



U.S. Department  
of Transportation

**Federal Aviation  
Administration**

**FAA-S-8081-23B**

**COMMERCIAL PILOT**

**Practical Test Standards for**

**Glider Category**

Draft. Not for public use.

**FLIGHT STANDARDS SERVICE**  
**Washington, DC 20591**

## **Foreword**

FAA-S-8081-23B, Commercial Pilot Practical Test Standards for Glider Category is published by the FAA to establish the standards for commercial pilot certification practical test for the glider category. FAA inspectors and designated examiners shall conduct practical tests in compliance with these standards. Instructors and applicants should find these standards helpful in practical test preparation.

FAA-S-8081-23B supersedes FAA-S-8081-23A, Commercial Pilot Practical Test Standards for Glider with changes 1 and 2, dated November 2006.

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## **Major Enhancements to Version FAA-S-8081-23B**

- Updated References throughout
- Changed “cockpit” to “flight deck” throughout
- Changed “Computer Test Report” to “AKTR” throughout
- Introduction:
  - Updated “General Information” section
  - Revised “PTS Description” section
  - Updated “Abbreviations/Acronyms” section
  - Revised “Use of the PTS” section

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# Introduction

## General Information

The FAA has developed the PTS for use by FAA inspectors and evaluators when conducting the practical test. Instructors should use this PTS when preparing applicants for practical tests. Applicants should be familiar with this PTS and refer to these standards during their training.

Throughout this PTS the following titles will be referred to as an evaluator: ASI, pilot examiner (other than administrative pilot examiners), TCE, chief instructor, assistant chief instructor, or check instructor of pilot school holding examining authority.

Information considered directive in nature is described in this PTS in terms such as “shall” and “must,” indicating the actions are mandatory. Guidance information is described in terms such as “should” and “may,” indicating the actions are desirable or permissive, but not mandatory.

This PTS is available for download, in PDF format, from [www.faa.gov](http://www.faa.gov). Comments regarding this PTS may be emailed to [AFS630comments@faa.gov](mailto:AFS630comments@faa.gov).

## PTS Concept

14 CFR part 61 specifies the subject areas in which knowledge and skill must be demonstrated by the applicant before the issuance of a certificate. The practical test standards contain the Areas of Operation and specific Tasks in which competency shall be demonstrated. The FAA will revise this PTS whenever it is determined that changes are needed in the interest of safety. Per 14 CFR part 61, section 61.43, adherence to the practical test standards is mandatory.

## PTS Description

The Commercial Pilot Practical Test Standards for Glider include the Areas of Operation and Tasks for the issuance of an initial Commercial Pilot Certificate and for the addition of category and/or class ratings to that certificate.

Areas of Operation are phases of the practical test arranged in a logical sequence within this standard. They begin with Preflight Preparation and end with Postflight Procedures. The evaluator may conduct the practical test in any sequence that will result in a complete and efficient test; **however, the ground portion of the practical test must be accomplished before the flight portion.**

TASKs are titles of knowledge areas, flight procedures, or maneuvers appropriate to an AREA OF OPERATION.

NOTE is used to emphasize special considerations required in the AREA OF OPERATION or TASK.

REFERENCE identifies the publication(s) that describe(s) the TASK. Descriptions of TASKs are not included in the standards because this information can be found in the current issue of the listed references. Publications other than those listed may be used for references if their content conveys substantially the same meaning as the referenced publications.

This PTS is based on the following references.

|                |                                                                               |
|----------------|-------------------------------------------------------------------------------|
| 14 CFR part 21 | Certification Procedures for Products and Articles                            |
| 14 CFR part 43 | Maintenance, Preventive Maintenance, Rebuilding, and Alteration               |
| 14 CFR part 61 | Certification: Pilots, Flight Instructors, and Ground Instructors             |
| 14 CFR part 91 | General Operating and Flight Rules                                            |
| AC 00-6        | Aviation Weather                                                              |
| AC 00-45       | Aviation Weather Services                                                     |
| AC 21.17-2     | Type Certification-Fixed Wing Gliders (Sailplanes), Including Powered Gliders |
| AC 60-22       | Aeronautical Decision Making                                                  |
| AC 61-65       | Certification: Pilots and Flight and Ground Instructors                       |
| AC 61-134      | General Aviation Controlled Flight into Terrain Awareness                     |
| AC 90-48       | Pilots' Role in Collision Avoidance                                           |
| AC 90-66       | Non-Towered Airport Flight Operations                                         |
| AC 120-51      | Crew Resource Management Training                                             |
| AIM            | Aeronautical Information Manual                                               |
| GFM            | Glider Flight Manual                                                          |
| POH            | Pilot's Operating Handbook                                                    |
| NOTAM          | Notice to Air Missions                                                        |
| FAA-H-8083-1   | Weight and Balance Handbook                                                   |
| FAA-H-8083-13  | Glider Flying Handbook                                                        |
| FAA-H-8083-25  | Pilot's Handbook of Aeronautical Knowledge                                    |

NOTE: Users should reference the current edition of the reference documents listed above. The current edition of all FAA publications can be found at: [www.faa.gov](http://www.faa.gov).

The Objective lists the important elements that must be satisfactorily performed to demonstrate competency in a TASK. The Objective includes:

1. specifically what the applicant must be able to do;
2. the conditions under which the TASK is to be performed; and
3. the acceptable standards of performance.

### Abbreviations/Acronyms

|        |                                             |
|--------|---------------------------------------------|
| 14 CFR | Title 14 of the Code of Federal Regulations |
| AC     | Advisory Circular                           |
| ADM    | Aeronautical Decision Making                |
| AELS   | Aviation English Language Standards         |
| AGL    | Above Ground Level                          |
| AKTR   | Airman Knowledge Test Report                |
| AMEL   | Airplane Multiengine Land                   |
| AMES   | Airplane Multiengine Sea                    |
| ASEL   | Airplane Single-Engine Land                 |
| ASES   | Airplane Single-Engine Sea                  |
| ASI    | Aviation Safety Inspector                   |
| ATC    | Air Traffic Control                         |
| CFIT   | Controlled Flight Into Terrain              |
| CRM    | Crew Resource Management                    |
| FAA    | Federal Aviation Administration             |
| FSO    | Flight Standards Office                     |
| GFM    | Glider Flight Manual                        |
| ID     | Identification                              |
| LAHSO  | Land and Hold Short Operation               |

|     |                               |
|-----|-------------------------------|
| NAS | National Airspace System      |
| PDF | Portable Document Format      |
| PL  | Powered-Lift                  |
| POH | Pilot's Operating Handbook    |
| PTS | Practical Test Standard       |
| RG  | Rotorcraft Gyroplane          |
| RH  | Rotorcraft Helicopter         |
| SOP | Standard Operating Procedures |
| SRM | Safety Risk Management        |
| SUA | Special Use Airspace          |
| TCE | Training Center Evaluator     |
| TFR | Temporary Flight Restriction  |
| VFR | Visual Flight Rules           |

## Use of the PTS

The PTS has been designed to evaluate competency in both knowledge and skill.

The FAA requires that all practical tests be conducted in accordance with the appropriate PTS. Applicants must be evaluated in all Tasks included in the Areas of Operation of the appropriate practical test standard unless otherwise noted.

An applicant who holds at least a Commercial Pilot Certificate seeking an additional category rating and/or class rating at the commercial pilot level will be evaluated in the Areas of Operation and Tasks listed in the Additional Rating Task Table. At the discretion of the evaluator, an evaluation of the applicant's competence in the remaining Areas of Operation and Tasks may be conducted.

If the applicant holds two or more category or class ratings at least at the private level, and the rating table indicates differing required Tasks, the "least restrictive" entry applies. For example, if "All" or "None" are indicated for one Area of Operation, the "None" entry applies. If "B" and "B, C" are indicated, the "B" entry applies.

In preparation for each practical test, the evaluator must develop a written "plan of action" for each practical test. The "plan of action" is a tool, for the sole use of the evaluator, to be used in evaluating the applicant. The plan of action need not be grammatically correct or in any formal format. The plan of action must contain all of the required Areas of Operations and Tasks and any optional Tasks selected by the evaluator. The "plan of action" must incorporate one or more scenarios that will be used during the practical test.

The evaluator should try to include as many of the Tasks into the scenario portion of the test as possible, but maintain the flexibility to change due to unexpected situations as they arise and still result in an efficient and valid test. **Any Task selected for evaluation during a practical test is to be evaluated in its entirety.**

The evaluator is not required to follow the precise order in which the Areas of Operations and Tasks appear in this PTS. The evaluator may change the sequence or combine Tasks with similar objectives to have an orderly and efficient flow of the practical test. The evaluator's "plan of action" should include the order and combination of Tasks to be demonstrated by the applicant in a manner that will result in an efficient and valid test.

The evaluator is expected to use good judgment in the performance of simulated emergency procedures. The use of the safest means for simulation is expected. Consideration must be given to local conditions (both meteorological and topographical) at the time of the test, as well as the applicant's workload, and the condition of the aircraft used. **If the procedure being evaluated would jeopardize safety, it is expected that the applicant will simulate that portion of the maneuver.**

### **Special Emphasis Areas**

Evaluators shall place special emphasis upon areas of aircraft operations considered critical to flight safety. Among these are:

1. positive aircraft control;
2. positive exchange of the flight controls procedure;
3. stall/spin awareness;
4. collision avoidance;
5. wake turbulence avoidance;
6. LAHSO;
7. runway incursion avoidance;
8. CFIT;
9. ADM and risk management;
10. checklist usage;
11. TFR;
12. SUA;
13. aviation security; and
14. other areas deemed appropriate to any phase of the practical test.

Although these areas may not be specifically addressed under each TASK, they are essential to flight safety and will be evaluated during the practical test. In all instances, the applicant's actions will relate to the complete situation.

### **Commercial Pilot – Glider Practical Test Prerequisites**

14 CFR part 61, section 61.39 and subpart E, provide practical test and certification prerequisites.

### **Aircraft and Equipment Required for the Practical Test**

14 CFR part 61, section 61.45, provides requirements for aircraft and equipment for the practical test.

### **Flight Instructor Responsibility**

An appropriately rated flight instructor is responsible for training the commercial pilot applicant to acceptable standards in all subject matter areas, procedures, and maneuvers included in the Tasks within the appropriate PTS.

Because of the impact of their teaching activities in developing safe, proficient pilots, flight instructors should exhibit a high level of knowledge, skill, and the ability to impart that knowledge and skill to learners. Additionally, the flight instructor must certify that the applicant is able to perform safely as a commercial pilot and is competent to pass the required practical test.

Throughout the applicant's training, the flight instructor is responsible for emphasizing the performance of effective visual scanning, collision avoidance, and runway incursion avoidance procedures. These areas are covered, in part, in AC 90-48, Pilots' Role in Collision Avoidance; FAA-H-8083-25, Pilot's Handbook of Aeronautical Knowledge; and the Aeronautical Information Manual.

## Evaluator Responsibility

An evaluator is:

- ASI;
- Pilot examiner (other than administrative pilot examiners);
- TCE; or
- Chief instructor, assistant chief instructor, or check instructor of a pilot school holding examining authority.

The evaluator must determine that the applicant meets the FAA AELS. An applicant for an FAA certificate or rating must be able to communicate in English in a discernible and understandable manner with ATC, pilots, and others involved in preparing an aircraft for flight and operating an aircraft in flight. This communication may or may not involve radio communications. An applicant for an FAA certificate issued in accordance with 14 CFR part 61 who cannot hear or speak due to a medical deficiency may be eligible for an FAA certificate with specific operational limitations. For additional information, reference AC 60-28, FAA English Language Standard for an FAA Certificate Issued Under 14 CFR parts 61, 63, 65, and 107, as amended.

If the applicant's ability to meet the FAA AELS comes into question before starting the practical test, the evaluator will not begin the practical test. An evaluator who is not an ASI<sup>1</sup> will check the box, *Referred to FSO for Aviation English Language Standard Determination*, located on the bottom of page 2 of the applicant's FAA Form 8710-1, Application for an Airman Certificate and/or Rating. The evaluator will refer the applicant to the appropriate FSO.

If the applicant's ability to meet the FAA AELS comes into question after the practical test begins, an evaluator who is not an ASI will discontinue the practical test and check the box, *Referred to FSO for Aviation English Language Standard Determination*, on the application. The evaluator will also issue an FAA Form 8060-5, Notice of Disapproval, with the comment "Does Not Demonstrate FAA AELS" in addition to any unsatisfactory Task(s).

In either case, the evaluator must complete and submit the application file through normal application procedures and notify the appropriate FSO of the referral.

The evaluator conducting the practical test is responsible for determining that the applicant meets the acceptable standards of knowledge and skill of each Task within the appropriate PTS. Since there is no formal division between the "oral" and "skill" portions of the practical test, this becomes an ongoing process throughout the test. Oral questioning to determine the applicant's knowledge of Tasks and related safety factors should be used judiciously at all times, especially during the flight portion of the practical test.

Evaluators must test to the greatest extent practicable the applicant's correlative abilities rather than mere rote enumeration of facts throughout the practical test.

If the evaluator determines that a Task is incomplete, or the outcome uncertain, the evaluator may require the applicant to repeat that Task or portions of that Task. This provision has been made in the interest of fairness and does not mean that instruction, practice, or the repeating of an unsatisfactory task is permitted during the certification process.

Throughout the flight portion of the practical test, the evaluator must evaluate the applicant's use of visual scanning and collision avoidance procedures.

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<sup>1</sup> ASIs may assess an applicant's English language proficiency in accordance with FAA Order 8900.1.

## **Satisfactory Performance**

14 CFR part 61, section 61.43(a), describes satisfactory completion of the practical test for a certificate or rating.

## **Unsatisfactory Performance**

If, in the judgment of the examiner, the applicant does not meet the standards of performance of any Task performed, the associated Area of Operation is failed and, therefore, the practical test is failed. 14 CFR part 61, section 61.43(c)-(f) provides additional unsatisfactory performance requirements and parameters.

Typical areas of unsatisfactory performance and grounds for disqualification are:

1. Any action or lack of action by the applicant that requires corrective intervention by the evaluator to maintain safe flight.
2. Failure to use proper and effective visual scanning techniques to clear the area before and while performing maneuvers.
3. Consistently exceeding tolerances stated in the Objectives.
4. Failure to take prompt corrective action when tolerances are exceeded.

When a disapproval notice is issued, the evaluator will record the applicant's unsatisfactory performance in terms of Area of Operations and specific Task(s) not meeting the standard appropriate to the practical test conducted. The Area(s) of Operation/Task(s) not tested and the number of practical test failures must also be recorded. If the applicant fails the practical test because of a special emphasis area, the Notice of Disapproval must indicate the associated Task.

## **Letter of Discontinuance**

When a practical test is discontinued for reasons other than unsatisfactory performance (e.g., equipment failure, weather, or illness) FAA Form 8710-1, Airman Certificate and/or Rating Application, and, if applicable, the AKTR are to be returned to the applicant. The evaluator at that time prepares, signs, and issues a Letter of Discontinuance to the applicant. The Letter of Discontinuance should identify the Areas of Operation and their associated Tasks of the practical test that were successfully completed. The applicant should be advised that the Letter of Discontinuance must be presented to the evaluator when the practical test is resumed and made part of the certification file.

## **ADM, Risk Management, CRM, and SRM**

Throughout the practical test, the evaluator must assess the applicant's ability to use sound aeronautical decision-making procedures in order to identify hazards and mitigate risk. The evaluator must accomplish this requirement by developing scenarios that incorporate and combine Tasks appropriate to assessing the applicant's risk management in making safe aeronautical decisions. For example, the evaluator may develop a scenario that incorporates weather decisions and performance planning.

In assessing the applicant's performance, the evaluator should take note of the applicant's use of CRM and, if appropriate, SRM. CRM/SRM are the set of competencies that includes situational awareness, communication skills, teamwork, task allocation, and decision-making within a comprehensive framework of SOP. SRM specifically refers to the management of all resources onboard the aircraft, as well as outside resources available to the single pilot.

## **Applicant's Use of Checklists**

Throughout the practical test, the applicant is evaluated on the use of an appropriate checklist. Proper use is dependent on the specific TASK being evaluated. The situation may be such that the use of the checklist, while accomplishing elements of an Objective, would be either unsafe or impracticable, especially in a single-pilot operation. In this case, a review of the checklist after the elements have been accomplished, would be appropriate. Division of attention and proper visual scanning should be considered when using a checklist.

## **Use of Distractions during Practical Tests**

Numerous studies indicate that many accidents have occurred when the pilot has been distracted during critical phases of flight. To evaluate the pilot's ability to utilize proper control technique while dividing attention both inside and/or outside the flight deck, the evaluator shall cause a realistic distraction during the flight portion of the practical test to evaluate the applicant's ability to divide attention while maintaining safe flight.

## **Positive Exchange of Flight Controls**

During flight, there must always be a clear understanding between pilots of who has control of the aircraft. Prior to flight, a briefing should be conducted that includes the procedure for the exchange of flight controls. A positive three-step process, subsequently described, in the exchange of flight controls between pilots is a proven procedure and one that is strongly recommended.

When one pilot wishes to give the other pilot control of the aircraft, they will say, "You have the flight controls." The other pilot acknowledges immediately by saying, "I have the flight controls." The first pilot again says "You have the flight controls." When control is returned to the first pilot, follow the same procedure. A visual check is recommended to verify that the exchange has occurred. There should never be any doubt as to who is flying the aircraft.

## APPLICANT'S PRACTICAL TEST CHECKLIST

### Commercial Pilot—Glider

APPLICANT'S NAME \_\_\_\_\_

LOCATION \_\_\_\_\_

DATE/TIME \_\_\_\_\_

#### ACCEPTABLE AIRCRAFT

- ☐ Aircraft Documents:
  - Airworthiness Certificate
  - Registration Certificate
  - Operating Limitations
- ☐ Aircraft Maintenance Records:
  - Record of Airworthiness Inspections
  - Status of Applicable Airworthiness Directives
- ☐ POH and GFM

#### PERSONAL EQUIPMENT

- ☐ PTS
- ☐ Current Aeronautical Charts
- ☐ Computer and Plotter
- ☐ Flight Plan Form
- ☐ Flight Log Form
- ☐ Current AIM, Chart Supplements U.S., and Appropriate Publications

#### PERSONAL RECORDS

- ☐ Identification - Photo/Signature ID
- ☐ Pilot Certificate
- ☐ Completed FAA Form 8710-1, Airman Certificate and/or Rating Application with Instructor's Signature (if applicable)
- ☐ AKTR
- ☐ Pilot Logbook with Appropriate Instructor Endorsements
- ☐ FAA Form 8060-5, Notice of Disapproval (if applicable)
- ☐ Approved School Graduation Certificate (if applicable)
- ☐ Evaluator's Fee (if applicable)

## EVALUATOR'S PRACTICAL TEST CHECKLIST

### Commercial Pilot—Glider

APPLICANT'S NAME \_\_\_\_\_

LOCATION \_\_\_\_\_

DATE/TIME \_\_\_\_\_

#### I. PREFLIGHT PREPARATION

- ☐ A. Certificates and Documents
- ☐ B. Airworthiness Requirements
- ☐ C. Weather Information
- ☐ D. Operation of Systems
- ☐ E. Performance and Limitations
- ☐ F. Aeromedical Factors

#### II. PREFLIGHT PROCEDURES

- ☐ A. Assembly
- ☐ B. Ground Handling
- ☐ C. Preflight Inspection
- ☐ D. Flight Deck Management
- ☐ E. Visual Signals

#### III. AIRPORT AND GLIDERPORT OPERATIONS

- ☐ A. Radio Communications and ATC Light Signals
- ☐ B. Traffic Patterns
- ☐ C. Airport, Runway, and Taxiway Signs, Markings, and Lighting

#### IV. LAUNCHES AND LANDINGS

##### AEROTOW

- ☐ A. Before Takeoff Check
- ☐ B. Normal and Crosswind Takeoff
- ☐ C. Maintaining Tow Positions
- ☐ D. Slack Line
- ☐ E. Boxing the Wake
- ☐ F. Tow Release
- ☐ G. Abnormal Occurrences

##### GROUND TOW (AUTO OR WINCH)

- ☐ H. Before Takeoff Check
- ☐ I. Normal and Crosswind Takeoff
- ☐ J. Abnormal Occurrences

## **SELF-LAUNCH**

- ☐ **K.** Engine Starting
- ☐ **L.** Taxiing
- ☐ **M.** Before Takeoff Check
- ☐ **N.** Normal and Crosswind Takeoff and Climb
- ☐ **O.** Engine Shutdown in Flight
- ☐ **P.** Abnormal Occurrences

## **LANDINGS**

- ☐ **Q.** Normal and Crosswind Landing
- ☐ **R.** Slips to Landing
- ☐ **S.** Downwind Landing

## **V. PERFORMANCE AIRSPEEDS**

- ☐ **A.** Minimum Sink Airspeed
- ☐ **B.** Speed-To-Fly

## **VI. SOARING TECHNIQUES**

- ☐ **A.** Thermal Soaring
- ☐ **B.** Ridge and Slope Soaring
- ☐ **C.** Wave Soaring

## **VII. PERFORMANCE MANEUVERS**

- ☐ **A.** Straight Glides
- ☐ **B.** Turns to Headings
- ☐ **C.** Steep Turns

## **VIII. NAVIGATION**

- ☐ **A.** Flight Preparation and Planning
- ☐ **B.** National Airspace System

## **IX. SLOW FLIGHT AND STALLS**

- ☐ **A.** Maneuvering at Minimum Control Airspeed
- ☐ **B.** Stall Recognition and Recovery

## **X. EMERGENCY OPERATIONS**

- ☐ **A.** Simulated Off-Airport Landing
- ☐ **B.** Emergency Equipment and Survival Gear

## **XI. POSTFLIGHT PROCEDURES**

- ☐ **A.** After-Landing and Securing

| ADDITIONAL RATING TASK TABLE                                                                                                           |         |          |         |         |         |         |         |         |         |
|----------------------------------------------------------------------------------------------------------------------------------------|---------|----------|---------|---------|---------|---------|---------|---------|---------|
| ADDITION OF A GLIDER RATING TO AN EXISTING COMMERCIAL PILOT CERTIFICATE                                                                |         |          |         |         |         |         |         |         |         |
| Required TASKS are indicated by either the TASK letter(s) that apply(s) or an indication that all or none of the TASKS must be tested. |         |          |         |         |         |         |         |         |         |
| AREA OF OPERATION                                                                                                                      | ASEL    | ASES     | AMEL    | AMES    | RH      | RG      | PL      | Balloon | Airship |
| I                                                                                                                                      | B,C,D,E | B,C,D,E  | B,C,D,E | B,C,D,E | B,C,D,E | B,C,D,E | B,C,D,E | B,C,D,E | B,C,D,E |
| II                                                                                                                                     | A,B,C,E | A,B,C, E | A,B,C,E | A,B,C,E | A,B,C,E | A,B,C,E | A,B,C,E | ALL     | A,B,C,E |
| III                                                                                                                                    | B       | B        | B       | B       | B       | B       | B       | ALL     | B       |
| IV                                                                                                                                     | ALL*    | ALL*     | ALL*    | ALL*    | ALL*    | ALL*    | ALL*    | ALL*    | ALL*    |
| V                                                                                                                                      | ALL     | ALL      | ALL     | ALL     | ALL     | ALL     | ALL     | ALL     | ALL     |
| VI                                                                                                                                     | ALL     | ALL      | ALL     | ALL     | ALL     | ALL     | ALL     | ALL     | ALL     |
| VII                                                                                                                                    | ALL     | ALL      | ALL     | ALL     | ALL     | ALL     | ALL     | ALL     | ALL     |
| VIII                                                                                                                                   | NONE    | NONE     | NONE    | NONE    | NONE    | NONE    | NONE    | A       | NONE    |
| IX                                                                                                                                     | ALL     | ALL      | ALL     | ALL     | ALL     | ALL     | ALL     | ALL     | ALL     |
| X                                                                                                                                      | ALL     | ALL      | ALL     | ALL     | ALL     | ALL     | ALL     | ALL     | ALL     |
| XI                                                                                                                                     | ALL     | ALL      | ALL     | ALL     | ALL     | ALL     | ALL     | ALL     | ALL     |

\*Evaluators shall select the kind of launch based on the applicant's qualifications.

### **LEGEND**

ASEL—Airplane Single-Engine Land  
 ASES—Airplane Single-Engine Sea  
 AMEL—Airplane Multiengine Land  
 AMES—Airplane Multiengine Sea  
 RH—Rotorcraft Helicopter  
 RG—Rotorcraft Gyroplane  
 PL—Powered-Lift

## **I. AREA OF OPERATION: PREFLIGHT PREPARATION**

### **A. TASK: CERTIFICATES AND DOCUMENTS**

**NOTE:** The evaluator shall develop a scenario to evaluate TASKs C and E. Real time weather or current weather should be used, as available.

REFERENCES: 14 CFR parts 21, 43, 61, 91; AC 61-65; FAA-H-8083-1, FAA-H-8083-13, FAA-H-8083-25; POH/GFM.

**Objective.** To determine that the applicant exhibits knowledge of the elements related to certificates and documents by:

1. Explaining—
  - a. commercial pilot certificate privileges, limitations, and recent flight experience requirements.
  - b. medical fitness.
  - c. pilot logbook or flight records.
2. Locating and explaining—
  - a. airworthiness and registration certificates.
  - b. operating limitations, placards, instrument markings, and POH/GFM.
  - c. weight and balance data and equipment list.

### **B. TASK: AIRWORTHINESS REQUIREMENTS**

REFERENCES: 14 CFR parts 21, 43, 91; AC 21.17-2A; FAA-H-8083-13, FAA-H-8083-25.

**Objective.** To determine that the applicant exhibits knowledge of the elements related to airworthiness requirements by:

1. Explaining—
  1. required instruments and equipment for day/night VFR.
  2. procedures and limitations for determining airworthiness of the glider with inoperative instruments and equipment.
  3. requirements and procedures for obtaining a special flight permit.
2. Locating and explaining—
  - a. airworthiness directives.
  - b. compliance records.
  - c. maintenance/inspection requirements.
  - d. appropriate record keeping.

### C. TASK: WEATHER INFORMATION

REFERENCES: AC 00-6, AC 00-45; FAA-H-8083-13, FAA-H-8083-25.

**Objective.** To determine that the applicant:

1. Exhibits knowledge of the elements related to weather information from various sources with emphasis on—
  - a. use of weather reports, charts, and forecasts.
  - b. significant weather prognostics.
2. Exhibits knowledge of the relationship of the following factors to the lifting process—
  - a. pressure and temperature lapse rates.
  - b. atmospheric instability.
  - c. thermal index and thermal production.
  - d. cloud formation and identification.
  - e. frontal weather.
  - f. other lifting sources.
3. Explains hazards associated with flight in the vicinity of thunderstorms.
4. Makes a competent “go/no-go” decision based on available weather information.

### D. TASK: OPERATION OF SYSTEMS

REFERENCES: FAA-H-8083-13, FAA-H-8083-25; POH/GFM.

**Objective.** To determine that the applicant:

1. Exhibits knowledge of the elements related to the operation of instruments and systems on the glider provided for the practical test, by explaining at least five (5) of the following systems—
  - a. magnetic compass.
  - b. yaw string or inclinometer.
  - c. airspeed indicator and altimeter.
  - d. variometer and total energy compensators.
  - e. gyroscopic instruments.
  - f. electrical, including starting system for self-launch.
  - g. landing gear and brakes.
  - h. avionics.
  - i. high-lift and drag devices.
  - j. oxygen equipment.
  - k. powerplant and propeller for self-launch.
  - l. fuel, oil and hydraulic for self-launch.
2. Correctly interprets information displayed on the instruments.

## **E. TASK: PERFORMANCE AND LIMITATIONS**

REFERENCES: FAA-H-8083-1, FAA-H-8083-13, FAA-H-8083-25; POH/GFM.

**Objective.** To determine that the applicant:

1. Exhibits knowledge of the elements related to performance and limitations by explaining the use of charts, tables, and data to determine performance and the adverse effects of exceeding limitations.
2. Demonstrates use of the appropriate performance charts, tables, and data.
3. Computes weight and balance. Determines if the computed weight and center of gravity are within the glider's operating limitations and if the weight and center of gravity will remain within limits during all phases of flight.
4. Explains the management of ballast and its effect on performance.
5. Describes the effect of various atmospheric conditions on the glider's performance.
6. Explains the applicable performance speeds and their uses.
7. Describes the relationship between airspeeds and load factors.

## **F. TASK: AEROMEDICAL FACTORS**

REFERENCES: AIM; FAA-H-8083-13, FAA-H-8083-25; AC 60-22.

**Objective.** To determine that the applicant exhibits knowledge of the elements related to aeromedical factors explaining:

1. The symptoms, causes, effects, and corrective actions of at least four (4) of the following—
  - a. hypoxia.
  - b. hyperventilation.
  - c. middle ear and sinus problems.
  - d. spatial disorientation and illusions.
  - e. motion sickness.
  - f. carbon monoxide poisoning (self-launch).
  - g. stress and fatigue.
  - h. dehydration and heatstroke.
2. The effects of alcohol, drugs, and over-the-counter medications.
3. The effects of excess nitrogen during scuba dives upon a pilot or passenger in flight.

## **II. AREA OF OPERATION: PREFLIGHT PROCEDURES**

### **A. TASK: ASSEMBLY**

**NOTE:** If, in the judgment of the evaluator, the demonstration of the glider assembly is impractical, competency may be determined by oral testing.

REFERENCES: FAA-H-8083-13; GFM.

**Objective.** To determine that the applicant:

1. Exhibits knowledge of the elements related to assembly procedures.
2. Selects a suitable assembly area and provides sufficient crewmembers for assembly.
3. Follows an appropriate checklist.
4. Uses proper tools.
5. Handles components properly.
6. Cleans and lubricates parts, as appropriate.
7. Accounts for all tools and parts at the completion of assembly.
8. Performs post-assembly inspection, including a positive control check.

### **B. TASK: GROUND HANDLING**

REFERENCES: FAA-H-8083-13; GFM.

**Objective.** To determine that the applicant:

1. Exhibits knowledge of the elements related to ground handling procedures.
2. Selects the appropriate ground handling procedures and equipment for existing conditions.
3. Determines the number of crewmembers needed.
4. Handles the glider in a manner that will not result in damage during movement.
5. Secures the glider and controls, as necessary, in proper position.

### **C. TASK: PREFLIGHT INSPECTION**

REFERENCES: FAA-H-8083-13; GFM.

**Objective.** To determine that the applicant:

1. Exhibits knowledge of the elements related to preflight inspection, including which items must be inspected, for what reasons, and how to detect possible defects.
2. Inspects the glider using the appropriate checklist.
3. Verifies the glider is in condition for safe flight, notes any discrepancies, and determines if maintenance is required.
4. Inspects the launch equipment, including towline, tow hitches, weak links, and release mechanism.

#### **D. TASK: FLIGHT DECK MANAGEMENT**

REFERENCES: 14 CFR part 91; AC 120-51; FAA-H-8083-13; GFM.

**Objective.** To determine that the applicant:

1. Exhibits knowledge of the elements related to flight deck management procedures.
2. Organizes and arranges material and equipment in a manner making items readily available.
3. Briefs passengers on the use of safety belts, shoulder harnesses, and emergency procedures.
4. Utilizes all appropriate checklists.

#### **E. TASK: VISUAL SIGNALS**

REFERENCE: FAA-H-8083-13.

**Objective.** To determine that the applicant:

1. Exhibits knowledge of the elements related to aerotow or ground tow visual signals, as appropriate.
2. Uses, interprets, and responds to prelaunch, launch, airborne, and emergency signals, as appropriate.
3. For aerotow, exhibits knowledge of the elements related to in-flight aerotow visual signals, both to and from the towplane.

### **III. AREA OF OPERATION: AIRPORT AND GLIDERPORT OPERATIONS**

#### **A. TASK: RADIO COMMUNICATIONS AND ATC LIGHT SIGNALS**

**NOTE:** If radio communications are impractical, competency may be determined by oral testing.

REFERENCES: Chart Supplements U.S.; AIM; FAA-H-8083-25.

**Objective.** To determine that the applicant:

1. Exhibits knowledge of the elements related to radio communications, radio failure, and ATC light signals.
2. Selects appropriate frequencies for facilities to be used.
3. Transmits using recommended phraseology.
4. Acknowledges radio communications and complies with instructions.
5. Uses appropriate procedures for simulated radio communications failure.
6. Interprets and complies with ATC light signals.

#### **B. TASK: TRAFFIC PATTERNS**

REFERENCES: 14 CFR part 91; Chart Supplements U.S.; AC 90-66; FAA-H-8083-13, FAA-H-8083-25.

**Objective.** To determine that the applicant:

1. Exhibits knowledge of the elements related to traffic pattern procedures for gliders.
2. Follows established traffic pattern procedures.
3. Maintains awareness of other traffic in pattern.
4. Maintains proper ground track with crosswind correction, if necessary.
5. Crosses designated points at appropriate altitudes, unless conditions make such action impractical
6. Selects touchdown and stop points.
7. Adjusts glidepath and track promptly to compensate for unexpected lift, sink, or changes in wind velocity.
8. Makes smooth, coordinated turns with a bank angle not to exceed 45° when turning final approach.
9. Adjusts flaps, spoilers, or dive brakes, as appropriate.
10. Recognizes and makes appropriate corrections for the effect of wind.
11. Completes the prescribed checklist, if applicable.

#### **C. TASK: AIRPORT, RUNWAY, AND TAXIWAY SIGNS, MARKINGS, AND LIGHTING**

REFERENCES: 14 CFR part 91; NOTAMS; Chart Supplements U.S.; AIM; FAA-H-8083-25.

**Objective.** To determine that the applicant:

1. Exhibits knowledge of the elements related to airport, runway, and taxiway operations with emphasis on runway incursion avoidance.
2. Properly identifies, interprets, and complies with airport, runway, and taxiway signs, markings, and lighting.

#### **IV. AREA OF OPERATION: LAUNCHES AND LANDINGS**

**NOTE:** Evaluator shall select kind of launch based on the applicant's qualifications.

##### **A. TASK: AEROTOW - BEFORE TAKEOFF CHECK**

REFERENCES: FAA-H-8083-13; GFM.

**Objective.** To determine that the applicant:

1. Exhibits knowledge of the elements related to the before takeoff check, including the reasons for checking the items and how to detect malfunctions.
2. Establishes a course of action with crewmembers, including signals, speeds, wind, and emergency procedures.
3. Ensures that the glider is in safe operating condition.
4. Checks towline hookup and release mechanism using the appropriate hook for the type of launch conducted.
5. Ensures no conflict with traffic prior to takeoff.
6. Completes the prescribed checklist, if applicable.

##### **B. TASK: AEROTOW - NORMAL AND CROSSWIND TAKEOFF**

**NOTE:** If a crosswind condition does not exist, the applicant's knowledge of crosswind elements shall be evaluated through oral testing.

REFERENCES: FAA-H-8083-13; GFM.

**Objective.** To determine that the applicant:

1. Exhibits knowledge of the elements related to normal and crosswind takeoff, including configurations and tow positions.
2. Uses proper pre-launch signals for aerotow launch.
3. Lifts off at an appropriate airspeed.
4. Maintains proper position until towplane lifts off.
5. Maintains directional control and proper wind-drift correction throughout the takeoff.
6. Maintains proper alignment with the towplane.
7. Uses proper aerotow visual signals between the glider and towplane, as appropriate.

##### **C. TASK: AEROTOW - MAINTAINING TOW POSITIONS**

REFERENCE: FAA-H-8083-13.

**Objective.** To determine that the applicant:

1. Exhibits knowledge of the elements related to high-tow (slightly above the wake) and low-tow (slightly below the wake) positions during various phases of aerotow.
2. Makes smooth and correct control applications to maintain vertical and lateral positions during high- and low- tow.
3. Transitions from high- to low-tow position through the wake while maintaining positive control.
4. Maintains proper tow position during turns.
5. Uses aerotow visual signals as appropriate and as directed by the evaluator.

#### **D. TASK: AEROTOW - SLACK LINE**

REFERENCE: FAA-H-8083-13.

**Objective.** To determine that the applicant:

1. Exhibits knowledge of the elements related to the causes, hazards, and corrections related to slack line.
2. Recognizes slack line and applies immediate, positive, and smooth corrective action to eliminate slack line in various situations.

#### **E. TASK: AEROTOW - BOXING THE WAKE**

REFERENCE: FAA-H-8083-13.

**Objective.** To determine that the applicant:

1. Exhibits knowledge of the elements related to boxing the wake (maneuvering around the wake).
2. Maneuvers the glider, while on tow, slightly outside the towplane's wake in a rectangular, box-like pattern.
3. Maintains proper control and coordination.

#### **F. TASK: AEROTOW - TOW RELEASE**

REFERENCE: FAA-H-8083-13.

**Objective.** To determine that the applicant:

1. Exhibits knowledge of the elements related to tow release, including related safety factors.
2. Maintains high-tow position with normal towline tension.
3. Clears the area before releasing the towline.
4. Releases the towline and confirms release by observing the towline.
5. Makes level or climbing turn.

#### **G. TASK: AEROTOW - ABNORMAL OCCURRENCES**

REFERENCE: FAA-H-8083-13.

**Objective.** To determine that the applicant:

1. Exhibits knowledge of the elements related to aerotow abnormal occurrences, for various situations, such as—
  - a. towplane power loss during takeoff.
  - b. towline break.
  - c. towplane power failure at altitude.
  - d. glider release failure.
  - e. glider and towplane release failure **(oral only)**.
  - f. canopy opening in flight.
2. Demonstrates simulated aerotow abnormal occurrences as required by the evaluator.

## **H. TASK: GROUND TOW (AUTO OR WINCH) BEFORE TAKEOFF CHECK**

REFERENCES: FAA-H-8083-13; GFM.

**Objective.** To determine that the applicant:

1. Exhibits knowledge of the elements related to the before takeoff check, including the reasons for checking the items and how to detect malfunctions.
2. Establishes a course of action with crewmembers, including signals, speeds, wind direction, and emergency procedures.
3. Ensures glider is in safe operating condition.
4. Checks towline hookup and release mechanism using the appropriate hook for the type of launch conducted.
5. Ensures no conflict with traffic prior to takeoff.
6. Completes the prescribed checklist, if applicable.

## **I. TASK: GROUND TOW (AUTO OR WINCH) - NORMAL AND CROSSWIND TAKEOFF**

**NOTE:** If a crosswind condition does not exist, the applicant's knowledge of crosswind elements shall be evaluated through oral testing.

REFERENCES: FAA-H-8083-13; GFM.

**Objective.** To determine that the applicant:

1. Exhibits knowledge of the elements related to normal and crosswind takeoff, including related safety factors.
2. Uses proper signals for takeoff.
3. Maintains directional control during launch.
4. Lifts off at the proper airspeed.
5. Establishes proper initial climb pitch attitude.
6. Takes prompt action to correct high speed, low speed, or porpoising.
7. Maintains proper ground track during climb.
8. Releases in proper manner and confirms release.

## **J. TASK: GROUND TOW (AUTO OR WINCH) - ABNORMAL OCCURRENCES**

REFERENCES: FAA-H-8083-13, GFM.

**Objective.** To determine that the applicant:

1. Exhibits knowledge of the elements related to ground tow abnormal occurrences for various situations, such as—
  - a. overrunning the towline.
  - b. towline break.
  - c. inability to release towline.
  - d. over and under speeding.
  - e. porpoising.
  - f. canopy opening in flight.
2. Demonstrates simulated ground tow abnormal occurrences, as required by the evaluator.

## **K. TASK: SELF-LAUNCH - ENGINE STARTING**

REFERENCE: FAA-H-8083-13, GFM.

**Objective.** To determine that the applicant:

1. Exhibits knowledge of the elements related to engine starting, including various atmospheric conditions and awareness of other persons and property during start.
3. Accomplishes recommended starting procedures.
4. Completes appropriate checklists.

## **L. TASK: SELF-LAUNCH - TAXIING**

REFERENCE: FAA-H-8083-13, GFM.

**Objective.** To determine that the applicant:

1. Exhibits knowledge of the elements related to taxiing, including the effect of wind during taxiing and appropriate control positions.
2. Performs a brake check immediately after the glider begins moving.
3. Positions flight controls properly, considering the wind.
4. Controls direction and speed without excessive use of brakes.
5. Avoids other aircraft and hazards.
6. Complies with signals.

## **M. TASK: SELF-LAUNCH - BEFORE TAKEOFF CHECK**

REFERENCE: FAA-H-8083-13, GFM.

**Objective.** To determine that the applicant:

1. Exhibits knowledge of the elements related to the before takeoff check, including the reasons for checking each item and to detect malfunctions.
2. Positions the glider properly considering other aircraft, wind, and surface conditions.
3. Ensures engine temperatures and pressures are suitable for run-up and takeoff.
4. Accomplishes before takeoff checks and ensures the glider is in safe operating condition.
5. Reviews airspeeds, takeoff distance, and emergency procedures.
6. Completes appropriate checklists.

## **N. TASK: SELF-LAUNCH - NORMAL AND CROSSWIND TAKEOFF AND CLIMB**

**NOTE:** If a crosswind condition does not exist, the applicant's knowledge of crosswind elements shall be evaluated through oral testing.

REFERENCE: FAA-H-8083-13, GFM.

**Objective.** To determine that the applicant:

1. Exhibits knowledge of the elements related to normal and crosswind takeoff and climb.
2. Positions flight controls for existing wind conditions.
3. Clears the area, taxis into takeoff position, and aligns the glider for departure.
4. Advances throttle smoothly to takeoff power.
5. Rotates at recommended airspeed and accelerates to appropriate climb speed,  $\pm 5$  knots.
6. Maintains takeoff power to a safe maneuvering altitude, and then sets climb power.
7. Completes appropriate checklists.

## **O. TASK: SELF-LAUNCH - ENGINE SHUTDOWN IN FLIGHT**

REFERENCE: FAA-H-8083-13, GFM.

**Objective.** To determine that the applicant:

1. Exhibits knowledge of the elements related to engine shutdown procedures in flight.
2. Sets power for proper engine cooling.
3. Establishes appropriate airspeed.
4. Sets electrical equipment.
5. Shuts down engine.
6. Feathers or positions propeller and stows, as applicable.
7. Selects proper static source, if applicable.
8. Completes appropriate checklists.

## **P. TASK: SELF-LAUNCH - ABNORMAL OCCURRENCES**

REFERENCES: FAA-H-8083-13; GFM.

**Objective.** To determine that the applicant:

1. Exhibits knowledge of the elements related to self-launch abnormal occurrences, for various situations, such as—
  - a. partial, complete power failure, and failure to gain restart.
  - b. fire or smoke.
  - c. electrical system malfunction.
  - d. low fuel pressure.
  - e. low oil pressure.
  - f. engine overheat.
  - g. canopy opening in flight.
  - h. engine restart in flight.
2. Demonstrates simulated self-launch abnormal occurrences, as required by the evaluator.

## **Q. TASK: LANDINGS - NORMAL AND CROSSWIND LANDING**

**NOTE:** If a crosswind condition does not exist, the applicant's knowledge of crosswind elements shall be evaluated through oral testing.

REFERENCES: FAA-H-8083-13; GFM.

**Objective.** To determine that the applicant:

1. Exhibits knowledge of the elements related to a normal and crosswind approach and landing procedures.
2. Adjusts flaps, spoilers, or dive brakes, as appropriate.
3. Maintains recommended approach airspeed,  $\pm 5$  knots.
4. Maintains crosswind correction and directional control throughout the approach and landing.
5. Makes smooth, timely, and positive control application during the roundout and touchdown.
6. Touches down smoothly within the designated landing area, with no appreciable drift, and with the longitudinal axis aligned with the desired landing path, stopping short of and within 100 feet of a designated point.

**NOTE:** The applicant shall touchdown and roll to a point designated by the evaluator stopping within 100' without rolling past the designated point. The point should be far enough away from the touchdown point that it should not require more than light-medium braking to come to a stop within the required distance.

7. Maintains control during the after-landing roll.
8. Completes appropriate checklists.

## **R. TASK: LANDINGS - SLIPS TO LANDING**

**NOTE:** The evaluator will select one type of slip from the knowledge area for demonstration.

REFERENCES: FAA-H-8083-13; GFM.

**Objective.** To determine that the applicant:

1. Exhibits knowledge of the elements related to forward, side, and turning slips to landing, with and without the use of drag devices.
2. Recognizes the situation where a slip should be used to land in a desired area.
3. Establishes a slip without the use of drag devices.
4. Maintains the desired ground track.
5. Maintains proper approach attitude.
6. Makes smooth, proper, and positive control applications during recovery from the slip.
7. Touches down smoothly within the designated landing area.

## **S. TASK: LANDINGS - DOWNWIND LANDING**

REFERENCES: FAA-H-8083-13; GFM.

**Objective.** To determine that the applicant:

1. Exhibits knowledge of the elements related to downwind landings, including safety related factors.
2. Adjusts flaps, spoilers, or dive brakes, as appropriate.
3. Maintains recommended approach airspeed,  $\pm 5$  knots.
4. Uses proper downwind landing procedures.
5. Maintains proper directional control during touchdown and rollout.
6. Applies brake smoothly to bring glider to a stop.

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## **V. AREA OF OPERATION: PERFORMANCE SPEEDS**

### **A. TASK: MINIMUM SINK AIRSPEED**

REFERENCES: FAA-H-8083-13; GFM.

**Objective.** To determine that the applicant:

1. Exhibits knowledge of the elements related to aerodynamic factors and use of minimum sink airspeed.
2. Determines the minimum sink airspeed for a given situation and maintains the selected speed,  $\pm 5$  knots.

### **B. TASK: SPEED-TO-FLY**

REFERENCES: FAA-H-8083-13; GFM.

**Objective.** To determine that the applicant:

1. Exhibits knowledge of the elements related to speed-to-fly, and its uses.
2. Determines the speed-to-fly for a given situation and maintains the airspeed,  $\pm 5$  knots.

## **VI. AREA OF OPERATION: SOARING TECHNIQUES**

**NOTE:** Due to varying geographical locations and atmospheric conditions, the applicant may be asked to demonstrate at least one of the following soaring TASKS most appropriate for the particular location and existing conditions. If conditions do not permit a demonstration of soaring skills, applicants will be expected to demonstrate knowledge of the various types of soaring through oral testing.

### **A. TASK: THERMAL SOARING**

REFERENCES: FAA-H-8083-13; AC 00-6.

**Objective.** To determine that the applicant:

1. Exhibits knowledge of the elements related to thermal soaring.
2. Recognizes the indications of, and the presence of, a thermal.
3. Analyzes the thermal structure and determines the direction to turn to remain within the thermal.
4. Exhibits coordinated control and planning when entering and maneuvering to remain within the thermal.
5. Applies correct techniques to re-enter the thermal, if lift is lost.
6. Remains oriented to ground references, wind, and other aircraft.
7. Maintains proper airspeeds in and between thermals.

### **B. TASK: RIDGE AND SLOPE SOARING**

REFERENCES: FAA-H-8083-13; AC 00-6.

**Objective.** To determine that the applicant:

1. Exhibits knowledge of the elements related to ridge and slope soaring.
2. Recognizes terrain features and wind conditions, which create orographic lift.
3. Enters the area of lift properly.
4. Estimates height and maintains a safe distance from the terrain.
5. Exhibits smooth, coordinated control and planning to remain within the area of lift.
6. Uses correct technique to re-enter the area of lift, if lift is lost.
7. Remains oriented to ground references, wind, and other aircraft.
8. Uses proper procedures and techniques when crossing ridges.
9. Maintains proper airspeeds.

### **C. TASK: WAVE SOARING**

REFERENCES: FAA-H-8083-13; AC 00-6.

**Objective.** To determine that the applicant:

1. Exhibits knowledge of the elements related to wave soaring.
2. Locates and enters the area of lift.
3. Exhibits smooth, coordinated control and planning to remain within the area of lift.
4. Uses correct technique to re-enter the area of lift, if lift is lost.
5. Remains oriented to ground references, wind, and other aircraft.
6. Recognizes and avoids areas of possible extreme turbulence.
7. Maintains proper airspeeds.
8. Coordinates with ATC, as appropriate.

## **VII. AREA OF OPERATION: PERFORMANCE MANEUVERS**

### **A. TASK: STRAIGHT GLIDES**

REFERENCE: FAA-H-8083-13.

**Objective.** To determine that the applicant:

1. Exhibits knowledge of the elements related to straight glides, including the relationship of pitch attitude and airspeed.
2. Tracks toward a prominent landmark at a specified airspeed.
3. Demonstrates the effect of flaps, spoilers, or dive brakes, if equipped, in relation to pitch attitude and airspeed.
4. Exhibits smooth, coordinated control, and planning.
5. Maintains the specified heading,  $\pm 10^\circ$ , and the specified airspeed,  $\pm 5$  knots.

### **B. TASK: TURNS TO HEADINGS**

REFERENCE: FAA-H-8083-13.

**Objective.** To determine that the applicant:

1. Exhibits knowledge of the elements related to turns to headings, including the relationship of pitch attitude, bank angle, and airspeed.
2. Enters and maintains an appropriate rate of turn with smooth, proper, and coordinated control applications.
3. Maintains the desired airspeed,  $\pm 5$  knots, and rolls out on the specified heading,  $\pm 10^\circ$ .

### **C. TASK: STEEP TURNS**

REFERENCES: FAA-H-8083-13; GFM.

**Objective.** To determine that the applicant:

1. Exhibits knowledge of the elements related to steep turns, including load factor, effect on stall speed, and overbanking tendency.
2. Establishes the recommended entry airspeed.
3. Enters a  $720^\circ$  turn maintaining a bank angle of  $45^\circ/\pm 5^\circ$ , with smooth and coordinated control applications.
4. Maintains desired airspeed,  $\pm 5$  knots.
5. Rolls out on the entry heading,  $\pm 10^\circ$ .

## **VIII. AREA OF OPERATION: NAVIGATION**

**NOTE:** The applicant's knowledge of this AREA OF OPERATION will be evaluated through oral testing.

### **A. TASK: FLIGHT PREPARATION AND PLANNING**

REFERENCES: FAA-H-8083-13, FAA-H-8083-25; AIM; AC 61-134.

**Objective.** To determine that the applicant:

1. Exhibits knowledge of the elements related to flight preparation and planning.
2. Selects and uses current and appropriate aeronautical charts.
3. Plots a course and selects prominent en route checkpoints.
4. Constructs a flight profile to determine minimum flight altitude at go-ahead points.
5. Explains method of using lift sources and speeds effectively within and between lift sources.
6. Selects available landing area.
7. Describes coordination procedures with ATC, as appropriate.
8. For self-launch, explains the factors affecting fuel consumption, range, and engine operations.

### **B. TASK: NATIONAL AIRSPACE SYSTEM**

REFERENCES: FAA-H-8083-13, FAA-H-8083-25; 14 CFR part 91; AC 90-48; AIM.

**Objective.** To determine that the applicant exhibits knowledge of the elements related to the NAS by explaining:

1. Basic VFR weather minimums for all classes of airspace.
2. Airspace classes and their dimensions, pilot certification requirements, and glider equipment requirements for the following—
  - a. Class A.
  - b. Class B.
  - c. Class C.
  - d. Class D.
  - e. Class E.
  - f. Class G.
3. Special use airspace and other airspace areas.

## **IX. AREA OF OPERATION: SLOW FLIGHT AND STALLS**

### **A. TASK: MANEUVERING AT MINIMUM CONTROL AIRSPEED**

REFERENCES: FAA-H-8083-13; GFM.

**Objective.** To determine that the applicant:

1. Exhibits knowledge of the elements related to maneuvering at minimum control airspeed, including flight characteristics and controllability.
2. Establishes and maintains an airspeed at which any further increase in angle of attack or load factor would result in a stall in straight or turning flight.
3. Accomplishes coordinated flight with configuration(s) specified by the evaluator.
4. Adjusts the airspeed to avoid stalls in turbulent air or as bank is increased.
5. Applies control inputs in a smooth and coordinated manner
6. Uses proper procedures to avoid stalls when raising a lowered wing.
7. Maintains heading,  $\pm 10^\circ$ , during straight flight, and the desired bank angle,  $\pm 5^\circ$ , during turns.

### **B. TASK: STALL RECOGNITION AND RECOVERY**

REFERENCES: FAA-H-8083-13; AC 61-67; GFM.

**Objective.** To determine that the applicant:

1. Exhibits knowledge of the elements related to stall recognition and recovery, including the aerodynamic factors and flight situations that may result in stalls and the hazards of stalling during uncoordinated flight.
2. Selects an entry altitude that will allow the maneuver to be completed no lower than 1,500 feet AGL.
3. Establishes and maintains a pitch attitude that will result in a stall during both straight and turning flight with and without flaps, spoilers, or dive brakes, as appropriate.
4. Maintains a bank angle of  $15^\circ/\pm 5^\circ$ , during turns.
5. Recovers promptly at the first indication of buffeting or rapid decay of control effectiveness.
6. Uses smooth and coordinated control applications throughout the maneuver.

## **X. AREA OF OPERATION: EMERGENCY OPERATIONS**

### **A. TASK: SIMULATED OFF-AIRPORT LANDING**

**NOTE:** This landing will be performed at an established airport.

REFERENCES: FAA-H-8083-13, GFM.

**Objective.** To determine that the applicant:

1. Exhibits knowledge of the elements related to a simulated off airport landing, including selection of a suitable landing area and the procedures used to accomplish an off-airport landing.
2. Performs a simulated off-airport landing without the use of an altimeter.

### **B. TASK: EMERGENCY EQUIPMENT AND SURVIVAL GEAR**

REFERENCES: FAA-H-8083-13, GFM.

**Objective.** To determine that the applicant exhibits knowledge of the elements related to emergency equipment and survival gear, appropriate to the glider used for the practical test, by describing:

1. Location in the glider.
2. Method of operation or use.
3. Servicing and storage.
4. Inspection, fitting, and use of parachutes.
5. Equipment and gear appropriate for operation in various climates and over various types of terrain.

## **XI. AREA OF OPERATION: POSTFLIGHT PROCEDURES**

### **A. TASK: AFTER-LANDING AND SECURING**

REFERENCES: FAA-H-8083-13, GFM.

**Objective.** To determine that the applicant:

1. Exhibits knowledge of the elements related to after-landing and securing procedures, including local and ATC operations, ramp safety, parking hand signals, shutdown (if appropriate), securing, and postflight inspection
2. Selects a suitable parking area while considering wind and safety of nearby persons and property.
3. Taxies to parking area and performs engine shutdown, if applicable.
4. Services the glider, if applicable
5. Secures the glider properly.
6. Performs a satisfactory postflight inspection
7. Completes the prescribed checklist.