U.S. Department
of Transportation
**Federal Aviation
Administration**

FAA-S-8081-8C

FLIGHT INSTRUCTOR

Practical Test Standards

for

Glider Category

November 2023

FLIGHT STANDARDS SERVICE
Washington, DC 20591

FOREWORD

FAA-S-8081-8C, Flight Instructor Practical Test Standards for Glider Category is published by the FAA to establish the standards for flight instructor certification practical tests for the glider category. FAA inspectors and designated evaluators shall conduct practical tests in compliance with these standards. Instructors and applicants should find these standards helpful in practical test preparation.

Material in FAA-S-8081-8C supersedes FAA-S-8081-8B, Flight Instructor Practical Test Standards for Glider dated, October 2006.

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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.

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 a pilot school holding examining authority, or authorized instructor (as applicable).

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.

Comments regarding this PTS may be emailed to acsptsinquiries@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 Flight Instructor PTS for Glider includes the AREAS OF OPERATION and TASKS required for the issuance of an initial flight instructor certificate and for the addition of a category and/or classrating to that certificate.

Areas of Operation are phases of the practical test arranged in a logical sequence within this standard. They begin with Fundamentals of Instructing 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 specific 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 reference. 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 reference list:

14 CFR part 1	Definitions and Abbreviations
14 CFR part 23	Airworthiness Standards: Normal Category Airplanes
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 60-28	FAA English Language Standard for an FAA Certificate Issued Under 14 CFR Parts 61, 63, 65, and 107
AC 61-65	Certification: Pilots and Flight and Ground Instructors
AC 61-67	Stall and Spin Awareness Training
AC 61-94	Pilot Transition Course for Self Launching or Powered Sailplanes (Motorgliders)
AC 61-98	Currency Requirements and Guidance for the Flight Review and Instrument Proficiency Check
AC 90-48	Pilots' Role in Collision Avoidance
AC 90-66	Non-Towered Airport Flight Operations
AIM	Aeronautical Information Manual
FAA-H-8083-1	Weight and Balance Handbook
FAA-H-8083-9	Aviation Instructor's Handbook
FAA-H-8083-13	Glider Flying Handbook
FAA-H-8083-25	Pilot's Handbook of Aeronautical Knowledge
FAA-H-8083-28	Aviation Weather Handbook
FAA-S-8081-22	Private Pilot PTS for Glider
FAA-S-8081-23	Commercial Pilot PTS for Glider
NOTAM	Notice to Air Missions
49 CFR part 830	NTSB**:** Notification and Reporting of Aircraft Accidents or Incidents and Overdue Aircraft, and Preservation of Aircraft Wreckage, Mail, Cargo, and Records
Other	Glider Flight Manual Chart Supplements

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.

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. conditions under which the TASK is to be performed;
3. acceptable performance standards, and
4. safety considerations, when applicable.

The evaluator determines that the applicant meets the TASK Objective through the demonstration of competency in various elements of knowledge and/or skill. The Objectives of TASKS in certain AREAS OF OPERATION, such as Fundamentals of Instructing and Technical Subjects, include only knowledge elements. Objectives of TASKS in AREAS OF OPERATION that include elements of skill, as well as knowledge, also include common errors, which the applicant shall be able to describe, recognize, analyze, and correct.

The Objective of a TASK that involves pilot skill consists of four parts. The four parts include determination that the applicant exhibits:

1. Instructional knowledge of the elements of a TASK. This is accomplished through descriptions, explanations, and simulated instruction.
2. Instructional knowledge of common errors related to a TASK, including their recognition, analysis, and correction.
3. The ability to demonstrate and simultaneously explain the key elements of a TASK. The TASK demonstration must be to the COMMERCIAL PILOT skill level; the teaching techniques and procedures should conform to those set forth in FAA-H-8083-9, Aviation Instructor's Handbook; and FAA-H-8083-13, Glider Flying Handbook.
4. The ability to analyze and correct common errors related to a TASK.

Abbreviations/Acronyms

14 CFR	Title 14 of the Code of Federal Regulations
AC	Advisory Circular
ADM	Aeronautical Decision-Making
AELS	Aviation English Language Standard
AKTR	Airman Knowledge Test Report
AIM	Aeronautical Information Manual
AIRMET(s)	Airmen’s Meteorological Information
ASI	Aviation Safety Inspector
ATC	Air Traffic Control
CFIT	Controlled Flight Into Terrain
CG	Center of Gravity
CRM	Crew Resource Management
FAA	Federal Aviation Administration
FSO	Flight Standards Office
NOTAM	Notice to Air Missions
NTSB	National Transportation Safety Board
PIREP(s)	Pilot Weather Reports
PTS	Practical Test Standards
RPM	Revolutions Per Minute
SIGMET(s)	Significant Meteorological
SRM	Single-Pilot Resource Management
SOP	Standard Operating Procedures
SUA	Special Use Airspace

TFR	Temporary Flight Restrictions
U.S.	United States of America

Use of the PTS

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.

All of the procedures and maneuvers in the private pilot and commercial pilot PTS have been included in the flight instructor PTS; however, to permit completion of the practical testfor initial certification within a reasonable timeframe, the evaluator shall select one or more TASKS in each AREA OF OPERATION. In certain AREAS OF OPERATION, there are required TASKS which the evaluator must select. These required TASKS are identified by a **NOTE** immediately following each AREA OF OPERATION title.

In preparation for each practical test, the evaluator shall develop a written “plan of action.” The evaluator will vary each “plan of action” to ensure that all TASKS in the appropriate PTS are evaluated during a given number of practical tests. Except for required TASKS, the evaluator should avoid using the same optional TASKS in order to avoid becoming predictable. The “plan of action” for a practicaltest for initial certification shall include one or more TASKS in each AREAOF OPERATION and shall always include the required TASKS. The “planof action” for a practical test for the addition of an aircraft category and/orclass rating to a flight instructor certificate, shall include the required AREAS OF OPERATION as indicated in the Additional Rating Table at thebeginning of each standard. The required TASKS appropriate to the additional rating(s) sought shall be included. Any TASK selected for evaluation during the practical test shall be evaluated in its entirety.

The flight instructor applicant should be prepared in **all** knowledge and skillareas and must demonstrate the ability to instruct effectively in **all** TASKS included in the AREAS OF OPERATION of the appropriate PTS to pass the practical test. Throughout the flight portion of the practical test, the evaluatorshall evaluate the applicant's ability to demonstrate and simultaneously explain the selected procedures and maneuvers, and to give flightinstruction to students at various stages of flight training and levels of experience.

The term “instructional knowledge” means the “what,” “why,” and “how” ofa subject matter topic, procedure, or maneuver. It also means that the flightinstructor applicant's discussions, explanations, and descriptions should follow the recommended teaching procedures and techniques explained inFAA-H-8083-9, Aviation Instructor's Handbook.

Some TASKS within the Areas of Operation require the analysis and correction of common errors. The purpose for including common errors in certain TASKS is to assist the evaluator in determining that the flight instructor applicant has the ability to recognize, analyze, and correct such errors, which is essential for flight instructor duties. The evaluator shall not simulate any condition that may jeopardize safe flight or result in possibledamage to the aircraft. The common errors listed in the TASK Objectivesmay or may not be found in the TASK References; however, the FAA considers their frequency of occurrence justification for their inclusion in theTASK Objectives.

The evaluator shall place special emphasis on the applicant's demonstrated ability to teach precise aircraft control and sound judgmentin aeronautical decision-making. Evaluation of the applicant's ability to teach judgment shall be accomplished by asking the applicant to describethe oral discussions and the presentation of practical problems that wouldbe used in instructing students in the exercise of sound judgment. The evaluator shall also emphasize the evaluation of the applicant's demonstrated ability to teach spatial disorientation, wake turbulence andlow-level wind shear avoidance, checklist usage, positive exchange of flight controls, and any other directed special emphasis areas.

Special Emphasis Areas

Evaluators and authorized instructors must place special emphasis upon areas of aircraft operation considered critical to flight safety. Among these are:

1. positive aircraft control;
2. procedures for positive exchange of flight controls;
3. stall and spin awareness (if appropriate);
4. collision avoidance;
5. wake turbulence and low level windshear avoidance;
6. runway incursion avoidance;
7. CFIT;
8. aeronautical decision making/risk management;
9. checklist usage;
10. spatial disorientation;
11. TFR;
12. SUA;
13. aviation security;
14. wire strike avoidance; and
15. other areas deemed appropriate to any phase of the practical test or proficiency check.

Although these areas may not be specifically addressed under each TASK, they are essential to flight safety and will be evaluated during thepractical test or proficiency check. In all instances, the applicant's actions will be evaluated in accordance to the standards of the TASKs and the ability to use good judgment with reference to the special emphasis areas listed above.

Practical Test Prerequisites

14 CFR part 61, section 61.39 and subpart H, provides practical test and certification prerequisites.

Aviation English Language Standard

The evaluator must determine that the applicant meets 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[1] will check the box, *Referred to FSO for Aviation English Language Standard Determination,* located on the bottom of page 2 of the applicant's Airman Certificate and/or Rating Application, FAA form 8710-1 or Airman Certificate and/or Rating Application-Sport Pilot, FAA form 8710-11, as applicable. 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 a

[1] ASIs may assess an applicant's English language proficiency in accordance with FAA Order 8900.1.

Notice of Disapproval of Application, FAA Form 8060-5 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.

Aircraft and Equipment Requirements

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

Evaluator Responsibility

The evaluator conducting the practical test is responsible for determining that the applicant meets the acceptable standards of teaching ability, knowledge, and skill in the selected TASKS. The evaluator makes this determination by accomplishing an Objective that is appropriate to each selected TASK, and includes an evaluation of the applicant's:

1. ability to apply the fundamentals of instructing;
2. knowledge of, and ability to teach, the subject matter, procedures, and maneuvers covered in the TASKS;
3. ability to perform the procedures and maneuvers included in the standards to at least the COMMERCIAL PILOT skill level[2] while giving effective flight instruction; and
4. ability to analyze and correct common errors related to the procedures and maneuvers covered in the TASKS.

It is intended that oral questioning be used at any time during the ground or flight portion of the practical test to determine that the applicant can instruct effectively and has a comprehensive knowledge of the TASKS and their related safety factors.

During the flight portion of the practical test, the evaluator shall act as a student during selected maneuvers. This will give the evaluator an opportunity to evaluate the flight instructor applicant’s ability to analyze and correct simulated common errors related to these maneuvers. The evaluator will also evaluate the applicant’s use of visual scanning and collision avoidance procedures, and the applicant’s ability to teach those procedures.

Flight Instructor Responsibility

An appropriately rated flight instructor is responsible for training the flight instructor applicant to acceptable standards in **all** subject matter areas, procedures, and maneuvers included in the TASKS within each AREA OF OPERATION in the appropriate flight instructor 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 students. The flight instructor shall certify that the applicant is:

1. able to make a practical application of the fundamentals of instructing;
2. competent to teach the subject matter, procedures, and maneuvers included in the standards to students with varying backgrounds and levels of experience and ability;
3. able to perform the procedures and maneuvers included in the standards to at least the COMMERCIAL PILOT skill level while giving effective flight instruction; and

[2] Commercial Pilot skill level is defined as performing a procedure or maneuver within the tolerances listed in the FAA commercial pilot PTS. If the maneuver appears only in the private pilot PTS, the term means that the applicant’s performance is expected to be more precise than indicated by the stated tolerances.

4. competent to pass the required practical test for the issuance of theflight instructor certificate with the associated category and class ratings or the addition of a category and/or class rating to a flight instructor certificate.

Throughout the applicant's training, the flight instructor is responsible foremphasizing the performance of, and the ability to teach, effective visualscanning and collision avoidance procedures.

Satisfactory Performance

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

Unsatisfactory Performance

If, in the judgment of the evaluator, 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 (e.g.: Area of Operation VI, Airport and Gliderport Operations, failure to use proper collision avoidance procedures).

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, is 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 evaluates the applicant's ability to use good aeronautical decision-making procedures in order to identify risks. The evaluator accomplishes this requirement by developing scenarios that incorporate as many TASKs as possible to evaluate 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.

The applicant's ability to utilize all the assets available in making a risk analysis to determine the safest course of action is essential for satisfactory performance. The scenarios should be realistic and within the capabilities of the aircraft used for the practical test.

In assessing the applicant's performance, the evaluator should take note of the applicant's use of CRM and, if appropriate, SRM. CRM/SRM is 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.

If an applicant fails to use ADM, including CRM/SRM, as applicable in any Task, the evaluator will note that Task as failed.

Applicant's Use of Checklists

Throughout the practical test, the applicant is evaluated on the use ofan 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 impractical, 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 whenthe pilot has been distracted during critical phases of flight. To evaluate the applicant's ability to utilize proper control techniques while dividing attention both inside and outside the flight deck, the evaluator shall causea 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 training, there must always be a clear understanding between students and flight instructors 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-stepprocess, subsequently described, in the exchange of flight controls between pilots is a proven procedure and one that is strongly recommended.

When the instructor wishes the student to take control of the aircraft, he or she will say, “You have the flight controls.” The student acknowledges immediately by saying, “I have the flight controls.” The flight instructor again says, “You have the flight controls.” When control is returned to the instructor, follow the same procedure. A visual checkis recommended to verify that the exchange has occurred. There should never be any doubt as to who is flying the aircraft.

ADDITIONAL RATING TABLE

Flight Instructor Glider

ADDITION OF A GLIDER CATEGORY RATING TO A FLIGHT INSTRUCTOR CERTIFICATE					
AREAS OF OPERATION	FLIGHT INSTRUCTOR CERTIFICATE AND RATING HELD				
	ASE	**AME**	**RH**	**RG**	**IAH**
I	NO	NO	NO	NO	NO
II	YES	YES	YES	YES	YES
III	YES	YES	YES	YES	YES
IV	NO	NO	NO	NO	NO
V	YES	YES	YES	YES	YES
VI	YES	YES	YES	YES	YES
VII	YES*	YES*	YES*	YES*	YES*
VIII	YES	YES	YES	YES	YES
IX	YES	YES	YES	YES	YES
X	YES	YES	YES	YES	YES
XI	YES	YES	YES	YES	YES
XII	YES**	YES	YES	YES	YES
XIII	YES	YES	YES	YES	YES
XIV	YES	YES	YES	YES	YES

LEGEND

ASE Airplane Single-Engine
AME Airplane Multiengine
RH Rotorcraft Helicopter
RG Rotorcraft Gyroplane
IAH Instrument Airplane/Helicopter

* An Evaluator shall select the kind of launch based on the applicant's qualifications.
** Task C not required.

NOTE: The applicant who has satisfactorily accomplished ground and flight training and received an endorsement from an authorized instructor on ground tow, aero tow, and/or self-launch procedures will be evaluated in only one kind of launch procedure. The applicant's instructing privileges will include each kind of launch for which previously endorsed.

APPLICANT'S PRACTICAL TEST CHECKLIST

Flight Instructor—Glider

EVALUATOR'S NAME: _____

LOCATION: _____

DATE/TIME: _____

ACCEPTABLE AIRCRAFT

- □ Aircraft Documents:
  - Airworthiness Certificate
  - Registration Certificate
  - Operating Limitations
- □ Aircraft Maintenance Records:
  - Record of Airworthiness Inspections and Current Status of Applicable Airworthiness Directives
- □ Pilot's Operating Handbook and FAA-Approved Glider Flight Manual

PERSONAL EQUIPMENT

- □ PTS
- □ Current Aeronautical Charts
- □ Computer and Plotter
- □ Flight Plan and Flight Log Forms
- □ Current AIM, Charts Supplements, 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 of Application (if applicable)
- □ Approved School Graduation Certificate (if applicable)
- □ Evaluator's Fee (if applicable)

EVALUATOR'S PRACTICAL TEST CHECKLIST

Flight Instructor—Glider

APPLICANT'S NAME: _____

LOCATION: _____

DATE/TIME: _____

I. FUNDAMENTALS OF INSTRUCTING

A. The Learning Process
B. Human Behavior
C. The Teaching Process
D. Teaching Methods
E. Critique and Evaluation
F. Flight Instructor Characteristics and Responsibilities
G. Planning Instructional Activity

II. TECHNICAL SUBJECT AREAS

A. Aeromedical Factors
B. Visual Scanning and Collision Avoidance
C. Use of Distractions During Flight Training
D. Principles of Flight
E. Elevators, Ailerons, and Rudder
F. Trim, Lift, and Drag Devices
G. Glider Weight and Balance
H. Navigation and Flight Planning
I. Regulations and Publications
J. National Airspace System
K. Logbook Entries and Certificate Endorsements

III. PREFLIGHT PREPARATION

A. Certificates and Documents
B. Weather Information
C. Operation of Systems
D. Performance and Limitations

IV. PREFLIGHT LESSON ON A MANEUVER TO BE PERFORMED IN FLIGHT

A. Maneuver Lesson

V. PREFLIGHT PROCEDURES

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

VI. AIRPORT AND GLIDERPORT OPERATIONS

A. Radio Communications
B. Traffic Patterns
C. Airport, Runway, and Taxiway Signs, Markings, andLighting

VII. LAUNCHES AND LANDINGS AERO TOW

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. Engine Restart In Flight
Q. Abnormal Occurrences

LANDINGS

R. Normal and Crosswind Landing
S. Slips to Landing
T. Downwind Landing

VIII. FUNDAMENTALS OF FLIGHT

A. Straight Glides
B. Turns to Headings

IX. PERFORMANCE AIRSPEEDS

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

X. SOARING TECHNIQUES

A. Thermal Soaring
B. Ridge and Slope Soaring
C. Wave Soaring

XI. PERFORMANCE MANEUVERS

A. Steep Turns
B. Recovery From a Spiral Dive

XII. SLOW FLIGHT, STALLS, AND SPINS

A. Maneuvering at Minimum Control Airspeed
B. Stall Recognition and Recovery
C. Spins

XIII. EMERGENCY OPERATIONS

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

XIV. POSTFLIGHT PROCEDURES

A. After-Landing and Securing

I. AREA OF OPERATION: FUNDAMENTALS OF INSTRUCTING

NOTE: The evaluator will select at least TASKs E and F.

A. TASK: THE LEARNING PROCESS

REFERENCE: FAA-H-8083-9.

Objective. To determine that the applicant exhibits instructional knowledge of the elements of the learning process by describing:

1. The definition and characteristics of learning.
2. Practical application of the laws of learning.
3. Factors involved in how people learn.
4. Recognition and proper use of the various levels of learning.
5. Principles that are applied in learning a skill.
6. Factors of forgetting and retention.
7. How the transfer of learning affects the learning process.
8. How the formation of habit patterns affects the learning process.

B. TASK: HUMAN BEHAVIOR

REFERENCE: FAA-H-8083-9.

Objective. To determine that the applicant exhibits instructionalknowledge of the elements of human behavior by describing:

1. Control of human behavior.
2. Development of student potential.
3. Relationship of human needs to behavior and learning.
4. Relationship of defense mechanisms to student learning and pilot decision-making.
5. General rules that a flight instructor should follow during student training to ensure good human relations.

C. TASK: THE TEACHING PROCESS

REFERENCE: FAA-H-8083-9.

Objective. To determine that the applicant exhibits instructional knowledge of the elements of the teaching process by describing:

1. Preparation of a lesson for a ground or flight instructional period.
2. Presentation of knowledge and skills, including the methods, which are suitable in particular situations.
3. Application, by the student, of the knowledge and skills presented by the instructor.
4. Review of the material presented and the evaluation of student performance and accomplishment.

D. TASK: TEACHING METHODS

REFERENCE: FAA-H-8083-9.

Objective. To determine that the applicant exhibits instructionalknowledge of the elements of teaching methods by describing:

1. The organization of a lesson (i.e., introduction, development,and conclusion).
2. The lecture method.
3. The guided discussion method.
4. The demonstration-performance method.
5. Computer and/or video assisted instruction.

E. TASK: CRITIQUE AND EVALUATION

REFERENCE: FAA-H-8083-9.

Objective. To determine that the applicant exhibits instructionalknowledge of the elements of critique and evaluation by describing:

1. Purpose and characteristics of an effective critique.
2. Difference between critique and evaluation.
3. Characteristics of effective oral questions and what type toavoid.
4. Responses to student questions.
5. Characteristics and development of effective written tests.
6. Characteristics and uses of performance tests, specifically,the FAA PTS.

F. TASK: FLIGHT INSTRUCTOR CHARACTERISTICS AND RESPONSIBILITIES

REFERENCE: FAA-H-8083-9.

Objective. To determine that the applicant exhibits instructional knowledge of the elements of flight instructor characteristics and responsibilities by describing:

1. Characteristics and qualifications of a professional flight instructor.
2. Role of the flight instructor in dealing with student stress, anxiety, and psychological abnormalities.
3. Flight instructor's responsibility with regard to student pilot supervision and surveillance.
4. Flight instructor's authority and responsibility for endorsements and recommendations.
5. Flight instructor's responsibility in the conduct of the required FAA flight review.

G. TASK: PLANNING INSTRUCTIONAL ACTIVITY

REFERENCE: FAA-H-8083-9.

Objective. To determine that the applicant exhibits instructional knowledge of the elements of planning instructional activity by describing:

1. Development of a course of training.
2. Content and use of a training syllabus.
3. Purpose, characteristics, proper use, and items of a lesson plan.
4. Flexibility features of a course of training, syllabus, and lesson plan required to accommodate students with varying backgrounds, levels of experience, and ability.

II. AREA OF OPERATION: TECHNICAL SUBJECT AREAS

NOTE: The evaluator will select TASK K and at least one otherTASK.

A. TASK: AEROMEDICAL FACTORS

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

Objective. To determine that the applicant exhibits instructional knowledge of the elements related to aeromedical factors by describing:

1. Hypoxia, its symptoms, effects, and corrective action.
2. Hyperventilation, its symptoms, effects, and corrective action.
3. Middle ear and sinus problems, their causes, effects, and corrective action.
4. Spatial disorientation, its causes, effects, and correctiveaction.
5. Motion sickness, its causes, effects, and corrective action.
6. Effects of alcohol and drugs, and their relationship to safety.
7. Effects of dehydration and their relationship to flight safety.
8. Carbon monoxide poisoning, its symptoms, effects, and corrective action (self-launch).
9. How evolved gas from scuba diving can affect a pilot during flight.
10. Stress and fatigue causes, effects, and corrective actions.
11. Visual illusions.

B. TASK: VISUAL SCANNING AND COLLISION AVOIDANCE

REFERENCES: FAA-H-8083-25; AC 90-48; AIM.

Objective. To determine that the applicant exhibits instructional knowledge of the elements of visual scanning and collisionavoidance by describing:

1. Relationship between a pilot's physical or mental condition and vision.
2. Environmental conditions and optical illusions that affect vision.
3. "See and avoid" concept.
4. Practice of "time sharing" of attention inside and outside the flight deck.
5. Proper visual scanning technique.
6. Relationship between poor visual scanning habits, aircraft speed differential, and increased collision risk.
7. Appropriate clearing procedures.
8. Situations, which involve the greatest collision, risk.

C. TASK: USE OF DISTRACTIONS DURING FLIGHTTRAINING

REFERENCE: AC 61-67.

Objective. To determine that the applicant exhibits instructional knowledge of the elements related to use of distractions during flighttraining by describing:

1. Flight situations where pilot distraction can be a causal factor related to aircraft accidents.
2. Selection of realistic distractions for specific flight situations.
3. Relationship between division of attention and flight instructor's use of distractions.
4. Difference between proper use of distractions and harassment.

D. TASK: PRINCIPLES OF FLIGHT

REFERENCES: FAA-H-8083-13.

Objective. To determine that the applicant exhibits instructional knowledge of the elements related to principles of flight by describing:

1. Glider and airfoil design characteristics.
2. The three axes of rotation and stability about those axes.
3. Lift/drag relationship.
4. Forces acting on a glider in straight flight and turns.
5. Stalls and spins.

E. TASK: ELEVATORS, AILERONS, AND RUDDER

REFERENCES: FAA-H-8083-13.

Objective. To determine that the applicant exhibits instructional knowledge of the elements related to elevators, ailerons, and rudder by describing:

1. Purpose of each primary control.
2. Location, attachments, and system of control.
3. Direction of movement relative to airflow.
4. Effect on glider control.
5. Proper technique for use.
6. Adverse yaw.

F. TASK: TRIM, LIFT, AND DRAG DEVICES

REFERENCES: FAA-H-8083-13; Glider Flight Manual.

Objective. To determine that the applicant exhibits instructional knowledge of the elements related to trim, lift, and drag devices by describing:

1. Purpose.
2. Location, attachments, and system of control.
3. Direction of trim movement relative to airflow and the primary control surface.
4. Effect on glider control.
5. Proper technique for use.

G. TASK: GLIDER WEIGHT AND BALANCE

REFERENCES: FAA-H-8083-1; Glider Flight Manual.

Objective. To determine that the applicant exhibits instructional knowledge of the elements of glider weight and balance by describing:

1. Weight and balance terms.
2. Effect of weight and balance on performance.
3. Determination of total weight, CG, and changes that occur when adding, removing, or shifting weight.
4. Purpose and effect of removable ballast on performance.

H. TASK: NAVIGATION AND FLIGHT PLANNING

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

Objective. To determine that the applicant exhibits instructional knowledge of the elements related to navigation and flight planning by describing:

1. Terms used in navigation.
2. Importance of using proper and current aeronautical charts.
3. Features of aeronautical charts to include identification of various types of airspace and symbols.
4. Method of plotting a course and selecting prominent en route checkpoints.
5. Fundamentals of pilotage and dead reckoning.
6. Importance of a weather check and the use of good judgment in making a “go/no-go” decision.
7. Construction of a flight profile to determine minimum flight altitude required at “go-ahead points.”
8. Factors that should be considered in the selection of a suitable landing area in the event an off-airport landing must be accomplished.

I. TASK: REGULATIONS AND PUBLICATIONS

REFERENCES: 14 CFR parts 1, 61, 91; 49 CFR part 830; AC 61-94; AIM; Glider Flight Manual.

Objective. To determine that the applicant exhibits instructional knowledge of the elements related to regulations and publications, their purpose, general content, availability, and method of revisionby describing:

1. 14 CFR parts 1, 61, and 91.
2. 49 CFR part 830.
3. Flight Information Publications.
4. PTS.
5. Glider Flight Manual, if applicable.

J. TASK: NATIONAL AIRSPACE SYSTEM

REFERENCES: 14 CFR part 91; AIM.

Objective. To determine that the applicant exhibits instructional knowledge of the elements related to the national airspace system by describing:

1. General dimensions and operating requirements of airspace classes.
2. Operating limitations associated with controlled, uncontrolled, special use, and other airspace, TFRs.

K. TASK: LOGBOOK ENTRIES AND CERTIFICATE ENDORSEMENTS

REFERENCES: 14 CFR part 61; AC 61-65, AC 61-98.

Objective. To determine that the applicant exhibits instructional knowledge of the elements related to logbook entries and certificate endorsements by describing:

1. Required logbook entries for instruction given, including type of launches.
2. Required student pilot certificate endorsements, including appropriate logbook entries.
3. Preparation of a recommendation for a pilot practical test, including the appropriate logbook entry.
4. Required endorsement of a pilot logbook for the satisfactory completion of an FAA flight review.
5. Required flight instructor records.

III. AREA OF OPERATION: PREFLIGHT PREPARATION

NOTE: The evaluator will select at least one TASK.

A. TASK: CERTIFICATES AND DOCUMENTS

REFERENCES: 14 CFR parts 43, 61, 91; FAA-H-8083-13; Glider Flight Manual.

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

1. Requirements for issuance of pilot and flight instructor certificates and ratings, and the privileges and limitations of those certificates and ratings.
2. Medical fitness.
3. Airworthiness and registration certificates.
4. Glider flight manuals.
5. Glider maintenance/inspection requirements and associated records.

B. TASK: WEATHER INFORMATION

REFERENCES: FAA-H-8083-13, FAA-H-8083-28; NOTAM.

Objective. To determine that the applicant exhibits instructional knowledge of the elements related to weather information by describing:

1. Importance of a thorough weather check.
2. Various sources for obtaining weather information.
3. Use of weather reports, forecasts, and charts, including stability charts.
4. Use of PIREPs, SIGMETs, and AIRMETs.
5. Recognition of aviation weather hazards and their effects on glider operations.
6. Factors to be considered in making a “go/no-go” decision.
7. 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. land, sea, and valley breezes.
    g. orographic lift.
    h. mountain waves.

C. TASK: OPERATION OF SYSTEMS

REFERENCES: FAA-H-8083-13; Glider Flight Manual.

Objective. To determine that the applicant exhibits instructional knowledge of the elements related to the operation of systems of theglider used for the practical test, by describing:

1. Magnetic compass.
2. Yaw string or inclinometer.
3. Airspeed indicator and altimeter.
4. Variometer and total energy compensator.
5. Gyroscopic instruments.
6. Electrical.
7. Landing gear and brakes.
8. Avionics.
9. Oxygen equipment.

D. TASK: PERFORMANCE AND LIMITATIONS

REFERENCES: FAA-H-8083-13; Glider Flight Manual.

Objective. To determine that the applicant exhibits instructional knowledge of the elements related to performance and limitations bydescribing:

1. Determination of weight and balance condition.
2. Use of performance charts and other data for determining performance in various phases of flight.
3. Effects of density altitude, wind, and other atmospheric conditions on performance.
4. Applicable performance speeds, and their uses.
5. Relationship between airspeeds and load factors.
6. Purpose and effect of water ballast on performance.
7. Factors to be considered in determining that the required performance is within the glider's capabilities and limitations.

IV. AREA OF OPERATION: PREFLIGHT LESSON ON AMANEUVER TO BE PERFORMED IN FLIGHT

NOTE: The evaluator shall select at least one maneuver from AREAS OF OPERATION VII through XII, and ask the applicant to present a preflight lesson on the selected maneuver as the lesson would be taught to a student. Previously developed lesson plans from the applicant's library may be used.

A. TASK: MANEUVER LESSON

REFERENCES: FAA-H-8083-9, FAA-H-8083-13; Glider FlightManual.

Objective. To determine that the applicant exhibits instructionalknowledge of the selected maneuver by:

1. Using a lesson plan that includes all essential items to make an effective and organized presentation.
2. Stating the objective.
3. Giving an accurate, comprehensive oral description of the maneuver, including the elements and associated common errors.
4. Using instructional aids, as appropriate.
5. Describing the recognition, analysis, and correction ofcommon errors.

V. AREA OF OPERATION: PREFLIGHT PROCEDURES

NOTE: The evaluator will select at least one TASK.

A. TASK: ASSEMBLY

REFERENCES: FAA-H-8083-9, FAA-H-8083-13; FAA-S-8081-22, FAA-S-8081-23; Glider Flight Manual.

Objective. To determine that the applicant:

1. Exhibits instructional knowledge of the elements related to assembly by describing—

    a. selection of a suitable assembly area and sufficientcrewmembers for assembly.
    b. importance of following a checklist.
    c. proper handling of components.
    d. cleaning and lubricating parts, as appropriate.
    e. post-assembly inspection, to include accounting for parts, tools, and making a positive control check.

2. Exhibits instructional knowledge of common errors related to assembly by describing—

    a. poor planning with regard to selection of a suitable assembly area, or the availability of sufficient number of crewmembers for assembly.
    b. failure to use a checklist.
    c. careless handling of components.
    d. failure to clean and lubricate parts, as appropriate.
    e. omission, or careless performance, of a post-assembly inspection, including a positive control check.

3. Demonstrates and simultaneously explains assembly from an instructional standpoint.

B. TASK: GROUND HANDLING

REFERENCES: FAA-H-8083-9, FAA-H-8083-13; FAA-S-8081-22, FAA-S-8081-23; Glider Flight Manual.

Objective. To determine that the applicant:

1. Exhibits instructional knowledge of the elements related to ground handling by describing—

    a. selection and use of proper ground handling equipment for existing conditions.
    b. proper positioning and use of a sufficient number of crewmembers.
    c. proper positioning and securing of controls.
    d. precautions to be taken with regard to the canopy(ies).
    e. importance of ensuring that placards or cautions are observed when handling glider structure.
    f. importance of following a suitable route, using an appropriate speed, and being aware of obstructions.

2. Exhibits instructional knowledge of common errors related to ground handling by describing—

    a. failure to select and use proper ground handling equipment.
    b. hazards of attempting to move the glider with an insufficient number of crewmembers.
    c. failure to properly position or secure controls.
    d. failure to secure canopy(ies).
    e. failure to follow directions stated on placards.
    f. poor choice of route, use of inappropriate speed, and lack of obstruction awareness.

3. Demonstrates and simultaneously explains ground handling from an instructional standpoint.
4. Analyzes and corrects common errors related to ground handling.

C. TASK: PREFLIGHT INSPECTION

REFERENCES: FAA-H-8083-9, FAA-H-8083-13; FAA-S-8081-22, FAA-S-8081-23; Glider Flight Manual.

Objective. To determine that the applicant:

1. Exhibits instructional knowledge of the elements related to a preflight inspection, as appropriate, to the glider used for the practical test, by describing—

    a. reasons for the preflight inspection, items that should be inspected, and how defects are detected.
    b. importance of using an appropriate checklist.
    c. inspection of oxygen system, if applicable.
    d. detection of visible structural damage.
    e. determination that glider components are properly assembled and attachments secure, including flight controls.
    f. ballast management, including CG weights and water ballast.
    g. inspection of towline, tow hitch, weak link, and release mechanism.
    h. use of sound judgment in determining whether glider is in condition for safe flight.

2. Exhibits instructional knowledge of common errors related to a preflight inspection by describing—

    a. failure to use, or improper use of, the checklist.
    b. hazards that may result from allowing distractions to interrupt a preflight inspection.
    c. inability to recognize discrepancies.

3. Demonstrates and simultaneously explains a preflight inspection from an instructional standpoint.
4. Analyzes and corrects common errors related to a preflight inspection.

D. TASK: FLIGHT DECK MANAGEMENT

REFERENCES: 14 CFR part 91; FAA-S-8081-22, FAA-S-8081-23; Glider Flight Manual.

Objective. To determine that the applicant:

1. Exhibits instructional knowledge of the elements of flight deck management by describing—

    a. proper arranging and securing of essential materials and equipment in the flight deck.
    b. proper use and/or adjustment of flight deck items, such as safety belts, shoulder harnesses, rudder pedals, seats, andparachutes.
    c. occupant briefing on emergency procedures, and use of safety belts and shoulder harnesses.

2. Exhibits instructional knowledge of common errors related to flight deck management by describing—

    a. failure to place and secure essential materials and equipment for easy access during flight.
    b. improper adjustment of equipment and controls.
    c. failure to brief occupants on emergency procedures, and use of safety belts and shoulder harnesses.

3. Demonstrates and simultaneously explains flight deck management from an instructional standpoint.

E. TASK: VISUAL SIGNALS

NOTE: The applicant's competence with regard to emergencysignals may be evaluated through oral testing.

REFERENCES: FAA-H-8083-9, FAA-H-8083-13; FAA-S-8081-22, FAA-S-8081-23; Glider Flight Manual.

Objective. To determine that the applicant:

1. Exhibits instructional knowledge of the elements related to visual signals by describing the—

    a. pre-launch signals, including purpose of and proper response to each.
    b. launch signals, including purpose of and proper response to each.
    c. airborne signals, including purpose of and proper response to each.
    d. emergency signals, including purpose of and proper response to each.

2. Exhibits instructional knowledge of common errors related to visual signals by describing the—

    a. improper transmission of pre-launch and launch signals to crewmembers.
    b. improper response to launch signals.
    c. improper transmission of airborne signals to tow pilot.
    d. improper response to airborne signals from tow pilot.
    e. improper transmission of, or response to, airborne emergency signals.

3. Demonstrates and simultaneously explains visual signals from an instructional standpoint.
4. Analyzes and corrects common errors related to visual signals.

VI. AREA OF OPERATION: AIRPORT AND GLIDERPORT OPERATIONS

NOTE: The evaluator shall select at least one TASK.

A. TASK: RADIO COMMUNICATIONS

REFERENCES: FAA-H-8083-25; AIM; FAA-S-8081-22, FAA-S-8081-23.

Objective. To determine that the applicant:

1. Exhibits instructional knowledge of the elements of radio communications by describing—

    a. selection and use of appropriate radio frequencies.
    b. recommended procedure and phraseology for radio voice communications, as described in the AIM.
    c. receipt, acknowledgment of, and compliance with, ATC clearances and other instructions.
    d. prescribed procedure for radio communications failure.
    e. interpretation of, and compliance with, ATC light signals.

2. Exhibits instructional knowledge of common errors related to radio communications by describing—

    a. use of improper frequencies.
    b. improper techniques and phraseologies when using radio voice communications.
    c. failure to acknowledge, or properly comply with, ATC clearances and other instructions.
    d. use of improper procedures for radio communications failure.
    e. failure to understand, or to properly comply with, ATC light signals.

B. TASK: TRAFFIC PATTERNS

REFERENCES: AC 90-66; FAA-H-8083-9, FAA-H-8083-13; FAA-S-8081-22, FAA-S-8081-23.

Objective. To determine that the applicant:

1. Exhibits instructional knowledge of the elements related to traffic patterns by describing—

    a. segments (or legs) and procedures applicable to flying a normal glider traffic pattern.
    b. importance of pilot awareness of co-existing trafficpatterns/runways, use of proper visual scanning technique, and maintenance of spacing on other aircraft.
    c. completion of pre-landing checklist.
    d. appropriate airspeed and proper technique for wind drift correction.
    e. selection of touchdown and stop points.
    f. appropriate corrections and compensations for lift and sink areas.
    g. considerations for wind shear.
    h. proper planning and use of flaps, spoilers, and/or dive brakes.

2. Exhibits instructional knowledge of common errors related to traffic patterns by describing—

    a. failure to scan properly and have appropriate spacing.
    b. poorly planned entry leg.
    c. improper correction for wind drift.
    d. rough or uncoordinated control technique.
    e. poor judgment in the selection of touchdown and stop points.
    f. failure to maintain appropriate airspeed.
    g. failure to apply needed corrections at various points in the pattern.

h. hazards of a low base leg and a low uncoordinated turn to final.

3. Demonstrates and simultaneously explains traffic patterns from an instructional standpoint.
4. Analyzes and corrects common errors related to traffic patterns.

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

REFERENCES: AIM; FAA-H-8083-9; FAA-S-8081-22, FAA-S-8081-23.

Objective. To determine that the applicant exhibits instructional knowledge of the elements of airport, runway, and taxiway signs, markings, and lighting by describing:

1. Identification and proper interpretation of airport, runway, and taxiway signs, and markings.
2. Identification and proper interpretation of airport, runway, and taxiway lighting.

VII. AREA OF OPERATION: LAUNCHES AND LANDINGS

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

AERO TOW

NOTE: The evaluator will select at least one TASK.

A. TASK: BEFORE TAKEOFF CHECK

REFERENCES: FAA-H-8083-9, FAA-H-8083-13; FAA-S-8081-22, FAA-S-8081-23; Glider Flight Manual.

Objective. To determine that the applicant:

1. Exhibits instructional knowledge of the elements related to the before takeoff check by describing—

    a. reason for performing each checklist item.
    b. establishment, with crewmembers, of a proper course of action, including visual signals, speeds, wind, and emergency procedures.
    c. proper procedure for setting altimeter, checking and adjusting controls, and closing and securing canopy(ies).
    d. use of the appropriate hitch for the type of launch to be conducted.
    e. proper procedure for checking towline hookup and release mechanism.
    f. importance of reviewing takeoff emergency procedures.
    g. method used for ensuring adequate clearance from other traffic.

2. Exhibits instructional knowledge of common errors related to the before takeoff check by describing—

    a. omission or improper accomplishment of essential items.
    b. failure to use proper visual signals.
    c. failure to check or properly adjust controls.
    d. failure to follow proper procedure for checking towline hookup and release mechanism.
    e. hazards of failing to review takeoff emergency procedures.

3. Demonstrates and simultaneously explains the before takeoff check from an instructional standpoint.
4. Analyzes and corrects common errors related to the before takeoff check.

B. TASK: NORMAL AND CROSSWIND TAKEOFF

REFERENCES: FAA-H-8083-9, FAA-H-8083-13; FAA-S-8081-22, FAA-8081-23; Glider Flight Manual.

Objective. To determine that the applicant:

1. Exhibits instructional knowledge of the elements related to a normal and crosswind takeoff by describing—

    a. glider configuration and positioning on the runway.
    b. initial positioning of controls.
    c. use of proper pre-launch and launch visual signals.
    d. directional control during takeoff roll.
    e. crosswind control technique.

f. proper lift-off attitude, maintenance of alignment with the towplane, and climbout technique.

2. Exhibits instructional knowledge of common errors related to a normal and crosswind takeoff by describing—

   a. improper glider configuration.
   b. improper initial positioning of flight controls.
   c. use of improper visual signals.
   d. failure to maintain alignment behind towplane before towplane becomes airborne.
   e. improper position relative to towplane during liftoff.
   f. improper glider position, in crosswind, after towplane becomes airborne.

3. Demonstrates and simultaneously explains a normal or crosswind takeoff from an instructional standpoint.
4. Analyzes and corrects common errors related to a normal or crosswind takeoff.

C. TASK: MAINTAINING TOW POSITIONS

REFERENCES: FAA-H-8083-9, FAA-H-8083-13; FAA-S-8081-22, FAA-S-8081-23.

Objective. To determine that the applicant:

1. Exhibits instructional knowledge of the elements related to maintaining tow positions by describing—

   a. high tow and low tow, including purpose, recognition, and control technique for each.
   b. wake turbulence associated with towplane.
   c. proper technique for transitioning between high-tow and low-tow positions.
   d. proper technique for performing turns on tow.
   e. over-control and under-control while on tow.

2. Exhibits instructional knowledge of common errors related to maintaining tow positions by describing—

   a. faulty technique with regard to proper vertical and lateral positions during high tow and low tow.
   b. faulty technique during transition between high tow and low tow.
   c. inadvertent entry into towplane wake turbulence.
   d. initiation of a turn too early or at an angle of bank greater than that of the towplane.
   e. initiation of a turn too late or at an angle of bank less than that of the towplane.

3. Demonstrates and simultaneously explains maintaining tow positions from an instructional standpoint.
4. Analyzes and corrects common errors related to maintaining tow positions.

D. TASK: SLACK LINE

REFERENCES: FAA-H-8083-9, FAA-H-8083-13; FAA-S-8081-22, FAA-S-8081-23.

Objective. To determine that the applicant:

1. Exhibits instructional knowledge of the elements related toslack line by describing—

    a. situations that lead to development of slack line.
    b. hazards of slack line.
    c. techniques, which can be used to correct slack line invarious situations.

2. Exhibits instructional knowledge of common errors related toslack line by describing—

    a. failure to take corrective action at the first indication of slack line development.
    b. use of an improper technique to correct slack line.
    c. a faulty corrective technique, which can result in excessive stress on towline, weak link, and gliderstructure.

3. Demonstrates and simultaneously explains slack line from aninstructional standpoint.
4. Analyzes and corrects common errors related to slack line.

E. TASK: BOXING THE WAKE

REFERENCES: FAA-H-8083-9, FAA-H-8083-13; FAA-S-8081-22, FAA-S-8081-23.

Objective. To determine that the applicant:

1. Exhibits instructional knowledge of the elements related toboxing the wake by describing—

    a. performance of a rectangular pattern that keeps glider slightly outside the wake.
    b. proper control technique and coordination.
    c. importance of maintaining a taut towline.

2. Exhibits instructional knowledge of common errors related toboxing the wake by describing—

    a. performance of an excessively large rectangle (movingtoo far from the wake).
    b. inappropriate control coordination and technique.
    c. abrupt or rapid changes of position.

3. Demonstrates and simultaneously explains boxing the wakefrom an instructional standpoint.
4. Analyzes and corrects common errors related to boxing thewake.

F. TASK: TOW RELEASE

REFERENCES: FAA-H-8083-9, FAA-H-8083-13; FAA-S-8081-22, FAA-S-8081-23.

Objective. To determine that the applicant:

1. Exhibits instructional knowledge of the elements related totow release by describing—

    a. why release should be accomplished with normal tension on towline.
    b. advisability of ensuring that area is clear of other aircraftprior to release.
    c. clearing turn, which should be made by glider and towplane immediately after release.
    d. situations when an immediate release should beaccomplished.

2. Exhibits instructional knowledge of common errors related totow release by describing—

    a. lack of tension on the towline.
    b. failure to clear area prior to release.
    c. failure to make proper turn after release.
    d. release in close proximity to aircraft other than towplane.

3. Demonstrates and simultaneously explains tow release froman instructional standpoint.
4. Analyzes and corrects common errors related to tow release.

G. TASK: ABNORMAL OCCURRENCES

REFERENCES: FAA-H-8083-9, FAA-H-8083-13; FAA-S-8081-22, FAA-S-8081-23.

Objective. To determine that the applicant exhibits instructional knowledge of elements related to abnormal occurrences bydescribing:

1. Why glider pilot and towplane pilot should agree on a courseof action prior to flight.
2. Proper glider pilot response in the event of—

    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.

GROUND TOW (AUTO OR WINCH)

NOTE: The evaluator will select at least one TASK.

H. TASK: BEFORE TAKEOFF CHECK

REFERENCES: FAA-H-8083-9, FAA-H-8083-13; FAA-S-8081-22, FAA-S-8081-23; Glider Flight Manual.

Objective. To determine that the applicant:

1. Exhibits instructional knowledge of the elements related to the before takeoff check by describing—

    a. reason for performing each checklist item.
    b. establishment, with crewmembers, of a proper course of action, including visual signals, speeds, wind, and emergency procedures.
    c. proper procedure for setting altimeter, checking and adjusting controls, and closing and securing canopy(ies).
    d. use of the appropriate hitch for the type of launch to be conducted.
    e. proper procedure for checking towline hookup and release mechanism.
    f. importance of reviewing takeoff emergency procedures.
    g. method used for ensuring adequate clearance from other traffic.

2. Exhibits instructional knowledge of common errors related to the before takeoff check by describing—

    a. omission or improper accomplishment of essential items.
    b. failure to use proper visual signals.
    c. failure to check or properly adjust controls.
    d. failure to follow the proper procedure for checking the towline hookup and release mechanism.
    e. Hazards of failure to review takeoff emergencyprocedures.

3. Demonstrates and simultaneously explains the before takeoff check from an instructional standpoint.
4. Analyzes and corrects common errors related to the before takeoff check.

I. TASK: NORMAL AND CROSSWIND TAKEOFF

REFERENCES: FAA-H-8083-9, FAA-H-8083-13; FAA-S-8081-22, FAA-S-8081-23; Glider Flight Manual.

Objective. To determine that the applicant:

1. Exhibits instructional knowledge of the elements related to a normal and crosswind takeoff by describing—

    a. proper calculation of launch airspeed.
    b. glider configuration and positioning on the runway.
    c. initial positioning of controls.
    d. use of proper pre-launch and launch visual signals.
    e. directional control during takeoff roll.
    f. crosswind control technique.
    g. pitch attitude and groundtrack during climb.

h. proper technique for making adjustments of airspeed and for porpoising.
i. proper towline release technique.

2. Exhibits instructional knowledge of common errors related to a normal and crosswind takeoff by describing—

a. improper glider configuration.
b. improper initial positioning of flight controls.
c. use of improper visual signals.
d. improper crosswind technique.
e. improper climb profile.
f. faulty corrective action for adjustment of airspeed and porpoising.
g. exceeding maximum launch airspeed.
h. improper towline release technique and timing.

3. Demonstrates and simultaneously explains a normal or a crosswind takeoff from an instructional standpoint.
4. Analyzes and corrects common errors related to a normal or a crosswind takeoff.

J. TASK: ABNORMAL OCCURRENCES

REFERENCES: FAA-H-8083-9, FAA-H-8083-13; FAA-S-8081-22, FAA-S-8081-23; Glider Flight Manual.

Objective. To determine that the applicant exhibits instructional knowledge of elements related to abnormal occurrences bydescribing:

1. Why the glider pilot and crewmembers should agree on a course of action prior to launch.
2. Proper glider pilot response in the event of—

a. overrunning the towline.
b. launch power failure or towline break.
c. inability to release towline.
d. porpoising.

3. Methods for emergency release or severance of towline.

SELF-LAUNCH

NOTE: The evaluator will select at least one TASK.

K. TASK: ENGINE STARTING

REFERENCES: FAA-H-8083-9, FAA-H-8083-13; FAA-S-8081-22, FAA-S-8081-23; Glider Flight Manual.

Objective. To determine that the applicant:

1. Exhibits instructional knowledge of the elements of engine starting by describing—

a. importance of using the appropriate checklist.
b. safety precautions related to engine starting.
c. effect of atmospheric conditions on engine starting.
d. starting procedure, as appropriate.
e. adjustment of engine controls during start.
f. prevention of glider movement during and after engine start.

2. Exhibits instructional knowledge of common errors related to engine starting by describing—

    a. failure to use or improper use of the checklist.
    b. improper or unsafe starting procedure.
    c. excessively high RPM after starting.
    d. failure to ensure proper clearance of propeller.

3. Demonstrates and simultaneously explains engine starting from an instructional standpoint.
4. Analyzes and corrects common errors related to engine starting.

L. TASK: TAXIING

REFERENCES: FAA-H-8083-9, FAA-H-8083-13; FAA-S-8081-22, FAA-S-8081-23; Glider Flight Manual.

Objective. To determine that the applicant:

1. Exhibits instructional knowledge of the elements related to taxiing by describing—

    a. proper brake check and correct use of brakes.
    b. compliance with airport surface markings, signals, and clearances.
    c. how to control direction and speed.
    d. control positioning for various wind conditions.
    e. techniques used to avoid other aircraft and hazards, considering wingspan and maneuvering space required.

2. Exhibits instructional knowledge of the common errors related to taxiing by describing—

    a. improper use of brakes.
    b. failure to comply with markings, signals, or clearances.
    c. hazards of taxiing too fast.
    d. improper positioning of flight controls for various wind conditions.
    e. failure to consider wingspan and space required to maneuver during taxiing.

3. Demonstrates and simultaneously explains taxiing from an instructional standpoint.
4. Analyzes and corrects common errors related to taxiing.

M. TASK: BEFORE TAKEOFF CHECK

REFERENCES: FAA-H-8083-9, FAA-H-8083-13; FAA-S-8081-22, FAA-S-8081-23; Glider Flight Manual.

Objective. To determine that the applicant:

1. Exhibits instructional knowledge of the before takeoff check by describing—

    a. positioning glider to avoid creating hazards.
    b. division of attention inside and outside the flight deck.
    c. importance of following a checklist and responding to each item.
    d. reasons for ensuring suitable engine temperatures and pressures for run-up and takeoff.
    e. method used to determine that the glider is in a safe operating condition.
    f. importance of reviewing takeoff performance airspeeds, expected takeoff distances, wind, and emergency procedures.
    g. methods for ensuring that takeoff area is free of hazards.
    h. methods of ensuring adequate clearance from other traffic.

2. Exhibits instructional knowledge of common errors related to the before takeoff check by describing—

   a. improper positioning of the glider.
   b. failure to use or improper use of the checklist.
   c. acceptance of marginal engine performance.
   d. improper check of flight controls.
   e. hazards of failure to review takeoff and emergency procedures.
   f. failure to check for hazards and other traffic.

3. Demonstrates and simultaneously explains the before takeoff check from an instructional standpoint.
4. Analyzes and corrects common errors related to the before takeoff check.

N. TASK: NORMAL AND CROSSWIND TAKEOFF AND CLIMB

REFERENCES: FAA-H-8083-9, FAA-H-8083-13; FAA-S-8081-22, FAA-S-8081-23; Glider Flight Manual.

Objective. To determine that the applicant:

1. Exhibits instructional knowledge of the elements related to a normal and crosswind takeoff and climb by describing—

   a. alignment with takeoff path.
   b. initial positioning of flight controls.
   c. power application.
   d. directional control during acceleration on the surface.
   e. crosswind control technique during acceleration on the surface.
   f. lift-off attitude and airspeed.
   g. climb attitude, power setting, and airspeed.
   h. crosswind correction and track during climb.
   i. use of checklist, as appropriate.

2. Exhibits instructional knowledge of common errors related to a normal and crosswind takeoff and climb by describing—

   a. improper initial positioning of flight controls.
   b. improper power application.
   c. inappropriate removal of hand from throttle.
   d. poor directional control.
   e. improper use of ailerons.
   f. improper pitch attitude during liftoff.
   g. failure to establish and maintain proper climb attitude and airspeed.
   h. drift during climb.

3. Demonstrates and simultaneously explains a normal or crosswind takeoff and climb from an instructional standpoint.
4. Analyzes and corrects common errors related to a normal or crosswind takeoff and climb.

O. TASK: ENGINE SHUTDOWN IN FLIGHT (if applicable)

REFERENCES: FAA-H-8083-9, FAA-H-8083-13; FAA-S-8081-22, FAA-S-8081-23; Glider Flight Manual.

Objective. To determine that the applicant:

1. Exhibits instructional knowledge of the elements related to engine shutdown in flight by describing—

    a. establishment of manufacturer's recommended power setting to ensure engine cooling prior to shutdown.
    b. establishment of appropriate airspeed.
    c. shutdown of unnecessary electrical equipment, if appropriate.
    d. manufacturer's recommended propeller feathering, positioning, and stowing procedure.
    e. selection of proper static source, if appropriate.

2. Exhibits instructional knowledge of common errors related to engine shutdown in flight by describing—

    a. failure to set engine at idle for the specified period of time.
    b. initiation of feathering procedure at an inappropriate airspeed.
    c. failure to follow manufacturer's recommended propeller feathering, positioning, and stowing procedure.
    d. improper setting of electrical equipment.
    e. failure to maintain positive aircraft control while performing engine shutdown procedures.

3. Demonstrates and simultaneously explains engine shutdown in flight from an instructional standpoint.
4. Analyzes and corrects common errors related to engine shutdown in flight.

P. TASK: ENGINE RESTART IN FLIGHT (if applicable)

REFERENCES: FAA-H-8083-9, FAA-H-8083-13; FAA-S-8081-22, FAA-S-8081-23; Glider Flight Manual.

Objective. To determine that the applicant:

1. Exhibits instructional knowledge of the elements related to engine restart in flight by describing—

    a. establishment of the proper airspeed.
    b. altitude available to consider restart.
    c. manufacturer's propeller repositioning and unfeathering procedure.
    d. operation of engine controls.
    e. procedure for starting engine by starter or by windmilling.
    f. proper engine warm-up procedure.
    g. selection of proper static source, if appropriate.
    h. proper setting of electrical equipment.
    i. proper adjustment of propeller pitch.

2. Exhibits instructional knowledge of common errors related to engine restart in flight by describing—

    a. failure to establish recommended airspeed.
    b. performance of improper propeller repositioning and unfeathering procedure.
    c. failure to properly operate engine controls.
    d. failure to follow prescribed procedure for starting engine by starter or windmilling.
    e. improper procedure for warm-up.
    f. improper setting of electrical equipment.
    g. failure to maintain positive aircraft control while performing engine restart procedures.

3. Demonstrates and simultaneously explains engine restart in flight from an instructional standpoint.
4. Analyzes and corrects common errors related to engine restart in flight.

Q. TASK: ABNORMAL OCCURRENCES

REFERENCES: FAA-H-8083-9, FAA-H-8083-13; FAA-S-8081-22, FAA-S-8081-23; Glider Flight Manual.

Objective. To determine that the applicant exhibits instructional knowledge of the elements related to abnormal occurrences bydescribing recommended pilot action for:

1. Partial or complete power failure or failure to gain restart.
2. Smoke or fire during ground or flight operations.
3. Loss of engine oil pressure.
4. Low fuel pressure.
5. Engine overheat.
6. Electrical system malfunction.
7. Canopy opening in flight.

LANDINGS

NOTE: The evaluator will select at least one TASK.

R. TASK: NORMAL AND CROSSWIND LANDING

REFERENCES: FAA-H-8083-9, FAA-H-8083-13; FAA-S-8081-22, FAA-S-8081-23; Glider Flight Manual.

Objective. To determine that the applicant:

1. Exhibits instructional knowledge of the elements related to anormal and crosswind landing by describing—

    a. obstructions and other hazards, which should be considered.
    b. how to determine wind speed and direction.
    c. proper glidepath to the selected touchdown area, at the recommended airspeed.
    d. proper use of flaps, spoilers, and dive brakes.
    e. coordination of flight controls and use of trim.
    f. crosswind control technique.
    g. timing, judgment, and control technique during roundout and touchdown.
    h. directional control after touchdown.
    i. appropriate wing attitude and proper use of brakes after touchdown.

2. Exhibits instructional knowledge of common errors related to a normal and crosswind landing by describing—

   a. poor judgment of glidepath and improper use of flaps, spoilers, and dive brakes.
   b. rough, hesitant, or uncoordinated control technique.
   c. improper airspeed control.
   d. improper correction for crosswind.
   e. improper technique during roundout and touchdown.
   f. poor directional control after touchdown.
   g. improper use of brakes.

3. Demonstrates and simultaneously explains a normal or a crosswind landing from an instructional standpoint.
4. Analyzes and corrects common errors related to a normal or a crosswind landing.

S. TASK: SLIPS TO LANDING

REFERENCES: FAA-H-8083-9, FAA-H-8083-13; FAA-S-8081-22, FAA-S-8081-23; Glider Flight Manual.

Objective. To determine that the applicant:

1. Exhibits instructional knowledge of the elements related to slips to landing by describing—

   a. forward, side, and turning slips, with and without the use of drag devices.
   b. obstacles and other hazards, which should be considered.
   c. possible airspeed indication errors.
   d. proper control usage and crosswind technique.
   e. timing, judgment, and control technique during transition from slip to touchdown.
   f. directional control after touchdown.
   g. appropriate wing attitude and proper use of brakes after touchdown.

2. Exhibits instructional knowledge of common errors related to slips to landing by describing—

   a. failure to establish recommended glider configuration.
   b. failure to use proper technique to achieve touchdown accuracy.
   c. rough, hesitant, or uncoordinated use of controls.
   d. improper correction for crosswind.
   e. improper technique during roundout and touchdown.
   f. poor directional control after touchdown.
   g. improper use of brakes.

3. Demonstrates and simultaneously explains a slip to landing (without use of drag devices) from an instructional standpoint.
4. Analyzes and corrects common errors related to a slip to landing.

T. TASK: DOWNWIND LANDING

REFERENCES: FAA-H-8083-9, FAA-H-8083-13; FAA-S-8081-22, FAA-S-8081-23; Glider Flight Manual.

Objective. To determine that the applicant:

1. Exhibits instructional knowledge of the elements related to a downwind landing by describing—

   a. obstructions and other hazards, which should be considered.
   b. windspeed above which a downwind landing should not be attempted.
   c. length of the final approach compared with that of a normal landing.
   d. proper glidepath to selected touchdown area, at there commended airspeed.
   e. proper use of flaps, spoilers, and dive brakes to achieve accuracy of touchdown.
   f. coordination of flight controls and use of trim.
   g. appropriate correction for wind.
   h. timing, judgment, and control technique during roundout and touchdown.
   i. directional control after touchdown.
   j. appropriate wing attitude and proper use of brakes after touchdown.

2. Exhibits instructional knowledge of common errors related to a downwind landing by describing—

   a. poor judgment of glidepath and the improper use of flaps, spoilers, and dive brakes.
   b. rough, hesitant, or uncoordinated use of controls.
   c. unintentional slowing of airspeed due to higher groundspeed.
   d. improper correction for wind.
   e. improper technique during roundout and touchdown.
   f. poor directional control after touchdown.
   g. improper use of brakes.

3. Demonstrates and simultaneously explains a downwind landing from an instructional standpoint.
4. Analyzes and corrects common errors related to a downwindlanding.

VIII. AREA OF OPERATION: FUNDAMENTALS OF FLIGHT

NOTE: The evaluator will select at least one TASK.

A. TASK: STRAIGHT GLIDES

REFERENCES: FAA-H-8083-9, FAA-H-8083-13; FAA-S-8081-22, FAA-S-8081-23.

Objective. To determine that the applicant:

1. Exhibits instructional knowledge of the elements related to straight glides by describing—

    a. pitch attitude and airspeed.
    b. establishment and maintenance of a precise ground track.
    c. effect of flaps, spoilers, and dive brakes.
    d. use of smooth and coordinated control applications.
    e. use of trim.

2. Exhibits instructional knowledge of common errors related to straight glides by describing—

    a. rough or erratic pitch attitude and airspeed control.
    b. failure to establish and maintain proper wind drift correction.
    c. effect of improper use of controls when using flaps, spoilers, and dive brakes.
    d. rough, uncoordinated, or inappropriate control applications.
    e. failure to trim or improper use of trim.

3. Demonstrates and simultaneously explains straight glides from an instructional standpoint.
4. Analyzes and corrects common errors related to straight glides.

B. TASK: TURNS TO HEADINGS

REFERENCES: FAA-H-8083-9; FAA-H-8083-13, FAA-S-8081-22, FAA-S-8081-23.

Objective. To determine that the applicant:

1. Exhibits instructional knowledge of the elements related to turns to headings by describing—

    a. proper pitch attitude, angle of bank, and airspeed.
    b. roll-in and roll-out technique.
    c. changes in lift, drag, and load factor.
    d. adverse yaw.
    e. use of smooth and coordinated control applications.

2. Exhibits instructional knowledge of common errors related to turns to headings by describing—

    a. rough or uncoordinated use of controls during roll-in and roll-out.
    b. failure to establish desired angle of bank.
    c. lack of precision in completion of a turn to a heading.

3. Demonstrates and simultaneously explains turns to headings from an instructional standpoint.
4. Analyzes and corrects common errors related to turns to headings.

IX. AREA OF OPERATION: PERFORMANCE AIRSPEEDS

NOTE: The evaluator will select at least one TASK.

A. TASK: MINIMUM SINK AIRSPEED

REFERENCES: FAA-H-8083-9, FAA-H-8083-13; FAA-S-8081-22, FAA-S-8081-23; Glider Flight Manual.

Objective. To determine that the applicant:

1. Exhibits instructional knowledge of the elements related to minimum sink airspeed by describing—

    a. related aerodynamic factors.
    b. use of this speed.
    c. establishment and maintenance of this speed.

2. Exhibits instructional knowledge of common errors related to minimum sink airspeed by describing—

    a. incorrect determination of this speed.
    b. rough or erratic pitch attitude and airspeed control.

3. Demonstrates and simultaneously explains minimum sink airspeed from an instructional standpoint.
4. Analyzes and corrects common errors related to minimum sink airspeed.

B. TASK: SPEED-TO-FLY

REFERENCES: FAA-H-8083-9, FAA-H-8083-13; FAA-S-8081-22, FAA-S-8081-23; Glider Flight Manual.

Objective. To determine that the applicant:

1. Exhibits instructional knowledge of the elements related to speed-to-fly by describing—

    a. factors related to the determination of speed-to-fly.
    b. use of this speed.
    c. establishment and maintenance of this speed for a given situation.

2. Exhibits instructional knowledge of common errors related to speed-to-fly by describing—

    a. improper determination of this speed.
    b. rough or erratic pitch attitude and airspeed control.

3. Demonstrates and simultaneously explains speed-to-fly from an instructional standpoint.
4. Analyzes and corrects common errors related to speed-to-fly.

X. AREA OF OPERATION: SOARING TECHNIQUES

NOTE: The evaluator will select at least one TASK. The TASK selected will be appropriate to the geographical location and existing atmospheric conditions. If conditions do not permit a demonstration of soaring skills, applicants will be expected to demonstrate satisfactory instructional knowledge of the selected TASK through oral testing.

A. TASK: THERMAL SOARING

REFERENCES: FAA-H-8083-9, FAA-H-8083-13; FAA-S-8081-22, FAA-S-8081-23.

Objective. To determine that the applicant:

1. Exhibits instructional knowledge of the elements related to thermal soaring by describing—

    a. the process by which thermals are produced.
    b. recognition of the presence of a thermal.
    c. initial entry into a thermal.
    d. analysis of a thermal's structure and determination of the direction of turn to remain within a thermal.
    e. coordinated use of controls and proper planning to remain within a thermal.
    f. importance of maintaining orientation with groundreferences, wind, and other aircraft.
    g. importance of maintaining proper airspeeds in andbetween thermals.
    h. use of proper techniques to re-enter a thermal.

2. Exhibits instructional knowledge of common errors related to thermal soaring by describing—

    a. failure to maintain proper airspeeds in and between thermals.
    b. poor division of attention resulting in failure to recognize When entering or flying out of a thermal.
    c. improper technique during initial entry into a thermal.
    d. faulty control coordination and planning to remain within a thermal.
    e. faulty division of attention in maintaining orientation with ground references and wind.
    f. failure to properly scan for other aircraft.
    g. poor planning and technique when attempting to re-enter a thermal.

3. Demonstrates and simultaneously explains thermal soaring from an instructional standpoint.
4. Analyzes and corrects common errors related to thermal soaring.

B. TASK: RIDGE AND SLOPE SOARING

REFERENCES: FAA-H-8083-9, FAA-H-8083-13; FAA-S-8081-22, FAA-S-8081-23.

Objective. To determine that the applicant:

1. Exhibits instructional knowledge of the elements related to ridge and slope soaring by describing—

    a. terrain features and wind conditions that create orographic lift.
    b. importance of an accurate estimate of terrain height.
    c. initial entry into an area of lift.
    d. importance of smooth, precise, and coordinated use of controls.
    e. maintenance of a safe lateral distance from the terrain.
    f. use of proper techniques to re-enter an area of lift.
    g. procedures for approaching and crossing ridges.

h. importance of planning to fly within a safe gliding distance of an acceptable landing area.
i. maintenance of orientation with ground references and other aircraft.
j. importance of being constantly alert for changing weather conditions.

2. Exhibits instructional knowledge of common errors related to ridge and slope soaring by describing—

a. hazards of approaching the ridge or slope lift area at approximately a 90° angle or from the downwind side.
b. failure to maintain proper airspeed while in the area of lift.
c. poor division of attention resulting in failure to promptly recognize when leaving the area of lift or entering a high sink area.
d. poor control coordination.
e. poor division of attention in maintaining orientation with ground references and wind.
f. failure to properly scan for other aircraft.
g. failure to plan the flight so an acceptable landing area is within gliding distance.

3. Demonstrates and simultaneously explains ridge and slope soaring from an instructional standpoint.
4. Analyzes and corrects common errors related to ridge and slope soaring.

C. TASK: WAVE SOARING

REFERENCES: FAA-H-8083-9, FAA-H-8083-13; FAA-S-8081-22, FAA-S-8081-23.

Objective. To determine that the applicant:

1. Exhibits instructional knowledge of the elements related to wave soaring by describing—

a. terrain and weather conditions that create standing waves.
b. location of and technique for entering an area of lift.
c. importance of smooth, precise, and coordinated use of controls.
d. use of proper techniques to re-enter an area of lift.
e. maintenance of orientation with ground references and other aircraft.
f. recognition of rotor and wave turbulence.
g. coordination with air traffic control, as appropriate.
h. maintenance of proper airspeeds.
i. importance of being constantly alert for changing weather conditions.
j. importance of having proper equipment and training for high altitude flight.

2. Exhibits instructional knowledge of common errors related to wave soaring by describing—

    a. erratic airspeed control while in the turbulence of a rotor.
    b. failure to maintain proper airspeed while in an area of lift.
    c. rough control technique.
    d. poor division of attention resulting in failure to promptly recognize when leaving an area of lift or entering a high sink area.
    e. faulty control coordination and planning to remain within the area of lift.
    f. poor division of attention in maintaining orientation with ground references and wind.
    g. failure to properly scan for other aircraft.
    h. failure to have proper equipment and training for high altitude flight.

3. Demonstrates and simultaneously explains wave soaring from an instructional standpoint.
4. Analyzes and corrects common errors related to wave soaring.

XI. AREA OF OPERATION: PERFORMANCE MANEUVERS

NOTE: The evaluator will select at least one TASK.

A. TASK: STEEP TURNS

REFERENCES: FAA-H-8083-9, FAA-H-8083-13; FAA-S-8081-22, FAA-S-8081-23.

Objective. To determine that the applicant:

1. Exhibits instructional knowledge of the elements related to steep turns by describing—

    a. relationship of bank angle, load factor, and stalling speed.
    b. overbanking tendency.
    c. establishment of the recommended entry airspeed.
    d. orientation, division of attention, and planning.
    e. coordination of flight controls.
    f. entry and roll-out technique.

2. Exhibits instructional knowledge of common errors related to steep turns by describing—

    a. uncoordinated use of flight controls.
    b. loss of orientation.
    c. unintentional stall or spin.
    d. excessive deviation from desired heading during roll-out.

3. Demonstrates and simultaneously explains steep turns from an instructional standpoint.
4. Analyzes and corrects common errors related to steep turns.

B. TASK: RECOVERY FROM A SPIRAL DIVE

REFERENCES: FAA-H-8083-9, FAA-H-8083-13.

Objective. To determine that the applicant:

1. Exhibits instructional knowledge of the elements related to recovery from a spiral dive by describing—

    a. conditions that cause high-speed spirals.
    b. recognition of situation when a spiral dive is developing.
    c. procedures for recovery from a high-speed spiral dive.
    d. importance of using smooth control applications during recovery.

2. Exhibits instructional knowledge of common errors related to recovery from a spiral dive by describing—

    a. failure to recognize when a spiral dive is developing.
    b. rough, abrupt, and/or uncoordinated control applications during recovery.
    c. improper sequence of control applications.
    d. potential consequences from delaying recovery.

3. Demonstrates and simultaneously explains recovery from a spiral dive from an instructional standpoint.
4. Analyzes and corrects common errors related to recovery from a spiral dive.

XII. AREA OF OPERATION: SLOW FLIGHT, STALLS, AND SPINS

NOTE: The evaluator will select at least one TASK.

A. TASK: MANEUVERING AT MINIMUM CONTROL AIRSPEED

REFERENCES: FAA-H-8083-9, FAA-H-8083-13; FAA-S-8081-22, FAA-S-8081-23; Glider Flight Manual.

Objective. To determine that the applicant:

1. Exhibits instructional knowledge of the elements related to maneuvering at minimum control airspeed by describing—

    a. establishment and maintenance of appropriate airspeed.
    b. flight characteristics to include controllability.
    c. importance of maintaining an appropriate airspeed in turbulent air or as bank is increased.
    d. importance of smooth, coordinated control applications.
    e. proper technique for avoiding a stall when raising alowered wing.
    f. recovery to desired airspeed.

2. Exhibits instructional knowledge of common errors related to maneuvering at minimum control airspeed by describing—

    a. failure to establish or to maintain slow airspeed, as requested.
    b. improper use of trim.
    c. rough or uncoordinated use of controls.
    d. lack of pilot recognition of the first indications of a stall.
    e. failure to use proper technique to avoid a stall in turbulent air or during a turn.
    f. faulty technique when raising a lowered wing.

3. Demonstrates and simultaneously explains maneuvering at minimum control airspeed from an instructional standpoint.
4. Analyzes and corrects common errors related to maneuvering at minimum control airspeed.

B. TASK: STALL RECOGNITION AND RECOVERY

REFERENCES: FAA-H-8083-9, FAA-H-8083-13; FAA-S-8081-22, FAA-S-8081-23; Glider Flight Manual.

Objective. To determine that the applicant:

1. Exhibits instructional knowledge of the elements related to stall recognition and recovery by describing—

    a. aerodynamics of stalls.
    b. relationship of various factors, such as weight, CG, load factor, flaps, spoilers, dive brakes, and angle of bank to stalls.
    c. flight situations where unintentional stalls may occur.
    d. recognition of the first indications of a stall.
    e. performance of stalls in various configurations.
    f. entry technique and minimum entry altitude.
    g. coordination of flight controls.
    h. recovery technique and minimum recovery altitude.

2. Exhibits instructional knowledge of common errors related to stall recognition and recovery by describing—

    a. failure to establish the specified configuration prior to entry.
    b. improper pitch, heading, and bank control during straight-ahead stalls.
    c. improper pitch and bank control during turning stalls.
    d. rough or uncoordinated control technique.
    e. failure to recognize the first indications of a stall.
    f. failure to achieve a stall.
    g. poor stall recognition and delayed recovery.
    h. excessive altitude loss, excessive speed, or secondary stall during recovery.

3. Demonstrates and simultaneously explains stall recognition and recovery from an instructional standpoint.
4. Analyzes and corrects common errors related to stall recognition and recovery.

C. TASK: SPINS

NOTE: At the discretion of the evaluator, a logbook record attesting applicant instructional competency in spin entries, spins, and spin recoveries may be accepted in lieu of this TASK. Logbook record shall be certified by the flight instructor who conducted the spin instruction.

REFERENCES: 14 CFR part 23; FAA-H-8083-9, FAA-H-8083-13; Glider Flight Manual.

Objective. To determine that the applicant:

1. Exhibits instructional knowledge of the elements related to spins by describing—

    a. aerodynamics of spins.
    b. gliders approved for the spin maneuver based on the airworthiness category and type certificate.
    c. relationship of various factors, such as configuration, weight, CG, and control coordination to spins.
    d. flight situations where unintentional spins may occur.
    e. how to recognize and recover from imminent,unintentional spins.
    f. entry technique and minimum entry altitude for intentional spins.
    g. control technique to maintain a spin.
    h. orientation during a spin.
    i. recovery technique and minimum recovery altitude for intentional spins.
    j. anxiety factors associated with spin instruction.

2. Exhibits instructional knowledge of common errors related to spins by describing—

   a. hazards of attempting to spin a glider not approved forspins.
   b. failure to establish proper configuration prior to spin entry.
   c. failure to recognize indications leading to a spin.
   d. failure to achieve and maintain a stall during spin entry.
   e. improper use of flight controls during spin entry, rotation,or recovery.
   f. disorientation during a spin.
   g. failure to distinguish between a high-speed spiral and aspin.
   h. excessive speed or accelerated stall during recovery.
   i. failure to recover with minimum loss of altitude.

3. Demonstrates and simultaneously explains a spin from an instructional standpoint.
4. Analyzes and corrects common errors related to a spin.

XIII. AREA OF OPERATION: EMERGENCY OPERATIONS

NOTE: The evaluator will select at least one TASK.

A. TASK: SIMULATED OFF-AIRPORT LANDING

REFERENCES: FAA-H-8083-9, FAA-H-8083-13; FAA-S-8081-22, FAA-S-8081-23; Glider Flight Manual.

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

Objective. To determine that the applicant:

1. Exhibits instructional knowledge of the elements related to a simulated off-airport landing by describing—

    a. selection of a suitable landing area.
    b. obstacles and other hazards to be considered.
    c. how to estimate wind speed and direction.
    d. planning and execution of the approach to the selected landing area without use of the altimeter.
    e. techniques that can be used to compensate for under shooting or overshooting selected landing area.

2. Exhibits instructional knowledge of common errors related to a simulated off-airport landing by describing—

    a. improper airspeed control.
    b. poor judgment in the selection of a landing area.
    c. failure to properly estimate wind speed and direction
    d. failure to fly the most suitable pattern for existing situation.
    e. undershooting or overshooting selected landing area.

3. Demonstrates and simultaneously explains a simulated off- airport landing from an instructional standpoint.
4. Analyzes and corrects common errors related to a simulated off-airport landing.

B. TASK: EMERGENCY EQUIPMENT AND SURVIVAL GEAR

REFERENCES: FAA-H-8083-13, FAA-S-8081-22, FAA-S-8081-23; Glider Flight Manual.

Objective. To determine that the applicant exhibits instructional 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.

XIV. AREA OF OPERATION: POSTFLIGHT PROCEDURES

TASK: AFTER-LANDING AND SECURING

REFERENCES: FAA-H-8083-9; FAA-S-8081-22, FAA-S-8081-23; Glider Flight Manual.

Objective. To determine that the applicant:

1. Exhibits instructional knowledge of the elements related to after-landing and securing by describing—

    a. clearing of the runway/landing area.
    b. taxi and engine shutdown procedures, as appropriate.
    c. parking and securing procedure.
    d. postflight inspection.
    e. refueling, as appropriate.

2. Exhibits instructional knowledge of common errors related to after-landing and securing by describing—

    a. hazards of failure to follow recommended procedures.
    b. poor planning and judgment in the performance of after-landing procedures.

3. Demonstrates and simultaneously explains after-landing and securing from an instructional standpoint.
4. Analyzes and corrects common errors related to after-landing and securing.