.7 hour.*

##### 1. Preflight:

- a. Discuss previously completed syllabus flights as appropriate.
- b. Explain the use of basic navigation instruments (clock, altimeter, airspeed indicator and magnetic compass). Explain the inherent errors of the magnetic compass.
- c. Explain the pitot/static system and its relationship to the airspeed indicator, altimeter, and vertical velocity indicator.
- d. Discuss the importance of flight plans and demonstrate filing a flight plan.

##### 2. In flight:

- a. Explain the difference between absolute altitude (AGL), true altitude (MSL), and pressure altitude (PA).
- b. Demonstrate how to read the altimeter.
- c. Demonstrate how to read the airspeed indicator and discuss the difference between indicated airspeed, true airspeed and ground speed.
- d. Point out how attitude and airspeed are related.
- e. Demonstrate how shallow climbs and descents affect the vertical velocity indicator and the airspeed indicator.
- f. Demonstrate turns using the magnetic compass. Discuss compass turning errors: variation, deviation, magnetic dip, and oscillation error.

##### 3. Post flight. Answer questions pertaining to the flight and stress safety.

Refer to *Aerospace Dimensions* module 2: Aircraft Systems & Airports.



## POWERED FLIGHT FIVE

### *Weather flight*

### **Syllabus # 10**

*Estimated time: 0.7 hour.*

#### 1. Preflight:

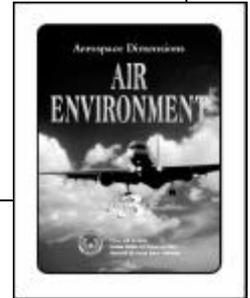
- a. Discuss previously completed syllabus flights as appropriate.
- b. Identify cloud types and explain their affect upon flight.
- c. Discuss how terrain affects air stability.
- d. Demonstrate preflight weather briefing and its importance.

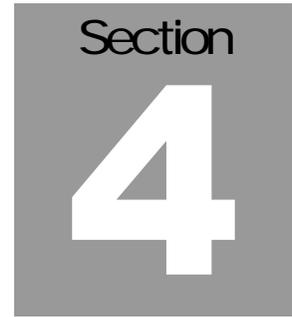
#### 2. In flight:

- a. Demonstrate effects that weather have upon flying.
- b. Demonstrate the crab method (forward slip) to compensate for wind.
- c. Discuss wake turbulence avoidance.
- d. Demonstrate temperature differences at a few altitudes and how altitude affects rate of climb.

#### 3. Post flight. Answer questions pertaining to the flight and stress safety.

Refer to *Aerospace Dimensions* module 3: Air Environment.





## Attachments

*Attachments are the glue that holds the processes together.*

**T**hese attachments are important! They will be needed to begin and complete the orientation flight and the reimbursement processes. Make as many copies of these pages as you need.

Attachment 1: Glider Sign-Off

Attachment 2: Powered Sign-Off

Attachment 3: First Flight Certificate

Attachment 4: Flight Management System

Attachment 5: Sample CAPF 7 (Powered and Glider)

Attachment 6: Sample CAPF 7T

Attachment 7: Justification Matrix

ATTACHMENT 1

**Glider flight sign-off sheet**

This information will help complete the CAPF 7 or CAPF 7T, or the on-line Flight Management System. Do not send this page to national headquarters. Keep a copy of this page in the cadet's CAPF 66, *Cadet Master Record*. Record incomplete or back seat rides in the "Other Information" area below.

**Cadet's Name:**

**CAPID:**

Syllabus #	Date Flown	Flight Release Number	Pilot's CAPID	Pilot's Signature
1				
2				
3				
4				
5				

Other glider flight information:



ATTACHMENT 2

**Powered flight sign-off sheet**

This information will help complete the CAPF 7 or CAPF 7T, or the on-line Flight Management System. Do not send this page to national headquarters. Keep a copy of this page in the cadet's CAPF 66, *Cadet Master Record*. Record incomplete or back seat rides in the "Other Information" area below.

**Cadet's Name:**

**CAPID:**

Syllabus #	Date Flown	Flight Release Number	Pilot's CAPID	Pilot's Signature
6				
7				
8				
9				
10				

Other powered flight information:



ATTACHMENT 3

**Sample *Certificate of First flight* (CAPC 77)**

This certificate is available through the normal distribution process and is also available on-line at <http://www.capnhq.gov> (click the Cadet Programs graphic, then click the “Downloads Page” link). You can also use the blank certificate found at the end of this pamphlet.

Our thanks to Lt Col Matt Sharkey, CAP, FL Wing CS, for creating the original certificate.

# Civil Air Patrol

*United States Air Force Auxiliary*

## Certificate of First Flight

This is to certify that



has completed their first Cadet Orientation Flight with the Civil Air Patrol.

Date

Pilot

Squadron Commander

CAPC 77

## ATTACHMENT 4

### **The Flight Management System**

National headquarters has developed the Flight Management System (FMS), a series of application modules for CAP flight management with the initial release expected during fiscal year 2002. This robust system supports enterprise-wide mission and administrative needs and is not an automation of CAP's old processes.

Rather, the national data collection, analysis and reporting tools will assist in providing you with the availability of on-line information and transaction processing.

The initial FMS includes pilot qualifications and certifications modules (like FAA, CAP, Emergency Services, and currency). Also, flight release and flight data collection modules are part of this system. Individuals may access the Flight Management System on-line. Expect to see additional development of the FMS as national headquarters introduces new modules or revises any of the current modules to better meet your needs.

Part of the FMS is the new automated flight release module. When authorized, individuals will be able to receive a flight release simply by logging on-line.

The FMS will enable "anytime, anywhere" reports available online or in print as snapshots of individual or group information for use by commanders, Flight Release Officer's, Incident Commanders, *etc.*

By utilizing the FMS, there will be more accurate, timely and readily available information with less time and less work spent on administrative tasks.

Details about the FMS are available on-line at <http://www.capnhq.gov> or through your wing headquarters.



ATTACHMENT 5 (Sample CAPF 7 - Gliders)

INSTRUCTIONS ON THE BACK

**CAPF 7 Cadet Orientation Flight Consolidation Report**

CAPF 7, SEP 01 PREVIOUS EDITIONS WILL NOT BE USED AFTER 30 NOV 01  
OPR/Routing: CPC

**Section I**

Flight Release Number: 01A70935  
 Aircraft Tail Number: N23456  
 Pilot CAPID: 789012  
 Total Gas Receipts: \$

Flight Date (MM/DD/YY): 07/03/01  
 Total Ferry Time: 2.3  
 Total Flight Time: 4.6

Owner:  Corporate  Military  
 Mbr Furnished  Other  
 Aircraft Type:  Glider  CAP  NonCAP  
 Powered  Other  
 Tow Type:  CAP  Ground

**Section II**

Charter (Wing-Unit)	CAPID	Cadet's Last Name	FI	Flight Time	Altitude #
AL123	445566	SMITH	Z	0.6	17
AL032	556677	MONTGOMERY	J	1.2	22
AL032	667788	SALVADOR	J	0.5	08
					50

**Section III**

Reimburse to:  AL  or  or

Charter (Wing-Unit):  Individual CAPID:  Event/Vendor:

(Optional) Wing Reimbursement Criteria (Select One):

**Section IV**

Persons Completing & Approving This Form: (By signing this form, you attest that the information presented is true & accurate)

FI MI Last Name: RB SMITH  
 Phone Number: (334) 953-5309  
 Date Signed (MM/DD/YY): 07/13/01

Person Completing Form Signature: *[Signature]*

**Section V**

FI MI Last Name: KE KATCHKA  
 Phone Number: (334) 953-5315  
 Date Signed (MM/DD/YY): 07/23/01

Wing Approving Signature: *[Signature]*

Person Completing Form Signature: *[Signature]*  
 Date Signed (MM/DD/YY): 07/13/01  
 CAPID: 171844

Person Completing Form Signature: *[Signature]*  
 Date Signed (MM/DD/YY): 07/23/01  
 CAPID: 234956

## ATTACHMENT 5 (Instructions)

**CAPF 7 Instructions**

PRINT all information in CAPITAL letters. You can make copies of this form. Use a new CAPF 7 anytime you change flight release numbers, pilots, dates or aircraft. You must send this form to your wing headquarters for approval. The wing will mail or fax this form to national headquarters. Do not fax a copy and mail the same copy later. Orientation flights submitted to national headquarters after **90 days** of the flight date are not reimbursed.

**Section 1 –**

**Flight Release Number:** This number is automatically generated using the Flight Management System or your wing will assign a number (see CAPR 60-1, *CAP Flight Management*).

**Aircraft Tail Number:** Enter the tail number. Fill in the number from left to right, but do not overwrite the letter N (unless your tail number starts with a different letter, then you can write the correct letter on top of the pre-filled “N”). It is ok to have trailing blanks if your aircraft’s tail number is less than six digits long.

**173-3 type:** Enter the aircraft type as found in CAPR 173-3. For example, C175 are Type 2, so you would enter the numeral “2” in this field.

**Flight Date:** Enter the date using the MM/DD/YY format.

**Total Glider Flights:** Applies to glider flights only. Enter the total number of sorties only for the cadets listed on this particular form. Do not add sorties from other forms in this total. Leave this field blank if the aircraft type is not a glider.

**Pilot CAPID:** Enter the CAP ID of the pilot (the left-most box is reserved for future use).

**Total Gas Receipts:** Enter the total amount of fuel and oil receipts. A copy of the original gas receipts will need to be attached to the CAPF 7 and kept on file at wing headquarters.

**Total Ferry Time:** Enter the total ferrying time for this aircraft to get to and from the orientation flights. You can request the aircraft’s total ferrying time only once and only here. The intent is to reimburse you for the reasonable costs of moving the aircraft to and from the orientation flight site. Leave this field blank if the aircraft’s ferrying time is already requested on another CAPF 7 or if a commercial aircraft. You are allowed to perform orientation flights while ferrying aircraft.

- *Example One:* Most of the time, a pilot will fly an aircraft from a home base, fly the orientation flights and then return home. If you need another CAPF 7 to

complete the day's flying, simply enter the total ferrying time on the last CAPF 7 that you submit.

- *Example Two:* Sometimes, a pilot will fly an aircraft to a location, like an encampment, where the aircraft will stay for the entire week. Simply enter the total ferrying time on the last CAPF 7 that you submit.

- *Example Three:* If a cadet gets an orientation flight while the pilot is ferrying the aircraft, then this flight would be included in Section Two. Leave the *Total Ferry Time* field blank in this case. Do not seek reimbursement for ferrying time if a cadet gets a concurrent orientation flight.

**Total Flight Time:** Enter the total flight time for all of the flights and ferrying time for the particular *Flight Release Number*. Leave this field blank if you have already reported the total flight time for the particular *Flight Release Number*.

**Check Boxes:** Check off all of the boxes that apply.

## Section 2 –

**Charter (Wing-Unit):** Enter your charter number, like “KY-123.” Leave the left-most box blank unless your charter number begins with an identifier that is three letters long, like “NER-001.”

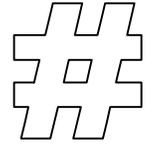
**CAPID:** Enter the cadet's CAP ID number, not the Social Security Number. This is a six-digit number found on the cadet's membership card (the left-most box is reserved for future use). National headquarters will return any CAPF 7 where the CAPID is blank, inaccurate or unreadable.

**Cadet's Last Name & FI:** Enter the cadet's last name and First Initial (FI), working from the left-most box to the right. If the name is longer than the space allowed, simply stop when you run out of room. Use the name found on the cadet's membership card, not the cadet's nickname.

**Flight Time:** Enter the flight time required by CAPR 173-3. Round the number to the nearest tenths.

**Altitude:** Enter the altitude in hundreds of feet, rounded to the nearest hundred, using standard abbreviations. For example, 1400 feet would be abbreviated “14,” 0800 feet would be abbreviated “08,” and 2750 would be abbreviated “28.” Fill out an altitude for each sortie on this form. For glider flights, record the release altitude. For powered flights, enter the flight level where the majority of the orientation takes place.

**#:** This is the *Syllabus Number* field. Use the syllabus number found in this syllabus. Leave the left-most box blank unless the syllabus number is two digits long. For incomplete orientation flights, enter the code “50.” For orientation flights not seeking reimbursement, enter the code “75.” For cadets flying back seat, enter the code “99.”



**Section 3 –**

**Reimburse to:** All reimbursements will be sent to the wing indicated in this field for further handling. Enter your wing as the standard postal state code (“UT” for Utah Wing, “DC” For NATCAP Wing, *etc.*). Leave the left-most box blank unless your charter begins with an identifier that is three letters long, like “PCR” or “SWR.”

**Optional – Wing Reimbursement Criteria:** While all reimbursements will go to the wing identified on this form, we will include in our report to the wing any information that you enter here. You can leave any of these fields blank if you desire. Most of the time, you would only need to enter information in one field.

**Section 4 –**

**Person Completing this Form:** Print all information and sign in the field indicated. Enter the telephone number where you can be reached in case national headquarters has a question about the CAPF 7. By signing this form, you attest that the information presented is true & accurate. National headquarters will return any CAPF 7 where the CAPID is blank, inaccurate or unreadable.

**Section 5 –**

**Wing Approval:** This area is reserved for the person(s) at the wing authorized to approve this CAPF 7. For regional or national level events, like multi-wing encampments where orientation flights take place, the approving authority is the host wing. Print all information and sign in the field indicated. Enter the telephone number where you can be reached in case national headquarters has a question about the CAPF 7. By signing this form, you attest that the information presented is true and accurate. National headquarters will return any CAPF 7 where the CAPID is blank, inaccurate or unreadable.

Correcting entries: If you notice an error after the form has been submitted to national headquarters for processing, the wing representative can call national headquarters and talk with the person who handles the orientation flight reimbursements (currently NHQ CAP/CPA, 334.953.5315).

ATTACHMENT 6 (Sample CAPF 7T)

**CAPF 7T**
**Tow Flight Consolidation Report**
INSTRUCTIONS ON THE BACK

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Section I

Flight 173-3

Release Number: 01A40937      Tow Plane Tail Number: N268RP      Type: 2      Flight Date (MM/DD/YY): 07/03/01

Total Glider Flights: 3      Pilot CAPID: 111843      Total Gas Receipts: \$ 34.88      Total Ferry Time: 2.3      Total Flight Time: 5.5

Owner:  Corporate     Mbr Furnished     Military     Commercial

Aircraft Type:  Powered     Glider     Other

Tow Type:  CAP     NonCAP     Ground

---

Section II

Sortie	Glider Tail Number:	Flight Time	Altitude
Sortie 1	N <span style="border: 1px solid black; padding: 2px;">23456</span>	<span style="border: 1px solid black; padding: 2px;">0.6</span>	<span style="border: 1px solid black; padding: 2px;">17</span>
Sortie 2	N <span style="border: 1px solid black; padding: 2px;">34567</span>	<span style="border: 1px solid black; padding: 2px;">1.3</span>	<span style="border: 1px solid black; padding: 2px;">23</span>
Sortie 3	N <span style="border: 1px solid black; padding: 2px;">45678</span>	<span style="border: 1px solid black; padding: 2px;">1.3</span>	<span style="border: 1px solid black; padding: 2px;">26</span>
Sortie 4	N		
Sortie 5	N		
Sortie 6	N		
Sortie 7	N		
Sortie 8	N		

---

Section III

Reimburse to: AL  
Wing

(Optional) Wing Reimbursement Criteria (Select One):

Charter (Wing-Unit)      or       Individual CAPID: 714843

Event/Vendor:

---

Section IV

Persons Completing/Approving This Form: (By signing this form, you attest that the information presented is true & accurate)

RBSMITH      07/05/01  
FI MI Last Name      Date Signed (MM/DD/YY)

171844  
Person Completing Form Signature      CAPID

Phone Number: (334) 953-5309

---

Section V

KEKATCHKA      07/15/01  
FI MI Last Name      Date Signed (MM/DD/YY)

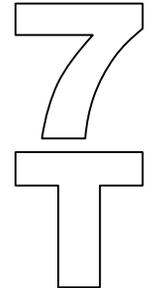
234956  
Wing Approving Signature      CAPID

## ATTACHMENT 6 (Instructions)

### CAPF 7T Instructions

PRINT all information in CAPITAL letters. You can make copies of this form. Use a new CAPF 7T anytime you change flight release numbers, pilots, dates or aircraft. You must send this form to your wing headquarters for approval. The wing will mail or fax this form to national headquarters. Do not fax a copy and mail the same copy later. Orientation flights submitted to national headquarters after **90 days** of the flight date are not reimbursed.

*Reminder:* This form is only for the glider tow. For cadets to receive credit for their glider orientation flight(s), a CAPF 7 will need to be completed as well.



#### Section 1 –

**Flight Release Number:** This number is automatically generated using the Flight Management System or your wing will assign a number (see CAPR 60-1, *CAP Flight Management*).

**Tow Plane Tail Number:** Enter the tail number. Fill in the number from left to right, but do not overwrite the letter N (unless your tail number starts with a different letter, then you can write the correct letter on top of the pre-filled “N”). It is ok to have trailing blanks if your aircraft’s tail number is less than six digits long.

**173-3 type:** Enter the aircraft type as found in CAPR 173-3. For example, C175 aircraft are Type 2, so you would enter the numeral “2” in this field. If ground tow, leave this field blank.

**Flight Date:** Enter the date using the MM/DD/YY format.

**Total Glider Flights:** Enter the total number of tows on this particular form. Do not add sorties from other forms in this total.

**Pilot CAPID:** Enter the CAP ID of the pilot (the left-most box is reserved for future use). Leave blank if a commercial operator.

**Total Gas Receipts:** Enter the total amount of fuel and oil receipts. A copy of the original gas receipts will need to be attached to the CAPF 7T and kept on file at wing headquarters.

**Total Ferry Time:** Enter the total ferrying time for this aircraft to get to and from the orientation flights. You can request the aircraft’s total ferrying time only once and only here. The intent is to reimburse you for the reasonable costs of moving the aircraft to and from the orientation flight site. Leave this field blank if the aircraft’s ferrying time is already requested on another CAPF 7, CAPF 7T, or if a

commercial aircraft. Cadets are not allowed to accomplish orientation flights in a tow aircraft if the tow aircraft is towing. However, cadets are permitted to accomplish orientation flights in tow aircraft if the tow aircraft is not towing.

- *Example:* When a tow plane is not being used for towing, it can be used for orientation flights. Under these circumstances, the flight would be included in the CAPF 7, not this form. Since you are using the ferrying time as an orientation flight, leave the ferrying time field blank.

**Total Flight Time:** Enter the total flight time for all of the flights and ferrying time for the particular *Flight Release Number*. Leave this field blank if you have already reported the total flight time for the particular *Flight Release Number*.

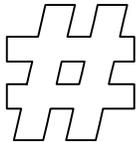
**Check Boxes:** Check off all of the boxes that apply.

## Section 2 –

**Glider Tail Number:** Enter the tail number of the glider for each sortie flown (if more than eight, simply use another form).

**Flight Time:** Enter the flight time required by CAPR 173-3. Round the number to the nearest tenths.

**Altitude:** Enter the altitude in hundreds of feet, rounded to the nearest hundred, using standard abbreviations. For example, 1400 feet would be abbreviated “14,” 0800 feet would be abbreviated “08,” and 2750 would be abbreviated “28.” Fill out an altitude for each sortie on this form. For glider flights, record the release altitude.



**#:** This is the *Syllabus Number* field. Use the syllabus number found in CAPP 52-7, *Cadet Orientation Flight Syllabus*. Leave the left-most box blank unless the syllabus number is two digits long. For incomplete orientation flights, enter the code “50.” For orientation flights not seeking reimbursement, enter the code “75.” For cadets flying back seat, enter the code “99.”

## Section 3 –

**Reimburse to:** All reimbursements will be sent to the wing indicated in this field for further handling. Enter your wing as the standard postal state code (“UT” for Utah Wing, “DC” For NATCAP Wing, *etc.*). Leave the left-most box blank unless your charter begins with an identifier that is three letters long, like “PCR” or “SWR.”

**Optional – Wing Reimbursement Criteria:** While all reimbursements will go to the wing identified on this form, we will include in our report to the wing any information that you enter here. You can leave any of these fields blank if you desire. Most of the time, you would only need to enter information in one field.

**Section 4 –**

**Person Completing this Form:** Print all information and sign in the field indicated. Enter the telephone number where you can be reached in case national headquarters has a question about the CAPF 7T. By signing this form, you attest that the information presented is true & accurate. National headquarters will return any CAPF 7T where the CAPID is blank, inaccurate or unreadable.

**Section 5 –**

**Wing Approval:** This area is reserved for the person(s) at the wing authorized to approve this CAPF 7T. For regional or national level events, like multi-wing encampments where orientation flights take place, the approving authority is the host wing. Print all information and sign in the field indicated. Enter the telephone number where you can be reached in case national headquarters has a question about the CAPF 7T. By signing this form, you attest that the information presented is true and accurate. National headquarters will return any CAPF 7T where the CAPID is blank, inaccurate or unreadable.

Correcting entries: If you notice an error after the form has been submitted to national headquarters for processing, the wing representative can call national headquarters and talk with the person who handles the orientation flight reimbursements (currently NHQ CAP/CPA, 334.953.5315).

ATTACHMENT 7

**Sample Justification Matrix**

Wings are encouraged to develop a Justification Matrix, like the sample below, to indicate the number of orientation flights required at the destination airport for a ferry flight.

Our thanks to Lt Col Bob Beabout, CAP, CO Wing DO, for developing this sample matrix.

The following chart is a *sample* only:

Colorado Wing CAP		Ferry aircraft to:																	
		APA	BJC	FTG	FNL	3V5	7V5	COS	PUB	MTJ	GJT	DRO	CEZ	SBS	7V1	GXY	1V6	CAG	
Ferry aircraft from:	APA (Centennial)		4	4	4	4	4	4	6	A	A	A	A	8	6	6	6	8	
	BJC (Jefferson County)	4		4	4	4	4	4	6	A	A	A	A	8	6	6	6	8	
	FTG (Front Range)	4	4		4	4	4	4	6	A	A	A	A	8	8	6	6	8	
	FNL (Ft Collin - Love)	4	4	4		4	4	6	8	A	A	A	A	8	8	4	8	8	
	3V5 (Ft Collin - DT)	4	4	4	4		4	6	8	A	A	A	A	8	8	4	8	8	
	7V5 (Brush)	4	4	4	4	4		6	8	A	A	A	A	8	8	4	8	8	
	COS (Colorado Springs)	4	4	6	6	6	6		4	A	A	A	A	A	6	6	4	A	
	PUB (Pueblo)	6	6	6	6	6	6	4		A	A	A	A	A	8	8	6	A	
	MTJ (Montrose)	A	A	A	A	A	A	A	A		4	6	6	6	6	6	A	8	8
	GJT (Grand Junction)	A	A	A	A	A	A	A	A	4		8	6	8	6	A	8	6	
	DRO (Durango)	A	A	A	A	A	A	A	A	6	8		4	8	8	A	6	8	
	CEZ (Cortez)	A	A	A	A	A	A	A	A	6	8	4		8	8	A	8	8	
	SBS (Steamboat)	8	8	8	8	8	6	8	8	6	8	8	8		A	6	A	6	
	7V1 (Buena Vista)	6	6	6	6	6	8	6	8	6	A	8	A	A		A	4	A	
	GXY (Greenley)	4	4	6	4	4	4	6	8	A	A	A	A	6	A		8	6	
	1V6 (Fremont County)	6	6	6	6	6	8	4	6	8	8	8	A	A	6	8		A	
	CAG (Craig)	8	8	8	8	8	8	8	8	8	6	8	8	6	A	8	A		

A - Approval from the wing commander required.

# Civil Air Patrol

*United States Air Force Auxiliary*

## Certificate of First Flight

This is to certify that



has completed their first Cadet Orientation Flight with the Civil Air Patrol.

\_\_\_\_\_

Date

\_\_\_\_\_

Pilot

\_\_\_\_\_

Squadron Commander